



Technical Assistance Report

Project Number: 39071
November 2005

Proposed Technical Assistance Republic of Indonesia: Preparing the Metropolitan Sanitation Management and Health Project (Financed by the Japan Special Fund)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 15 November 2005)

Currency Unit	–	rupiah (Rp)
Rp1.00	=	\$0.0001
\$1.00	=	Rp9,987

ABBREVIATIONS

ADB	–	Asian Development Bank
AusAID	–	Australian Agency for International Development
BAPPENAS	–	Badan Perencanaan Pembangunan Nasional (National Development Planning Agency)
CSS	–	city sanitation strategy
DGHS	–	Directorate General of Human Settlements
EA	–	executing agency
EIA	–	environmental impact assessment
GTZ	–	Gesellschaft für Technische Zusammenarbeit
IEE	–	initial environmental examination
JBIC	–	Japan Bank for International Cooperation
JICA	–	Japan International Cooperation Agency
KfW	–	Kreditanstalt für Wiederaufbau
MDG	–	Millennium Development Goal
MSMHP	–	Metropolitan Sanitation Management and Health Project
MPW	–	Ministry of Public Works
NGO	–	nongovernment organization
PDAM	–	Perusahaan Daerah Air Minum Seluruh Indonesia (Association of Indonesian Water Supply Enterprises)
PMU	–	project management unit
SPAR	–	subproject appraisal report
TA	–	technical assistance
USAID	–	United States Agency for International Development
WASAP- Indonesia	–	The Indonesia Water and Sanitation Program

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Water supply, sanitation, and waste management
Subsector	–	Waste management
Themes	–	Sustainable economic growth, inclusive social development, and environmental sustainability
Subthemes	–	Developing urban areas, human development, and urban environmental improvement

NOTE

In this report, "\$" refers to US dollars.

Vice President	J.B. Eichenberger, Operations Group 2
Director General	S. Akhtar, Southeast Asia Department (SERD)
Director	D. J. Green, Officer-in-Charge, Social Sectors Division, SERD
Team leader	R. Frauendorfer, Sr. Urban Development Specialist, SERD

I. INTRODUCTION

1. The Asian Development Bank (ADB) fielded a Fact-Finding Mission in July and August 2005 upon the request of the Government of Indonesia for a project preparatory technical assistance (TA)¹ for preparing the proposed Metropolitan Sanitation Management and Health Project (MSMHP). The MSMHP will assist the Government in its continued effort to improve sanitation services for the urban population, particularly benefiting the urban poor, and to achieve the related Millennium Development Goal (MDG) target.² The objectives, scope, cost, financing plan, implementation arrangements, and terms of reference for the TA are based on the understanding reached with the Government during the Mission. The design and monitoring framework is in Appendix 1.

II. ISSUES

2. The urban population in Indonesia is projected to increase from the current 45% of the total population to 60% by 2025, reaching 160 million people by then. Basic urban services, including water supply and sanitation, are in crisis. Poor sanitation services are the cause of severe urban pollution, with impact on public health and the well-being of the population.

3. With decentralization, the responsibility for financing urban sanitation has been transferred to the regional governments, which in most cases allocate insufficient funds for system maintenance and improvement. The lack of investment and cost recovery tariffs in the sanitation sector has resulted in acute urban pollution from residential, commercial, and industrial premises in most cities. The present institutional structure for sanitation is weak and fragmented, especially at the local level. There is no enforcement of laws to make major polluters meet their legal obligations, including effluent discharge standards. Public investment in the management of wastewater and the provision of sanitation services is very low, with only about 10 large cities having some form of sewerage. Many systems are in a state of disrepair and inadequate revenue streams result in lack of maintenance and, in some areas, complete system malfunction. Lack of cost recovery is also one of the main hindrances for private sector involvement, which in many cases is limited to activities including emptying of septic tanks or transport of solid waste. Most systems are underutilized and under funded, and the whole sanitation sector is virtually unmanaged. Overall sewerage coverage is about 3% of the urban population.

4. Approximately 75% of existing access to sanitation in urban areas is through on-site sanitation. Households are responsible for treating and disposing of wastewater and sludge from septic tanks and other types of facilities (e.g., pit latrines). Many low-income families rely on grossly polluted drains and urban waterways. Sludge from septic tanks is removed by small private operators and discharged into the nearest drain or river because treatment facilities are either unavailable or else too far away. The proper disposal of human waste is rare; thus, there are severe health and environmental consequences and economic losses. As with water, the number of people lacking access to adequate sanitation is much higher among the poor. Another problem is the enforcement of construction standards in rapidly expanding urban developments, and lack of proper maintenance. As a consequence, partially treated wastewater is simply discharged into open drains and water bodies that are already polluted from indiscriminate solid waste disposal and other liquid wastes.

¹ The TA first appeared in *ADB Business Opportunities* (internet edition) on 19 August 2005.

² Goal 7 - Ensure environmental sustainability; Target 10 - Halve, by 2015, the portion of people without sustainable access to safe drinking water and basic sanitation.

5. Solid waste management, including collection and treatment of garbage, is another cause of concern. In general, solid waste management suffers from (i) low levels of investment, (ii) low standards of collection and transportation, (iii) poor community attitudes toward garbage disposal, (iv) the burning of garbage in neighborhoods and at final disposal sites that contributes to severe air pollution in many cities, (v) almost all solid waste disposal being conducted in complete disregard of regulations and acceptable practice, and (vi) fragmented institutional responsibility with several local government agencies involved. A large proportion of solid waste is discharged to city watercourses (rivers, canals, and drainage channels) that should be subject of a general cleanup under a sanitation program. Effective solutions will need to be developed to ensure that both wastewater collection and treatment and solid waste management components are improved under integrated programs.

6. ADB has provided assistance of about \$2.1 billion since 1974 for improving urban infrastructure in Indonesia, including water supply and sanitation. The proposed Water Supply and Sanitation Project under preparation comprises improvement of water and sanitation infrastructure and water utility sector reform in small- to medium-sized urban areas, and is scheduled for approval in 2006. The World Bank has provided additional support by financing urban infrastructure and development projects. Other major sources of funding for the sector include the United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), Japan Bank for International Cooperation (JBIC), Australian Agency for International Development (AusAID), and Germany through Gesellschaft für Technische Zusammenarbeit (GTZ) and Kreditanstalt für Wiederaufbau (KfW).

7. The project design builds on lessons learned including (i) lack of operation and management capacity for basic urban services; (ii) no cost recovery tariffs, resulting in lack of maintenance; and (iii) low level of public awareness for sanitation, environmental pollution, and public health and hygiene.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The TA will help to improve public health and to reduce environmental pollution in urban areas. It will support the Government in its effort to achieve the related MDG (footnote 2). The initial poverty and social analysis is in Appendix 2.

9. The MSMHP will (i) reduce exposure of urban communities, particularly the low-income groups, from health risks associated with the discharge of raw or partially treated sewage into city drains and rivers; (ii) contribute to a significant reduction of pollution in water bodies; (iii) improve solid waste collection and treatment practices; (iv) contribute to improved local urban environments and overall reduction of environmental pollution; and (v) address serious institutional constraints affecting the sector.

10. The outcome of the TA will be the design of the ensuing loan project agreed upon by central and local governments and ADB. The TA will prepare (i) the MSMHP to a level of detail suitable for ADB funding; (ii) city sanitation strategies (CSS) for up to five large cities;³ (iii) subproject appraisal reports (SPARs) for up to three of these cities; and (iv) implementation support and institutional development programs addressing sector reform, governance, and public awareness. The ensuing loan project is expected to materialize in 2007.

³ It is anticipated that large cities will include urban areas with a population of more than about 500,000.

B. Methodology and Key Activities

11. The consultant will develop the MSMHP following a bottom-up approach and a highly consultative process, enabling regional governments and other stakeholders to take on ownership of the SPARs and the overall Project. The Project will be prepared in accordance with relevant national legal requirements and standards,⁴ and ADB requirements, policies, and guidelines. The project design is expected to be based on a project loan modality for financing investment programs in a number of cities, which are fully prepared under the TA. In case the TA identifies a larger number of suitable cities than can be accommodated in the TA, application of a Multitranche Financing Facility will be considered.⁵

12. The TA will (i) investigate innovative financing schemes for improving urban sanitation, for example, local currency financing, municipal bonds, and public-private partnerships as applicable; (ii) review appropriate forms of subsidy for sanitation, for example, grants for community-based solutions and loan financing for potential cost-recovery components; and (iii) assess the current involvement of the private sector in providing sanitation services, and recommend the most suitable options for private sector participation. The TA will be carried out in two phases.

13. **Phase 1.** Activities in phase 1 will include (i) selecting large cities, eligible to participate in the MSMHP; (ii) review and collect data; (iii) disseminate information including workshops, seminars, and consultations; (iv) initially assess potential issues, hindrances, and risks; and (v) prepare a CSS for up to five cities. Phase 1 will be completed within 3 months, and the activities may partly overlap with those of phase 2.

14. Before the TA starts, the executing agency (EA)—Directorate General of Human Settlements (DGHS) of the Ministry of Public Works (MPW)—will disseminate information and invite expressions of interest from relevant large cities to participate in the Project. Target cities will include those where existing sewerage systems can be modified and upgraded, and/or other major urban areas without existing sewer systems. Criteria for selecting participating cities will include (i) population; (ii) fiscal capacity; (iii) financial management; (iv) awareness on issues of sanitation, public health, and environment; (v) commitment to reform; (vi) governance; (vii) focus on serving low-income communities; (viii) well-defined investment needs; (ix) preparedness; and (x) geographic focus.⁶

15. For each participating city, sanitation audits including surveys of consumers and the unserved for information on wastewater collection and treatment, and solid waste management will be prepared. The TA will assess the status of sanitation services, and the demand for improved wastewater collection and treatment and solid waste management. From the assessment a CSS will be developed, which will allow communities to decide on their preferred choice of sanitation from an informed menu of suitable systems. The successful engagement of cities in discussing issues of sanitation, environment, and public health and hygiene will be critical for the outcome of the Project.

16. Workshops and seminars will complement these activities and help disseminate information, clarify issues, and ensure that all stakeholders are fully informed about the (i)

⁴ SPARs will comply with project readiness criteria under the 2001 country portfolio performance review (CPPR).

⁵ ADB. 2005. *Pilot Financing Instruments and Modalities*. Manila.

⁶ For efficient implementation arrangements of both the TA and the ensuing loan project, the location of participating cities should ideally be limited to no more than three islands.

objectives, scope, and methodology of the Project; (ii) required counterpart contributions and other commitments; (iii) initial financing arrangements; and (iv) roles and responsibilities of all parties. The TA will be prepared in close collaboration with other ongoing and planned programs and aid agency activities for the sanitation sector, including the Indonesia Water and Sanitation Program (WASAP-Indonesia)⁷ and the Environmental Services Program.⁸

17. **Phase 2.** Activities in phase 2 will include (i) preparing SPARs for up to three cities,⁹ (ii) packaging the MSMHP to a level of detail suitable for consideration for ADB funding, (iii) developing implementation and funds channeling arrangements, (iv) preparing institutional-development and capacity-building programs, and (v) holding workshops and seminars.

18. For wastewater collection and treatment system improvements, SPARs will include among other components (i) septic tanks, (ii) public toilets, (iii) sludge and wastewater treatment plants, (iv) sewer system, and (v) relevant maintenance equipment. Solid waste management components will include among others (i) equipment and facilities for collection and transport; (ii) waste reduction, separation, and recycling; and (iii) disposal facilities.

19. Current health and hygiene practices related to water supply and sanitation, and relevant awareness and education programs will be reviewed. The impact on health from waterborne diseases, and practices and standards for water quality monitoring will be assessed. Capacity building under the Project will include information programs that will explain and advocate the benefits and importance of clean water supply and sanitation for health, especially for children and women.

20. Implementation and procurement arrangements for the ensuing loan project will include measures to improve efficiency and transparency, and to reduce the risk of fraud and corruption. The TA will investigate options for integrated design-procure-construct packages to improve implementation efficiency, and prepare recommendations for overall project implementation, administration, auditing, monitoring and evaluation.

21. Activities in phase 2 will be complemented by workshops and seminars aiming to (i) disseminate information, (ii) confirm commitment, (iii) discuss common issues of sanitation sector reform, and (iv) develop capacity building and implementation support.

⁷ The Indonesia Water and Sanitation Program (WASAP-Indonesia) for Water Sector Capacity Building and Sanitation Sector Development. The trust fund of \$22 million is financed by the Government of the Netherlands, and managed by the World Bank. Main components include (i) water supply capacity building, (ii) sanitation sector work, (iii) sanitation city-pilots, and (iv) sector performance monitoring. Component (ii) will be covered by the Indonesia Sanitation Sector Development Program (ISSDP), which is under preparation.

⁸ The Environmental Services Program is funded by the United States Agency for International Development (USAID). The 5-year program, which started early 2005, consists of three main components: (i) watershed management and biodiversity conservation, (ii) environmental service delivery, and (iii) environmental services finance. Component (ii) will address increased access to clean water and sanitation services in urban areas through studies, capacity building, and selected pilot projects.

⁹ Following the preparation of city sanitation strategies (CSS) for up to five large cities in phase 1, SPARs will be prepared in phase 2 for up to three of these cities subject to an available TA budget.

C. Cost and Financing

22. The total cost of the TA is estimated at \$1.5 million equivalent, comprising \$725,000 in foreign exchange cost and \$775,000 equivalent in local currency cost. The Government has requested ADB to finance \$1.2 million equivalent, covering the entire foreign currency cost and \$475,000 equivalent of the local currency cost. The TA will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The Government will finance the remaining local currency cost amounting to \$300,000 equivalent, which covers office and support facilities, counterpart staff, administrative support, and local transportation for counterpart staff. The Government has been informed that financing of the TA does not commit ADB to finance any ensuing project. Details of the cost estimates and financing plan are in Appendix 3.

D. Implementation Arrangements

23. The EA will be DGHS of MPW. A project management unit (PMU) will be established within DGHS and will be responsible for organizing the technical and administrative aspects of the TA, and day-to-day decisions affecting its conduct. The PMU will have suitably qualified and experienced counterpart staff working closely with the TA consultants. The TA consultant will provide full support to the head of the PMU, and will work in close collaboration with the counterpart team. A steering committee chaired by DGHS, and comprising senior officials from DGHS, National Development Planning Agency (BAPPENAS), Ministry of Finance, Ministry of Health, and Ministry of Home Affairs and Regional Autonomy (MOHA) will be established to guide and oversee TA implementation. The steering committee will meet at least monthly.

24. It is estimated that the TA will require 97 person-months of consulting services, 29 international and 68 domestic from a team of consultants. ADB will engage the consultants through a firm in accordance with the ADB's *Guidelines on the Use of Consultants*, using the quality- and cost-based selection method, preparation of a full technical proposal, and other arrangements satisfactory to ADB for engaging domestic consultants. DGHS will be responsible for providing the agreed-upon counterpart resources. The proposed outline terms of reference for the consultants are in Appendix 4. All procurement under the TA will be in accordance with ADB's *Guidelines for Procurement*.

25. The TA is expected to be implemented over 10 months, starting in March 2006 and with completion by December 2006. The consultants will prepare (i) an inception report by the end of month 1, (ii) an interim report (including the CSS) by the end of month 3, (iii) a draft final report by the end of month 8, (iv) a final report 1 month after receiving comments, (v) monthly progress reports (2–3 pages), and (vi) other reports as may reasonably be required. Tripartite review meetings will be held after inception, at the interim report stage, and at the draft final report stage.

IV. THE PRESIDENT'S RECOMMENDATION

26. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of \$1,200,000 on a grant basis to the Government of Indonesia for preparing the Metropolitan Sanitation Management and Health Project.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Improved public health and reduced environmental pollution in urban areas	<ul style="list-style-type: none"> • Improved Millennium Development Goal (MDG) indicator levels in the areas of health and sanitation • Share of households benefiting from improved sanitation 	<ul style="list-style-type: none"> • National statistics • Regular MDG reports prepared by the Government 	Assumptions <ul style="list-style-type: none"> • Project is implemented as designed. • Central and local governments continue to prioritize reduction of environmental pollution in urban areas. Risk <ul style="list-style-type: none"> • Local governments are creditworthy.
Outcome Design of the ensuing loan project agreed upon by central and local governments and the Asian Development Bank (ADB)	<ul style="list-style-type: none"> • Memorandum of understanding signed by Government and ADB during appraisal mission 	<ul style="list-style-type: none"> • Memorandum of understanding • Commitment letters signed by cities 	Assumptions <ul style="list-style-type: none"> • Government continues to be committed to improvement of urban sanitation. • Cities are willing to borrow for sanitation. • Central government is willing to contribute grant financing for sanitation. Risk <ul style="list-style-type: none"> • Cities are successfully engaged in the discussion of issues of sanitation, environment, and public health and hygiene.
Outputs <ol style="list-style-type: none"> 1. City sanitation strategies 2. Subproject appraisal reports 3. Capacity building and implementation support 	<ul style="list-style-type: none"> • City sanitation strategies submitted for up to five large cities • Subproject appraisal reports submitted for 3 large cities • Outline of capacity building programs prepared 	<ul style="list-style-type: none"> • ADB and Government document registration • Draft final report and final report 	Assumptions <ul style="list-style-type: none"> • Suitable cities are identified. • Participation of cities and other stakeholders is effective. Risks <ul style="list-style-type: none"> • Commitment of cities to participate continues. • Cities and stakeholders agreement on the city sanitation strategy.
Activities with Milestones <ol style="list-style-type: none"> 1. Project management unit established (at TA start-up) 2. Inception report (end of month 1) 3. Midterm report and city sanitation strategies (end of month 3) 4. Draft final report (end of month 8) 5. Final report (end of month 10) 6. Workshops and seminars (intermittent) 			Inputs ADB: \$1.2 million Government: \$300,000 Consultant: 97 person-months of international and domestic consulting services Others: workshops and seminars

INITIAL POVERTY AND SOCIAL ANALYSIS

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the sector identified as a national priority in country poverty partnership agreement?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Contribution of the sector or subsector to reduce poverty in Indonesia: The Indonesia Poverty Assessment notes: "Access to effective sanitation systems and clean water is an important determinant of health status and is a fundamental determinant of the quality of life. It is also predominantly the poor who lack this access. Providing these facilities is hence an appropriate antipoverty measure." The recently released Indonesia Progress Report on the Millennium Development Goals notes that urban population growth is rapidly outstripping access to piped water in urban areas, while sanitation is lagging further behind. To meet the Millennium Development Goal (MDG) targets for sanitation in urban areas, considerable reform is required for financing investment, improving the institutional framework, charging appropriate tariffs, and raising awareness and demand for sanitation.</p>			

B. Poverty Analysis

Targeting Classification: Targeted intervention

<p>What type of poverty analysis is needed? In the cities participating in the technical assistance, poor and low-income housing areas will be mapped and the constraints to access proper sanitation assessed. Participatory assessment of the constraints to access proper sanitation will identify solutions that are viable for poor households and the local government.</p>

C. Participation Process

Is there a stakeholder analysis?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there a participation strategy?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

D. Gender Development

<p>Strategy to maximize impacts on women: Women are primarily the persons in the household affected by poor service because of the impact on household chores. Improving the management and operation of sanitation should include improving gender responsiveness of local agencies responsible for wastewater collection and treatment and solid waste management. Campaigns and strategies to create a demand for sanitation services and to promote household investment in sanitation must consider the fact that women have a great influence on household investments.</p>		
Has an output been prepared?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

E. Social Safeguards and Other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	<ul style="list-style-type: none"> Unknown, to be assessed by the project preparatory technical assistance (PPTA). Minor resettlement may be required if, for example, a wastewater treatment plant is constructed or temporary right-of-way for improvements is acquired. 	<input type="checkbox"/> Full <input type="checkbox"/> Short <input type="checkbox"/> None
Affordability	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	Affordability will be assessed during project preparation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Labor	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	Unknown, to be assessed by the PPTA.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Indigenous Peoples	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	<ul style="list-style-type: none"> • Unknown, to be assessed by the PPTA. • So far impacts on indigenous people are not expected in urban areas. The issue will be ascertained during project preparation and, if needed, the appropriate action fitting Asian Development Bank policy will be undertaken. 	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other Risks and/or Vulnerabilities	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None		<input type="checkbox"/> Yes <input type="checkbox"/> No

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	600.0	0.0	600.0
ii. Domestic Consultants	0.0	280.0	280.0
b. International and Local Travel	45.0	40.0	85.0
c. Reports and Communications	0.0	5.0	5.0
2. Equipment ^b	5.0	5.0	10.0
3. Training, Seminars, and Conferences			
a. Facilitators	0.0	20.0	20.0
b. Training Program	0.0	30.0	30.0
4. Surveys	0.0	40.0	40.0
5. Miscellaneous Administration and Support Costs	0.0	5.0	5.0
6. Representative for Contract Negotiations	5.0	0.0	5.0
7. Contingencies	70.0	50.0	120.0
Subtotal (A)	725.0	475.0	1,200.0
B. Government Financing			
1. Office Accommodation ^c	0.0	90.0	90.0
2. Remuneration, Per Diem, and Transport of Counterpart Staff	0.0	190.0	190.0
3. Others	0.0	20.0	20.0
Subtotal (B)	0.0	300.0	300.0
Total	725.0	775.0	1,500.0

^a Financed by the Japan Special Fund, funded by the Government of Japan.

^b Office equipment (e.g., computers, printers, scanner, facsimile machine, photocopier, camera, projector, etc.)

^c Including office space, office furniture (sufficient number of standard desks, chairs, shelves, and closets), lighting, electricity, air conditioning, and access to phone lines.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Background and Objectives

1. Indonesia is urbanizing rapidly, with the urban population projected to increase from the current 45% of the total population to 60% by 2025, reaching 160 million people by then. Basic urban services, including water supply and sanitation, are in crisis. Poor sanitation services are the cause of severe urban pollution, with impact on public health and the well-being of the population.

2. The objectives of the project preparatory technical assistance (TA) are to (i) develop the Metropolitan Sanitation Management and Health Project (MSMHP) to a level of detail suitable for consideration by the Asian Development Bank (ADB) for funding, (ii) prepare city sanitation strategies (CSS) for up to five large cities and subproject appraisal reports (SPARs) for up to three of these cities, and (iii) prepare implementation support and institutional development programs addressing sector reform, governance, and public awareness.

B. Scope of Work

3. The tasks of the consultants will require a proactive and demand-based approach in close consultation with relevant parties at the central and regional governments. The TA will be carried out in two phases.

4. Phase 1 will include (i) selection of large cities, eligible to participate in the MSMHP; (ii) review and collection of data; (iii) dissemination of information including workshops, seminars, and consultations; (iv) initial assessment of potential issues, hindrances, and risks; and (v) preparation of a CSS for up to five cities. Phase 1 will be completed within 3 months, and activities may partly overlap with those of phase 2.

5. Phase 2 will include (i) preparation of SPARs for up to three cities,¹ (ii) packaging of the MSMHP to a level of detail suitable for consideration by ADB for funding, (iii) development of implementation and funds channeling arrangements, (iv) preparation of institutional-development and capacity-building programs, and (v) workshops and seminars.

6. The consultant will develop the Project following a bottom-up approach and a highly consultative process, and in accordance with relevant national legal requirements and standards,² and ADB requirements, policies, strategies, and guidelines. A team of international and domestic consultants will be engaged for 97 person-months (29 international and 68 domestic).

7. **Phase 1.** The consultants will carry out the following tasks for phase 1:

- (i) Assist the Directorate General of Human Settlements (DGHS),³ the Government's Executing Agency, and other relevant stakeholders to select suitable large cities for participation in the Project. Criteria for city selection will primarily be based on (a) their demand for improved sanitation; (b) fiscal

¹ Following the preparation of CSS for up to five large cities in phase 1, SPARs will be prepared in phase 2 for up to three of these cities subject to an available TA budget.

² SPARs will comply with project readiness criteria under the 2001 Country Portfolio Performance Review (CPPR).

³ Within the Ministry of Public Works (MPW).

- capacity, financial management, commitment to reform, and governance; (c) focus on serving low-income communities; (d) well-defined investment needs; (e) project preparedness; and (f) geographic focus. The target cities could include those where existing sewerage systems can be modified and upgraded, and other major urban areas without existing sewer systems.
- (ii) Review data, studies, programs, and existing policies and strategies for developing the sanitation sector. Review external assistance to the sector and lessons learned from previous interventions by bilateral and multilateral funding agencies. Review the legal and regulatory framework and sector financing, and assess sector development constraints and potential mitigating measures.
 - (iii) Assess current health and hygiene practices connected with sanitation management, and review relevant awareness and education programs.
 - (iv) Assess health impacts resulting from waterborne diseases, and practices and standards for monitoring water quality.
 - (v) Assist in preparing, carrying out, and disseminating information to cities, government agencies, consumers, and other stakeholders; and conduct workshops and seminars.
 - (vi) For each participating city, carry out sanitation audits, including surveys of consumers and the unserved, for information on wastewater collection and treatment, and solid waste management. Assess the current status of sanitation services, identify issues, and assess the demand for improved wastewater collection and treatment and solid waste management. Collect and analyze relevant data and undertake measurements, surveys, and water quality analysis, as required.
 - (vii) Advise the cities on sanitation policy development, and assist in reviewing, and revising sanitation policies as necessary. Prepare CSS for up to five cities, which will allow communities to choose a sanitation system from an informed menu of suitable systems, subject to feasibility. For wastewater collection and treatment, the choices may include (a) formal sewerage with all wastewater connected to a separate sewer line, (b) retaining existing septic tanks and improving local drainage systems, and (c) community-based solutions for low-income areas.
 - (viii) Review the current involvement of the private sector in providing sanitation services, and recommend the most suitable options for private sector participation (i.e., management contracts).
 - (ix) Identify key stakeholders (poor and vulnerable groups in particular) and their project-related interests, identify the likely barriers to their participation in and benefiting from project resources, and suggest possible strategies for addressing their concerns. Identify factors affecting project risk and viability. Prepare an initial stakeholder analysis and a draft participation plan, according to Appendix 4.4. of ADB's *Handbook on Poverty and Social Analysis*.
 - (x) Undertake focus group discussions with beneficiaries and affected people in the subproject areas to identify key constraints to, and related economic costs of, access of the poor to sanitation services. Assess the role of nongovernment organizations (NGOs) and other groups of civil society and how they should be involved in project design and implementation.
 - (xi) Using ADB's *Handbook on Poverty and Social Analysis*, carry out household surveys in collaboration with other consultant team members, and prepare a socioeconomic profile of the target population, including an assessment of its requirements and preferences in sanitation services, social customs and practices relevant to the proposed project design, specifically their ability and willingness to pay for the services. Pay particular attention to mitigating any

adverse impacts of the subprojects and the overall Project on specific communities or groups, particularly the poor.

- (xii) Prepare a gender analysis of the Project according to the guidelines in Appendix 5.1 of ADB's *Handbook on Poverty and Social Analysis*, and help the team leader identify project design elements (policy, investment, or implementation) that (a) will enable women to participate in and benefit from the Project, and (b) have the potential to exclude women from participating in or benefiting from the Project.

8. **Phase 2.** The consultant will carry out the following tasks for phase 2:

- (i) Prepare SPARs for up to three large cities. Review possible application of a Multitranche Financing Facility approach in the project design. Assess the technical, financial, social, and economic feasibility and sustainability and priority of each subproject component, including the phasing of investments. In designing wastewater collection and treatment system improvements, consider among other components (a) septic tanks, (b) public toilets, (c) sludge and wastewater treatment plants, and (d) relevant maintenance equipment. For solid waste management improvements consider, among other components, (a) equipment and facilities for collection and transport, (b) waste reduction, recycling, separation, and composting; and (c) disposal facilities.
- (ii) In case wastewater collection and treatment are the responsibility of the local water utility (PDAM) assess in detail its (a) financial management capacity; and (b) financial state including income statements, balance sheet and cash flow statements, and existing loan repayments. Analyze major constraints to the financial sustainability and the degree of operational subsidies from the local government. Prepare measures for restructuring or rescheduling loan arrears. Prepare financial projections including revenues, operating and capital expenditures, and debt repayment.
- (iii) Review existing wastewater and solid waste tariffs (if any), identify any deficiencies, and suggest improvements in line with ADB's position on tariffs, as summarized in ERD Technical Note #9. Analyze the effective collection rates for various consumer types, including collection in cash and in kind (if any) as well as their existing collection rates and ways to improve collection of current bills and arrears. Assess the costs of wastewater collection and treatment and solid waste management and level of cost recovery, and determine tariffs needed to ensure sustainable operations. Discuss with cities a phased politically acceptable way of introducing cost recovery tariffs. Assess options and the feasibility of transferring responsibility for wastewater services to the PDAM.
- (iv) Review the impact and affordability of introducing full and partial cost recovery in wastewater and solid waste management services in the participating cities. Assess demand on the basis of price, income, and access to alternative supplies. Analyze the affordability of sanitation services and assess willingness to pay for them.
- (v) Assess in detail each participating city's (a) financial management capacity, and (b) financial performance including borrowing capacity and debt service coverage ratios relating to existing and potential new loans. Prepare financial projections including revenues, operating and capital expenditures, and debt repayment.
- (vi) Investigate innovative financing schemes for improving urban sanitation, including for example local currency financing, municipal bonds, and public-private partnerships.

- (vii) Prepare detailed cost estimates and financing plans for each of the project components and the Project as a whole using the COSTAB or equivalent software. Prepare the financial arrangements specifying the foreign exchange and local currency costs to be financed by ADB, central Government, city, other agencies, and beneficiaries, as applicable.
- (viii) Conduct comprehensive economic and financial analyses for each subproject and the overall Project, using relevant ADB guidelines, and handbooks. Based on past and projected financial statements, compute relevant financial indicators, including, but not limited to, debt service coverage ratios, and operating ratios. Compute for each subproject and the overall project financial internal rates of return (FIRRs), weighted average cost of capital (WACC), and economic internal rates of return (EIRRs). Analyze the impact of the Project on poverty reduction. Review in detail the distribution of project benefits, net economic benefits, and poverty impact ratio.
- (ix) Prepare detailed project implementation and phasing schedules for each component, and investigate options for integrated design-procure-construct packages to improve implementation efficiency, and have preferably only one contract per city, if applicable. Prepare recommendations for overall project implementation, administration, auditing, monitoring and evaluation. Investigate options for an outsourced project management unit.
- (x) Prepare an effective project performance monitoring system (PPMS) that includes monitoring of the project's performance, benefits, and impact on poverty reduction. Identify the training needs to strengthen capacity.
- (xi) Hold discussions with the participating cities to identify key issues and obtain their views on capacity-building needs, and develop concepts for the design of the capacity-building components. Develop a capacity-building program, and outline training programs and recommended interventions that should be included in the Project, and estimated costs.
- (xii) Recommend subproject interventions to address gender imbalances, and interventions to support other vulnerable groups, which will result in poverty reduction and social strategy under the project.
- (xiii) Develop and recommend mechanisms and procedures for public consultation and community participation in project planning, operation and maintenance, project implementation and management, particularly in relation to levels of service performance, tariffs, and environmental protection. Assess whether or not there is a role for NGOs in project activities. Carry out public consultations, including with NGOs.
- (xiv) Assess the need for land acquisition in the Project. If it is required for a selected subproject, prepare a resettlement plan in accordance with ADB's policy on resettlement. Prepare a resettlement framework for the Project in accordance with ADB requirements.
- (xv) Assess the need for preparing an indigenous people's development framework, development plan, or specific action in accordance with ADB's policy on indigenous peoples. Prepare the necessary framework, plan, and specific action in accordance with ADB's requirements.
- (xvi) Justify the Project from the point of view of social dimensions (social impact, impact on poverty, and gender and development).
- (xvii) Prepare an initial environmental examination (IEE) or environmental impact assessment (EIA), if warranted, for each individual subproject, and a summary IEE or a summary EIA for the whole Project, in accordance with applicable

national standards, and in line with ADB requirements. Conduct public consultation at least once for each participating city.

- (xviii) Outline information programs that will explain and advocate the benefits and importance of clean water supply and sanitation for health, especially of children and women. Have one program for families and communities, and one for decision makers within the regional governments.

C. Staffing

9. The consulting firm will provide a total of 97 person-months of consulting services: 29 international and 68 domestic. One consultant can cover more than one field of expertise. All international consultants should have relevant regional experience, preferably in Indonesia, and preferably should have a very good command of Indonesian. One of the international consultants, besides providing technical expertise, will also act as team leader. The international consultants will include specialists for (i) sanitation, (ii) solid waste management, (iii) financial analysis, (iv) economic analysis, (v) institutional development, (vi) social development and resettlement, (vii) environment, and (viii) public health and hygiene. The domestic consultants will include specialists for (i) sanitation, (ii) financial analysis, (iii) economic analysis, (iv) institutional development, (v) social development and resettlement, (vi) community development, (vii) environment, and (viii) public health and hygiene.

D. Reporting

10. The assignment will last for 10 months, and the consultants will prepare the following reports: (i) inception report by the end of month 1, (ii) interim report (including the CSS) by the end of month 3, (iii) draft final report by the end of month 8, (iv) final report 1 month after receiving comments, (v) monthly progress reports (2–3 pages), and (vi) other reports as may reasonably be required. The consultants will provide all reports in at least 10 copies for DGHS and other government agencies, five copies for ADB, and three copies for each participating city, all in English and Indonesian language (preferably in two-column format) in printed and electronic form (MS Excel, MS Word, PDF-format, and other electronic format as required). Interim, draft final, and final report will include a separate report (appendix) in English using the standard ADB format for the report and recommendation of the president.

E. Implementation Arrangements

11. The executing agency for the TA will be DGHS of MPW. A project management unit (PMU) within DGHS will include counterpart staff to work alongside the consultants. The consultants will provide support to the head of the PMU, and will work in close collaboration with the counterpart team. A steering committee, chaired by DGHS and comprising senior officials from relevant government institutions will provide guidance and oversee TA implementation. DGHS will provide office space, office furniture (sufficient number of standard desks, chairs, shelves, and closets), lighting, electricity, air conditioning, and access to phone lines.