



Technical Assistance Report

Project Number: 36173-03
Capacity Development Technical Assistance (CDTA)
July 2009

**Democratic Socialist Republic of Sri Lanka:
Supporting Capacity Development for Wastewater
Management Services in Colombo**
(Cofinanced by the Multi-Donor Trust Fund under the Water
Financing Partnership Facility)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 29 June 2009)

Currency Unit	–	Sri Lankan rupee/s (SLRe/SLRs)
SLRe1.00	=	\$ 0.0087
\$1.00	=	SLRs114.9

ABBREVIATIONS

ADB	–	Asian Development Bank
CMC	–	Colombo Municipal Council
DSC	–	design, supervision and management consultant
IDC	–	institutional development consultant
IA	–	implementing agency
NWSDB	–	National Water Supply and Drainage Board
O&M	–	operation and maintenance
PMU	–	project management unit
PPTA	–	project preparatory technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting classification	–	Targeted intervention (Non-income Millennium Development Goal [TI-M])
Sector (subsector)	–	Water supply and other municipal infrastructure and services (water supply and sanitation)
Themes (subthemes)	–	Capacity development (institutional development), environmental sustainability (urban environmental improvement), social development (human development)
Location impact	–	Urban (high)
Partnership	–	Multi-Donor Trust Fund under the Water Financing Partnership Facility (contributors: the governments of Australia, Austria, Norway, and Spain)

NOTE

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

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I. INTRODUCTION

1. The Asian Development Bank (ADB) has included a capacity development technical assistance (TA)¹ in its Sri Lanka Country Partnership Strategy (CPS), 2009–2011,² with the key objective of supporting the implementation of the proposed ADB loan for the Greater Colombo Wastewater Management Project. A fact-finding mission was undertaken in Colombo for this TA in May 2009 concurrently with the fact-finding mission for the proposed loan, where key aspects of the proposed TA and the project were discussed with the officials of the Government of Sri Lanka and other stakeholders. A consensus was reached, in principle, on the purpose, scope, implementation arrangements, costs, financing arrangements, and terms of reference for the TA. The design and monitoring framework for the TA is in Appendix 1. The concept for this TA was approved by ADB Management on 17 April 2009.³

II. ISSUES

2. Colombo is Sri Lanka's economic and administrative center. The Government, in its 10-year development framework for 2006–2016, aims to achieve high and steady economic growth in the country and wishes to modernize Colombo as its renewed growth engine. Adequate provision of urban services is critical to Colombo's ability to attract investment and increase productivity. Colombo is rapidly developing its urbanized area, expanding to the south (along the coast) and east (inland). Despite rapid urbanization, urban infrastructure and services remain limited, and fail to meet demand and support increasing economic development and the potential for growth.

3. In its commitment to the United Nations Millennium Development Goals, the Government identified access to safe drinking water and adequate sanitation as priority objectives. These priority objectives are also reflected in the Government's 10-year development framework. Considerable attention is now being given by the Government to the achievement of water supply and sanitation objectives. However, many past discussions have focused on water supply, and the real objectives and philosophy behind urban wastewater management now need to be brought into the forefront.

4. The specific goals of the Government in the sector include, among others, provision of (i) access to adequate sanitation to 100% of the population by 2025, (ii) piped sewerage systems in major urban areas and selected growth centers, and (iii) standard on-site sanitation to all those who are not connected to a sewerage system or sanitation scheme. In addition, the Government's strategy highlights the importance of the sector's financial sustainability—and the institutional capacity of key sector agencies, including the National Water Supply and Drainage Board (NWSDB) and local authorities—in order to achieve the sector goals.

5. The existing public sewerage system in Greater Colombo is old and limited in coverage. The wastewater master plan⁴ estimated that 66% of the population of the Colombo capital region was served by on-site facilities, 19% was served by the public sewerage system,⁵ and 15% had no facilities. Its sewerage system has also suffered from various technical, institutional, managerial and operational problems. Colombo's sewerage operation has long been neglected under an adverse institutional environment, in which ownership of sewerage assets remained uncertain for

¹ The title of the TA has been changed from Supporting Capacity Development for Local Authorities.

² ADB. 2008. *Sri Lanka: Country Partnership Strategy 2009-2011*. Manila.

³ The TA first appeared in the ADB business opportunities section of ADB's website on 28 April 2009.

⁴ Engineering Science. 1993. *Wastewater Master Plan for Greater Colombo*. Colombo.

⁵ It is estimated that the coverage of public sewerage system expanded to around 25% in Greater Colombo by 2007.

over a decade.⁶ There has been lack of clarity in the roles and ambiguity about ownership of assets between the two key institutions involved in the wastewater management services—NWSDB and the Colombo Municipal Council (CMC).⁷ This has led to ineffective management of sewerage sector operations, with poor accountability. Further, financial resources obtained through local taxes and Government subsidies are insufficient to fund sustainable delivery of wastewater services. The sustainability of wastewater services is further compromised by operational inefficiencies. In the absence of preventive maintenance or planned replacement, the system has been run by addressing emergencies as they arise. Assets are not usually inventoried, and accurate databases are lacking, including both spatial databases (e.g., digital maps of sewers, pumping stations, and outfalls) and attribute databases (e.g., characteristics of sewers).

6. Massive capital investments are required in the wastewater sector to upgrade the malfunctioning infrastructure and, in the long term, to add new assets to cover the underserved. At present, the sector does not generate enough revenue to invest in new infrastructure, or even to meet operation and maintenance costs. Both CMC and NWSDB have incurred deficits in sewerage operations in recent years, which have prevented them from sustaining regular asset replacements, leading to poor service delivery. Furthermore, while NWSDB recently introduced sewerage tariff within its operational jurisdiction,⁸ and has thereby secured a dedicated account for wastewater services, in CMC the sewerage and drainage operations are not separately delineated. Expenditures are met using allocations from the organization's general budget, with no independent accounting of revenue and expenditure for sewerage operations.

7. Wastewater management and services have not been adequately benchmarked or monitored. While current sewerage operational practices⁹ and uncontrolled discharge of industrial effluent into public sewers raise serious environmental concerns, there is no mechanism in place to monitor water quality and comply with regulatory standards. Environmental regulations prescribed by the Central Environmental Authority are not properly monitored or complied with. There is also lack of accountability on the part of service providers for their service delivery, in terms of quality, quantity, timeliness and reliability of the services provided. There is no institutionalized system to regularly check and benchmark the performance of wastewater service providers against predetermined standards.

8. In this context, the project preparatory technical assistance (PPTA) studies¹⁰ have established the need for investment in sewerage infrastructure in Greater Colombo and have carried out the necessary analyses for the proposed project in terms of current status of sewerage infrastructure and the institutional capacity of the service providers, and have identified the priority

⁶ The asset owner of the sewerage system had long been believed to be the National Water Supply and Drainage Board (NWSDB), in accordance with the voluntary transfer order in 1996 under Section 64(1) of the NWSDB Law. However, in a legal opinion in September 2007 the Attorney General's Department determined that CMC is the legal owner of all sewerage assets within its jurisdiction.

⁷ Following the 2007 opinion on asset ownership (footnote 5), CMC has been determined to be the owner and operator of the Colombo municipality sewerage system, with NWSDB remaining as asset owner and service provider of the sewerage system outside the Colombo municipality.

⁸ The introduction of a sewerage charge was approved by the cabinet in September 2002. Subsequently the NWSDB Board approved a sewerage tariff policy and a specific tariff structure, which the minister of water supply and drainage also approved. The notification of the new sewerage tariff was gazetted in October 2007, with the sewerage tariff applied as of March 2008. As part of the system computerization at NWSDB, the form of the water bill was modified, and the sewerage charge incorporated within it.

⁹ Due to the malfunctioning of sewerage pumping stations and frequent sewer pipe collapses, the system operator often resorts to emergency bypass arrangements for discharge to surface waters.

¹⁰ ADB. 2004. *Technical Assistance to the Democratic Socialist Republic of Sri Lanka for Preparing the Greater Colombo Wastewater Project*. Manila (TA 4531-SRI, approved on 23 December); and ADB. 2008. *Technical Assistance to the Democratic Socialist Republic of Sri Lanka for Assessing Colombo Municipality Wastewater Systems*. Manila (TA 7140-SRI, approved in September for updating the feasibility study prepared under PPTA 4531-SRI).

areas requiring institutional, technical and financial interventions. The studies have highlighted the need to develop CMC's capacity to plan, implement, and monitor the proposed project. Further, as the newly-determined asset owner of the sewerage system, and a first-time implementing agency under the prospective ADB loan project, CMC needs intensive and extensive institutional capacity development support in order to fulfill its mandate of asset management, delivery of efficient and effective services to citizens, and management and implementation of the ADB loan project. In this regard, the TA will provide startup support to CMC in setting up a project management structure. The TA and the ensuing project will also help CMC in terms of building its project management skills, institutional strengthening, financial reforms, and developing suitable operational systems and processes so that CMC becomes an efficient and effective wastewater service provider.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact of the TA will be improved operating efficiency and management performance in the wastewater services of CMC. The desired outcome is that CMC is ready to implement the prospective ADB loan project. The proposed TA will contribute to successful accomplishment of the intended outcomes by undertaking project preparatory activities and initial training and capacity building of CMC to improve project readiness and ensure that implementation begins immediately once the ensuing project becomes effective.

B. Methodology and Key Activities

10. The TA consultants will primarily work with the project management unit in carrying out the identified tasks to achieve the objectives of the TA and the ensuing loan project. The TA consultants will also conduct advance or preparatory activities for the ensuing loan project by recruiting loan consultants (specifically, the institutional development consultant (IDC) and the design, supervision, and management consultant (DSC)). The key activities in achieving the TA outputs are as follows:

1. Establish Project Implementation Systems and Execute Startup Activities

- (i) Establish a managerial and personnel structure for project governance, including project management unit staffing and functionality;
- (ii) execute advance actions for (a) selection and mobilization of loan consultants, (i.e., IDC and DSC); (b) social and environmental safeguards compliance; (c) application of permits, sanctions, approvals and clearances from relevant authorities; and (d) survey, investigations and studies for the project, including technical and socioeconomic baseline survey;
- (iii) undertake a procurement capacity assessment of the executing and implementing agencies, and update the procurement plan for the loan project and draft bidding documents and request for proposals for various contract packages identified in the procurement plan;
- (iv) survey the location, quantity, and quality of industrial effluent and interagency discharges;
- (v) establish a project performance management system; and
- (vi) establish a monitoring and evaluation system for effective monitoring of subproject and contract progress.

2. Establish an Operational Performance Management System for CMC

- (i) Establish a framework for benchmarking and performance assessment of service provision, and collection of baseline data;
- (ii) analyze all current processes and systems for information flows, decision-making levels, and funds flows in relation to wastewater operations;
- (iii) design a suitable framework for a performance budgeting system for sewerage operations, including hardware and software, processes, manuals, and monitoring methods;
- (iv) analyze cost-recovery mechanisms, including various tariff structures and their implementation mechanisms;
- (v) update the sewerage customers database;
- (vi) prepare an asset management system database for the creation, maintenance, rehabilitation and timely replacement of wastewater assets; and
- (vii) prepare a spatial and attribute database framework that can be used in producing a geographic information system of all sewerage assets.

3. Develop and Implement Capacity Development Plan

- (i) Support CMC in implementing the institutional, financial, and management changes recommended under the project;
- (ii) undertake a capacity needs assessment for CMC, prepare a human resource plan and capacity development program, and undertake staff training; and
- (iii) review and verify the institutional strengthening recommendations given in the PPTA studies (footnote 10), and prepare an action plan to implement the verified recommendations.

C. Cost and Financing

11. The total cost of the TA is estimated at \$775,000 equivalent. The Government has requested ADB finance of \$650,000; \$500,000 will be financed on a grant basis by ADB's TA funding program (Technical Assistance Special Fund-IV) with the balance of \$150,000 financed on a grant basis by the Multi-Donor Trust Fund under the Water Financing Partnership Facility, to be administered by ADB. The Government will finance the remaining cost (\$125,000 equivalent) through the provision of counterpart staff, office accommodation, transport, and other miscellaneous expenditures. The Government has been advised that approval of the TA does not commit ADB to approve any ensuing loan project. Details of the cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

12. The Ministry of Provincial Councils and Local Government will be the Executing Agency and CMC will be the Implementing Agency (IA) for the TA. The executing agency will provide policy guidance and national-level coordination in relation to the TA and ensuing project. The IA will be responsible for managing daily implementation activities. A TA advisory committee headed by the CMC municipal commissioner will be established to guide and provide support to the TA team for smooth activity implementation. CMC will provide adequate office space and sufficient communication means to the TA team, and provide sufficient counterpart staff so that capacity building of staff can take place through on-the-job involvement in the day-to-day activities of the TA team.

13. The TA will be implemented over a period of 20 months, from September 2009 to April 2011. In conducting the TA activities, international (total of 16 person-months) and national (total of 26 person-months) consultants will be engaged on an individual basis in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). For continuity of the work that has been performed well under the TA for Assessing Colombo Municipality Wastewater Systems (footnote 10), some of the individual consultants under that TA will continue to work under the current TA. The international consultants will include experts in project management and wastewater management that have special knowledge regarding procurement. The national consultants will include experts in wastewater management, financial management, environment and social and community development. The outline terms of reference for the consultants are in Appendix 3. Technical support (e.g., for surveys, data collection, and information technology) will be provided to the consultants as required. The team leader will be responsible for coordinating overall activities and TA inputs in order to provide required reports and deliverables, and conduct surveys and data collection. The TA will provide training to (i) PMU staff to familiarize them with ADB's procurement procedures and national procurement system, and (ii) CMC and PMU staff on financial and accounting reform measures and ADB procures for disbursement and maintenance of project accounts.

14. To facilitate TA implementation, an advance payment facility will be used for trainings, seminars, workshops and other capacity-development programs, surveys, equipment, and other miscellaneous administration and support costs. The advance payment facility, to be agreed between ADB and the IA, shall detail the procedures and implementation arrangements for use of the advance, its liquidation and replenishment requirements, in accordance with ADB's *Technical Assistance Disbursement Handbook*.¹¹

15. The following reports will be submitted by the TA consultants: (i) an inception report, including a detailed work plan (due within 1 month of commencement); (ii) a monthly implementation report (due at the end of each month during the TA implementation period); (iii) an interim report containing details of work done as per expected outputs (due 9 months after commencement); (iv) a draft final report (due 15 months after commencement); and (v) final report (due 18 months after commencement).

IV. THE PRESIDENT'S DECISION

16. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$150,000 to be financed on a grant basis by the Multi-Donor Trust Fund under the Water Financing Partnership Facility, and (ii) ADB providing the balance not exceeding the equivalent of \$500,000 on a grant basis, to the Government of Sri Lanka for Supporting Capacity Development for Wastewater Management Services in Colombo, and hereby reports this action to the Board.

¹¹ ADB. 2008. *Technical Assistance Disbursement Handbook*. Manila.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impact Operating efficiency and management performance improved in wastewater services of CMC</p>	<p>CMC sustains sewerage services at capital and O&M cost recovery by 2015</p> <p>CMC achieves all outputs envisaged in the prospective ADB loan by 2014</p>	<p>CMC financial and accounting data</p> <p>CMC's financial statements produced for statutory reporting purposes</p>	<p>Assumptions Continued support and commitment from the Government and CMC</p> <p>IA amenable to adopting proposed institutional strengthening measures</p> <p>Risk Political instability during the project period</p>
<p>Outcome CMC is ready to implement the prospective ADB loan project</p>	<p>CMC improves efficiency in project management</p> <p>Recruitment of DSC and IDC by loan effectiveness for the ensuing ADB loan project</p>	<p>TA consultant reports</p> <p>ADB's periodic project monitoring, review and project completion reports</p>	<p>Assumptions Trained staff retained in PMU</p> <p>Counterpart support under the TA is provided as committed</p>
<p>Outputs 1. Project implementation system established and project startup activities completed</p> <p>2. Operational performance management system established for CMC</p>	<p>Managerial and personnel structure for project governance and steering organization established, fully staffed and functional in accordance with detailed terms of reference, by Oct. 2009</p> <p>Consulting contracts for loan project completed by July 2010</p> <p>PPMS and contract monitoring and evaluation system established by Sep. 2010</p> <p>Social and environmental safeguards issues on loan project adequately addressed before loan effectiveness</p> <p>Institutional strengthening measures recommended under the loan (e.g., introduction of an asset management system, a customer database, environmental monitoring, performance budgeting and an accounting system, and a baseline survey for operational efficiency and performance indicators) initiated by Feb. 2010</p>	<p>Organogram and terms of reference of project management and implementation structure</p> <p>TA consultants' reports</p> <p>ADB review mission reports</p> <p>Project safeguards documents and implementation plans</p> <p>CMC's financial statements produced for statutory reporting purposes</p> <p>Consultancy recruitment correspondence to ADB</p>	<p>Assumptions PMU adequately staffed with qualified personnel</p> <p>Approval process for consultancy recruitment not delayed.</p> <p>Risk Frequent change of officials and inadequate human resources in CMC</p>

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
3. Capacity development training provided to CMC staff	<p>Detailed assessment of training needs and capacity development program completed by Jan. 2010</p> <p>Initial training and capacity building activities commenced by Mar. 2010</p>		
<p>Activities with Milestones</p> <p>Output 1: Project implementation system established and project startup activities completed</p> <p>1.1. Team leader and deputy team leader mobilized by Sep. 2009</p> <p>1.2. Inception report submitted by consultants by Oct. 2009</p> <p>1.3. PMU and other project steering structure set up and fully operational by Oct. 2009</p> <p>1.4. Survey, investigations, and studies for various subprojects under the ADB loan project initiated by Nov. 2009</p> <p>1.5. Standard bidding documents for works and goods and request for proposal for consulting packages under ADB loan project prepared by Nov. 2009</p> <p>1.6. Documents for shortlisting of loan consultants finalized by Nov. 2009</p> <p>1.7. Application process for permits, sanctions, approvals, and clearances from various competent authorities for matters relating to environmental regulation, land acquisition, shifting of underground utilities, road cuts, and railway crossings initiated by Jan. 2010</p> <p>1.8. Survey of locations, quantity and quality of industrial effluents being discharged in public sewer system initiated by Jan. 2010</p> <p>1.9. Request for proposal for loan consultants issued by Dec. 2009</p> <p>1.10. Loan consultants recruited by Jul. 2010</p> <p>1.11. Special conditions of contract, particular specifications and bill of quantities based on survey results developed, and detailed terms and conditions for the design-build-operate contract drafted by Sep. 2010</p> <p>1.12. Survey and investigations for design of subprojects completed by Sep. 2010</p> <p>1.13. Survey of locations, quantity and quality of industrial effluents and interagency sewer discharges completed by Sep. 2010</p> <p>1.14. PPMS established by Sep. 2010</p> <p>1.15. Monitoring and evaluation system including computerized subproject and contract monitoring system established by Sep. 2010</p> <p>Output 2: Operational performance management system established for CMC</p> <p>2.1. Proposal on streamlining the process for information flows, decision making and fund flows for wastewater operations completed by Jan. 2010</p> <p>2.2. Baseline survey for operational efficiency and performance completed by Jun. 2010</p> <p>2.3. Plan for performance budgeting and accounting system adopted by CMC by Jun. 2010</p> <p>2.4. Customer database completed by Jun. 2010</p> <p>2.5. Framework of spatial and attribute database for geographic information system of all sewerage assets established by Aug. 2010</p> <p>2.6. Database for introducing asset management system built by Aug. 2010</p>			<p>Inputs</p> <p>ADB: \$650,000</p> <p>Government: \$125,000</p> <p>42 person-months of consulting services (16 person-months of international and 26 person-months of national services)</p>

Activities with Milestones	
Output 3: Capacity development training provided to CMC staff 3.1. Capacity development program completed by Jan. 2010 3.2. Implementation of capacity development program commenced by Mar. 2010 3.3 Implementation of capacity development program completed by Feb. 2011	

ADB = Asian Development Bank; CMC = Colombo Municipal Council; DSC = design, supervision, and management consultant; IA = implementing agency; IDC = institutional development consultant; O&M = operation and maintenance; PMU = project management unit; PPMS = project performance management system; TA = technical assistance; RFP = request for proposal.

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	235.10
ii. National Consultants	78.00
b. International and Local Travel, including vehicle hire	33.00
c. Reports and Communications	15.00
2. Equipment ^b	20.00
3. Workshops, Trainings, Seminars, and Conferences ^c	
a. Workshops	15.00
b. Training Programs	20.00
4. Surveys	20.00
5. Miscellaneous Administration and Support Costs	15.00
6. Contingencies	48.90
Subtotal (A)	500.00
B. Multi-Donor Trust Fund under the Water Financing Partnership Facility^d	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	78.40
2. Workshops, Trainings, Seminars, and Conferences ^c	
a. Training Programs	31.60
3. Surveys	40.00
Subtotal (A)	150.00
C. Government Financing^e	
1. Office Accommodation and Transport	75.00
2. Remuneration and Per Diem of Counterpart Staff	50.00
Subtotal (B)	125.00
Total	775.00

^a Financed on a grant basis by the technical assistance funding program (Technical Assistance Special Fund-IV) of the Asian Development Bank (ADB).

^b Five computers, three printers, and a copier, a fax machine, and a scanner will be purchased by the consultants in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). All equipment purchased under the technical assistance will be turned over to the implementing agency upon completion of the technical assistance.

^c Workshops, trainings, seminars, and conferences will be organized for building capacity and sharing information among stakeholders.

^d Contributors: the governments of Australia, Austria, Norway, and Spain. Administered by ADB.

^e Government financing is in-kind.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Project Management Specialist-cum-Team Leader (international, 12 person-months)

1. The project management specialist-cum-team leader will assume overall responsibilities for guiding and supervising the team and implementing all activities outlined under the TA in accordance with the policies and guidelines of the Asian Development Bank (ADB). The tasks will include:

- (i) take overall responsibility for (a) planning, coordinating, and executing all activities under the capacity development technical assistance (TA) in close coordination with the project management unit (PMU) and other relevant government agencies; and (b) monitoring the work of other experts for achieving the TA objectives;
- (ii) prepare detailed work plans and input and output schedules for each expert under the TA;
- (iii) assist the PMU in developing an optimal managerial and technical staffing structure for the PMU with related terms of reference for the key personnel;
- (iv) assist the PMU in establishing a procurement management system based on ADB guidelines, including tendering procedures, procurement plan updates, and procurement mode updates, with assistance of the procurement specialist;
- (v) assist the PMU in setting up a project performance monitoring system, including establishment of a monitoring and evaluation system for effective monitoring of project implementation progress;
- (vi) verify the design and monitoring framework of the ADB loan project and revise it, including baseline information obtained from the TA activities;
- (vii) assess the capacity of the Colombo Municipal Council (CMC) staff to identify their capacity development needs vis-à-vis their responsibility to effectively manage sewerage services, and develop and coordinate training programs for the key staff to familiarize them with ADB procedures and project management;
- (viii) prepare all necessary tender documents, including the request for proposals, bidding documents, technical specifications, etc. required by the PMU for procurement of goods, works, and services under the prospective ADB loan project;
- (ix) assist the PMU in recruiting loan consultants (i.e., design, supervision, and management consultants, and institutional development consultants) for the ensuing ADB project;
- (x) prepare the terms of reference for the nongovernment organizations for community awareness and public education, and support the PMU in carrying out the process of selection of NGOs;
- (xi) review and verify the proposal made by ADB in the Assessing Colombo Municipality Wastewater Systems project preparatory TA¹ and assist CMC in implementing the institutional strengthening program, especially in establishing an asset management system, financial management and accounting system including a budgeting and control system, and a system for the audit of project accounts, and in implementing financial and accounting reforms in CMC;
- (xii) initiate the process of developing an asset management approach for creation, maintenance, rehabilitation and timely replacement of wastewater assets based on acceptable international practices so that the institutional development consultant, once mobilized, can effectively implement the asset management approach;

¹ ADB. 2008. *Technical Assistance to the Democratic Socialist Republic of Sri Lanka for Assessing Colombo Municipality Wastewater Systems*. Manila.

- (xiii) review and endorse all reports prepared and outputs produced by the other consultants in the course of their assignments before submitting these to ADB and CMC; and
- (xiv) assist the PMU and CMC in all activities related to project preparation and implementation.

B. Wastewater Management Expert-cum-Deputy Team Leader (national, 14 person-months)

2. The tasks of the wastewater management expert-cum-deputy team leader will include but not be limited to the following:

- (i) develop a framework and collect baseline data for benchmarking and performance assessment of the provision of sewerage services, including key performance indicators, a measurement system, monitoring and evaluation mechanism, etc, and suggest interventions to meet key performance indicators for sewerage operations;
- (ii) examine and analyze all current processes and systems related to CMC sewerage operations regarding information flows, decision-making levels, and fund flows in order to streamline and refine these systems and processes;
- (iii) collect baseline data for all subprojects to increase readiness for the subprojects, and support other consultants when mobilized in the design, bidding, evaluation, and award of contracts of such subprojects;
- (iv) undertake technical and socioeconomic baseline survey to assess the as-is condition of the wastewater services;
- (v) identify the legal and regulatory requirements for sewerage services, and in particular environmental requirements, and suggest improvements to works to comply with legal requirements;
- (vi) make a proposal for a detailed program of activities to reduce the environmental impacts of the sewerage system in Greater Colombo until the sewage treatment plant is installed;
- (vii) initiate the process of preparing a sewer map, sewer network modeling, and a sewerage asset geographic information system, to assist the work of the design, supervision, and management consultant (once they are mobilized);
- (viii) review the existing organizational structure for sewerage operations and project implementation, and develop an optimal managerial and technical staffing structure with proposals regarding the associated terms of reference for key personnel;
- (ix) carry out a detailed survey of the location, quantity, and quality of industrial effluent being discharged in the public sewer system; and the location, quantity and quality of interagency discharges; and assist CMC in entering into legal arrangements for interagency discharges;
- (x) assist CMC in preparing the following documents with respect to the sewerage sector: (a) standard operating procedures, (b) maintenance management program, (c) emergency response plan, and (d) occupational health and safety plan;
- (xi) carry out the process of updating the sewerage customers database;
- (xii) prepare technical specifications in the tender documents for sewerage capital works; and
- (xiii) coordinate with government authorities and other national consultants regarding TA activities.

C. Wastewater Management Expert-cum-Procurement Specialist (international, 4 person-months)

3. The tasks of the wastewater management expert-cum-procurement specialist will include but not be limited to the following:

- (i) assist the PMU and the project management specialist in completing all procurement management startup and preparatory activities under the TA;
- (ii) assist the PMU in performing advance procurement activities and consultant recruitment activities in accordance with ADB guidelines and procedures;
- (iii) undertake a procurement capacity assessment of the executing and implementing agencies;
- (iv) review the suggested contract packages under the ADB loan project and finalize their packaging and mode of procurement;
- (v) prepare bidding documents for all modes of procurement, with particular attention to the special requirements of the design-build-operate (DBO) subprojects;
- (vi) based on survey results, prepare special sections of tender documents (e.g., special conditions of contract, particular specifications and bill of quantities), and develop detailed terms and conditions for the DBO contracts clearly identifying the rights and obligations of each party;
- (vii) develop proper safeguards for the operation and maintenance (O&M) portions of DBO subprojects by incorporating appropriate conditions in the bid documents (e.g., minimum number of required personnel, minimum monthly cost for O&M), in order to control the tendency to frontload the bid with high construction-related costs and abnormally low O&M-related costs;
- (viii) provide on-the-job procurement training to the PMU staff to familiarize them with both ADB's procurement procedures and the national procurement system, and undertake procurement workshops; and
- (ix) assist the PMU in obtaining and updating the schedule of rates available at various CMC departments and other government agencies, and in collecting market rates, determining workable rates, and preparing estimates and a bill of quantities.

D. Financial Management and Accounting Specialist (national, 5 person-months)

4. The tasks of the financial management and accounting specialist will include but not be limited to the following:

- (i) design and assist the PMU in implementing an appropriate accounting system that includes funds flow monitoring, accounting and reporting, budgeting and control, and auditing of the project accounts, based on ADB's guidelines and policies;
- (ii) review government policies and procedures affecting the financial performance of CMC and identify critical areas for improvement;
- (iii) assist CMC in implementing financial and accounting reforms to ensure cost recovery mechanisms as suggested by the ADB Assessing Colombo Municipality Wastewater Systems TA, and in particular in modifying the accounting system, financial reporting and monitoring system, cost allocation and budgeting procedures, and revenue collection efficiency;
- (iv) design and implement a suitable performance budgeting system for CMC sewerage operations, including necessary systems, manuals and monitoring methods;
- (v) conduct training for CMC and the PMU personnel in financial and accounting reform measures and ADB procedures for disbursements and preparation of claims, maintenance of project accounts, audit of project accounts, and reporting;
- (vi) calculate and verify the sewerage service charge (or property tax) required to meet sewerage O&M costs and debt service due by the loan project, and assist CMC in implementing the actions pursuant to time-bound implementation plan agreed for cost recovery;
- (vii) analyze various tariff structures and mechanisms as long term measures for cost recovery; and

- (viii) develop a financial management manual for CMC and the PMU, incorporating requirements under the government financial management policy as well as requirements for implementing financial and accounting reform measures.

E. Environment Specialist (national, 4 person-months)

5. The tasks of the environment specialist will include but not be limited to the following:

- (i) assist the PMU in finalizing the initial environmental examination (IEE) prepared during the project preparatory TA of the prospective ADB loan project;
- (ii) on the basis of the draft IEE prepared during the project preparatory TA, ensure that the PMU is able to prepare all environmental assessment documents (IEEs or environmental impact assessments) required by the Government, including public consultations and incorporating identified mitigation measures;
- (iii) assist the PMU in preparing applications to obtain environmental clearance from the relevant government authorities;
- (iv) assist CMC and the PMU in adequately addressing environmental safeguards issues on the prospective ADB loan project before loan effectiveness and subsequently complying with loan covenants in relation to safeguards;
- (v) prepare a time-bound action plan to ensure all environmental issues are dealt with by CMC and the PMU; and
- (vi) conduct training for CMC and PMU personnel in ADB environmental safeguard policies and environmental management measures to be carried out to mitigate negative impacts during ADB loan project implementation.

F. Social and Community Development Specialist (national, 3 person-months)

6. The tasks of the social and community development specialist will include but not be limited to the following:

- (i) assist the PMU in finalizing the ADB-required resettlement plan prepared during the project preparatory TA;
- (ii) on the basis of the draft resettlement plan prepared during the project preparatory TA, ensure that the PMU is able to prepare all government-required resettlement planning documents;
- (iii) prepare a time-bound action plan to ensure all resettlement issues are dealt with by CMC and the PMU;
- (iv) undertake necessary awareness campaigns and preparatory activities to ensure that communities are aware of the prospective ADB loan project and have the means to plan for and make proposals for community improvements;
- (v) conduct stakeholders participation workshops to help them understand and be aware of the social impact of and their contribution to the project, and associated opportunities, duties and responsibilities;
- (vi) ensure mechanisms for public information provision, beneficiary consultation, grievance procedures, and public participation (especially by women and poor households) are documented, and recommend ways to improve grievance procedures for resettlement planning and implementation;
- (vii) assist CMC and the PMU in adequately addressing social safeguards issues on the prospective ADB loan project before loan effectiveness, and subsequently complying with loan covenants in relation to safeguards; and
- (viii) conduct training for CMC and PMU personnel in ADB social safeguards requirements during project implementation and processing.