Republic of the Philippines: Preparing the Urban Water Supply and Sanitation Project
(Financed by the Government of France)
CURRENCY EQUIVALENTS
(as of 12 October 2010)
Currency Unit – peso (P)
P1.00 = $0.022954
$1.00 = P43.565

ABBREVIATIONS
ADB – Asian Development Bank
CWW – City West Water
DCWD – Davao City Water District
MCWD – Metro Cebu Water District
MFF – multitranche financing facility
SERD – South Asia Department
TA – technical assistance
WSS – water supply and sanitation

TECHNICAL ASSISTANCE CLASSIFICATION

Type – Project preparatory technical assistance (PPTA)
Targeting classification – Targeted intervention—MDGs
Sector (subsector) – Water supply and other municipal infrastructure and services (water supply and sanitation)
Themes (subthemes) – Economic growth (promoting economic efficiency and enabling business environment), social development (human development), capacity development (organizational development)
Climate change – Climate change mitigation and adaptation
Location impact – Urban (high), national (medium)
Partnerships – Government of France; City West Water (Melbourne, Australia)

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

<table>
<thead>
<tr>
<th>Vice-President</th>
<th>C. Lawrence Greenwood, Jr., Operations 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director General</td>
<td>K. Senga, Southeast Asia Department (SERD)</td>
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<tr>
<td>Director</td>
<td>A. Jude, Energy and Water Division, SERD</td>
</tr>
<tr>
<td>Team leader</td>
<td>P. Van Klaveren, Water Supply and Sanitation Specialist, SERD</td>
</tr>
<tr>
<td>Team members</td>
<td>R. Butler, Social Development Specialist (Resettlement) SERD</td>
</tr>
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<td></td>
<td>P. Hattle, Energy Specialist, SERD</td>
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<tr>
<td></td>
<td>E. Paterno, Financial Analysis Specialist, SERD</td>
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<tr>
<td></td>
<td>G. Peralta, Environment Specialist, SERD</td>
</tr>
<tr>
<td></td>
<td>M. Sultana, Senior Social Development Specialist, SERD</td>
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</tbody>
</table>

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.
I. INTRODUCTION

1. The Government of the Philippines requested technical assistance (TA)\textsuperscript{1} from the Asian Development Bank (ADB) to support the preparation of the Urban Water Supply and Sanitation Project.\textsuperscript{2} This project aims to improve water supply and sanitation (WSS) services in urban areas by providing investment capital and technical assistance to water districts.\textsuperscript{3} The country operations business plan\textsuperscript{4} for the Philippines shows the project as two projects: one for Metro Cebu with TA approval in 2009 and loan approval in 2010 and one for Davao City with TA approval in 2010 and loan approval in 2011. It has been agreed to combine the projects and design the loan as a multitranche financing facility (MFF). A reconnaissance mission visited Metro Cebu and Davao City from 10 to 18 August 2010 and reached an understanding on TA impact, outcome, outputs, activities, cost, implementation and financing arrangements, and terms of reference for consulting services.

II. ISSUES

2. Although water is abundantly available in the Philippines, urban areas face water stress.\textsuperscript{5} Especially during the dry season, urbanization has brought a mismatch between water demand and supply caused by (i) increased population and demand and (ii) environmental pollution and diminished supply.

3. This mismatch caused a water crisis in Metro Manila in the early 1990s, resulting in the privatization of the WSS services.\textsuperscript{6} Several other urban areas in the Philippines face the same problems. Notably, two main economic centers, Metro Cebu in the Visayas and Davao City in Mindanao, will experience a water crisis by 2015, while growing populations and the lack of incentives to invest in sanitation makes a sanitation crisis in these cities imminent.

4. Averting a water crisis. Metro Cebu is the Philippines’ second-largest metropolis, an economic center in the Visayas with a population of 2.3 million, which is expected to grow to 4.0 million by 2030. The current net production capacity of 168,000 cubic meters per day is barely sufficient to supply 1.4 million consumers, or 35% of Metro Cebu’s projected population. Davao City is the third-largest urban area and the economic center of the southern Philippines. It has a population of 1.4 million, which is expected to grow to 2.5 million by 2030. The Davao City Water District (DCWD) serves 58% of the population with nine separate systems. Without expansion, DCWD’s raw water capacity is sufficient to supply 43% of Davao’s population by 2030. Both Cebu and Davao predominantly use groundwater from multiple points of supply. Surface water supplies less than 5% of demand.

5. People without continuous potable water supply rely on either independent suppliers using shallow groundwater sources or their own groundwater sources. These sources are within city boundaries and exploit a polluted coastal aquifer. Further exploitation will lower groundwater levels and cause land subsidence and saltwater intrusion. This will affect the capacity of water districts to expand and improve their services. Unless water districts aggressively expand their

\textsuperscript{1} The TA first appeared in the business opportunities section of ADB’s website on 20 August 2010.
\textsuperscript{2} Formerly the Metro Cebu and Davao City Water Supply and Sanitation Project.
\textsuperscript{3} Water districts are government-owned and -controlled agencies tasked with providing water supply and sanitation services to their mandated service areas. These services are the responsibility of local government units and over 500 water districts.
\textsuperscript{5} Water stress occurs when demand for water exceeds supply for a period or poor water quality restricts its use.
water-supply capacity and distribution systems, both urban centers will face significant shortages of drinking water and water quality problems.

6. **The need for a sanitary revolution.** Water districts in the Philippines are mandated to provide sanitation services. However, only a few have gone beyond collecting sludge from septic tanks, which is commonly discharged in an uncontrolled manner in rivers and dumpsites. Although some capacity building has been provided by development agencies, it will not result in effective and sustainable sanitation and wastewater management without local government support, investment capital, and long-term capacity building. Ensuring sustainability requires that initiatives be broadly supported by all stakeholders, notably communities. This support can be achieved through extensive and long-term awareness campaigns aimed at behavioral change and by creating demand for sanitary services.

7. **Strategic focus.** The Philippine sector assessment, strategy, and roadmap for WSS recognizes that low investment in WSS in urbanized areas of the Philippines worsens the incidence of water borne disease and environmental degradation, limiting the economic growth potential of these areas and worsening poverty. The project will address the following major sector development constraints identified in the assessment: (i) institutional fragmentation, including a weak and fragmented regulatory framework; (ii) low performance by water utilities, including low tariffs and cost-recovery rates, (iii) low public and private investment in WSS; and (iv) low priority accorded to sanitation and hygiene and the lack of stakeholder involvement.

8. The project aligns with (i) the country strategy and program, 2005–2007 by addressing the development constraint of inadequate infrastructure, specifically with regard to water supply, and (ii) ADB’s Water Financing Program, which aims to double investments in water and is directed toward reform and capacity development.

9. **Government strategies.** Expanding WSS services is in line with the strategy of the government, presented in the following documents:

   (i) *Philippine Water Supply Sector Roadmap*, whose targets for 2025 are (a) universal coverage and sustained utility operations and (b) existing utilities’ continuing to expand coverage on par with population growth;

   (ii) *Philippine Sustainable Sanitation Roadmap*, whose targets for 2028 are (a) universal access to safe and adequate sanitary facilities, (b) proper hygiene practices in families and communities, and (c) mechanisms for sustainable sanitation; and

   (iii) *National Sewerage and Septage Management Program*, which aims to improve water quality and public health in urban areas of the Philippines by 2020 by enhancing the ability of local implementers to build and operate wastewater treatment systems for urban centers and promote the behavior change and supporting environment needed for systems to be effective and sustainable.

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7 The term commonly applied to the set of policies and actions implemented in Western Europe and North America, beginning in the last third of the 19th century, following several cholera epidemics and the discovery of how water, sanitation, and hygiene were linked.

8 Under preparation.


10. **Private sector focus.** Private concessions in Metro Manila have demonstrated that the operational efficiency and quality of services can be improved if sound commercial management is applied. Although the operational efficiency of the Metro Cebu Water District (MCWD) and DCWD is acceptable, room for improvement exists. Private sector participation needs to be maximized to reduce political interference, build autonomy in operations, and further improve the water districts’ efficiency and profitability.

11. **Gender focus.** The least-recognized factors affecting the health and well-being of women are water, sanitation, and hygiene. The benefits of these basic interventions are extensive, affecting women and their daughters from generation to generation. Water is at the core of women’s traditional responsibilities: collecting and storing water, caring for children, cooking, cleaning, and maintaining sanitation. Better sanitary conditions are of the greatest importance to women, providing greater privacy, convenience, safety, and dignity.

12. **ADB’s and development partners’ involvement in the sector.** Since 1993, ADB assistance in the sector totaled 13 loans and 9 TA projects, contributing significantly to the institutional strengthening of participating utilities and expanding services. ADB is currently preparing the Water District Development Sector Project to assist smaller water districts.14

13. Other development partners also promote the competent delivery of services by water utilities and enterprises. The World Bank, in particular, vigorously supports the localization of infrastructure subprojects by directly engaging local government units, community-based organizations, and businesses in investment financing and technical assistance interventions. The United States Agency for International Development extends bilateral assistance through grants and loans and is currently the biggest supplier of grants. Its major involvement in WSS is the establishment of the Philippine Water Revolving Fund. German development cooperation through the German Agency for Technical Cooperation (GTZ) aims to improve basic conditions for developing the water sector through sustainable water-management technological solutions and strengthened interagency coordination. The Japan International Cooperation Agency provided assistance to small water districts and completed a water source development study for Metro Cebu.

14. The main lessons of ADB’s sector involvement are as follows: (i) The water district model is still the preferred service vehicle in urban areas because water districts are relatively independent. (ii) Demand forecasts should be realistic to avoid excess supply infrastructure. (iii) Multiple executing agencies complicate project implementation and monitoring. (iv) Building the capacity of water supply providers is critical to long-term success.

### III. THE PROPOSED TECHNICAL ASSISTANCE

**A. Impact and Outcome**

15. The impact of the TA will be improved access to water supply and sanitation services in selected urban areas by 2022. Service coverage providing access to continuous water supply at minimal pressure will increase from 50% of the population to 80%, while the coverage of access to hygienic sanitation will increase from 10% of the population to 50%. The outcome of the TA will be an agreed design for an MFF by March 2012. The design and monitoring framework is in Appendix 1, and the initial poverty and social analysis is in Appendix 2.

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B. Methodology and Key Activities

16. The proposed project will be designed to (i) expand the raw water supply capacity of the water districts by reducing physical leakage and developing new bulk water sources; (ii) rehabilitate and expand water distribution systems; (iii) raise awareness of the benefits of hygienic sanitation by informing communities of its health and financial benefits, and by informing policy and decision of the economic benefits of sanitation and wastewater management; (iv) design and construct wastewater collection and disposal facilities; and (v) develop and implement a sanitation strategy.

17. The TA will detail a project concept suitable for MFF financing by (i) reviewing the strategic context as reflected in government strategic documents, (ii) developing a project road map that indicates the strategic direction of the MFF, and (iii) developing a policy framework that identifies the main challenges to ensure project efficiency and sustainability. Although the TA will primarily focus on improving access to water supply and sanitation services in Metro Cebu and Davao City, other urban areas with similar problems will be identified and included in the Project design for potential financing under the MFF.

18. Through socioeconomic surveys, analyses, and focus group discussions, the TA will further develop the project scope and confirm the design and monitoring framework, baseline and target indicators, and monitoring program.

19. The TA will prepare the implementation of the project by (i) assessing raw water supply options, such as surface water, groundwater, and desalination; updating water demand forecasts; and preparing feasibility studies and preliminary designs of the most suitable options; (ii) assessing the amount of nonrevenue water, developing an asset management system, and drawing up basic designs for network expansion plans and management strategies; (iii) developing sanitation awareness-raising campaigns and identifying pilot demonstration works; (iv) identifying and preparing feasibility studies and basic designs of urgent wastewater and septage treatment works; and (v) carrying out consultations, developing financing and cost-recovery mechanisms, and preparing an overall sanitation strategy.

20. To ensure the operational sustainability of investments, the TA will prepare a capacity building and institutional development plan using (i) an assessment of technical, financial, and management capacity gaps; (ii) strengths–weaknesses–opportunities–threat analysis of utilities' operations; (iii) and a review of institutional settings, management and incentive structures, and legal and regulatory frameworks. The potential role of the private sector will be assessed.

21. The TA will prepare an investment and procurement plan covering physical and other investment requirements. A detailed financing plan will be prepared using extensive willingness-to-pay and affordability analyses and projections of utilities' debt-servicing capacity and potential internal revenue sources. Consultations with the government and financiers will identify potential public and/or private financing sources and agree on the funding mechanism.

22. The TA will carry out due diligence on (i) energy efficiency and climate adaption and mitigation measures, including the preparation of a water safety plan; (ii) the impact of the proposed investments on poverty reduction and the social well-being of beneficiaries, including the preparation of a gender action plan; and (iii) the proposed investments' impacts on the environment, involuntary resettlement, and indigenous people and how to mitigate them in accordance with ADB’s Safeguard Policy Statement (2009). Environmental, resettlement, and indigenous development frameworks will be prepared. The TA will assess governance issues,
focusing on procurement capacity and risks, financial management, and corruption risks, and prepare a risk-management plan.

C. Cost and Financing

23. The TA is expected to cost the equivalent of $2.2 million, of which $2.0 million will be financed on a grant basis by the Government of France and administered by ADB. The Government of the Philippines will, through MCWD and DCWD, finance $200,000 equivalent in kind, covering the cost of office accommodation and utilities, remuneration and local transport for counterpart staff, and training and workshop facilities. The government has been informed that approval of the TA does not commit ADB to finance any ensuing project. The cost estimate and financing plan are in Appendix 3.

D. Implementation Arrangements

24. The TA executing agencies will be MCWD and DCWD, each of which will set up a project management unit. About 184 person-months of consulting services, 44 international and 140 national, will be required. MCWD and DCWD will carry out the willingness-to-pay, socioeconomic, and health surveys with assistance from ADB and individual consultants. The assessment of operational knowledge gaps and the capacity developed plan will be prepared, and training provided, by City West Water (CWW), a government-owned water utility in Melbourne, Australia, and the twinning partner of MCWD under the Water Operators Partnership Program financed by ADB. CWW has program that was used to make a preliminary assessment of MCWD’s capacity. Considering the nature of CWW’s operations and expertise, the availability an internally developed capacity assessment and training program, and CWW’s knowledge of the Philippine water sector, CWW is the most suitable agency to carry out these tasks. For other activities, ADB will recruit a team of international and national consultants to provide technical, financial, and institutional expertise, engaging them in accordance with ADB Guidelines on the Use of Consultants (2010, as amended from time to time) using the quality- and cost-based selection method, with a quality–cost ratio of 80:20 and requiring simplified technical proposals. Equipment will be procured in accordance with ADB’s Procurement Guidelines (2010, as amended from time to time). Equipment will be handed over to the executing agencies after TA completion. Disbursements will be in accordance with ADB’s Technical Assistance Disbursement Handbook (2010, as amended from time to time). The outline terms of reference are in Appendix 4.

25. The TA will be implemented over 15 months commencing around January 2011 and ending around March 2012. Tripartite meetings of the government, ADB, and consultant team will be held at TA inception, midterm, and completion. Key findings and outputs of the TA will be disseminated through workshops and stakeholder discussions.

IV. THE PRESIDENT’S RECOMMENDATION

26. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of $2,000,000 to be financed on a grant basis by the Government of France for Preparing the Urban Water Supply and Sanitation Project.

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15 Through the Channel Financing Agreement (Technical Assistance Program) between the Government of France and ADB.
## DESIGN AND MONITORING FRAMEWORK

<table>
<thead>
<tr>
<th>Design Summary</th>
<th>Performance Targets/Indicators</th>
<th>Data Sources/Reporting Mechanisms</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact</strong></td>
<td>Improved access to water supply and sanitation services in selected urban areas</td>
<td>By 2022, (i) service area coverage of continuous water supply at minimal pressure increased from 50% of the population to 80% and (ii) access to hygienic sanitation increased from 10% of the population to 50%</td>
<td>Water district records</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>An agreed MFF suitable for ADB to consider financing</td>
<td>By March 2012, project design and all related documents agreed upon by the Government of the Philippines, MCWD, DCWD, and ADB</td>
<td>Consultants reports ADB records</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>1. Project concept detailed</td>
<td>By March 2011, a strategy and road map prepared and agreed</td>
<td>Consultant inception report</td>
</tr>
<tr>
<td></td>
<td>2. Project scope defined</td>
<td>By March 2011, agreed project design and monitoring framework</td>
<td>Consultant inception report</td>
</tr>
<tr>
<td></td>
<td>3. Project outputs confirmed</td>
<td>By June 2011, draft feasibility studies, strategies, and implementation plans. By September 2011, final feasibility studies, strategies, implementation plans, and basic design documents</td>
<td>Consultant midterm report Consultant final report Project fact-finding report</td>
</tr>
<tr>
<td></td>
<td>4. Capacity-building plan prepared</td>
<td>By June 2011, two assessments of capacity gaps carried out and basic training program developed</td>
<td>Consultant midterm report Project fact-finding report</td>
</tr>
<tr>
<td></td>
<td>5. Institutional development plan prepared</td>
<td>By September 2011, consultation with government and other stakeholders completed 1 overall plan prepared and agreed</td>
<td>Consultant final report Project fact-finding report</td>
</tr>
</tbody>
</table>
### Design Summary

<table>
<thead>
<tr>
<th>Performance Targets/Indicators</th>
<th>Data Sources/Reporting Mechanisms</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
</table>
| 6. Investment, procurement, and financing plan prepared | By September 2011, consultations with potential financiers, intermediaries, and other stakeholders completed and plan agreed | Consultant final report  
Project fact-finding report | Assumption  
Financing institutions are interested in project finance. |
| 7. Due diligence carried out | By September 2011, energy efficiency assessment, poverty impact assessment, gender action plan, safeguard documents, procurement capacity assessment, and risk-based governance assessment completed. | Consultant final report  
Project review report |

### Activities with Milestones

**Output 1: Project concept detailed (completed by March 2011)**
1. Prepare project road map.
2. Describe the strategic context and need for long-term partnership.
3. Develop the policy framework.

**Output 2: Project scope defined (completed by March 2011)**
1. Carry out socioeconomic surveys and analyses.
2. Carry out problem tree analysis with the participation of stakeholders.
3. Confirm project design and monitoring framework, baseline data, targets, milestones, and monitoring program.

**Output 3: Project outputs confirmed (completed by September 2011)**
1. Update water demand forecast, current supply capacity, and strategic water-sourcing plan.
2. Prepare, review, and improve feasibility study and preliminary and basic designs.
3. Assess in detail nonrevenue water amounts and develop a strategy in response.
4. Develop a distribution expansion plan.
5. Develop and pilot public promotion campaigns.
6. Develop a simple decision tool to assess economic benefits and costs of proper hygiene and sanitation practices, and identify pilot demonstration projects.
7. Establish the current sanitation status and the desired sanitation status.

### Inputs

**Government of France: $2,000,000**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($’000)</th>
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</thead>
<tbody>
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<td>Consulting services</td>
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<tr>
<td>International (44 person-months)</td>
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</tr>
<tr>
<td>National (140 person-months)</td>
<td>420</td>
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<tr>
<td>Travel and reporting</td>
<td>163</td>
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<tr>
<td>Equipment</td>
<td>050</td>
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<td>Training</td>
<td>28</td>
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<td>Surveys</td>
<td>240</td>
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<tr>
<td>Administrative support</td>
<td>66</td>
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<td>Contingencies</td>
<td>175</td>
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</table>

**Government: $200,000**

<table>
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</thead>
<tbody>
<tr>
<td>Office accommodation and transport</td>
<td>70</td>
</tr>
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</table>
Activities with Milestones

8. Identify least-cost technologies, required investments, financing sources, implementation and operation arrangements, the role and capacity of the private sector, and the role and responsibility of civil society and communities.

9. Prepare a strategy outline, to be further developed during project implementation.

Output 4: Capacity building development plan prepared (completed by June 2011)
1. Assess technical, financial, and management capacity gaps.
2. Formulate a capacity-building program for outsourcing and/or training.

Output 5: Institutional development plan prepared (completed by September 2011)
1. Carry out strengths–weaknesses–opportunities–threats analysis of utilities’ operation and identify barriers to their more effective planning and efficient operation.
2. Review institutional settings, management and incentive structures, and legal and regulatory frameworks and prepare recommendations and a plan to improve performance, including possible private sector participation to achieve project outcome.

Output 6: Investment and financing plan prepared (completed by September 2011)
1. Carry out willingness-to-pay and affordability surveys and analyses.
2. Assess and project utilities’ debt-servicing capacity.
3. Prepare investment, procurement, and financing plans.

Output 7: Due diligence carried out (completed by September 2011)
1. Carry out energy efficiency audit and provide recommendations.
2. Review the impact of the proposed investments on poverty reduction and the social well-being of beneficiaries and other stakeholders.

Inputs

<table>
<thead>
<tr>
<th>Counterpart staff</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>30</td>
</tr>
</tbody>
</table>

ADB = Asian Development Bank, DCWD = Davao City Water District, MCWD = Metro Cebu Water District, MFF = multitranche financing facility.
INITIAL POVERTY AND SOCIAL ANALYSIS

Country and Project
Title: Philippines: Urban Water Supply and Sanitation Project

Lending or Financing Modality: Multitranche financing facility
Department and Division: Southeast Asia Department / Energy and Water Division

I. POVERTY ISSUES

A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy

The country poverty assessment states that economic growth is necessary for poverty reduction and refers to well-documented links between improved health and reduced poverty. Furthermore, the country strategy and program, 2005–2007 identifies inadequate infrastructure, such as for water supply and sanitation, as one of the main constraints on more rapid progress in poverty reduction. The project will expand access to safe water and hygienic sanitation, thereby reducing the incidence of water-related diseases, stimulating economic growth, and reducing poverty in the project area.

The project will contribute to agenda No. 7, electricity and water for all, of the Medium-term Philippine Development Plan, 2004–2010.

B. Targeting Classification

1. Select the targeting classification of the project:
   - [x] Non-Income MDGs (TI-M7)
   - [ ] General Intervention
   - [ ] Individual or Household (TI-H)
   - [ ] Geographic (TI-G)

2. Explain the basis for the targeting classification:
The project directly contributes to a reduction of the number of people without access to water supply and sanitation.

C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed?

3. What resources are allocated to the project preparatory TA and due diligence?
   A full poverty analysis is not required. Further social analysis will be required as part of preparing the resettlement plan.

3. If GI, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross subsidy, pro-poor governance, and pro-poor growth)?

II. SOCIAL DEVELOPMENT ISSUES

A. Initial Social Analysis

Based on existing information:
1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project?
   The urban poor will directly benefit from the project by gaining access to water and sanitation services. Project design will include measures to improve the access of the urban poor to these services.

2. What are the potential needs of beneficiaries in relation to the proposed project?
   Access to safe water, education on hygienic practices, and sanitation facilities.

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them?
   Affordability will be the main issue, for which the project design will provide subsidies. Access to training and education will be ensured through community-based approaches.
### B. Consultation and Participation

1. Indicate the potential initial stakeholders.
   - Local communities, water supply companies, local government agencies, and national government agencies.

2. What type of consultation and participation (C&P) is required during the project preparatory TA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations and community-based organizations, etc.)
   - Consultations take place mainly through workshops and direct consultations with community-based organizations, water companies, and government agencies.

3. What level of participation is envisaged for project design?
   - Information sharing
   - Consultation
   - Collaborative decision making
   - Empowerment

4. Will a C&P plan be prepared?  
   - Yes
   - No
   - Please explain.
   - Structural consultation and participation follows the existing methodologies and programs of the water supply districts, such as meetings, customer information, and consultation processes.

### C. Gender and Development

1. What are the key gender issues in the sector and subsector that are likely to be relevant to this project or program?
   - The limited size of distribution systems and limited availability of clean water mean many of the low-income and poor neighborhoods do not have household connections. Women in low-income and poor households bear the burden of collecting water from other sources or buying it from the vendors, which is more costly than public water supply. Women are traditionally tasked with caring for sick family members, whose illnesses may be caused by the lack of safe water or hygienic sanitation, which increases the work and time burden on women.

2. Does the proposed project or program have the potential to promote gender equality and/or women's empowerment by improving women's access to and use of opportunities, services, resources, assets, and participation in decision making?
   - Yes
   - No
   - Please explain.
   - The project will promote gender equality and women’s empowerment. It will provide direct benefits to women as a result of household water connections. Women and girls will spend less time collecting water, and the time saved can be used for other productive or income-generating activities. Women’s inclusion as key beneficiaries of the pilot sanitation and hygiene projects will help to increase their knowledge of sanitation and hygiene practices, as well as their ability to plan and manage projects and finances on their own. This may increase the visibility of women in planning and management positions, leading in the future to more opportunities for women to participate in decision making in their communities. Training women in design, implementation, and operation and maintenance will build their skills and increase employment opportunities in a traditionally male-dominated field, thus breaking gender stereotypes in learning and employment. The development of a gender-sensitive sanitation strategy will ensure that women’s needs and interests are integrated, which will affect interventions in the sector as a whole. A gender specialist will be recruited as part of the project preparatory technical assistance to undertake a gender analysis. A gender action plan will be prepared to ensure that women’s needs and interests are integrated into project design and that women benefit from project processes, outputs, and outcome.

3. Could the proposed project have an adverse impact on women and/or girls or widen gender inequality?
   - Yes
   - No
   - Please explain
   - Loss of traditional land rights and livelihood will be addressed through mitigation measures under the resettlement plan.
### III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS

<table>
<thead>
<tr>
<th>Issue</th>
<th>Nature of Social Issue</th>
<th>Significant/Limited/ No Impact/Not Known</th>
<th>Plan or Other Action Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involuntary Resettlement</td>
<td>The construction of dams and reservoirs will cause resettlement and loss of land.</td>
<td>Significant</td>
<td>✗ Resettlement Plan</td>
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<td></td>
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<td>✗ Resettlement Framework</td>
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<td></td>
<td>□ Environmental and Social Management System Arrangement</td>
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<td></td>
<td></td>
<td></td>
<td>□ None</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>□ Uncertain</td>
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<tr>
<td>Indigenous Peoples</td>
<td>There is no ethnic minority population in the project area.</td>
<td>No impact</td>
<td>□ Indigenous Peoples Plan</td>
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<td></td>
<td></td>
<td></td>
<td>□ Indigenous Peoples Planning Framework</td>
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<td></td>
<td></td>
<td>□ Environmental and Social Management System Arrangement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Uncertain</td>
</tr>
</tbody>
</table>
| Labor                  | ☑ Employment Opportunities  
☑ Core Labor Standards                                                                    | The construction contractor’s contract will include core labor standards. The labor camp will be provided with basic drinking water and sanitation facilities. No child labor will be used. Pay for men and women will be equal for equal work. | □ Plan                        |
|                        |                                                                                        |                                         | □ Other Action                |
|                        |                                                                                        |                                         | □ No Action                   |
|                        |                                                                                        |                                         | □ Uncertain                   |
| Affordability          | The project design will provide subsidies for the water fee.                            |                                         | ✗ Action                      |
|                        |                                                                                        |                                         | □ No Action                   |
|                        |                                                                                        |                                         | □ Uncertain                   |
| Other Risks and/or Vulnerabilities | During project preparatory technical assistance, the risks of HIV/AIDS and human trafficking will be examined. If required, the construction contractors’ contracts will require the provision of an awareness campaign on preventing HIV/AIDS and human trafficking. |                                         | □ Plan                        |
|                        |                                                                                        |                                         | □ Other Action                |
|                        |                                                                                        |                                         | □ No Action                   |
|                        |                                                                                        |                                         | □ Uncertain                   |

### IV. PROJECT PREPARATORY TECHNICAL ASSISTANCE/DUE DILIGENCE RESOURCE REQUIREMENT

1. Do the terms of reference for the project preparatory TA (or other due diligence) include poverty, social, and gender analysis and the relevant specialist(s)?   ☑ Yes   □ No If no, please explain why.

2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social, and/or gender analysis, and C&P during the project preparatory TA or due diligence?   ☑ Yes   □ No If no, please explain why.
### COST ESTIMATES AND FINANCING PLAN ($'000)

<table>
<thead>
<tr>
<th>Item</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Government of France</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>1. Consultants</td>
<td></td>
</tr>
<tr>
<td>a. Remuneration and per diem</td>
<td></td>
</tr>
<tr>
<td>i. International consultants (44 person-months)</td>
<td>858.0</td>
</tr>
<tr>
<td>ii. National consultants (140 person-months)</td>
<td>420.0</td>
</tr>
<tr>
<td>b. International and local travel</td>
<td>103.0</td>
</tr>
<tr>
<td>c. Reports and communications</td>
<td>60.0</td>
</tr>
<tr>
<td>2. Equipment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>50.0</td>
</tr>
<tr>
<td>3. Workshops, training, seminars, and conferences&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>a. Training facilities</td>
<td>7.5</td>
</tr>
<tr>
<td>b. Travel and per diem</td>
<td>20.0</td>
</tr>
<tr>
<td>5. Surveys</td>
<td>240.0</td>
</tr>
<tr>
<td>6. Miscellaneous administration and support costs</td>
<td>65.0</td>
</tr>
<tr>
<td>7. Representative for contract negotiations</td>
<td>1.0</td>
</tr>
<tr>
<td>8. Contingencies</td>
<td>175.5</td>
</tr>
<tr>
<td><strong>Subtotal (A)</strong></td>
<td><strong>2,000.0</strong></td>
</tr>
<tr>
<td><strong>B. Government of the Philippines</strong></td>
<td></td>
</tr>
<tr>
<td>1. Office accommodation and transport of counterpart staff</td>
<td>70.0</td>
</tr>
<tr>
<td>2. Remuneration and per diem of counterpart staff</td>
<td>100.0</td>
</tr>
<tr>
<td>3. Contingencies</td>
<td>30.0</td>
</tr>
<tr>
<td><strong>Subtotal (B)</strong></td>
<td><strong>200.0</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,200.0</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> Through the Channel Financing Agreement (Technical Assistance Program) between the Government of France and the Asian Development Bank.

<sup>b</sup> Equipment

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>8</td>
<td>16,000</td>
</tr>
<tr>
<td>Printers</td>
<td>2</td>
<td>1,000</td>
</tr>
<tr>
<td>Copiers</td>
<td>2</td>
<td>3,000</td>
</tr>
<tr>
<td>Leak detection</td>
<td>2 sets</td>
<td>20,000</td>
</tr>
</tbody>
</table>

<sup>c</sup> Workshops, training, seminars, and conferences

Purpose: Inception workshop, interim workshop, final workshop.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Introduction

1. A consulting team will be recruited to implement the technical assistance (TA) for preparing the Urban Water Supply and Sanitation Project and provide expertise in urban water supply and sanitation in terms of policy formulation, strategic and investment planning, technical feasibility studies and designs, performance assessment, and the improvement of water utilities.

2. The proposed project will be designed as a multitranche financing facility (MFF) to (i) expand the raw water supply capacity of water districts by reducing physical leakage and developing new bulk water sources; (ii) rehabilitate and expand water supply distribution systems; (iii) raise awareness of the benefits of hygienic sanitation by informing communities of its health and financial benefits, and by informing policy and decision of the economic benefits of sanitation and waste water management; (iv) design and construct wastewater collection and disposal facilities, including the development of operational capacity and a revenue collection mechanism; and (v) develop and implement a sanitation strategy, covering on-site sanitation, sewerage discharge and treatment, and drainage.

3. The TA is required to prepare and review feasibility studies, prepare strategies for capacity development and wastewater management, and carry out all required due diligence on technical feasibility, energy efficiency, financial and economic viability, governance issues, poverty and social impacts, and safeguard impacts. The consulting firm should be acquainted with all Asian Development Bank (ADB) and government requirements for preparing an MFF.

B. Scope of Work

4. The consultant team will develop the project through stakeholder consultation in accordance with national legal requirements and standards and ADB requirements, policies, and guidelines.

5. The outcome of the TA is an agreed design for an MFF by March 2012. The detailed activities include the following.

   1. Preparation of a Detailed Project Concept

5. The consultants will prepare the following documents, which are some of the requirements for MFF financing:

   (i) a project road map that analysis and describes the strategic directions of sector development; its importance to growth, poverty reduction, and inclusiveness; and success factors for better performance;

   (ii) the strategic context of the investment and the resulting need for long-term partnership; and

   (iii) the policy framework, describing the main challenges and operating conditions to ensure efficiency and sustainability.

6. Definition of the Project Scope

7. The project, as presented in the indicative design and monitoring framework (Appendix 1), needs to be confirmed and refined in terms of baseline and target indicators. A monitoring program will have to be set up. Socioeconomic and health surveys will be carried out by the
water districts. The consultant will confirm the design and monitoring framework and underlying problem tree analysis through targeted focus group discussions. Stakeholders need to be identified through stakeholder analysis.

3. Preparation of Project Outputs

8. The consultants will prepare strategies, plans, campaigns, feasibility studies, and cost estimates for the following project outputs:

9. **Output 1: Increased quantities of raw water.** Activities include (i) assessing raw water supply options, including surface water, groundwater, and desalination; (ii) updating the water demand forecast, current supply capacity, and strategic water sourcing plan; (iii) preparing, reviewing, and/or improving feasibility studies and preliminary designs of surface water systems and/or desalination systems; (iv) preparing basic designs and cost estimates; (v) developing watershed management programs; and (vi) assessing potential private sector involvement in reducing nonrevenue water amounts and/or developing bulk water supply.

10. **Output 2: Increased water supply distribution capacity.** Activities include (i) assessing in detail nonrevenue water amounts and developing a strategy in response; (ii) preparing a plan for developing an asset-management system; (iii) developing a network management strategy; (iv) developing a distribution expansion plan; and (v) preparing the basic design of network expansion and cost estimates.

11. **Output 3: Raised awareness of the benefits of sanitation services.** Activities include (i) developing and piloting public promotion campaigns; (ii) developing a simple decision tool to assess economic benefits and the costs of proper hygiene and sanitation practices; and (iii) identifying pilot projects demonstrating the economic and health benefits of improving water supply, sanitation, and hygiene.

12. **Output 4: Operational wastewater collection and disposal facilities.** Activities include (i) identifying urgent needs for sanitation and wastewater treatment works; (ii) preparing feasibility studies and basic designs for these urgent works; and (iii) developing a medium-term, 5-year investment plan.

13. **Output 5: Operational sanitation strategy.** This will be determined by (i) establishing the current status of sanitation and sanitary practices and the desired sanitation status and practices in 2022; (ii) identifying least-cost technologies, required investments, financing sources, implementation and operation arrangements, the role and capacity of the private sector, and the role and responsibilities of civil society and communities to achieve the desired situation; (iii) carrying out stakeholder assessments and preliminary consultations; (iv) identifying best practices for financing sanitation and wastewater collection and disposal works; (v) developing financing and cost-recovery mechanisms; and (vi) preparing the strategy outline, to be further developed during project implementation.

4. Preparation of an Institutional Development Plan

14. Through a strengths–weaknesses–opportunities–threats analysis of utilities’ operations, consultants will identify barriers to utilities’ more effective planning and efficient operation. Consultants will review in detail the institutional settings, management and incentive structures, and legal and regulatory frameworks and prepare recommendations and plans to improve performance. This should include an assessment of and recommendations for potential private
sector participation toward achieving the project outcome. The assessment should use the private sector comparator or any other suitable methodology.

5. **Preparation of a Project Investment, Procurement, and Financing Plan**

15. The consultants will assess and project water utilities’ debt-servicing capacity based on extensive willingness-to-pay and affordability analyses carried out by the utilities. Based on a realistic investment plan covering physical and other investment requirements and cost estimates, the required tariff increases will be calculated and agreed with utilities and the government. Consultations will be held with the government and financiers to identify potential public and/or private financing sources, and the funding mechanism will be agreed upon. A detailed financing plan will be prepared considering the projections of utilities’ debt-servicing capacity, potential internal revenue sources, and external public and private financing sources. Based on the investment and financing plans, a detailed procurement plan will be prepared.

6. **All Required Due Diligence Carried Out**

16. All project outputs will be subject to due diligence in compliance with various government and ADB guidelines. Consultants will

(i) carry out an energy efficiency audit and provide recommendations on energy efficiency and climate adaptation and mitigation measures in a water safety plan;

(ii) review the impact of the proposed investments on poverty reduction and the social well-being of beneficiaries and other stakeholders, with specific attention to gender issues and preparing a gender action plan;

(iii) assess the impacts on the environment, involuntary resettlement, and indigenous people of the proposed investments and monitor and mitigate them in accordance with ADB’s Safeguard Policy Statement (2009), preparing environmental, resettlement, and indigenous development frameworks as required;

(iv) conduct a risk-based assessment of governance issues, focusing on financial management and corruption risks, and prepare a risk-management plan; and

(v) assess procurement capacity.

<table>
<thead>
<tr>
<th>Table A4: Summary of Activities and Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Activities</strong></td>
</tr>
<tr>
<td>Detailed project concept and scope</td>
</tr>
<tr>
<td>Surveys and assessments</td>
</tr>
<tr>
<td>Draft feasibility studies, strategies, and plans</td>
</tr>
<tr>
<td>Due diligence</td>
</tr>
<tr>
<td>Feasibility studies, strategies, and plans finalized</td>
</tr>
<tr>
<td>Basic technical designs finalized</td>
</tr>
<tr>
<td>Investment, procurement, and financing plan finalized</td>
</tr>
</tbody>
</table>

*Source: Asian Development Bank.*
C. Consultants Input and Staffing Requirements

17. The consulting firm will provide 184 person-months of consulting services: 44 international and 140 national. The tentative breakdown is as follows:
   (i) team leader with water supply expertise (international, 12 person-months);
   (ii) deputy team leader with water supply expertise (national, 12 person-months);
   (iii) wastewater management experts (international, 6 person-months; national, 12 person-months);
   (iv) asset management and network expert (international, 7 person-months);
   (v) private sector participation experts (international, 2 person-months; national, 4 person-months);
   (vi) hydro-geologists with watershed management expertise (international, 2 person-months; national, 4 person-months);
   (vii) energy efficiency experts (international, 2 person-months; national, 4 person-months);
   (viii) institutional governance and procurement experts (international, 6 person-months; national, 10 person-months);
   (ix) financial management specialists (international, 5 person-months; national, 14 person-months);
   (x) economic experts (international, 2 person-months; national, 8 person-months);
   (xi) water network and nonrevenue water expert (national, 12 person-months);
   (xii) water treatment expert (national, 4 person-months);
   (xiii) wastewater treatment expert (national, 4 person-months);
   (xiv) geology expert (national, 2 person-months);
   (xv) dam design expert (national, 2 person-months);
   (xvi) water supply, sanitation, and hygiene promotion expert (national, 6 person-months);
   (xvii) social development expert (national, 6 person-months);
   (xviii) gender expert (national, 4 person-months);
   (xix) resettlement expert (national, 6 person-months);
   (xx) environmental expert (national, 6 person-months); and
   (xxi) design engineers and draftsmen (national, 20 person-months).

18. One consultant may cover more than one field of expertise, and one position may be filled by more than one expert. All international consultants should have relevant regional experience.

D. Reporting

19. Consultant support will be provided over 12 months commencing around January 2011. The TA consultants will submit an inception report within 1.5 months of mobilization, which will propose the implementation methodology for the full duration of the TA. An interim report will be submitted within 7 months, and a draft final report will be submitted within 10 months following mobilization. Tripartite meetings of the government, ADB, and the consultant team will be held at TA inception, midterm, and completion. Key findings and outputs of the TA will be disseminated through workshops and stakeholder discussions.