



# Regional Technical Assistance Report

---

Project Number: 41368  
September 2008

## Preparing the Mekong Water Supply and Sanitation Project

(Cofinanced by the Japan Special Fund, Netherlands Trust Fund for the Water Financing Partnership Facility, and Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility)

## ABBREVIATIONS

ADB	–	Asian Development Bank
EA	–	executing agency
EC	–	economic corridor
GMS	–	Greater Mekong Subregion
IEE	–	initial environmental examination
Lao PDR	–	Lao People’s Democratic Republic
NGO	–	nongovernment organization
TA	–	technical assistance
WSS	–	water supply and sanitation

## TECHNICAL ASSISTANCE CLASSIFICATION

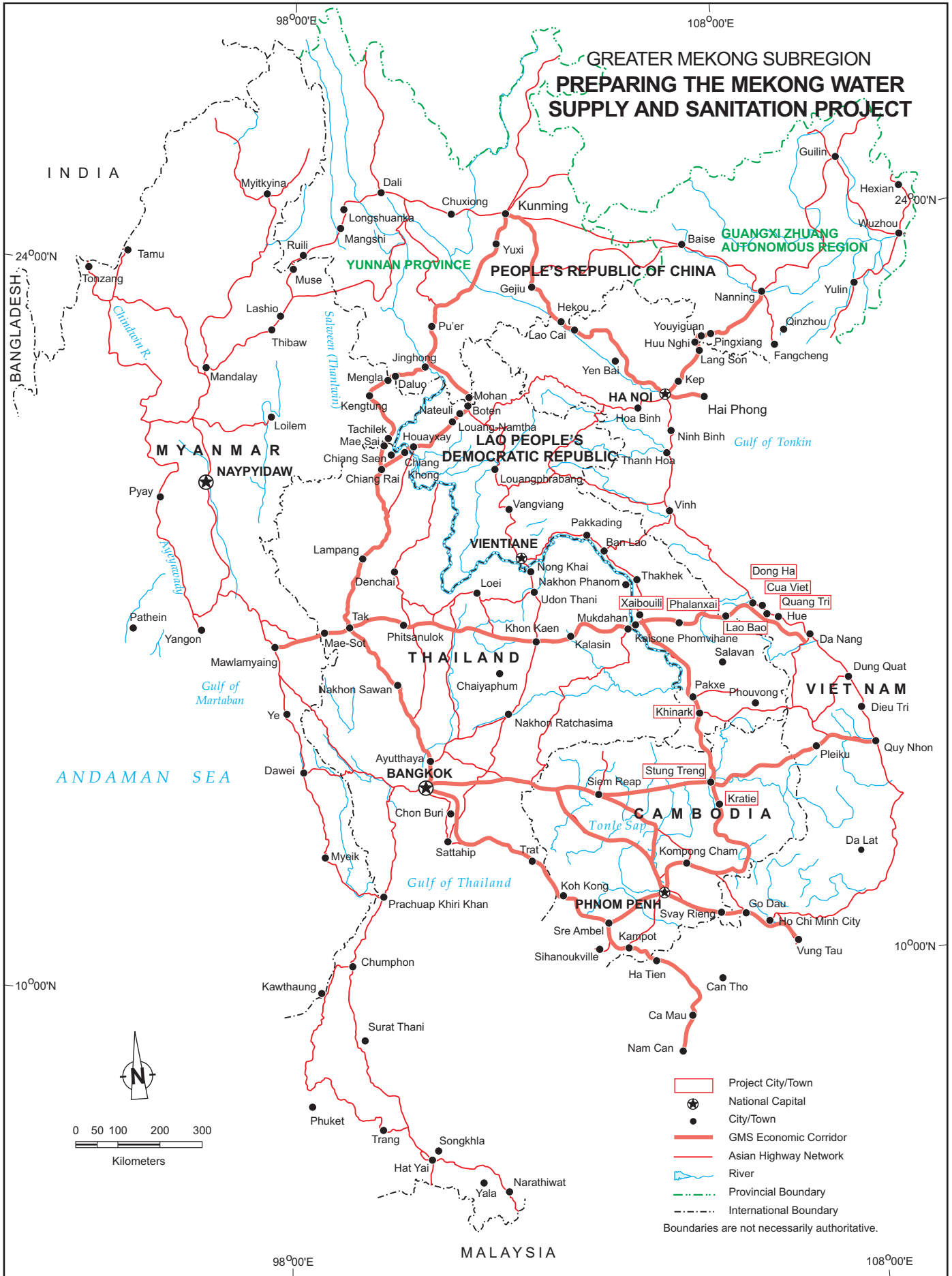
<b>Targeting Classification</b>	–	Targeted intervention (TI-M)
<b>Sector</b>	–	Water supply, sanitation, and waste management
<b>Subsector</b>	–	Water supply and sanitation
<b>Themes</b>	–	Sustainable economic growth, inclusive social development, capacity development
<b>Subthemes</b>	–	Developing urban areas, human development, institutional development

## NOTE

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

<b>Vice-President</b>	C. Lawrence Greenwood, Operations 2
<b>Director General</b>	A. Thapan, Southeast Asia Department (SERD)
<b>Director</b>	S. Lateef, Social Sectors Division, SERD
<b>Team leader</b>	P. van Klaveren, Water Supply and Sanitation Specialist, SERD
<b>Team member</b>	A. Jain, Social Sector Specialist, SERD

# GREATER MEKONG SUBREGION PREPARING THE MEKONG WATER SUPPLY AND SANITATION PROJECT



- Project City/Town
  - National Capital
  - City/Town
  - GMS Economic Corridor
  - Asian Highway Network
  - River
  - Provincial Boundary
  - International Boundary
- Boundaries are not necessarily authoritative.

## I. INTRODUCTION

1. The governments of Cambodia, Lao People's Democratic Republic (Lao PDR), and Viet Nam (the governments) requested technical assistance (TA)<sup>1</sup> from the Asian Development Bank (ADB) to support the preparation of the regional Mekong Water Supply and Sanitation Project (MWSSP). The project intends to improve the water supply and sanitation services in nine secondary towns in the economic corridors (EC) in the three countries (the "three countries"). The TA is included in the regional cooperation operations business plan for the Greater Mekong Subregion (GMS) 2008–2010,<sup>2</sup> and the country operations business plans 2008–2010 for Cambodia, Lao PDR, and Viet Nam<sup>3</sup> as a firm TA for 2008. The TA Fact-Finding Mission visited Viet Nam (7–10 March), Lao PDR (11–14 March), and Cambodia (15–17 March) and reached understanding with each country on TA impact, outcome, outputs, activities, cost, implementation and financing arrangements, and terms of reference for consulting services.

## II. ISSUES

2. ADB's GMS regional cooperation strategy and program<sup>4</sup> seeks to promote economic growth and reduce poverty by supporting enhanced connectivity and increased competitiveness and a greater sense of community. The GMS Program has made significant progress in accelerating physical connectivity between the six GMS countries<sup>5</sup> through the development of the subregional road corridors. Connectivity has led to increased trade and movement of people and goods across and between the countries. By 2012, all mainland Southeast Asian countries will be interconnected by a series of roads or transport corridors.

3. **Access to Safe Water and Sanitation for Economic Development.** After the transport corridors are established, the challenge is to develop them into economic growth zones by stimulating (i) the shift from agricultural production to other more productive sectors, and (ii) increased domestic and foreign investments and trade. The availability of infrastructure is a precondition for economic growth, requiring major capital investments in urban infrastructure, specifically in water supply, sanitation, and hygiene that will promote health and productivity standards.

4. **Focus on Secondary Towns.** Secondary towns in the ECs have high economic growth potential since they offer access to markets, physical growth opportunities, and low development cost. Since economic growth is a source of opportunities and rising wages, it will attract poor migrants from rural areas. Since past investments in Cambodia, Lao PDR, and Viet Nam have been mostly in main cities and provincial towns, WSS coverage in secondary towns is invariably much lower than the national average. The expected higher than national growth rates and the lower than national WSS coverage level in these towns demonstrate the urgency to invest in the WSS sector.

5. **Benefits from a Regional Approach.** The economic growth of secondary towns will lead to higher income and improved quality of life for their population. Economic growth in the

---

<sup>1</sup> The TA first appeared in the business opportunities section of ADB's website on 9 May 2008.

<sup>2</sup> ADB. 2007. *2008–2010 Indicative Rolling Regional Cooperation Operations Business Plan for the Greater Mekong Subregion*. Manila.

<sup>3</sup> ADB. 2008. *Country Operations Business Plan Cambodia 2008–2010*. Manila; ADB. 2007. *Country Operations Business Plan Lao People's Democratic Republic 2008–2010*. Manila; and ADB. 2007. *Country Operations Business Plan Vietnam 2008–2010*. Manila.

<sup>4</sup> ADB. 2006. *Regional Cooperation and Strategy Program Update Greater Mekong Subregion 2007–2009*. Manila.

<sup>5</sup> Cambodia, Peoples Republic of China, Lao PDR, Myanmar, Thailand, and Viet Nam.

ECs takes place mainly in towns situated at the ends of the corridors. To ensure an equal distribution of economic benefits along the regional corridors, selected secondary towns along the corridors at border crossings, road crossings, and near tourist destinations need to be developed to become urban service centers and transport hubs. Such planning for development is best done through a regional approach, to increase (i) the effectiveness of the plans, and (ii) the efficiency of the required investments in infrastructure. The regional approach is also essential to demonstrate to the various governments the high development priority of the secondary towns.

6. Past experiences of ADB and other development partners in the urban water and sanitation sector in Cambodia, Lao PDR, and Viet Nam show that the governments are confronted with similar challenges and can learn much from each other. A regional approach will allow the required peer-to-peer exchange of knowledge and experiences at various institutional levels: national, regional, and local governments, and operators.

7. **High Priority for Sanitation.** Except in cases where flooding leads to visible obstruction of human or motorized traffic, and despite the increased prevalence of dengue, few local governments consider sanitation, including drainage, as a main priority for their developing towns. Urbanization will lead to increased population densities and paved areas, which combined with the absence of drainage, and liquid and solid waste removal systems, will result in major water- and health-related problems.

8. **Appropriate and Affordable Sanitation.** Governments often regard sanitation as unaffordable due to the high-cost technology required and the lack of a direct revenue stream. Sanitation projects need to be appropriate and align with community needs and affordability. Revenues should be linked to the economic, health, and environmental benefits of hygiene and sanitation, while the polluter-pays-principle should be applied to extend the revenue base to include all the beneficiaries of economic growth, and improved health and environment.

9. **Financial Sustainability from Phased Improvement of Service Levels.** Although most water supply investment projects aim to supply potable water 24 hours a day at constant pressure, in practice water supply agencies are not able to provide that level of service due to (i) lack of human capacity, (ii) lack of financial resources for operation and maintenance, and (iii) technical problems with the distribution systems (pipes and pumps). Consequently, consumers are burdened with high tariffs to cover the investment costs but do not benefit from an improved service level. Unwillingness to connect and pay, especially when alternative sources are available, leads to lower cost recovery levels and financial nonsustainability of the investment. Phased improvement of service levels combined with incremental service fee increases should lead to increased willingness to connect and pay, thus broadening the customer base and ensuring the technical sustainability of the infrastructure and the financial sustainability of the water utilities.

10. **Financial Sustainability and Setting of Service Fees.** Also affecting the financial sustainability of water utilities is the level of the service fee, or water tariff. Although the water companies themselves propose charges for connection and services, the decision to revise these charges is with the policy makers. The staff and management of water companies do not always correctly understand the principles of setting these charges, making it difficult for them to justify their proposed fee and tariff structures to the decision makers. Likewise, decision makers often lack the knowledge to fully appreciate the justification provided. Improved knowledge on tariff-setting policies, principles, and practices is key to achieving agreements on cost recovery levels and improved financial sustainability of the utilities.

11. **Leadership, Incentives, and Human Resources Capacity.** The lack of management and operational capacity of local government and utility staff limits the technical and financial sustainability of WSS works. Training courses or on-the-job training may improve capacity but will not be effective without strong leadership and the provision of the proper incentives to government and utility staff. Leadership is essential in developing strategic policies and operational planning, while incentives to the staff are important to guarantee that they implement plans by applying acquired knowledge and skills. All three countries lack qualified and skilled professional staff, especially in the more remote provinces.

12. **Need for Private Sector Involvement.** The governments of Cambodia, Lao PDR, and Viet Nam recognize the need to involve the private sector in providing drinking water, since investment capital and operational capacity in the public sector are limited. Small informal operators are active in all three countries, while in some cases, formal local and international operators enter into service and management contracts but mainly in the large cities. A sound regulatory framework and capacity support to small operators to further expand services in small and secondary towns are preconditions for more private sector investment in the WSS sector.

13. **Selection of Project Towns.** The towns with the lowest economic development and the highest poverty levels are situated in the east–west EC (EWEC) and southern EC, connecting northwestern Cambodia with southern Lao PDR and the central region of Viet Nam. The secondary towns on these corridors have great potential for developing into transport and tourism hubs. Also, the establishment of special economic zones in Savanakheth Province in the Lao PDR and Quang Tri Province in Viet Nam will stimulate economic growth in the nearby towns.

14. Within the EWEC, Dong Ha, Quang Tri, Lao Bao, and Cua Viet in Viet Nam were identified for inclusion in the project due to their location along Viet Nam's north–south road connection and their high population growth level. The current water supply coverage ratio in Dong Ha and Quang Tri is about 70%, but will decline to 40% by 2020. Lao Bao, situated at the border, and Cua Viet, situated at the South China Sea, are not covered by water supply of acceptable quality. In the Lao PDR, the identified towns are Xaibouili, situated at the crossing with Lao's north-south road connection, and Phalanxai, situated halfway in the EWEC corridor. None of these towns have water supply of acceptable quality. The majority of the residents have access to some kind of latrine that cannot be considered hygienic or improved. The exact coverage ratio is not known.

15. Three project towns, Khinark in the Lao PDR, and Kratie and Stung Treng in Cambodia, are situated in the southern economic corridor. Stung Treng and Khinark are located near the Lao PDR–Cambodia border, while Kratie and Khinark have great potential to develop into a tourism hub. The water supply coverage ratio in the Cambodian towns is around 35%, while Khinark is not served by water supply of acceptable quality. In the same towns, the sanitation coverage ratios are not known.

16. **Lessons.** ADB together with development partners such as the Norwegian Agency for Development Cooperation, Agence Française de Développement, and United Nations Human Settlements Programme is actively involved in the WSS sector in all three countries. As a result, the three have a substantial increase in water supply capacity and number of hygienic latrines. The projects demonstrate the need for greater technical and financial sustainability, which can be achieved through policy development, institutional reform, and capacity building.

### III. THE TECHNICAL ASSISTANCE

#### A. Impact and Outcome

17. The impact of the TA will be sustainable and improved water supply and sanitation facilities, and safer hygiene practices for the urban population of nine secondary towns in the ECs in Cambodia, Lao PDR, and Viet Nam. The design and monitoring framework is in Appendix 1 and the initial poverty and social analysis is in Appendix 2.

18. The outcome of the TA is an agreed-upon design for a project. The main outputs will be: (i) agreement on the water supply services level for each town, supported by feasibility studies on treatment options, the financial implications and human capacity requirements; (ii) understanding of the policy and practices of setting user charges for WSS; (iii) a short-term sanitation investment plan and a long-term sanitation strategy for each town; (iv) an endorsed institutional framework and capacity building plan for public utilities; (v) endorsed private sector capacity building plan; and (vi) agreed-upon overall investment project.

#### B. Methodology and Key Activities

19. The proposed project will be designed to (i) construct facilities to supply continuous and safe water and provide facilities for hygiene and sanitation to 200,000 people living in the nine secondary towns; (ii) develop and adopt a sanitation strategy in each of the nine towns, covering short-term and long-term actions, including activities promoting hygiene; (iii) ensure affordable and sustainable access of poor urban population to WSS services; and (iv) strengthen the institutional, technical, and financial capacity of public and private sector operators to provide WSS services.

20. The TA will determine (i) the WSS service level and technologies to be provided: clean or potable water; individual or communal service connections; (ii) the associated user charges required; and (iii) the financial and technical capacity of utilities and local government; which, combined with a better understanding of the policies and practices of setting user charges, should lead to a realistic project objective and sustainable project.

21. The sanitation investments need to deliver localized and decentralized solutions, based on affordability, and topographical and geohydrological circumstances. The project will construct on-site sanitation facilities, such as improved pit latrines and septic tanks; and decentralized sanitation facilities, such as communal septic tanks and waste stabilization ponds, possibly in combination with small bore systems. Full-scale centralized sewer and sewerage treatment systems are not considered appropriate nor affordable. Sanitation will include the disposal of grey water and drainage of residential plots, public areas, and roads.

22. To solve current problems and anticipate future ones, a sanitation strategy will be developed and adopted for each project town. The strategy will establish the current sanitation status and the desired sanitation status; and identify least-cost technologies, required investments, financing sources, implementation and operation arrangements, role and capacity of the private sector, civic society and the communities. The sanitation strategy, covering sewerage discharge and treatment, and drainage, will be an issue-based, dynamic framework for 5-year investment plans, to be reviewed and updated every 2–3 years.

23. Concrete measures will be developed to assist and promote private sector involvement in WSS, leading to extended coverage, especially in difficult-to-reach poor urban areas. Provision of WSS services in these areas by public utilities is often not viable, and the local private sector and civic society organizations may be better equipped to provide such services, possibly under contractual agreements with the public service providers.

24. For each project town, feasibility studies will be prepared, including technical, financial, economic, environmental, and social analyses. The project will develop effective institutional frameworks and capacity-building programs for the project towns, in alignment with the current ADB interventions in the WSS sector in the three countries.

### **C. Cost and Financing**

25. The TA is expected to cost the equivalent of \$1,500,000. ADB will provide \$1,200,000, of which (i) \$400,000 will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan; (ii) \$300,000 will be financed on a grant basis by the Netherlands Trust Fund, funded by the Government of the Netherlands, for the Water Financing Partnership Facility; and (iii) \$500,000 will be financed on a grant basis by the Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility, and administered by ADB.

26. The governments of Cambodia, Lao PDR, and Viet Nam will finance the remaining \$300,000 equivalent in kind, which will cover the cost of office accommodation, transport, and utilities; remuneration of counterpart staff; and provision of data, reports, and other relevant documents. The three governments have been informed that approval of the TA does not commit ADB to finance any ensuing project. The cost estimates and financing plan are in Appendix 3.

### **D. Implementation Arrangements**

27. The executing agencies (EAs) for the TA will be the Department of Potable Water Supply of the Ministry of Industry, Mines, and Energy in Cambodia, the Ministry of Potable Water and Transport in the Lao PDR, and Quang Tri's provincial peoples committee in Viet Nam. Each EA will establish a project management unit that will be responsible for day-to-day management and organizing the technical and administrative aspects of the TA. A steering committee comprising the project management unit directors will be established to provide guidance and to oversee implementation of the TA.

28. ADB will recruit a team of international and national consultants to provide specialized services totalling 116 person-months (28 international and 88 national). ADB will engage the consultants in accordance with its *Guidelines on the Use of Consultants* (2007, as amended from time to time), using the quality- and cost-based selection method with quality-to-cost ratio of 80 to 20, and simplified technical proposals. The outline terms of reference are in Appendix 4.

29. ADB will purchase minor equipment, such as computers, printer, and copiers according to its *Procurement Guidelines* (2007, as amended from time to time) and will hand over the equipment to the EA at the end of the TA.

30. The TA will be implemented over a period of 7 months, commencing by November 2008 and ending by May 2009. The TA consultants will submit (i) within 1 month of TA start-up, an inception report, which will propose the methodology for carrying out activities for the duration of

the TA; (ii) an interim report, within 4 months of TA implementation; and (iii) a final report, within 7 months of TA implementation. The Government, ADB, and the consultants team will hold tripartite meetings during inception, in midterm, and on completion of the TA. Key findings and outputs of the TA will be disseminated through workshops and stakeholder discussions.

#### **IV. THE PRESIDENT'S DECISION**

31. 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 \$300,000 to be financed on a grant basis by the Netherlands Trust Fund for the Water Financing Partnership Facility, (ii) provision of technical assistance not exceeding the equivalent of \$500,000 on a grant basis by the Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility, and (iii) ADB providing the balance not exceeding the equivalent of \$400,000 on a grant basis for preparing the Mekong Water Supply and Sanitation Project, and hereby reports this action to the Board.

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> The urban population of nine secondary towns in the economic corridors in Viet Nam, Lao PDR, and Cambodia have sustainable and improved water supply and sanitation facilities, and have adopted hygienic practices.</p>	<p>By project completion date of 2015:</p> <ul style="list-style-type: none"> <li>• 200,000 people living in nine secondary towns have access to sustained, continuous and safe water supply</li> <li>• 200,000 people living in nine secondary towns benefit from improved drainage and sanitation</li> <li>• nine secondary towns have a sanitation strategy in place</li> </ul>	<ul style="list-style-type: none"> <li>• Reports and statistics from government agencies, development partners, and NGOs</li> <li>• ADB loan review mission</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Government committed to the provision of water supply and sanitation</li> <li>• Sustained interest of towns in participating in the project</li> </ul> <p><b>Risk</b></p> <ul style="list-style-type: none"> <li>• Depletion of raw water sources</li> </ul>
<p><b>Outcome</b> An agreed-upon grant project suitable for ADB financing</p>	<ul style="list-style-type: none"> <li>• By November 2009 the Project design is agreed upon by the governments of Viet Nam, Cambodia, and Lao PDR, and by ADB</li> </ul>	<ul style="list-style-type: none"> <li>• TA report</li> <li>• ADB records</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Strong government commitment and support for the TA</li> <li>• Counterpart staff available</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Complex coordination delaying completion and approval of PPTA.</li> <li>• Delay in cofinancing agreement</li> </ul>
<p><b>Outputs</b> 1. Agreement on the level of water supply services for each town</p>	<p>Nine feasibility studies on various levels of water treatment and their cost implication, including multicriteria analysis of the water supply service level: technical, financial, institutional, and legal criteria</p> <p>To be completed by March 2009</p>	<ul style="list-style-type: none"> <li>• Midterm report</li> <li>• Midterm workshop conclusions</li> </ul>	<p><b>Assumption</b></p> <ul style="list-style-type: none"> <li>• Government and utilities to provide support</li> </ul>

<b>Design Summary</b>	<b>Performance Targets and/or Indicators</b>	<b>Data Sources and/or Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
2. Understanding by government and utility staff of the policy and practice of setting user charges	<p>One 3-day regional workshop implemented, attended by 30 government and utility staff</p> <p>To be completed by April 2009</p>	<ul style="list-style-type: none"> <li>• Workshop proceedings</li> <li>• Midterm workshop conclusions</li> </ul>	<p><b>Assumption</b></p> <ul style="list-style-type: none"> <li>• Government and utility staff interested in participating</li> </ul>
3. A short-term sanitation investment plan, and a long-term sanitation strategy for each town	<ul style="list-style-type: none"> <li>• Nine short-term investment plans prepared, covering the project implementation period and to be financed by project and counterpart funds</li> <li>• Nine sanitation plans, including establishment of the current sanitation status and desired sanitation status, identification of least-cost technology, required investments, financing sources, implementation and operation arrangements, role and capacity of the private sector, role and responsibility of civic society and communities</li> </ul> <p>To be completed by April 2009</p>	<ul style="list-style-type: none"> <li>• Midterm report</li> <li>• Midterm workshop conclusions</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Available base data.</li> <li>• Government support for sanitation-related activities</li> </ul>

<b>Design Summary</b>	<b>Performance Targets and/or Indicators</b>	<b>Data Sources and/or Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
4. Endorsed institutional frameworks and capacity-building plan for public utilities	<p>Three institutional frameworks and capacity-building plans, endorsed by the governments and including identification of required resources and methodology to enhance financial, institutional, and human resource capacities at government and utility levels to sustain water and sanitation services</p> <p>To be completed by June 2009</p>	<ul style="list-style-type: none"> <li>• Final TA report</li> <li>• Final workshop conclusions</li> </ul>	<p><b>Assumption</b></p> <ul style="list-style-type: none"> <li>• Participation of governments in providing base data</li> </ul>
5. Endorsed capacity-building plan for the private sector	<p>Three private sector capacity-building plan, endorsed by the governments and including identification of required resources and methodology to enhance technical and management capacity of the private sector in providing water supply and sanitation services.</p> <p>To be completed by June 2009</p>	<ul style="list-style-type: none"> <li>• Final TA report</li> <li>• Final workshop conclusions</li> </ul>	<p><b>Assumption</b></p> <ul style="list-style-type: none"> <li>• Government acceptance of the private sector as potential service provider</li> </ul>
6. Overall investment project, including feasibility studies and safeguard documents.	<p>Nine water supply and sanitation investment plans including scope; cost estimates; financing plan; implementation arrangements; economic, financial, social, gender and environmental analysis; and assessment of risks and mitigation measures</p> <p>To be completed by June 2009</p>	<ul style="list-style-type: none"> <li>• Final report</li> </ul>	

<p><b>Activities with Milestones</b></p> <p>1.1 Formulate methods of achieving two levels of water quality: potable and clean (suitable for washing, cleaning, and household disinfection).</p> <p>1.2 Identify and assess technical, financial, and institutional evaluation criteria.</p> <p>1.3 Review national water supply quality policy and regulations.</p> <p>1.4 Carry out multicriteria analysis and formulate recommendations.</p> <p>1.5 Prepare feasibility report – completed by month 3 of TA implementation.</p> <p>2.1 Identify relevant utility staff and decision makers and assess level of their knowledge of the policy and practices of setting user charges (connection and user fees).</p> <p>2.2 Identify and review different connection and user fees principles and practices.</p> <p>2.3 Discuss the principles and practices with utility staff and decision makers on the country level, and find agreement on the most appropriate approaches.</p> <p>2.4 Present and discuss results during a 3-day regional workshop.</p> <p>2.5 Prepare workshop proceedings – completed by month 4 of TA implementation.</p> <p>3.1 Establish current sanitation status, covering on-site sanitation, sewerage discharge and treatment, and drainage.</p> <p>3.2 Identify desired sanitation status, identification of least-cost technologies, required investments, financing sources, implementation and operation arrangements.</p> <p>3.3 Identify role and capacity of the private sector, role and responsibility of civic society and communities.</p> <p>3.4 Prepare draft sanitation strategy, draft sanitation investment and hygiene education plan – completed by month 3 of TA implementation.</p> <p>3.5 Contribute to midterm workshop.</p> <p>3.6 Present plan to be discussed and endorsed by local governments.</p> <p>3.7 Finalize plans – completed by month 4 of TA implementation.</p> <p>4.1 Assess current institutional framework, financial and human capacity.</p> <p>4.2 Identify required institutional framework, financial and human capacity.</p> <p>4.3 Prepare financial and capacity-building plan, including a strategy for developing skills.</p> <p>4.4 Prepare a draft plan – completed by month 4 of TA implementation.</p> <p>4.5 Contribute to midterm workshop.</p> <p>4.6 Present plan to be discussed and endorsed by local governments.</p> <p>4.7 Finalize plans – completed by month 6 of TA implementation.</p> <p>5.1 Assess current financial and human capacity of private sector involved in WSS.</p> <p>5.2 Identify required institutional framework, financial and human capacity.</p> <p>5.3 Prepare capacity-building plan, including a strategy for developing skills.</p> <p>5.4 Prepare draft plan – completed by month 4 of TA implementation.</p> <p>5.5 Contribute to midterm workshop.</p> <p>5.6 Present plan to be discussed and endorsed by local governments.</p> <p>5.7 Finalize plans – completed by month 6 of TA implementation.</p> <p>6.1 Finalize scope of project, including preliminary designs.</p> <p>6.2 Prepare cost estimates, financing plan, economic and financial analyses.</p> <p>6.3 Prepare implementation arrangements, project management structure, and job descriptions.</p> <p>6.4 Conduct social, gender, and environmental analyses, assess risks and formulate mitigating measures, including for potential impact on ethnic minorities.</p>	<p><b>Inputs</b></p> <ul style="list-style-type: none"> <li>• ADB \$1,200,000</li> <li>• Three governments \$300,000</li> </ul> <p><b>ADB - \$1.200 million</b></p> <ul style="list-style-type: none"> <li>- Consulting services International 28 person-months - \$0.686 million</li> <li>National 88 person-months - \$0.250 million</li> <li>Travel and representation - \$0.090 million</li> <li>- Equipment - \$0.020 million</li> <li>- Training - \$0.032 million</li> <li>- Surveys - \$0.015 million</li> <li>- Administrative support - \$0.010 million</li> <li>- Contingency - \$0.097 million</li> </ul> <p><b>Three governments - \$0.300 million</b></p> <ul style="list-style-type: none"> <li>- Office accommodation /transport - \$0.105 million</li> <li>- Counterpart staff - \$0.150 million</li> <li>- Others - \$0.045 million</li> </ul>
---	--

**Activities with Milestones**

- |  |  |
|--|--|
| <p>6.5 Prepare resettlement framework, short resettlement plans, ethnic minorities development plans, gender action plan, and consultation and participation plan</p> <p>6.5 Prepare draft final report.</p> <p>6.6 Incorporate comments.</p> <p>6.7 Prepare final report – completed by month 6 of TA implementation.</p> |  |
|--|--|

ADB = Asian Development Bank, Lao PDR = Lao People's Democratic Republic, NGO = nongovernment organization, PPTA = project preparatory technical assistance, TA = technical assistance.

### INITIAL POVERTY AND SOCIAL ANALYSIS

Countries and Project Title: Cambodia, Lao People's Democratic Republic, and Viet Nam  
Mekong Water Supply and Sanitation Project

Lending or Financing Modality: ADF Grant Project Department/ Division: Southeast Asia Department/  
Social Sectors Division

#### I. POVERTY ISSUES

##### A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

The strategic framework for the Greater Mekong Subregion program (2002) envisions a well-integrated and prosperous Mekong subregion, free of poverty and committed to protecting the environment that is vital to the subregion's future well-being. The framework focuses on five development thrusts to achieve this goal: (i) strengthen infrastructure linkages through a multisectoral approach, (ii) facilitate cross-border trade and investment, (iii) enhance private sector participation in development and improve its competitiveness, (iv) develop human resources and skill competencies, and (v) protect the environment and promote sustainable use of the subregion's shared natural resources. The technical assistance will prepare a project that contributes to the five development thrusts, specifically sustaining the infrastructure linkages, developing human skills, and protecting the environment, and therefore indirectly contribute to poverty reduction.

##### B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention (GI)  Individual or Household (TI-H);  Geographic (TI-G);  Non-Income MDGs (TI-M1, M2, etc.)

2. Explain the basis for the targeting classification:

The project contributes directly to Millennium Development Goal number 7: Reduce by half the proportion of people without sustainable access to safe drinking water and sanitation, in Viet Nam, Lao PDR, and Cambodia

##### 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 in the project preparatory technical assistance (PPTA)/due diligence?

The project preparatory technical assistance (PPTA) will include (i) analyzing the impact of the project on poverty reduction, (ii) reviewing in detail the distribution of project benefits, net economic benefits, and poverty impact ratio; (iii) identifying effective, efficient, and equitable financing mechanisms for cost recovery, considering differential beneficiaries' contributions to capital, tariffs and alternatives to enable access for the poor.

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 potential primary beneficiaries are the poor, newly arrived urban citizens.

The technical assistance will include developing innovative approaches to make sure that water supply and sanitation services are accessible by the urban poor, through subsidized tariff levels, long-term amortization of connection fees, and involvement of civic society or private sector.

2. What are the potential needs of beneficiaries in relation to the proposed project?

Access to affordable and sustainable water supply and sanitation services.

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them?

Affordability may be a constraint. Water user tariffs and connection fees will be subsidized.

Cultural acceptance of new technologies, especially sanitation. Through a participatory approach in selecting appropriate technologies and improved awareness, cultural constraints should be mitigated.

### B. Consultation and Participation

1. Indicate the potential initial stakeholders.

A stakeholder analysis will be undertaken to identify key project stakeholders in each country and, for each subproject, their project-related interests, and their role in determining project feasibility and success. The stakeholders will include government officials, international and bilateral agencies, nongovernment organizations, provincial and district authorities, civil society, and project-affected people and communities.

2. What type of consultation and participation is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations and community-based organizations, etc.)?

Based on the stakeholder analysis, a wide range of stakeholders and beneficiaries from each country and subproject will be consulted during project preparation. Workshops will be organized at inception, midterm, and final review to disseminate results and invite stakeholders to participate in joint analysis and action planning.

3. What level of participation is envisaged for project design?  
 Information sharing     Consultation     Collaborative decision making     Empowerment
4. Will a consultation and participation plan be prepared?  Yes     No    Please explain.

### C. Gender and Development

1. What are the key gender issues in the sector and/or subsector that are likely to be relevant to this project or program?

Women are responsible for a variety of tasks related to water, sanitation, and hygiene in their families. Limited access to safe water and hygienic conditions results in poor health, loss of productive time due to sickness, missed schooling opportunities for children, and increased medical expenditures. Women and girls are primarily responsible for collecting and storing water and are the worst affected by its lack.

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

Including woman in the decision-making process will offer the potential for gender mainstreaming. A gender analysis will be undertaken during the PPTA, and a gender action plan will be prepared for the ensuing project, with specific actions integrated into each subproject.

3. Could the proposed project have an adverse impact on women and/or girls or widen gender inequality?  
 Yes     No    Please explain

### III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
Involuntary Resettlement	Infrastructure to be constructed on public or private land. The PPTA will determine any potential impacts, and land acquisition will be avoided where possible.	The impact will be limited and further assessed during the PPTA.	<input type="checkbox"/> Full Plan <input checked="" type="checkbox"/> Short Plan <input type="checkbox"/> Resettlement Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
<b>Indigenous Peoples</b>	Loss of housing, strip of land, crops, trees and other fixed assets owned or controlled by individual indigenous households may occur.	The impact will be limited and will further be assessed during the PPTA.	<input checked="" type="checkbox"/> Plan <input checked="" type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Labor</b> <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	Construction, operation, and management of the facilities offer opportunities for employment.	Impact is limited.	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Affordability</b>	Selection of inappropriate technologies may lead to affordability problems in operating and maintaining the facilities	Selecting the appropriate technologies is an integral part of project design.	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>Other Risks and/or Vulnerabilities</b> <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human Trafficking <input type="checkbox"/> Others (conflict, political instability, etc.), please specify			<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
<b>IV. PPTA OR DUE DILIGENCE RESOURCE REQUIREMENT</b>			
<p>1. Do the terms of reference for the PPTA (or other due diligence) include poverty, social and gender analysis and the relevant specialist(s)?  <input checked="" type="checkbox"/> Yes      <input type="checkbox"/> No    If no, please explain why.</p> <p>2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social and/or gender analysis, and consultation and participation during the PPTA or due diligence?    <input checked="" type="checkbox"/> Yes      <input type="checkbox"/> No    If no, please explain why.</p>			

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

<b>Item</b>	<b>Total Cost</b>
<b>A. Asian Development Bank (ADB) Financing<sup>a</sup></b>	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	686.00
ii. National Consultants	250.36
b. International and Local Travel	60.00
c. Reports and Communications	30.00
2. Equipment <sup>b</sup>	20.00
3. Training, Seminars, and Conferences	
a. Facilitators	5.20
b. Training Program	26.70
4. Surveys	15.00
5. Miscellaneous Administration and Support Costs	10.00
6. Contingencies	96.74
<b>Subtotal (A)</b>	<b>1,200.00</b>
<b>B. Government Financing<sup>c</sup></b>	
1. Office Accommodation and Transport	105.00
2. Remuneration and Per Diem of Counterpart Staff	150.00
3. Others	45.00
<b>Subtotal (B)</b>	<b>300.00</b>
<b>Total</b>	<b>1,500.00</b>

<sup>a</sup> Financed by the Japan Special Fund, funded by the Government of Japan (\$400,000), the Netherlands Trust Fund for the Water Financing Partnership Facility (\$300,000), and the Regional Cooperation and Integration Fund under the Regional Cooperation and Integration Financing Partnership Facility (\$500,000) and administered by ADB.

<sup>b</sup> Equipment purchased with ADB financing will be turned over to the three governments upon completion of the regional technical assistance

<sup>c</sup> Governments of Cambodia, Lao People's Democratic Republic, and Viet Nam.

Source: ADB estimates.

## **OUTLINE TERMS OF REFERENCE FOR CONSULTANTS**

### **A. Introduction**

1. A consulting firm will be recruited to implement the technical assistance (TA) for preparing the regional Mekong Water Supply and Sanitation Project (MWSSP) and provide expertise in (i) urban water supply and sanitation: policy, financial and institutional performance of utilities, private sector development, and engineering; (ii) developing a strategy for raising awareness on sanitation and hygiene; (iii) project economic and financial analyses; (iv) poverty and social analyses, including assessment of gender and ethnic groups; (v) resettlement; and (vi) the environment.

2. The consulting firm will provide 116 person-months of consulting services: 28 international and 88 national. The tentative breakdown (person-months in parentheses) is as follows: team leader/water supply expert: international (7); deputy team leader/water supply expert: national (18); sanitation expert: international (7), national (18); social development expert: international (3), national (7); resettlement expert; international (3), national (10); environmental expert; international (3), national (14); economic expert; international (2), national (7); and financial expert: international (3), national (14).

3. One consultant may cover more than one field of expertise. All international consultants should have relevant regional experience. One of the international consultants, besides providing technical expertise, will also act as team leader.

### **B. Scope of Work**

4. The MWSSP will be developed following a consultative process, in accordance with relevant national legal requirements and standards, and Asian Development Bank (ADB) requirements, policies, and guidelines.

5. As the TA impact, the urban population of nine secondary towns in the economic corridors (EC) in Viet Nam, Lao People's Democratic Republic (Lao PDR), and Cambodia (the "three governments") will be using sustainable and improved water supply and sanitation facilities, and adopting safer hygienic practices. The towns are Stung Treng and Kratie in Cambodia; Xaibouili, Phalanxai, and Khinark in Lao PDR; and Dong Ha, Quang Tri, Lao Bao, and Cua Viet in Viet Nam.

6. The outcome of the TA is an agreed-upon grant sector project, designed to (i) construct facilities to supply continuous and safe water to 200,000 people in the nine secondary towns; (ii) develop and adopt for each town a sanitation strategy covering short-term and long-term actions; (iii) implement the short-term sanitation action plan, including construction of related infrastructure, in the nine towns; (iv) ensure affordable and sustainable access of the poor urban population to WSS services; and (v) strengthen the institutional, technical, and financial capacity of public and private sector operators in providing WSS services.

### **C. Outputs**

7. The outputs of the TA are the following:

- (i) agreement on the level of water supply services for each town;

- (ii) understanding by government and utility staff of the policy and practices of setting user charges;
- (iii) approved long-term sanitation strategy for each town, including a short-term investment plan developed;
- (iv) endorsed capacity building plan for public utilities;
- (v) endorsed capacity building plan for the private sector; and
- (vi) agreed-upon overall investment project.

8. **Output 1: Agreement on the Level of Water Supply Services for Each Town.** Most water supply investment projects are not able to achieve the objective of supplying potable water 24 hours a day at constant pressure.

9. The TA should recommend alternative scenarios, such as phased improvement of the service level, combined with incremental service fee increases, considering technical, financial, institutional, and legal constraints. Through multicriteria analysis, the optimum short-term approach for each town needs to be discussed and selected, including, but not limited to, (i) full treatment of potable water; and (ii) partial treatment of clean water (suitable for washing, bathing, household disinfection, and boiling) complemented by disinfection of water at home or purchase of bottled water.

10. Evaluation and recommendations need to be presented in a feasibility report, completed by month 3 of TA implementation, and during a midterm workshop.

11. **Output 2: Understanding by Government and Utility Staff of the Policy and Practices of Setting User Charges.** The staff and management of water companies do not always correctly understand the principles of setting charges, and connection and user fees. Thus, they find it difficult to justify to decision makers their proposed fee and tariff structures. Likewise, decision makers often lack the knowledge to fully appreciate the justification. Utilities should develop innovative approaches to make sure that basic services such as subsidized tariff levels and long-term amortization of connection fees are accessible to the urban poor.

12. The TA is expected to improve knowledge on tariff-setting policies, principles, and practices to achieve agreements on cost recovery levels and improve the financial sustainability of the utilities. The consultants will need to identify relevant utility staff and decision makers and assess their knowledge level. Different principles and practices related to connection and user fees need to be identified, evaluated, and discussed with country-level utility staff and decision makers. Recommendations on the most appropriate approaches need to be formulated and agreed upon.

13. The results will be presented and discussed during a 3-day regional workshop, combined with a midterm workshop, to be attended by 30 staff drawn from the three governments and utility staff. Workshop proceedings will be included in the midterm report.

14. **Output 3: Approved Long-Term Sanitation Strategy for Each Town, Including a Short-Term Investment Plan.** Except in cases where flooding leads to visible obstruction for human or motorized traffic, and despite the increased prevalence of dengue, few local governments consider sanitation, including drainage, as a main priority for their developing towns. To solve current problems and anticipate future ones, a sanitation strategy should be developed and adopted after determining the current sanitation status and the desired status; identifying least-cost technologies, required investments, financing sources, implementation and

operation arrangements, role and capacity of the private sector, and role and responsibility of civic society and communities.

15. The TA will develop a sanitation strategy for each town, covering on-site sanitation, sewerage discharge and treatment, and drainage. It should have an issue-based, dynamic framework for 5-year investment plans, to be reviewed and updated every 2–3 years. The strategic plan should identify development issues, relevant parameters, and monitoring mechanisms required to update the plan, such as demographic development, planned government investments, private investments, etc. Attached to the strategy is a hygiene educational program and investment plan to be implemented under the project.

16. The draft strategies will be discussed during the midterm review and presented at the midterm workshop. Final strategies will be included in the final report.

17. **Output 4: Endorsed Capacity-Building Plan for Public Utilities.** Many investments in the WSS sector are not sustainable, since public utilities suffer from lack of financial and human capacity resources and skills to effectively and efficiently operate the WSS infrastructure.

18. The TA will develop a plan for building public sector capacity for each town, endorsed by local governments. The plan will identify required resources and methodology to enhance financial, institutional, and human resource capacities at government and utility level to sustain WSS services.

19. The draft plans will be discussed during the midterm review and presented at the midterm workshop. Final plans will be included in the final report.

20. **Output 5: Endorsed Capacity Building Plan for the Private Sector.** Small informal operators are active in the three project countries; in some cases, formal local and international operators have entered into service and management contracts, but mainly in the larger cities. The three governments recognize that (i) the private sector must be involved in providing drinking water, (ii) the presence of a sound regulatory framework is a precondition for more formal private sector investment, and (iii) support to small operators is essential in further expanding services in small and secondary towns.

21. The TA will develop for each country a plan for building private sector capacity in providing WSS services. The plan must be endorsed by the governments and must identify required resources and methodology to enhance technical and management capacity.

22. The draft plans will be discussed during the midterm review and presented during the midterm workshop. The final plans will be included in the final report.

23. **Output 6: Agreed-Upon Overall Investment Project.** The final report should have preliminary designs of infrastructure to be financed under the project, detailed cost estimates, financial and economic evaluations, plans for building the capacity to implement the project, detailed project implementation and phasing schedules for each subproject, contract package, and a system for monitoring project performance. The preliminary designs should follow Viet Nam's guidelines for preparing feasibility studies.<sup>1</sup>

---

<sup>1</sup> Ha Noi. 2008. *Common General Guidelines on Feasibility Study Preparation for Official Development Assistance Projects*. Prime Minister Decision No: 48/2008/QĐ-TTg. 3 April 2008.

24. In addition, the final report should include the following documents: design and monitoring framework, sector analysis, overview of external sector assistance provided, summary poverty reduction and social strategy, and a summary resettlement plan and/or framework.

25. Specific tasks in preparing the final report will include, but will not be limited to the following:

**26. Financial and Economic Analyses**

- (i) Conduct comprehensive economic and financial analyses for each subproject and the overall project, using relevant ADB guidelines and handbooks. Prepare financial projections including revenues, operating and capital expenditures, and debt repayment. Using past and projected financial statements, compute relevant financial indicators, including, but not limited to, debt service coverage ratios and operating ratios. Compute for each subproject and the overall project the financial internal rate of return, weighted average cost of capital, and economic internal rate of return. Analyze the project impact on poverty reduction. Review in detail the distribution of project benefits, net economic benefits, and poverty impact ratio.
- (ii) Recommend fund-flow mechanism for a budget support mechanism to the selected provinces and financial management capacities.
- (iii) Identify effective, efficient, and equitable financing mechanisms for cost recovery, considering differential beneficiaries' contributions to capital, tariffs and other alternatives to give access to the poor. Formulate survey questions regarding affordability and people's willingness to pay and submit them to the social survey specialist.

**27. Environmental Analysis**

- (i) Assess the environmental impacts of the proposed project, including individual and cumulative direct and indirect impacts during construction and operation.
- (ii) Collect data on environmental conditions in the subprojects, including an inventory of natural and human-made resources. Identify topographic, climatic, hydrologic, and ecological patterns that may affect or be affected by outcomes.
- (iii) Assist the Executing Agency (EA) in preparing (a) initial environmental examination (IEE) for the overall project, (b) IEE for each subproject, (c) summary IEE to cover the project and subprojects, and (d) environmental assessment and review procedures.
- (iv) Recommend measures to safeguard the environment before, during, and after implementation of the project. Prepare mitigation and enhancement measures and a monitoring program, including cost implications and the institutional setup for undertaking the program. Assess capacity-building needs. Designate the responsible agency for environmental monitoring during project implementation.
- (v) Assist the EA to incorporate recommendations into the project plan and IEE.
- (vi) Assist the EA in public consultations to obtain stakeholders' views on potential impacts and incorporate them in mitigating measures proposed in the IEEs.
- (vii) Assist the EA in securing environmental clearance certificates for each subproject. Prepare information to comply with ADB and government guidelines.

## 28. Social Development and Resettlement Analysis

- (i) Identify key stakeholders (poor and vulnerable groups in particular) and their project-related interests, identify the likely barriers to their participation and benefiting from project resources, and suggest strategies for addressing their concerns. Prepare an initial stakeholder analysis and a draft participation plan.
- (ii) Undertake focus group discussions with beneficiaries and affected people in the subproject areas to identify key constraints to, and related economic costs of, access of the poor to sanitation services. Assess the role of nongovernment organizations (NGOs) and other groups of civil society, and ways of involving them in project design and implementation.
- (iii) Carry out household surveys and prepare a socioeconomic profile of the target population, including an assessment of its requirements and preferences in WSS services, and social customs and practices relevant to the proposed project design, specifically their ability and willingness to pay for the services. Mitigate any adverse impacts of the subprojects and the overall project on specific communities or groups, particularly the poor.
- (iv) Carry out gender analysis and identify project design elements (policy, investment, or implementation) that (a) will enable women to participate in and benefit from the project, and (b) could exclude women from participating in or benefiting from the project.
- (v) Develop and recommend mechanisms and procedures for public consultation and community participation in project planning, operation and maintenance, implementation and management. Assess whether or not NGOs can have a role in project activities, and include them in public consultations.
- (vi) Assess the need for land acquisition. If required, prepare a resettlement plan in accordance with ADB's policy on resettlement. Prepare a resettlement framework for the project in accordance with ADB requirements.
- (vii) Assess the need for preparing an indigenous people's development framework, development plan, or any specific action in accordance with ADB's *Policy on Indigenous Peoples* (1998). Prepare the necessary framework, plan, and specific action in accordance with ADB's requirements.

## D. Reporting

29. The assignment will last for 8 months, and the consultants will prepare the following reports: (i) an inception report by the end of month 1, (ii) an interim report by the end of month 4, (iii) a draft final report by the end of month 6, (iv) a final report 1 month after receiving comments, (v) monthly progress reports (2–3 pages), and (vi) other reports as may reasonably be required. Tripartite review meetings will be held after inception, at the interim report stage, and at the draft final report stage. All documents produced will be in English.

## E. Implementation Arrangements

30. The EAs for the TA will be the Department of Potable Water Supply of the Ministry of Industry, Mines and Energy in Cambodia, the Ministry of Public Works and Transport in the Lao PDR, and Quang Tri's provincial peoples committee in Viet Nam. Each EA will establish a project management unit that will be responsible for day-to-day management and organizing the technical and administrative aspects of the TA. A steering committee comprising the project management unit directors will be established to guide and oversee implementation.