



Technical Assistance Report

Project Number: 38560
July 2008

Kingdom of Cambodia: Preparing the Second Rural Water Supply and Sanitation Sector Project (Financed by the Japan Special Fund)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 2 July 2008)

Currency Unit	–	riel/s (KR)
KR1.00	=	\$0.00024
\$1.00	=	KR4,106

ABBREVIATIONS

ADB	–	Asian Development Bank
CMDG	–	Cambodian Millennium Development Goal
EA	–	executing agency
LAR	–	land acquisition and resettlement
RWSS	–	rural water supply and sanitation
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention (TI-M)
Sector	–	Water supply, sanitation, and waste management
Subsector	–	Water supply and sanitation
Themes	–	Inclusive social development, gender and development, capacity development
Subthemes	–	Human development, gender equity in capabilities, institutional development

NOTE

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

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Director	S. Lateef, Social Sectors Division, SERD
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I. INTRODUCTION

1. The Government of Cambodia has requested the Asian Development Bank (ADB) for technical assistance (TA)¹ to support the preparation of the Second Rural Water Supply and Sanitation Sector Project. The TA will support the Government's overall strategy for rural development and poverty reduction as well as contribute to the achievement of the Cambodian Millennium Development Goals (CMDGs).

2. ADB's overarching goal for Cambodia is sustainable poverty reduction. The Country Strategy and Program Results Framework² rests on three strategic pillars: (i) sustainable pro-poor economic growth, (ii) inclusive social development, and (iii) good governance and improved delivery of public services. Better health and a better quality of life for the rural population is a strategic goal of inclusive social development. The rural water supply and sanitation (RWSS) sector is identified as a sector in which ADB will play a catalytic role. The TA is included as a firm TA for 2008 in the Cambodia country strategy and program midterm review and country operations business plan 2007–2009.³

3. The TA Fact-Finding Mission was carried out from 24 to 31 January 2008, and resulted in a memorandum of understanding (MOU), summarizing the agreements with the Government. The MOU was signed by the Government and ADB on 25 February 2008.

II. ISSUES

4. The rural population of Cambodia has limited access to safe water and hygienic sanitation, resulting in poor health, lost productive time due to sickness, missed schooling opportunities for children, and increased medical expenditures. Worst affected are women and girls, who bear the primary responsibility for collecting and storing water. In 2004, only 29% of the rural population had access to improved water supply⁴ and only 8% to improved sanitation,⁵ against 34% and 16% of the total population, respectively.⁶

5. The Government's *National Water Supply and Sanitation Policy* (2003) states that every Cambodian in the rural areas shall have access to safe water and sanitation by 2025. In line with the CMDGs, the Government is committed to increasing the coverage of improved water supply to 50% of rural populations by 2015, and sanitation coverage to 30%. According to the RWSS Sector Investment Plan (2005–2015),⁷ \$116 million in capital investment and \$4.8 million in recurrent costs will be required to reach the CMDGs. About 58% of the investment, or \$67 million, is expected to come from external sources. The remaining balance needs to be financed by the Government (\$11 million) and the communities (\$39 million). The major share of the communities' contribution (\$30 million) is for construction materials for sanitation works, e.g. latrines and other onsite sanitation facilities. External and Government financing is needed for

¹ The TA first appeared in the business opportunities section of ADB's website on 25 March 2008.

² ADB. 2007. *Country Strategy and Program Midterm Review. Cambodia 2005–2009*. Manila.

³ ADB. 2006. *Country Operations Business Plan. Cambodia 2007–2009*. Manila.

⁴ Improved water is defined by the Government as reasonable access (within 150 meters throughout the year) to household connections, public standpipes, boreholes, protected dug wells, protected springs, or rainwater collection.

⁵ Improved sanitation is defined as access to adequate excreta disposal facilities, such as a connection to a sewer or septic tank system, a pour-flush latrine, a simple pit latrine, or a ventilated improved pit latrine, along with a high percentage of good practice of hygiene.

⁶ ADB. 2006. *Asia Water Watch 2015*. Manila.

⁷ Ministry of Rural Development. 2005. *Rural Water Supply and Sanitation Sector Investment Plan 2005–2015*. Phnom Penh.

hygiene education and awareness raising, and for financing schemes to improve access to sanitation materials and equipment, especially for the poor.

6. The RWSS sector in Cambodia is supported by various nongovernment organizations and development agencies: (i) the Water and Sanitation Program (WSP) of the World Bank has active projects on validating domestic water treatment technologies and on assessing the potential of small-scale private sector involvement in rural water supply; (ii) Japan International Cooperation Agency (JICA) is preparing the third phase of its rural water supply project in Kampong Cham province; (iii) the European Commission's Humanitarian Aid (ECHO) program provides funds to various NGOs to implement health programs and to provide access to safe water and sanitation for whole villages in the most remote rural areas; and (iv) the United Nations Development Programme (UNDP) provides assistance in the fields of governance reforms, political processes, and private sector development.

7. ADB is currently the only donor providing substantial investment funds (\$18 million) through the Tonle Sap Rural Water Supply and Sanitation Sector Project.⁸ It is a sector project designed to increase water supply coverage in 6 years from 20% to 50% and improve sanitation coverage from 10% to 30% for the rural population of five provinces around the Tonle Sap, through (i) investment in water supply infrastructure, (ii) community mobilization and skills development, (iii) subsidies for latrine construction, and (iv) capacity building and institutional support. To make the investments more sustainable, the Tonle Sap project (i) is highly decentralized, (ii) follows a community demand-driven approach, (ii) trains and develops the skills of the rural population in operation and maintenance, especially women, and (iii) provides hygiene education. The community-demand driven approach is embedded in a comprehensive and effective village engagement strategy, developed under the project, which includes the establishment of water and sanitation user groups. It is the best performing project in ADB's Cambodia portfolio.

8. Following 2 years of implementation, lessons learned from the Tonle Sap project indicate that suitable groundwater sources are generally located at much greater depths than previously assumed. As a result, the sustainable yields are lower than projected. For more successful well drilling, the project needs to (i) set up a proper database management system, (ii) inventory all existing coverage and groundwater data, and (iii) require standard geotechnical surveys before well drilling. These measures will help reduce the number of unsuccessful wells and lead to the selection and development of appropriate water sources for the project and future projects. The database must be linked to the coverage database to be developed under the Tonle Sap project, and must be publicly accessible.

9. The Second Rural Water Supply and Sanitation Sector Project will increase and expand water supply and sanitation coverage in the five provinces of the Tonle Sap area to contribute to (i) meeting the poverty and environmental challenges of this basin areas and, (ii) achieving CMDG targets, and (iii) using the existing implementation structure to allow for efficient implementation. Three additional provinces located adjacent to the Tonle Sap project area will also be included to expand the Project's outreach: Banteay Meanchey, Oddar Meanchey, and Preah Vihear. These three provinces are the poorest provinces in Cambodia with low water supply and sanitation coverage ratios. The water supply coverage in Banteay Meanchey is only 15%, in Preah Vihear 32%, and in Oddar Meanchy 37%. The sanitation coverage is 15% in Banteay Meanchey, 3% in Preah Vihear, and 3% in Oddar Meanchy (footnote 7).

⁸ ADB. 2005. *Grant Assistance to the Kingdom of Cambodia for the Tonle Sap Rural Water Supply and Sanitation Sector Project*. Manila (approved in October).

10. The Project will follow the sector-based approach and the design of the successful Tonle Sap project. The project will also adopt a community demand-driven approach to promote community involvement and ownership in the (i) choice of water sources and selection of well locations; (ii) design, operation, and maintenance of water supply and sanitation infrastructure; and (iii) hygiene education. It will use the current Executing Agency (EA) and the implementation structure established in the Tonle Sap provinces. For the new provinces, a similar implementation structure will be set up by the EA, on the basis of the experience on the Tonle Sap project.

11. Most previous investments in the RWSS sector have not been sustainable, because of (i) lack of community involvement, especially among women, in the selection of appropriate technologies; (ii) lack of support for skills development programs for the proper operation and maintenance of the facilities; and (iii) limited awareness of hygiene and sanitation practices in rural communities. Involving the communities in the design, building, and management of the facilities will increase ownership, and hence sustainability, by allowing the communities to select facilities, technologies, and systems that are more appropriate for their specific socioeconomic and cultural circumstances. The Project will identify previously constructed facilities, and, when required, rehabilitate these, establish water and sanitation user groups, and provide training and skills development to the communities.

12. Water in rural communities comes mainly from communal taps and standpipes, requiring safe, hygienic collection and storage to avoid contamination. The introduction of more advanced water supply facilities may lead the communities to abandon traditional and cultural practices, e.g., boiling of water. In fact, water-related diseases can become more prevalent as a result. Under the project, communities will be trained to apply or restore appropriate practices for the transport, storage, and treatment of drinking water for households.

13. At current rates of latrine construction and population growth, Cambodia's sanitation sector MDG for 2015 (30% coverage) will not be reached for more than 30 years, and full coverage will not be reached for more than 100 years. The low coverage levels will have serious consequences in terms of health, economic opportunity, and human dignity. The impact on all these dimensions is felt particularly strongly by women, and poor households headed by women are among the most severely affected. Awareness of proper hygiene practices will increase demand for improved sanitation.

14. There is a strong demand for latrines among the Cambodian population, yet this demand remains mostly unrealized. The predominant problem is one of cost and consumers usually prefer to wait until they can purchase the more expensive designs. However, simple self-built latrines using locally fabricated materials can cost as little as \$5–\$10 and are therefore affordable for even the poorest households. These simple designs can deliver the top consumer-identified benefits of latrine ownership, improved hygiene and cleanliness, comfort, health, safety, convenience, and privacy.

15. The Project will develop a program to raise hygiene awareness and demonstrate that the high-end design preference can be overcome and consumers will construct cheaper latrines if adequately motivated to do so. The project will strengthen the supply side to provide technologies at the cheap and mid-range end of the market. The components of cheaper designs are available, but cheaper design options are not 'packaged' in a way that is obvious or accessible to consumers. The Project will develop product and service offerings that are more tailored to consumer needs, making latrine purchases more attractive and affordable.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

16. The TA will help improve water supply and sanitation facilities for the rural population in eight provinces, and institute safer hygiene practices in those areas. About 500,000 rural people will have access to these facilities by end of project implementation. The design and monitoring framework is in Appendix 1 and the initial poverty and social analysis is in Appendix 2.

17. The outcome will be an agreed grant sector project designed to (i) increase the number of water supply and sanitation facilities; (ii) strengthen the capacity of communities to design, build, and manage water supply and sanitation facilities; and (iii) provide hygiene and sanitation education in eight provinces in and around the Tonle Sap basin area.

B. Methodology and Key Activities

18. To expand coverage and outreach and contribute to meeting the CMDG targets, the project will be implemented in the five provinces of the Tonle Sap project (Battambang, Kompong Chhnang, Kompong Thom, Pursat, and Siem Reap) and three additional provinces adjacent to the Tonle Sap area (Banteay Meanchey, Oddar Meanchey, and Preah Vihear).

19. The villages to be included in the project will be the poorest villages in these provinces. The communities to be included will be identified during project implementation on the basis of predefined criteria, including poverty level and coverage ratio.

20. The TA will have the following outputs:

- (i) an update of the Government's RWSS investment plan for the eight provinces;
- (ii) an approved outline of the RWSS database, including identified data sources;
- (iii) an approved community demand-driven approach;
- (iv) an approved hygiene education plan, including appropriate sanitation and household water supply transport, storage, and treatment practices;
- (v) an approved proposal for the financing of the sanitation materials; and
- (vi) an overall sector investment project covering eight provinces, including feasibility studies of a sample of three subprojects.

21. The design of the ensuing project will follow that of the ongoing Tonle Sap project. The lessons learned so far will be incorporated, specifically (i) the requirement to carry out geotechnical surveys before drilling, and (ii) the lack of a publicly available RWSS database. The TA consultants will recommend a suitable way of compiling the information collected under the ongoing Tonle Sap project, the ensuing project, and other projects into a national and publicly accessible database.

22. Although rural sanitation facilities are most commonly provided under subsidized schemes, community financing is recommended under other approaches such as community-led total sanitation schemes. The TA consultants will review the success of the various modes of financing and supplying affordable sanitation materials. They will also assess the availability, quality and relevance of educational materials on hygiene and sanitation readily available with the Government or development partners. A proposal for the development of additional materials and for appropriate modes of financing for the sanitation infrastructure will be prepared.

23. Project outputs and relevant information will be disseminated through stakeholder consultations and TA workshops. During the TA, ADB will conduct policy dialogue with the Government on an overall strategy for RWSS, and with development partners on the need to avoid overlapping and duplication in RWSS investments.

C. Cost and Financing

24. The TA is expected to cost \$600,000 equivalent. ADB will provide \$500,000, to be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The Government will finance the remaining \$100,000 in kind, by shouldering the cost of office accommodation, transport, and utilities; and remuneration of counterpart staff. The Government has 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

25. The Department of Rural Water Supply of the Ministry of Rural Development will be the Executing Agency for the TA. The project management unit established under the Tonle Sap project will implement the TA. It will be responsible for the day-to-day coordination and monitoring of TA activities, and will provide guidance to consultants, facilitate stakeholder workshops, and supervise surveys. The TA will be implemented according to the standard operating procedures for externally financed projects in Cambodia.⁹

26. A team of international and national consultants will be recruited to provide specialized services totaling 41 person-months (16 international persons-months and 25 national person-months). The consultants will be hired by ADB according to its *Guidelines on the Use of Consultants* (2007, as amended from time to time), using quality- and cost-based selection method with a quality-to-cost ratio of 80:20, and simplified technical proposals. The consultants will have expertise in (i) rural water supply engineering; (ii) rural water supply and sanitation policy and institutional reforms; (iii) rural sanitation; (iv) sanitation and hygiene awareness raising; (v) community demand-driven approaches; (vi) project economic and financial analyses; (vii) poverty and social analysis, including gender and ethnic group assessment; (viii) resettlement; and (ix) environment. The outline terms of reference are in Appendix 4.

27. Minor equipment, such as computers, printer and copiers will be purchased by ADB according to its *Procurement Guidelines* (2006, as amended from time to time). The equipment will be handed over to the EA at the end of the TA.

28. The TA will be implemented over a period of 7 months, from around August 2008 to around February 2009. Within 1 month of TA start-up, the TA consultants will submit an inception report, which will propose the methodology for all the TA activities. An interim report will be submitted within the first 4 months of TA implementation, and a draft final report within the first 6 months. Tripartite meetings will be held among the Government, ADB, and the consulting team at the start of the TA, midway through its implementation, and at its completion. Key findings and outputs of the TA will be disseminated through workshops and stakeholder discussions.

⁹ Kingdom of Cambodia. 2005. *Standard Operating Procedures for Externally Financed Projects/Programs in Cambodia*. Phnom Penh.

IV. THE PRESIDENT'S DECISION

29. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$500,000 on a grant basis to the Government of Cambodia for preparing the Second Rural Water Supply and Sanitation Sector 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>Impact Use of improved and sustainable water supply and sanitation facilities, and safer hygiene practices, by the rural population in the project area</p>	500,000 people living in the eight provinces have access to safe water and hygienic sanitation facilities, by year end of project implementation.	<ul style="list-style-type: none"> • Reports and statistics from government agencies, development partners, and NGOs • ADB loan review mission 	<p>Assumptions</p> <ul style="list-style-type: none"> • Sustained government commitment to the achievement of the MDGs • Sustained community interest in participating in the project
<p>Outcome An agreed sector project design suitable for ADB financing</p>	The project design is approved by the Government of Cambodia and ADB.	<ul style="list-style-type: none"> • TA report • ADB records 	<p>Assumptions</p> <ul style="list-style-type: none"> • Strong government commitment to and support for the TA • Continued government support for sector strategy development • Availability of counterpart staff
<p>Outputs 1. Updated sector investment plan for the 8 provinces</p>	By month 1 of TA implementation the RWSS investment needs of 8 provinces are calculated.	<ul style="list-style-type: none"> • Inception report • Inception workshop conclusions 	
2. Approved outline of the RWSS database	Database structure and data sources are identified and approved by the Government and ADB by month 4 of TA implementation.	<ul style="list-style-type: none"> • Midterm report • Midterm workshop conclusions 	<p>Assumption</p> <ul style="list-style-type: none"> • Data accessibility
3. Approved community demand-driven approach	By month 4 of TA implementation: -Community-driven approach of Tonle Sap project is reviewed -Impact of the deconcentration and decentralization initiatives are assessed -Approach is approved by the Government and ADB.	<ul style="list-style-type: none"> • Midterm report • Midterm workshop conclusions 	
4. Approved hygiene education plan, covering household sanitation and water supply, transport, and storage	Plan is approved by the Government and ADB by month 4 of TA implementation.	<ul style="list-style-type: none"> • Midterm report • Midterm workshop conclusions 	
5. Approved proposal for financing sanitation materials	By month 4 of TA implementation: -feasibility and sustainability of traditional household water transport, storage, and treatment practices is assessed and key success factors are identified -proposal is approved by the Government and ADB	<ul style="list-style-type: none"> • Midterm report • Midterm workshop conclusions 	
6. Feasibility study of sample of 3 subprojects	By month 6 of TA implementation: -typology of subprojects,	<ul style="list-style-type: none"> • Feasibility reports 	

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	screening and ranking criteria developed -3 sample subprojects identified -3 feasibility studies of sample subprojects completed.	•	
7. Overall sector investment project covering 8 provinces	Final report (including project scope, cost estimates, financing plan, implementation arrangements, and economic, financial, social, gender, and environmental analyses)	<ul style="list-style-type: none"> Final TA report Final workshop conclusions 	Assumption <ul style="list-style-type: none"> Sustained government commitment to RWSS
Activities with Milestones <p>1.1 Review national strategy on RWSS and RWSS Investment Plan 2005–2015</p> <p>1.2 Review past and ongoing ADB RWSS assistance and summarize lessons learned</p> <p>1.3 Consult with development partners</p> <p>1.4 Implement inception workshop</p> <p>1.5 Prepare inception report (to be completed by month 1 of TA implementation)</p> <p>2.1 Review status of database preparation by TWG-RWSSH</p> <p>2.2 Review availability and quality of geohydrologic data in project areas</p> <p>2.3 Assess requirements for additional geotechnical and geohydrologic surveys</p> <p>2.4 Prepare proposal for survey, data collection, and outline of database, to be included in midterm report</p> <p>2.5 Contribute to midterm workshop (to be completed by month 4 of TA implementation)</p> <p>3.1 Review Tonle Sap project approach, including lessons learned</p> <p>3.2 Assess impact of the deconcentration and decentralization initiatives in Cambodia</p> <p>3.3 Prepare proposal for effective community-based approach</p> <p>3.4 Contribute to midterm workshop (to be completed by month 4 of TA implementation)</p> <p>4.1 Review available hygiene education materials and assess need to develop new materials</p> <p>4.2 Review common modes of financing for sanitation infrastructure</p> <p>4.3 Prepare plan for hygiene education and proposal for financing of sanitation facilities</p> <p>4.4 Contribute to midterm workshop (to be completed by month 4 of TA implementation)</p> <p>5.1 Review household water transport, storage, and treatment practices used in past and ongoing projects implemented by ADB and development partners</p> <p>5.2 Review traditional household water transport, storage, and treatment practices in project area</p> <p>5.3 Assess feasibility and sustainability of these practices, and identify key success factors</p> <p>5.4 Prepare feasibility study of appropriate technologies, systems, and practices, to be included in midterm report</p> <p>5.5 Contribute to midterm workshop (to be completed by month 4 of TA implementation)</p> <p>6.1 Develop typology of subprojects</p> <p>6.2 Develop screening and ranking criteria for subproject selection</p> <p>6.3 Select sample 3 subprojects</p> <p>6.4 Prepare feasibility studies of sample 3 subprojects</p> <p>7.1 Finalize scope of project</p> <p>7.2 Prepare cost estimates, a financing plan, and economic and financial analyses</p> <p>7.3 Prepare implementation arrangements, project management structure, and job descriptions</p> <p>7.4 Prepare social, gender, and environmental analyses; assess risks; and propose mitigation measures</p> <p>7.5 Prepare draft final report</p> <p>7.6 Incorporate comments on draft</p> <p>7.7 Prepare final report (to be completed by month 7 of TA implementation)</p>			Inputs ADB: \$0.500 million <ul style="list-style-type: none"> Consulting services International (16 person-months) - \$0.320 million National (25 person-months), \$0.050 million Equipment, \$0.008 million Surveys, \$0.005 million Administrative support, \$0.012 million Contingencies, \$0.040 million Government: \$0.100 million <ul style="list-style-type: none"> Office accommodation/transport, \$0.035 million Counterpart staff, \$0.050 million Others, \$0.015 million

ADB = Asian Development Bank; MDG = Millennium Development Goal; NGO = nongovernment organization; RWSS = rural water supply and sanitation; TA = technical assistance; TWG-RWSSH = Technical Working Group on Rural Water Supply, Sanitation, and Hygiene.

INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title:	Cambodia/Preparing the Second Rural Water Supply and Sanitation Sector Project		
Lending/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

Rural water supply and sanitation (RWSS) has been an integral part of the Government's overall strategy for rural development and poverty reduction. The rectangular strategy,^a the National Poverty Reduction Strategy,^b and the Cambodian Millennium Development Goals (CMDGs)^c place high priority on RWSS. Limited access to safe water and hygienic sanitation, results in poor health, lost productive time due to sickness or the need to care for sick family members, missed schooling opportunities for children, and increased medical expenditures. Women (especially female heads of households) and children, who bear the primary responsibility for collecting water, are the worst affected.

ADB's overarching goal for Cambodia, as defined in its CSP (2005–2009), is sustainable poverty reduction. To achieve this, the CSP Results Framework (2006–2010) rests on three strategic pillars: (i) sustainable pro-poor economic growth, (ii) inclusive social development, and (iii) good governance and improved public service delivery. The CSPRF identifies the improved health and quality of life for the rural population as a strategic goal of inclusive social development. The key constraints on achieving this goal are (i) lack of investment and maintenance of drinking water and sanitation facilities; and (ii) insufficient community awareness of the links between safe water, sanitation, and health, resulting in poor hygiene practices. The RWSS sector is identified as a sector in which ADB will play a catalytic role.

B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention 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 the attainment of the Cambodia MDGs on RWSS: 50% of the rural population with access to safe water, and 30% with access to improved sanitation, by 2015.

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?
2. What resources are allocated in the PPTA/due diligence?

A poverty analysis will be prepared during the PPTA, resulting in a poverty and social strategy plan. Consultants will comprise an international social development specialist (4 person-months), a national social development specialist (4 person-months), and a social survey and data collection specialist (2 person-months).

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?

Potential beneficiaries are the poor rural population in the eight poorest provinces in Cambodia: Siem Reap, Battambang, Pursat, Kompong Chhnang, Kompong Thom, Preah Vihear, Oddar Meanchey, and Banteay Meanchey. Improved water supply and sanitation facilities will become more accessible to the poor and socially excluded, thus reducing the incidence of water-related diseases and improving health.

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

The beneficiaries will need to have (i) access to appropriate and improved water supply and sanitation facilities; (ii) skills development in the operation and management of the facilities; and (iii) more awareness of the link between health, hygiene, and sanitation.

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

- The sustainability of the facilities, because of lack of maintenance. The selection of appropriate technologies, based on a participatory selection, should create ownership and ensure affordability.
- Cultural acceptance of new technologies, especially sanitation. Participatory selection of appropriate technologies and improved awareness should mitigate the cultural constraints. The PPTA will look at the feasibility of restoring traditional, indigenous and sustainable water, health, and sanitation practices, and will assess the extent to which traditional and cultural practices may potentially be changed when the project introduces more modern water supply and sanitation facilities.
- The selection of the population that will benefit. The PPTA will develop guidelines to ensure that the poor rural population will benefit from the ensuing project, in line with the ongoing Tonle Sap Rural Water Supply and Sanitation Sector Project (the Tonle Sap project)..

B. Consultation and Participation

1. Indicate the potential initial stakeholders.

A stakeholder analysis will be undertaken to identify key project stakeholders, their project-related interests, and their role in determining project feasibility and success. The stakeholder analysis will cover government officials from the ongoing Tonle Sap project, other government agencies, 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 (C&P) is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations and community-based organizations)?

On the basis of the stakeholder analysis, a wide range of stakeholders and beneficiaries will be consulted during project preparation. At inception, midterm, and final review, workshops will be organized 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 C&P plan be prepared? Yes No Please explain.**C. Gender and Development**

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

Cambodian women are responsible for a variety of tasks related to water, sanitation, and hygiene in their families. Limited access to safe water and hygienic sanitation results in poor health, lost productive time due to sickness, missed schooling opportunities for children, and increased medical expenditures. Women and girls bear the primary responsibility for collecting and storing water and are the worst affected.

2. Does the proposed project/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 women in decision making and providing skills training in the operation and management of the facilities will offer potential for gender mainstreaming. A gender analysis will be undertaken during PPTA, and a gender action plan will be prepared for the ensuing project.

3. Could the proposed project have an adverse impact on women and/or girls or to widen gender inequality?

- Yes No

III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS			
Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required¹³
Involuntary Resettlement	Infrastructure to be built on public or private land. The PPTA will screen for any potential impact, and land acquisition will be avoided where possible.	Although no IR impact is expected, this aspect will be reviewed during PPTA. Steps will be taken to minimize and, where possible, avoid land acquisition and resettlement.	<input type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input checked="" type="checkbox"/> Resettlement Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Indigenous Peoples	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 assessed during the PPTA.	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> Indigenous Peoples Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Labor <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	Construction, operation, and management of the facilities will offer employment opportunities.	Limited impact	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action ¹⁸ <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Affordability	Selection of inappropriate technologies may make it less affordable to operate and maintain the facilities.	Can be significant. Selection of appropriate technologies is integral part of project design.	<input checked="" type="checkbox"/> Action <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Other Risks and/or Vulnerabilities <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
IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT			
<p>1. Do the TOR 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 C&P during the PPTA/due diligence? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.</p>			

^a Royal Government of Cambodia. 2004. *The Rectangular Strategy for Growth, Employment, Equity, and Efficiency (2004–2008)*. Phnom Penh.

^b Council for Social Development. 2002. *National Poverty Reduction Strategy (2003–2005)*. Phnom Penh (Safe Water and Sanitation, para. 4.3.4, p. 98.).

^c Ministry of Planning. 2003. *Cambodian Millennium Development Goals*. Phnom Penh (Targets 7.10 and 7.12).

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	320.0
ii. National Consultants	50.0
b. International and Local Travel	35.0
c. Reports and Communications	20.0
2. Equipment ^b	8.0
3. Seminars	10.0
4. Surveys	5.0
5. Miscellaneous Administration and Support Costs	12.0
6. Contingencies	40.0
Subtotal (A)	500.0
B. Government Financing	
1. Office Accommodation and Transport	35.0
2. Remuneration and Per Diem of Counterpart Staff	50.0
3. Others	15.0
Subtotal (B)	100.0
Total	600.0

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

^b Computers, printer, and copier.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. A consulting firm will be recruited to implement the technical assistance (TA) and provide the following expertise: (i) rural water supply and sanitation policy and institutional reforms; (ii) rural water supply and sanitation engineering; (iii) sanitation and hygiene awareness raising; (iv) community demand-driven approaches; (v) project economic and financial analyses; (vi) poverty and social analyses, including gender and ethnic group assessments; (vii) resettlement; and (viii) environment. The team of specialists will provide 16 person-months of international and 25 person-months of national consulting services. The international consultants will comprise the following: (i) team leader/water supply and sanitation policy specialist (7 person-months), (ii) social development and resettlement specialist (4 person-months), (iii) economist and financial specialist (1 person-month), (iv) geohydrologic specialist (2 person-months), (v) environment specialist (1 person-month), and (vi) social survey specialist (1 person-month). The national consultants will comprise the following: (i) deputy team leader/water supply and sanitation specialist (8 person-months), (ii) rural water supply and sanitation engineer (3 person-months), (iii) gender and social development specialist (4 person-months), (iv) resettlement specialist (2 person-months), (v) environment expert (2 person-months), (vi) social survey and data collection specialist (2 person-months), (vii) economist (2 person-months), and (viii) financial specialist (2 person-months).

A. List of Documents to be Completed by the Technical Assistance

2. The consultants will prepare the following documents:
- (i) Updated investment plan, including (a) a review of current strategies, (b) policies and guidelines, (c) a review and analysis of the institutional setup, (d) a review and analysis of performance indicators, (e) constraints and opportunities, (f) a review and update of investment needs, (g) an overview of external assistance provided to the sector, and (h) lessons learned on previous and ongoing interventions.
 - (ii) Project feasibility report, containing the following: (a) problem analysis and problem statement; (b) description of the proposed intervention; (c) cost estimates; (d) implementation schedule; (e) community demand-driven approach; (f) hygiene education plan; (g) economic and financial analyses, including financing plan; (h) resettlement framework and resettlement plan; (i) ethnic groups development framework (EGDF); (j) poverty and social documents, such as: (1) poverty reduction and social strategy plan, (2) gender analysis and gender action plan, and (3) consultation and participation plan; (k) initial environmental examination (IEE) and sample IEEs for subprojects; and (l) sample detailed technical designs (water and sanitation systems).
 - (iii) Supporting documents, including (a) design and monitoring framework, (b) institutional and capacity development plan (from national to community level), (c) project management structure and job descriptions of key staff, (d) proposal for rural water supply and sanitation (RWSS) data management, (e) project implementation plan, (f) contract and bidding packages, (g) project performance monitoring system, and (h) terms of reference for consulting services.

B. International Consultants (16 person-months)

1. Team Leader/Water Supply and Sanitation Specialist (7 person-months)

3. The team leader will coordinate the work of all team members and manage the TA budget. He/She will be responsible for overall TA outputs, including the design of a sector investment project, and for submitting required reports (e.g., inception, interim, and final reports) in a format that is satisfactory to the Government and the Asian Development Bank (ADB). Specific tasks and outputs include the following:

- (i) Identifying lessons from ADB and other donor-supported RWSS projects; reviewing the institutional framework in the RWSS sector, including the legal and policy environment, water quality standards, and institutional responsibilities of key sector institutions; recommending policy, institutional, and organizational improvements; identifying areas for provincial and national capacity building.
- (ii) Collecting and analyzing information on national and provincial RWSS administration structures, personnel management, budget, and staff for administration, service quality control, budgetary control, decision making, and public relations; identifying human and other resource constraints; reviewing administrative and financial structures at the provincial, district, and commune levels for the selected provinces.
- (iii) Reviewing and assessing the impact of the ongoing decentralization and deconcentration initiative (organic law), particularly on the project design.
- (iv) Assessing capacity-building requirements for project implementation; reviewing and assessing existing training programs for RWSS; developing a capacity development action plan to guide future activities; and recommending improvements in existing training (e.g., modes of training).
- (v) Reviewing the RWSS database being developed by the Technical Working Group on Rural Water Supply and Sanitation Sector and Hygiene, its status and quality, and its suitability for project design; proposing modifications and further support needed to complete or improve the database.
- (vi) Reviewing water supply and sanitation technologies, systems, and practices used in past and ongoing development projects in Cambodia and the region; reviewing the involvement of the formal and informal private sector in RWSS in Cambodia; identifying key success factors, assessing feasibility and sustainability, and preparing a project proposal.
- (vii) Carrying out stakeholder analysis and consultations with the Government and other stakeholders, to discuss the project proposal and appraisal reports, and carrying out TA workshops, to share information and seek consensus on project design, at the TA inception, midway through implementation, and at completion.
- (viii) Preparing sector performance targets and indicators; a problem tree and a project design and monitoring framework for the project (including monitoring of the proposed project's impact on poverty reduction); project components; detailed project cost estimates; implementation arrangements and schedule; indicative procurement packaging and draft procurement plans; terms of reference for consulting services; project impact, benefits, and risks; and project performance monitoring system.

- (ix) Discussing with development partners possible cooperation agreements in project implementation based on available experiences, knowledge, and resources; preparing the agreements.

2. Social Development and Resettlement Specialist (4 person-months)

4. The specialist will be responsible for assisting the executing agency (EA) in preparing (i) the subproject selection and community demand-driven (CDD) strategy; (ii) the sanitation and hygiene campaign; (iii) poverty and social analyses and appropriate plans (e.g., a gender strategy and action plan and an ethnic minority development framework) for the project; and (iv) land acquisition and resettlement (LAR) documents. The specialist will provide timely inputs to the team leader for the required reports. Specific tasks and outputs include the following:

- (i) Reviewing ADB's *Poverty Handbook* (2007), *Handbook on Social Analysis* (2007); *Handbook on Resettlement: A Guide to Good Practice*; *Handbook on Strengthening Participation for Development Results: A Staff Guide to Consultation and Participation*; *Policy on Gender and Development* and relevant ADB gender checklists; and operational manuals on involuntary resettlement, indigenous peoples, and other topics.
- (ii) Reviewing the Tonle Sap Rural Water Supply and Sanitation Sector Project (the Tonle Sap project) implementation arrangements, subproject selection, approval procedures, and criteria from a poverty and social perspective, and proposing modifications to improve effectiveness if required.
- (iii) Reviewing the effectiveness of the Village Level Engagement Strategy (VLES) and Gender Mainstreaming Action Plan (GMAP) developed under the Tonle Sap project, and reviewing CDD experience in Cambodia; proposing modifications in the VLES and the GMAP to improve their effectiveness if required.
- (iv) With the water supply and sanitation specialist, assessing the impact of decentralization and deconcentration initiatives on community involvement in the design, implementation, and operation and maintenance of the Project, and proposing modifications if required.
- (v) Designing the community component of the public awareness campaign for the ensuing project.
- (vi) Designing a public awareness campaign to promote safe sanitation and hygiene practices, ultimately leading to demand for improved sanitation facilities; assessing affordability and willingness to pay.
- (vii) With the water supply and sanitation specialist, assessing the needs, appropriate technology, and affordability of community and household water supply and sanitation systems in the participating provinces, including systems and practices with minimal environmental impact, such as eco-sanitation.
- (viii) With the social survey specialist, planning surveys, including elements of gender and development, resettlement, ethnic groups, and community development; preparing a socioeconomic profile for each sample project included in the sector project, with data disaggregated by sex, ethnicity, and income, where possible.
- (ix) Preparing social documents and frameworks (e.g., LAR framework, gender strategy, ethnic groups development framework [EGDF], consultation and participation plan).

3. Economist and Financial Specialist (1 person-month)

5. The specialist will be responsible for the overall project and sample subproject economic and financial analyses and cost estimates. She or he will work with the team leader and review macroeconomic settings and sector financing on the basis of available documentation. The specialist will provide timely inputs to the team leader for the required reports. Specific tasks include the following:

- (i) Reviewing ADB's guidelines to incorporate into the *Guidelines for the Economic Analysis of Projects, Handbook for Integrating Poverty Impact Assessment in the Economic Analysis of Projects, Handbook Guidelines for the Economic Analysis of Water Supply Projects, Handbook for Integrating Risk Analysis in the Economic Analysis of Projects*, and *ADB's Guidelines for Financial Governance and Management of Investment Projects and Criteria for Subsidies*.
- (ii) Reviewing the tariff policy, tariff determination guidelines and other policies, and standards in the rural water supply sector; assessing the performance of past RWSS tariffs to identify improvements; analyzing deficiencies in the design of different tariff structures in the country, to help strengthen and disseminate the principles of a good tariff policy.
- (iii) Preparing the financial analyses for the project and sample subprojects in a form and substance agreeable to ADB, covering financial cost and benefit analyses, financial internal rates of return and average incremental financial costs, sensitivity analyses with respect to major project design and implementation risks, water tariff recommendations, willingness-to-pay assessment, affordability analyses, performance and indicators, and financial projections for a sample small rural water piped system.
- (iv) Preparing the project economic analyses in a form and substance agreeable to ADB, covering demand forecasts, least-economic-cost analysis, economic cost and benefit analyses, economic internal rates of return and average incremental economic costs, sensitivity analyses, benefit distributional analyses, and subsidies.
- (v) Reviewing the funds flow arrangements and disbursement experience under other ADB projects (including sanitation components), and recommending improvements for the ensuing project; reviewing current funds flow and capital-sharing arrangements for RWSS of projects financed by other donors.
- (vi) Recommending a funds flow mechanism for budget support for the selected provinces and financial management capacities.
- (vii) Identifying effective, efficient, and equitable financing mechanisms for cost recovery, considering the differential beneficiaries' contributions to capital, tariffs, and other alternatives to improve access for the poor; providing survey questions to the social survey specialist regarding affordability and people's willingness to pay.

4. Environment Specialist (1 person-month)

6. The specialist will provide timely input to the team leader for the required reports. Specific tasks include the following:

- (i) Assessing the environmental impact of the proposed project, including individual and cumulative direct and indirect impact during construction and operation.

- (ii) Assisting the water supply and sanitation specialists in assessing the feasibility of introducing eco-sanitation and other sanitation practices with minimal environmental impact.
- (iii) Collecting data on environmental conditions in the sample subprojects, including an inventory of natural and man-made resources; identifying topographic, climatic, hydrologic, and ecological patterns that may affect or be affected by outcomes.
- (iv) Conducting an initial unexploded-ordnance survey for the pilot subprojects.
- (v) Assisting the EA in preparing environmental reports: (a) IEE for the overall project, (b) IEE for each sample subproject, (c) summary IEE to cover the overall project and sample subprojects, and (d) environmental assessment and review procedures (EARP). The environmental documents will conform to ADB's *Environment Policy* (2002) and *Environmental Assessment Guidelines* (2003), and the Government's environmental requirements.
- (vi) Recommending (a) measures to safeguard the environment before, during, and after the implementation of the project; (b) mitigation and enhancement measures and a monitoring program, including cost implications and an institutional setup, for the program; (c) capacity-building needs; and (d) the responsible agency for environmental monitoring during project implementation.
- (vii) Assisting the EA in incorporating recommendations in the project plan and IEE.
- (viii) Assisting the EA in conducting public consultations to obtain and incorporate views from stakeholders on potential impact and mitigation measures proposed in the IEEs.
- (ix) Assisting the EA in securing environmental clearance certificates for each subproject; preparing information to comply with ADB and government guidelines.

5. Geohydrologic Expert (2 person-months)

7. The geohydrologic expert will assess the availability and quality of geotechnical, hydrologic, and geohydrologic data in Cambodia. With the use of the data, the availability and characteristics of the groundwater sources in the project area will be described. Recommendations will be formulated for (i) additional surveys to reduce the number of unproductive wells; and (ii) the collection, quality assurance, and storage of data to be collected during project implementation.

6. Social Survey Specialist (1 person-month)

8. The social survey specialist will: (i) determine the purpose and size of any social surveys for the project; and (ii) develop social surveys to gauge affordability and willingness to pay for RWSS systems, impact of RWSS on people's improved health and reduced health expenditure, socioeconomic profiles of small towns, and LAR impact. The specialist will coordinate the surveys, develop a database, clean the data, supervise data entry, and provide simple frequencies and cross-tabulations. The specialist, with the national social survey and data collection expert, will provide timely submissions to the team leader for the required reports.

C. National Consultants (25 person-months)

1. Deputy Team Leader/Water Supply and Sanitation Specialist (8 person-months)

9. The expert will help the team leader implement the TA. The expert will provide timely inputs to the team leader for the required reports and assist in designing a comprehensive WSS project based on community participation, improved health awareness, and appropriate technologies. She or he will help (i) prepare Cambodian language manuals; (ii) recommend appropriate WSS technologies, taking into consideration socioeconomic development status, population density, affordability, standards, etc.; and (iii) participate in discussions with the Government and other stakeholders.

2. Rural Water Supply and Sanitation Engineer (3 person-months)

10. The engineer will assist in preparing technical feasibility studies and will provide timely inputs to the team leader for the required reports. Specifically, she or he will (i) conduct raw-water assessments, and analyze topography and natural drainage flows for the sample towns; (ii) review and classify the technical options available in Cambodia for household and public sanitation and recommend the most cost-effective and appropriate technology; (iii) prepare a preliminary design and costing for basic WSS; and (iv) help assess LAR and environmental impact.

3. Gender and Social Development Expert (4 person-months)

11. The expert, with the social development specialist, will assist the EA in: (i) determining the purpose and size of any social surveys for the project; (ii) preparing poverty and social assessments of sample subprojects; (iii) holding consultations with governments, beneficiaries, affected people, and other stakeholders using participatory planning techniques to seek opinions and gain agreement on project design (consultations will be held separately by sex and ethnic group); (iv) preparing relevant social plans, including a gender action plan, ethnic group plans, and participation plan; and (v) developing the public awareness and community actions component. The expert will work with the social survey specialist and expert to ensure that relevant questions are included.

4. Resettlement Expert (2 person-months)

12. The expert, with the social development specialist, will assist the EA in assessing the potential LAR impact of the sector investment project and subprojects in each sample subproject town. The task of exploring alternatives to avoid or minimize the scope of LAR will include: (i) helping the EA prepare a LAR framework in accordance with government regulations, and ADB's *Involuntary Resettlement Policy* (1995) and *Operations Manual F2 on Involuntary Resettlement* (2006) (the expert may also use ADB's *Handbook on Resettlement* [1998] as a guide); and (ii) assisting the EA in conducting and documenting consultations with affected people to ensure that ADB's disclosure requirements for resettlement planning are met. She or he will ensure that resettlement implementation arrangements are integrated into the overall project design.

5. Environment Expert (2 person-months)

13. The expert will work with the international environment specialist in undertaking environmental assessments, conducting consultations, gathering data and information, and

reviewing regulations and the framework for obtaining environmental clearance certificates, or their equivalent, for each subproject.

6. Social Survey and Data Collection Expert (2 person-months)

14. The expert will work with the international social survey specialist to design, pilot-test, implement, and code the social surveys.

7. Economist (2 person-months)

15. The expert will work with the international economist and financial specialist to prepare the overall project economic analyses.

8. Financial Specialist (2 person-months)

16. The expert will work with the international economist and financial specialist to prepare the overall project and sample subproject economic and financial analyses and cost estimates.