

ASIAN DEVELOPMENT BANK

TAR: NEP 32249

TECHNICAL ASSISTANCE
(Financed from the Japan Special Fund)

TO THE

KINGDOM OF NEPAL

FOR PREPARING THE

COMMUNITY-BASED WATER SUPPLY AND SANITATION PROJECT

March 2002

CURRENCY EQUIVALENTS

(as of 31 March 2002)

Currency Unit	–	Nepalese rupee (NRe/NRs)
NRs1.00	=	\$0.013
\$1.00	=	NRs77.34

ABBREVIATIONS

ADB	–	Asian Development Bank
DFID	–	Department for International Development
DWSS	–	Department of Water Supply and Sewerage
GIS	–	geographic information systems
MPPW	–	Ministry of Physical Planning and Works
NGO	–	nongovernment organization
O&M	–	operation and maintenance
TA	–	technical assistance
UNICEF	–	United Nations Children's Fund
VDC	–	village development committee

NOTE

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

I. INTRODUCTION

1. Following a request by His Majesty's Government of Nepal for technical assistance (TA) from the Asian Development Bank (ADB) to prepare the Community-Based Water Supply and Sanitation Project, the Fact-Finding Mission visited Nepal from 18 to 28 November 2001. To obtain stakeholders' views through a participatory approach, the Mission visited several water supply projects in the Midwestern Region, and had discussions with user committees, local nongovernment organizations (NGOs), and local government officials to discuss the issues faced by stakeholders at the grassroots level. The mission also met with various government agencies, international and national NGOs, and development agencies active in the rural water supply and sanitation sector of Nepal to discuss the larger, sector-wide issues related to the TA. This TA was developed on the basis of understandings reached with the Government and other stakeholders in the sector.¹ The TA framework is in Appendix 1.

2. The TA follows ADB's commitment to provide support for rural development, improvements in basic social services and infrastructure, and women's' empowerment, as outlined in the Poverty Reduction Partnership Agreement² for Nepal. The TA also strongly reflects the thematic priorities of human development, gender and development, and good governance, set forth in ADB's 2002-2004 country strategy and program update for Nepal.

II. ISSUES OR PROBLEMS

3. Nepal's latest census indicates a population of 23.2 million, with 85.2 percent living in rural areas. The population growth rate is 2.27 percent. Classified as one of the world least developed countries, 37 percent of Nepal's population lives under the poverty line of one dollar per day, 28 percent of the population are chronically undernourished, and the adult literacy rate is 40.4 percent.

4. With less than 0.4 percent of the world's population, Nepal possesses 2.3 percent of the world's water resources. Despite this abundance of water resources, however, the country's harsh terrain make access to water supply difficult for many segments of the population. The Government estimates water supply coverage to be around 70 percent nationwide; access in rural areas is substantially lower. Many rely on water from shallow wells, ponds, and streams, which are often polluted. The burdens associated with shortage of water are borne disproportionately by women and children. Especially in the mountainous districts, women and female children can spend up to seven hours a day fetching water from distant sources.

5. The problems associated with the limited access to sanitation and low levels of hygiene awareness are extensive, and again borne disproportionately by women and children. The United Nations Development Programme (UNDP) reports that diarrhea accounts for up to 25 percent of all childhood deaths in the country. In terms of national morbidity patterns, ailments related to inadequate water and sanitation account for almost 72 percent of all ailments reported.³ Sanitation coverage in 1997 was 61 percent in urban areas and only 17.5 percent in rural areas.

¹ The TA first appeared in *ADB Business Opportunities* (Internet edition) 25 October 2001.

² ADB. 2001. *Poverty Partnership Agreement between Nepal and ADB*. Manila.

³ Skin disease 29.8%; worm infestation 14.9%; diarrhea 12.6%; dysentery 7.6%; Gastritis 7% (Source: United Nations Development Programme. 1998. *Nepal Human Development Report*. New York City)

6. Due to the high social costs of poor health and hygiene conditions, and the associated problems of low productivity and poor quality of life, the Government has focused efforts on improving access to water and sanitation in rural districts. Recognizing the importance of development in the sector, the Government's 9th Plan calls for 100 percent coverage of water supply and 40 percent coverage of sanitation by 2002. Unfortunately, given the present circumstances, this is unrealistic.

7. At the core of the slow growth in the sector are limited resources, and a lack of accountability and collaboration with stakeholders. From 5 to 7 percent of Nepal's development budget is allocated to the water and sanitation sector. Of this, about two thirds is financed by external assistance, including ADB. Unfortunately, coordination and dialog among assistance agencies is inadequate, resulting in significant overlaps in target areas, and inefficient mobilization of the resources available. The somewhat contradictory approaches to the sector adopted by various assistance agencies have created many tensions between stakeholders; and the Department of Water Supply and Sewerage (DWSS), officially the line agency responsible for the sector, has been largely excluded from any active dialog or role on many externally assisted projects. Other significant problems in the sector include the lack of transparency and comprehensive sector information at a central source, inadequate community participation during the implementation of water supply projects, the continued exclusion of women from community decision making, inefficient mobilization of NGOs, weak private sector activity, inadequacy of health and hygiene education programs, and lack of focus on sanitation improvements.

8. The institutional context of the rural water supply and sanitation sector in Nepal is in a state of flux. The Ministry of Planning and Physical Works (MPPW) is principally responsible for water supply-related activity in the country, including the development of sector strategies and programs, overseeing budgets, and coordinating external assistance activities. Nepal Water Supply Corporation is a corporate entity under MPPW responsible for water production and distribution on a commercial basis in the major urban centers of the country. DWSS, also under MPPW, is responsible for developing water supply in semi-urban and rural areas,⁴ but is required to hand over completed schemes to local governments and user groups for operation and maintenance. The Government is considering a major restructuring of DWSS, and its future role in the sector is under debate. The restructuring is expected to move DWSS to more of a regulatory, quality control, and monitoring role, while still implementing the more technically complex schemes. Implementation of smaller schemes is expected to be decentralized to local government units. However, because DWSS still retains the majority of technical expertise because technical capacity at the local level is a concern.

9. As the lead provider of external assistance, ADB has completed four rural water supply and sanitation projects in Nepal since 1985, for a total of \$65 million. The latest, the 4th,⁵ RWSS project is due for completion in early 2002. ADB is also heavily involved in the urban water supply sector through the Melamchi Water Supply Project⁶ and Small Towns Water Supply and Sanitation Sector Project.⁷ Besides ADB, many other assistance agencies are also active in the rural water supply sector, although on a smaller scale. The largest among them, the World Bank, is currently preparing a second phase of the Rural Water Supply and Sanitation Fund

⁴ DWSS is only responsible for developing schemes that serve more than 500 people

⁵ Loan 1464-NEP: *Fourth Rural Water Supply and Sanitation Sector Project*, for \$20 million, approved on 24 September 1996.

⁶ Loan 1820-NEP: *Melamchi Water Supply Project*, for \$120 million, approved on 21 December 2000.

⁷ Loan 1755-NEP: *Small Towns Water Supply and Sanitation Sector Project*, for \$35 million, approved on 12 September 2000.

Development Board Project, the exact scope of which is uncertain at this point. Other agencies and NGOs active in the sector include United Nations Children's Fund (UNICEF), Department of International Development (DFID), Department for International Development Cooperation, Water Aid, Helvetas, and Nepal Water for Health (NEWAH).

10. The primary lessons learned through efforts of ADB and others in the sector are (i) the importance of emphasizing the process of community consultation and mobilization, to improve system sustainability, (ii) the need for gender inclusive implementation modalities to mainstream women's participation in the decision-making process, (iii) the need to emphasize hygiene education programs and sanitation to maximize the impact of external assistance interventions, and (iv) the need for closer coordination between assistance efforts to avoid redundancies and identify potential synergies.

11. To maximize the impact of future investments, ADB needs to reassess the role it plays in the sector, the progress made to date, and the implementation modalities it will adopt in moving forward. Particular attention must be paid to effectively targeting assistance to the most needy population segments, improving transparency and stakeholder participation in project development and implementation, emphasizing the role of women in the sector, giving more focus to hygiene education and sanitation, and developing a realistic sector strategy focused on rural water supply and sanitation.

12. The TA will set the groundwork for this effort through several innovations including the use of (i) geographic information system (GIS) mapping to analyze current coverage, inform policy dialog, target interventions, and monitor progress; and (ii) consensus building methodologies to ensure maximum transparency in the process, allow for maximum stakeholder participation from the very beginning, and increase local ownership of the overall project. Strong emphasis will be placed on supporting and channeling the wealth of local expertise in the sector, complementing the activities of other agencies, and developing effective modalities for community-based development. DFID, UNICEF, as well as several NGOs have expressed keen interest in collaborating in the process.⁸

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

13. The primary objective of the TA is to assist the Government in preparing the Community-Based Water Supply and Sanitation Project, suitable for financing through ADB's sector loan modality. In keeping with ADB's poverty reduction strategy,⁹ the TA will emphasize targeting assistance to the poorest areas of Nepal with the most acute shortages of drinking water and sanitation, wherever feasible. The project will include integrated water supply,¹⁰ sanitation, and health and hygiene education components. The TA also aims to substantially increase transparency and stakeholder involvement in the initial design process, increase participation at all levels of project implementation, and complement the activities of other assistance agencies active in the sector. The TA is expected to first establish a clear sector strategy focusing on rural water supply and sanitation to help prioritize investment decisions, and then to develop a project

⁸ DFID and UNICEF have agreed to provide additional consulting and staff support for the TA. ADB TA consultants are required to coordinate efforts with DFID and UNICEF as outlined in Appendix 2.

⁹ ADB. 1999. *Poverty Reduction Strategy*. Manila.

¹⁰ With regard to water supply, both the construction of new systems and the rehabilitation of existing ones will be considered.

design and implementation modality that is truly community driven. The processes involved and the specific outputs required are explained in the following sections, and in appendixes 1 and 2.

B. Methodology and Key Activities

14. The TA will be carried out in three phases over 10 months, beginning in May 2002. The detailed scope of each phase and the processes involved are described in the TA framework in Appendix 1 and the terms of reference for consulting services in Appendix 2.

15. Phase I will assist the Government to (i) geographically map and analyze poverty data, including current data on water and sanitation coverage, incidence of waterborne disease, current and projected external assistance activity, concentration of minorities and disadvantaged groups, and the distribution of local NGOs; (ii) identify priority areas based on the need for improved coverage; (iii) conduct a social assessment in the identified target areas; (iv) analyze the evolving institutional structure of the sector; (v) assess the institutional and financial arrangements of the various assistance agencies active in the sector; and (vi) prepare a realistic draft sector strategy for rural water supply and sanitation for discussion during phase II.

16. Phase II¹¹ will be an effort to combine the analysis with local knowledge through a professionally facilitated participatory process to (i) help the Government define a pragmatic sector strategy to guide investment and reform in the rural water and sanitation sector, and (ii) to develop a project implementation strategy and framework through consensus with the various stakeholders. The consensus group will include representatives from various Government agencies, including DWSS, district development committees, village development committees, and Ministry of Local Development, as well as NGO groups and external assistance representatives active in the sector. At the end of phase II, a rural water and sanitation sector strategy will be defined, and the major components of possible investment in the sector by ADB and others will be outlined. With regard to the ADB investment, criteria for selection of subprojects will be established; participatory processes defined; gender considerations incorporated; financing arrangements defined; and institutional mechanisms for implementation, cost recovery, and maintenance defined.

17. Phase III will refine the project framework developed by the group into an investment project suitable for financing by ADB and others. In this phase, the agreed-upon process will be followed to identify sample subprojects within the districts identified in phase I, develop technical options in consultation with the communities; conduct economic and financial feasibility studies and initial environmental examinations; and prepare other documentation as required by ADB guidelines.

C. Cost and Financing

18. The TA is estimated to cost \$910,000 equivalent, including \$474,000 in foreign exchange cost and \$436,000 equivalent in local currency cost. ADB will finance \$750,000 equivalent, covering the entire foreign exchange cost, and \$276,000 equivalent of the local currency cost. ADB will finance the TA on a grant basis from the Japan Special Fund, funded by the Government of Japan. The Government contribution will be \$160,000 equivalent and will include counterpart staff, office accommodation, and transport. The detailed cost estimates and

¹¹ Some of the activities of this phase will be conducted simultaneously with phase I, as described in Appendix 2.

financing plan are shown in Appendix 3. The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

19. MPPW will be the Executing Agency for the TA. It will set up a TA implementing unit; appoint a manager for the unit; and provide office space, furniture, equipment, and counterpart staff for the TA consultants as necessary. In addition, MPPW will second at least two senior staff members from DWSS and one senior staff member from Ministry of Local Development to be full-time members of the implementation unit. The government will set up an TA advisory committee, to be chaired by the secretary, MPPW, to periodically review TA progress and resolve any issues that may arise. In addition to MPPW, the committee will include representatives from Ministry of Local Development, Ministry of Finance, National Planning Commission, Ministry of Health, DFID, UNICEF, DWSS, and ADB's Nepal Resident Mission.

20. The TA will require approximately 15 person-months of international and 62 person-months of domestic consulting services. The international experts (person-months in parentheses) will include an institutional and sector policy specialist as team leader (6), financial economist (2.5), gender and participation specialist (2), consensus building specialist (2), water and sanitation engineer (1), and GIS specialist (1.5). Domestic experts will include a water supply engineer (8 person-months), social development specialist (8), financial analyst (6), environment specialist (3), GIS specialists (10), professional facilitators (8), and others as required. All international consultants will have a minimum of 10 years of relevant project experience in their respective specialties, preferably within the region, and extensive experience working on integrated projects with interdisciplinary teams. The domestic consultants will have a minimum of eight years of experience in their respective specialties, including experience with similar integrated projects funded by international organizations. The team leader will coordinate the activities of the entire team, and be responsible for the overall quality and timeliness of all outputs. The specific tasks and inputs of the key consultants are outlined in the TA framework in Appendix 1¹² and the outline terms of reference for consulting services in Appendix 2. The consultants will be engaged in accordance with ADB's *Guidelines for the Use of Consultants*.

21. The consultants will submit an inception report no later than one month after contract signing. Short monthly progress reports summarizing project activities, issues, and constraints will be submitted throughout the duration of the TA. In addition, four major reports will be submitted. The first will be submitted at the end of phase I, 12 weeks after inception and will include analysis and mapping of all data collected, as well as the issues analysis for phase II. It will also include a summary document to be circulated to all stakeholders that will participate in the consensus building activities of phase II. The second report, to be submitted 24 weeks after inception, will document the process and outcomes of the consensus building efforts, and define the sample subprojects to be included in phase III. The draft final report will be submitted 36 weeks after project inception, and be reviewed by ADB and the Government. The final report will be submitted within three weeks after receiving comments from the review.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance, on a grant basis, to His Majesty's Government of Nepal in an amount not exceeding the equivalent of \$750,000 for the purpose of preparing the Community-Based Water Supply and Sanitation Project, and hereby reports such action to the Board.

¹² See "Inputs" section in Appendix 1.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Targets	Monitoring Mechanisms	Assumptions/Risks
<p>Goals Human development through sustainable improvements in the water supply and sanitation sector.</p>	<p>Measurable improvement in water supply sanitation coverage</p> <p>Improved hygiene practices in local communities</p> <p>Reduction in incidence of waterborne disease</p>	<p>Mapping of implemented subprojects, and updating of status on a biannual basis</p> <p>Reports and statistics from government agencies, donors, and nongovernment organizations (NGOs)</p> <p>Health care statistics</p>	<p>The project design through the technical assistance (TA) is effectively implemented</p>
<p>Purpose Implementation of sustainable, community-driven water supply and sanitation schemes in rural Nepal.</p>	<p>Subproject targeted at the poorest areas of Nepal</p> <p>Sustainable operation and maintenance arrangements implemented</p> <p>Stakeholders at all levels "own" the project design and approach, and therefore show greater commitment</p> <p>Gender concerns are fully addressed through the project, and women's participation is an integral part of the process</p> <p>Greater synergy in the operations of assistance agencies in the rural water supply and sanitation (RWSS) sector</p>	<p>Geographic information system (GIS) mapping of subprojects, and comparison with current coverage data</p> <p>Mapping of status of subprojects on a biannual basis</p> <p>Quality of stakeholder input to project design and level of community participation during project implementation</p> <p>Gender balance of user groups, and implementation teams</p> <p>Aid coordination meetings and dialog</p>	<p>Identified areas are accessible despite political instability</p> <p>Both the Government and beneficiary communities are fully committed to long-term sustainability</p> <p>Key stakeholders will participate in the consensus building exercises</p> <p>Skilled female labor is available for project implementation</p> <p>External financiers are willing to work together to achieve maximum coverage within the resources available.</p>
<p>Outputs</p> <p>a. Inception Report</p> <p>b. Phase I Report</p>	<p>Includes detailed schedule and work plan for team, and clearly defined terms of reference for each consultant (1 month after inception)</p> <p>Includes draft sector strategy, maps illustrating GIS data analysis, assessment of institutional capacities of stakeholders, and other analysis (3 months after inception)</p>	<p>Consultant's monthly progress reports</p>	<p>Consulting team will have access to information related to financial and institutional arrangements, and coverage data collected by external financiers and government agencies</p>

Design Summary	Performance Targets	Monitoring Mechanisms	Assumptions/Risks
<p>c. Phase I Summary and CD ROM</p> <p>d. Phase II Report</p> <p>e. Draft Final Report</p> <p>f. Final Report</p>	<p>Includes draft sector strategy and concise yet comprehensive summary of phase I findings. Issues-assessment reflects the areas where stakeholders may find common ground. Methodology for consensus process explained. CD ROM contains GIS data and maps (3 months after inception)</p> <p>Includes a government endorsed sector strategy that clearly defines the role of the major stakeholders, and sets realistic goals/priorities. Also includes a project implementation strategy and framework agreed upon by the stakeholders (6 months after inception)</p> <p>Includes final design, feasibility studies, and documentation to meet all ADB requirements, and defines all aspect of the ensuing investment project. (9 months after inception)</p> <p>Includes all documentation necessary for preparation of the RRP for ensuing Project. (10 months after inception)</p>	<p>Monthly progress reports and outputs of each consensus building session.</p> <p>Consultant's monthly progress report</p> <p>Checklist of comments for final review</p>	<p>Key stakeholders will participate in the consensus building exercises</p> <p>The consultants are aware of ADB requirements, committed to participatory project design process, and will deliver high quality output. Comments on draft final report received in a timely manner.</p>
Activities			
Phase I: Data Collection, Mapping, and Institutional Analysis			
<p>1. Collect and map data on water supply and sanitation coverage, NGOs active in the sector, concentrations of minorities and disadvantaged groups, etc.</p> <p>2. Map the scope and coverage of previous and ongoing projects in the sector.</p> <p>3. Assess financing requirements to achieve coverage targets and map by district.</p>	<p>Village development committee (VDC) level data, mapped in GIS (3 months after inception)</p> <p>VDC level data, mapped in GIS (3 months after inception)</p> <p>District level data mapped in GIS (3 months after inception)</p>	<p>Maps produced in GIS</p> <p>Maps produced in GIS</p>	

Design Summary	Performance Targets	Monitoring Mechanisms	Assumptions/Risks
<p>4. Analyze institutional strengths and weaknesses of the various stakeholders in the sector.</p> <p>5. Analyze Asian Development Bank (ADB) and other externally funded RWSS projects and compare their strength and weaknesses.</p> <p>6. Prepare draft sector strategy for discussion during phase II.</p>	<p>Should include government agencies, sample NGOs, district development committees (DDCs), and VDCs (3 months after inception)</p> <p>Particular attention should be given to the effectiveness of institutional and financing arrangements; participation of communities, especially women; arrangements for cost recovery and operation and maintenance (O&M); and overall sustainability (3 months after inception)</p> <p>Realistic strategy based on analysis of total financial envelope available from all sources. (3 months after inception)</p>	<p>Monthly progress reports</p> <p>Summary matrix comparing approaches</p> <p>Monthly progress reports</p>	<p>Access to detailed information about donor activities is granted</p>
Phase II: Design Through Consensus			
<p>1. Assemble a consensus group for development of the project.</p> <p>2. Develop issues assessment.</p> <p>3. Circulate phase I summary document and issues analysis to all stakeholders.</p> <p>4. Conduct consensus meetings and finalize sector strategy and project approach.</p>	<p>Group represents all major stakeholders, including DDCs, VDCs, NGOs, and pertinent government agencies (1 month after inception)</p> <p>Should identify issues of common interest and conflict, and explore opportunities for finding common ground (2.5 months after inception)</p> <p>Documents circulated at least one week before first consensus meeting. (2.5 months after inception)</p> <p>Professionally facilitated sessions for each key issue (6 months after inception)</p>	<p>Acceptance of invitations to participate</p> <p>Monthly progress report</p> <p>Summary output at the end of each consensus meeting, and monthly progress reports</p>	<p>The key stakeholders will participate in process, with the intent of including their own interest in the project</p> <p>Consultants will conduct confidential and comprehensive interviews</p> <p>Consensus group is managed by an experienced professional facilitator, who can focus the discussion and manage the tensions in the group.</p>
Phase III: Project Feasibility Assessment and Detailed Design			
<p>1. Refine approach decided at consensus meetings to meet ADB policies and guidelines.</p> <p>2. Identify sample subprojects.</p>	<p>Refinements/changes are minor, and will be discussed with stakeholders (6 months after inception)</p> <p>The subprojects selected represent the typical conditions in the terai, hill, and mountain regions of Nepal (6 months after inception)</p>	<p>Design summary and logical framework</p> <p>Consultant's monthly progress reports</p>	<p>The initial design takes into account the constraints and requirements associated with ADB financing</p>

Design Summary	Performance Targets	Monitoring Mechanisms	Assumptions/Risks
<p>3. Follow agreed upon process for consulting with communities.</p> <p>4. Develop cost estimates, and financial and economic analysis for subproject.</p> <p>5. Conduct initial environmental examinations for subprojects.</p> <p>6. Develop resettlement and land acquisition plan.</p> <p>7. Define in detail all aspects of the project as required by ADB.</p> <p>8. Explore cofinancing opportunities.</p>	<p>Assemble user groups, identify technical solutions, assess willingness to pay, establish role of women in the process (7.5 months after inception)</p> <p>Should include water (both for new systems and rehabilitation), sanitation, and health education components (9 months after inception)</p> <p>Meets all ADB criteria (9 months after inception)</p> <p>Should include guidelines for assessment of impact, land valuation, and a compensation matrix (9 months after inception)</p> <p>9 months after inception</p> <p>Project developed by the TA meets criteria of possible cofinancers (throughout TA duration)</p>	<p>Consultant's monthly progress reports</p> <p>Consultant's monthly progress reports</p> <p>Consultant's monthly progress reports</p> <p>Consultant's monthly progress reports</p> <p>Consultant's monthly progress reports</p> <p>Consultant's monthly progress reports</p>	
Inputs			
<p>International Consulting</p> <p>1. Institutional /Sector Policy Specialist (Team Leader)</p> <p>2. Financial Economist</p> <p>3. Social Development/ Gender Specialist</p> <p>4. Consensus Building Specialist</p> <p>5. GIS Specialist</p> <p>6. Water and Sanitation Engineer</p>	<p>Around 15 person-months</p> <p>Terms of reference (TOR) sections:</p> <p>A. i, ii, iii, vi, vii, viii, ix, x, xi, xii</p> <p>B. i, iii, iv, vi, vii, viii</p> <p>C. i, ii, iii, iv, v, vi, vii</p> <p>TOR sections:</p> <p>A. iii, vi, ix, x, xi</p> <p>B. vi</p> <p>C. ii, iv, vi</p> <p>TOR sections:</p> <p>A. v, vii, viii</p> <p>B. i, vi, vii</p> <p>C. ii, iii, vi</p> <p>TOR sections:</p> <p>A. xii</p> <p>B. i, ii, iii, iv, v, vi, vii, viii</p> <p>TOR sections:</p> <p>A. i, ii, iii, iv, ix, xii</p> <p>A. vii, viii, ix</p> <p>B. vi, vii</p> <p>C. ii, iii, vi</p>		TA budget of \$750,000
<p>Domestic Consulting</p> <p>Equipment</p>	<p>Around 62 person-months.</p> <p>3 computers and licenses for GIS software, 1 large format plotter.</p>		

TERMS OF REFERENCE FOR CONSULTING SERVICES

1. The consultants will be required to prepare an integrated project that is suitable for financing through the sector lending modality of the Asian Development Bank (ADB).¹ Emphasis will be placed on complying with all relevant ADB policies and guidelines, and developing the project with extensive participation at all levels. The primary responsibilities for each international consultant are outlined in the technical assistance (TA) framework in Appendix 1. The team leader is responsible for defining the detailed work plans of the overall team. The TA will be carried out in three phases. The specific activities to be carried out under each phase are outlined below. ADB consultants are required to coordinate project activities with the consultants funded by Department of International Development (DFID) and United Nations Children's Fund (UNICEF) to support the TA.

A. Phase 1: Data Collection, Mapping, and Institutional Analysis (3 months)

2. The focus in this phase is to compile comprehensive data about the sector and its institutional framework, and to arrive at a realistic draft sector strategy. The information collected will be summarized at the end of the phase, for distribution to all stakeholders that will participate in phase II. The specific activities of phase I include the following:

- (i) Collect data on water supply and sanitation coverage, based on the 2001 national census, recent studies, district profiles, and records of all funding agencies, international nongovernment organizations (NGOs), and government agencies active in the water supply and sanitation sector of Nepal. Collect data on the incidence of waterborne disease through organizations active in the health sector. Collect data and develop an inventory of NGOs active in the sector, and their geographic and sectoral focus. Also identify any concentrations of minorities or disadvantaged population groups based on census data.
- (ii) Send out a team to conduct a sample survey in several districts in each administrative region² to get current information on the depth of coverage, and confirm the current operational status of systems that are in place.
- (iii) Determine the budget, scope, and coverage targets of ongoing and planned rural water supply projects financed by various agencies and NGOs. Assess the scope and budget for planned and ongoing work by Department of Water Supply and Sewerage (DWSS) and other government agencies.
- (iv) Use geographic information system (GIS) software, (preferably Arcinfo and Arcview) to map the above data from sections (i) through (iii) up to a village development committee (VDC) level of detail wherever available; digital base information can be obtained through National Planning Commission (NPC) and International Centre for Integrated Mountain Development (ICIMOD). Produce separate maps indicating the geographic concentrations of each set of data at a suitable scale, and produce a CD ROM containing the data sets and the maps, which are to be made publicly available through DWSS. Rank districts based on (a) access to water supply; (b) access to sanitation facilities; (c) incidence of waterborne disease; and (d) incidence of poverty. This ranking will indicate the districts, and VDCs if possible, that have the most acute need for assistance in

¹ Possibly cofinanced by DFID and UNICEF

² Eastern, Central, Western, Midwestern, and Far Western regions

water supply and sanitation. The ensuing project should be targeted at these areas, wherever feasible.

- (v) Collect socioeconomic data about the priority areas and assess the major social issues and constraints. Develop a methodology for the detailed social assessment of subprojects to be conducted in phase III.
- (vi) Assess the total financial envelope available for the water and sanitation sector, including investment from all potential sources including central Government, local government, and aid pipelines. Collect and assess community-level data on general affordability and willingness to pay for water and sanitation improvements in each region through a sample survey.
- (vii) Select a sample of subprojects completed under the 2nd, 3rd, and 4th Rural Water Supply and Sanitation (RWSS) projects, representing the conditions of the terai, hills, and mountain regions. Analyze these sub projects, in close consultation with the communities and other stakeholders, to understand both the positive and negative experiences associated with implementation and operation and maintenance (O&M). Evaluation criteria should be established in consultation with the various stakeholders.
- (viii) Identify sample subprojects implemented by other assistance agencies and NGOs in the sector, as well as projects by DWSS without external financial support, and analyze them based on the criteria in (vii). Develop a summary matrix that clearly illustrates the relative strengths and weaknesses of each approach, including that of ADB. As part of the analysis, consider the size of the investment and the scalability of individual approaches.
- (ix) Based on the subprojects analyzed, in (vii) and (viii), determine which technical options are generally feasible in each district, the average costs per capita for service delivery through each technology option, and the funds required to achieve the Government's target of 100 percent coverage in each district. Include the costs associated with social mobilization. Link this data with the GIS database from (iv).
- (x) Analyze the institutional strengths, weaknesses, budgets, and financial capacities of DWSS, Department of Local Infrastructure and Roads (DOLIDAR), sample district development committees (DDCs) and VDCs, Ministry of Local Development, Ministry of Health, and other government agencies involved in the sector. Also, assess the institutional capacity of sample NGOs that could potentially be involved in the ensuing project.
- (xi) Based on the findings of this analysis, prepare an investment prioritization framework for the sector. Based on this framework, prepare a realistic draft sector strategy for discussion during phase II; include short-, medium-, and long-term implementation and investment plans.
- (xii) Prepare the phase I report, compiling all the data and analysis done during the phase. Prepare a summary document and supporting CD-ROM with the GIS data for distribution to all the stakeholders that will participate in phase II.

B. Phase II: Design Through Consensus (3 months)

3. The primary intent of the consensus building effort is to channel the extensive local knowledge about the sector to first helping the Government to outline a realistic rural water supply and sanitation sector strategy, and then to design the framework for the ensuing investment project. This process is expected to increase transparency and maximize opportunities for participation by all stakeholder groups. The entire process should be coordinated and managed by a team of professional consensus-building specialists/facilitators,³ preferably with extensive experience in the region. Other specialists in the consulting team should be participants in the consensus meetings. Note that tasks (i) through (iv) for this phase should be carried out parallel with phase I. The specific tasks associated with this phase of the TA are as follows:

- (i) Identify individuals to represent the various stakeholder groups. Allow the stakeholders to nominate their own representatives, and ensure that all major stakeholder groups are represented. In the case of hard-to-represent groups, use a proxy.⁴ Send out invitations, conduct preliminary discussions, and confirm participants.
- (ii) Develop an issues assessment in consultation with all major stakeholder groups in the sector. Identify the major sectoral issues, where the various stakeholders disagree, and where they may be able to find common ground. Explore issues that affect both the formulation of a sector strategy, as well as the development of a project investment, and summarize views in an issues matrix. Define the detailed methodology for the consensus building efforts of phase II. Circulate the draft issues assessment to all participants for comments; make a Nepalese translation of the final version available to all participants, as required.
- (iii) Coordinate a consensus group that includes all the stakeholders identified through (i) and (ii). The participants, wherever possible, should be high-level staff, capable of making commitments on behalf of their organization. The gender balance of the group should also be considered. Establish a schedule and reserve a venue for a series of consensus meetings, preferably in a neutral location such as a hotel or conference center. Prepare the agenda for each meeting to focus on specific issues, with specific target outputs. The participants for each thematic session may be varied to focus the discussion, but the outputs of each session will be shared with the entire consensus group.
- (iv) Circulate the Issues assessment together with the summary document from phase I at least one week before the first consensus meeting. All material for distribution should be brief and easy to understand, illustrated using graphics wherever possible.
- (v) Conduct a series of consensus meetings with a view to developing the ensuing project. The beginning of each meeting should clearly lay out the ground rules for the process, the basis for decision making, and the target output. A single text

³ The team should include both international and domestic specialists. The ADB consultants will work in close coordination with DFID and UNICEF in developing detailed processes for this phase.

⁴ For example, a local NGO experienced in community mobilization may represent the interests of water user committees. The consensus group, however, should endorse the validity of such proxy representation in advance.

process⁵ will be used to document the proceedings. Equal opportunity and encouragement will be given for all stakeholders to participate. All attempts will be made to reach consensus on every important issue. The consultant will clearly document, summarize, and seek agreement on the output of each session. The summary of the output of the meeting will be circulated to the entire group the day after each meeting, and any final comments will be incorporated.

- (vi) The issues to be discussed and resolved through the consensus meetings will include (a) a realistic sector strategy and action plan for the rural water supply and sanitation sector based on actual resources available; (b) the institutional mechanisms most suitable for delivery of rural water supply, sanitation, and hygiene education programs, while clearly defining roles of each stakeholder; (c) a strategy for effectively mobilizing communities, with specific focus on involving women; (d) a transparent modality for the flow of funds, both for civil works and procurement; (e) an optimum strategy for O&M, addressing institutional and financial sustainability issues, as well as the need for major repairs; (f) sustainable mechanisms for monitoring and evaluation; and (g) criteria for subproject selection and levels of subsidy. Other factors may also be considered, based on the discussions of the group. In developing the solutions for each of the issues, the consultant/facilitator may use logical frameworks, or other similar project design tools, to guide and focus the process.
- (vii) The consultant is responsible for ensuring that the group understands the limitations and general policies of ADB associated with each issue, and that they are not ignored when solutions are developed. The consultant is also responsible for focusing the discussion on how to complement, rather than compete, with other externally funded projects in the sector. In the event that consensus cannot be reached, despite the best efforts of the facilitator and the group at large, the consultant will incorporate as many of the suggestions as possible in finalizing the summary output.
- (viii) After all consensus sessions are complete, compile all the outputs into a short report that includes the sector strategy and the project approach and framework developed by the group. The report should define the parameters of the water supply, sanitation, and hygiene education programs to be included under the ensuing project.⁶ Distribute the document to all participants.

C. Phase III: Project Feasibility Assessment and Detailed Design (4 months)

4. The focus of phase III is to test the feasibility of the project design developed in phase II, refine it as necessary to meet ADB requirements, and complete all the documentation necessary for developing the report and recommendation of the President for the ensuing project. The specific steps associated with this phase are as follows:

- (i) Develop standard letters of agreement for documenting arrangements for implementation of subprojects, cost sharing, and O&M, based on the outputs of phase II.

⁵ Susskind, Lawrence. 1999. *The Consensus Building Handbook*. London: Sage Publications.

⁶ Include a disclaimer that the understanding reflected in the report does not bind the ADB to implement the ensuing project in the same form.

- (ii) Identify sample subprojects based on criteria defined in phase II, in target areas representing the conditions in the terai, hill, and mountain regions. The sample will include subprojects that involve rehabilitation of old systems, as well as the construction of new ones. Conduct a social assessment and participatory rural appraisal in accordance with the methodology developed in phase I. Follow the processes defined in phase II to consult community groups already in place, or formulate new groups if necessary. Reach agreement with communities about technology options, locations, willingness to pay, and their role in implementing water and sanitation programs.
- (iii) Complete the technical design for least-cost water supply and sanitation options⁷ selected in consultation with the community, and relevant parties. Develop the outline and strategy for the hygiene education program to be implemented. Develop a resettlement plan and compensation matrix for both private and community land that may have to be acquired. The land acquisition will be kept to a minimum and involuntary resettlement will be avoided, unless there is no other option. Explain the final design, cost estimates, resettlement plan, and roles and responsibilities to all stakeholders and get commitment and agreement.
- (iv) Conduct a financial and economic analysis, and poverty impact assessment, and develop cost estimates for each of the sample subprojects and the overall project. Take into account the environmental and health impacts of improved water, sanitation, and hygiene awareness. Pay careful attention to the financial viability and sustainability, institutional and financing arrangements, funds flow, roles and responsibilities of each stakeholder, and levels of subsidy.
- (v) Prepare an initial environmental examination for each sample subproject, and a summary for the overall project in accordance with ADB's *Environmental Guidelines for Selected Infrastructure Development Projects* and environmental assessment requirements.
- (vi) Define in detail all aspects of the project in accordance with the requirements for ADB's new business processes. Explain links to ADB's sector and country strategies, and develop and explain the subproject selection criteria, project framework, chronology, problem/constraints analysis (diagram), sector analysis, cost estimates and financing plan, contract packages, implementation schedule, financial projections, summary poverty reduction and social strategy, project benefits, impacts and risks, outline terms of reference for consulting services, and a realistic framework for benefit monitoring and evaluation.
- (vii) Other tasks as required by the project officer to assist in preparing the report for the ensuing loan.

⁷ Consider low-cost options such as rainwater collection where feasible.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration			
i. International Consultants	285	0	285
ii. Domestic Consultants	0	155	155
b. Per Diem			
i. International Consultants	24	0	24
ii. Domestic Consultants	0	18	18
c. International and Local Travel	40	12	52
d. Reports and Communications	8	6	14
2. Equipment ^b	35	0	35
3. Workshops	6	14	20
4. Surveys	0	15	15
5. Miscellaneous Administration and Support Costs	8	6	14
6. Representative for Contract Negotiations	5	0	5
7. Contingencies	63	50	113
Subtotal (A)	474	276	750
B. Government Financing			
1. Office Accommodation and Utilities	0	30	30
2. Remuneration and Per Diem of Counterpart Staff	0	85	85
3. Transportation	0	20	20
4. Surveys and Workshops	0	25	25
Subtotal (B)	0	160	160
Total	474	436	910

Source: Asian Development Bank estimates.

^a Financed from the Japan Special Fund.

^b Includes 3 desktop computers, 3 licenses for ArcGIS or similar software, one large format color printer/plotter and other necessary office equipment. The Government is responsible for all taxes and duties, if any. Equipment will be turned over to MPPW after TA completion.