

**REPORT AND RECOMMENDATION  
OF THE  
PRESIDENT  
TO THE  
BOARD OF DIRECTORS  
ON A  
PROPOSED LOAN  
TO THE  
KINGDOM OF NEPAL  
FOR THE  
COMMUNITY-BASED WATER SUPPLY AND  
SANITATION SECTOR PROJECT**

**September 2003**

## CURRENCY EQUIVALENTS

(as of 01 September 2003)

Currency Unit		Nepalese rupee (NRe/NRs)
NRs1.00	=	\$0.013405
\$1.00	=	NRs74.600

## ABBREVIATIONS

ADB	–	Asian Development Bank
CBO	–	community-based organization
DDC	–	district development committee
DFID	–	Department for International Development
DWCC	–	district water coordinating committee
DWSS	–	Department of Water Supply and Sewerage
GCE	–	gender, caste and ethnicity
GIS	–	geographic information systems
HDI	–	human development index
IEE	–	initial environmental examination
LDO	–	Local Development Officer
LSGA	–	Local Self-Governance Act
M&E	–	monitoring and evaluation
MLD	–	Ministry of Local Development
MOF	–	Ministry of Finance
MPPW	–	Ministry of Physical Planning and Works
NGO	–	nongovernment organization
NPC	–	National Planning Commission
NPSC	–	National Project Steering Committee
O&M	–	operation and maintenance
PPMS	–	project performance management system
PMU	–	project management unit
RWSS	–	rural water supply and sanitation
SSG	–	sector stakeholder group
SOE	–	statement of expenditure
SWAp	–	sector wide approach
UNDP	–	United Nations Development Programme
VDC	–	village development committee
WSS	–	water supply and sanitation
WSST	–	water and sanitation support team
WUG	–	water users group
WUSC	–	water user and sanitation committee

## NOTES

- (i) The fiscal year (FY) of the Government ends on 16 July. FY before a calendar year denotes the year in which the fiscal year ends. For example, FY 2002 begins on 15 July 2001 and ends on 16 July 2001.
- (ii) In this report, "\$" refers to US dollars.

This report was prepared by a team consisting of E. Mayerhofer (team leader), M. Paniagua, L. Sharma, and H. Brooke.

## CONTENTS

	<b>Page</b>
LOAN AND PROJECT SUMMARY	iii
MAP	vii
I. THE PROPOSAL	1
II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES	1
A. Performance Indicators and Analysis	1
B. Analysis of Key Problems and Opportunities	2
III. THE PROPOSED PROJECT	4
A. Objectives	4
B. Sector Loan Approach	5
C. Components and Outputs	5
D. Special Features	8
E. Cost Estimates	9
F. Financing Plan	10
G. Implementation Arrangements	10
IV. PROJECT BENEFITS, IMPACTS, AND RISKS	16
A. Benefits and Impacts	16
B. Risks	18
V. ASSURANCES	18
A. Specific Assurances	20
B. Conditions for Loan Effectiveness	20
C. Conditions for Initial Disbursement	20
VI. RECOMMENDATION	20
APPENDIXES	
1. Project Framework	21
2. Institutional and Sector Analysis	25
3. External Assistance to the WSS Sector in Nepal, 1990-2002	29
4. Subproject Selection Criteria	30
5. Gender, Caste and Ethnicity Awareness and Empowerment Strategy	32
6. Cost Estimates	34
7. Implementation Schedule	35
8. Proposed Contract Packaging	36
9. Consulting Services for Project Management and Capacity Building	37
10. Project Milestones for Fund Release	43
11. Summary Poverty Reduction and Social Strategy (SPRSS) Form	45
12. Economic Analysis	48
13. Environmental Review Procedure for Screening and Approval of Subprojects	59

SUPPLEMENTARY APPENDIXES (available on request)

- A. Summary Initial Environment Examination
- B. Summary of Lessons Learned from Previous Projects in Nepal
- C. Draft Rural Water Supply and Sanitation Sector Strategy and Action Plan
- D. Districts Selection Criteria and Selected Project Districts
- E. Roles and Responsibilities of Communities/WUSC
- F. Project Technical Option Guidelines
- G. Details of PMU and WSST Staffing
- H. NGO Selection Criteria
- I. Sector Performance Indicators
- J. Subproject Implementation Steps
- K. Subproject Appraisal Reports
- L. Resettlement Framework
- M. Sector Financing and the Financial Envelope
- N. Implementation of Rural Infrastructure Projects in Conflict Situations

## LOAN AND PROJECT SUMMARY

<b>Borrower</b>	The Kingdom of Nepal
<b>Classification</b>	Poverty Classification: Core poverty intervention Thematic: Human development, gender and development
<b>Environment Assessment</b>	Category B. An initial environmental examination (IEE) was undertaken, and the environmental review procedure for screening and approving subprojects is in Appendix 13. The summary IEE of a sample project is in Supplementary Appendix A.
<b>Project Description</b>	<p>The Project, developed as a sector loan under the framework of the Government of Nepal's poverty reduction focus in the 10th National Development Plan, will provide rural water supply and sanitation (RWSS) facilities and services to improve community health and provide opportunities for income generation (Kingdom of Nepal November 2002. Tenth Plan (1998/99-2001/2002), Drinking Water and Sanitation Section) to about 1,200 communities in 21 districts. It will also facilitate building the capacity of local authority institutions (district development committees (DDCs), village development committee (VDCs)), reflecting the Government's commitment to decentralized decision making by focusing implementation at the district level. With its strong community-based approach, the Project will help rectify historical inequities in RWSS service provision to remote districts (Midwestern and Far Western development regions), and will focus on providing service to previously underserved communities and families in those communities whose access to RWSS was limited due to gender, caste, or ethnicity.</p>
<b>Rationale</b>	<p>Nepal has less than 0.4% of the world's population, but possesses 2.3% of the world's water resources. Despite the abundant water resources, however, the country's harsh terrain makes access to water supply difficult for many segments of the population. The Government estimates water supply coverage to be around 70% nationwide, but the quality of coverage data is highly variable and does not necessarily imply that the systems are working. Access in rural areas is substantially lower. Many rely on shallow wells, ponds, and streams, which are often both biologically and chemically contaminated. The burdens associated with shortage of water are borne disproportionately by women and children.</p> <p>Lack of water impacts on the lowest income groups, especially on women and children who spend as much as 4-5 hours a day fetching water from distant sources. This task causes the women to lose out on productive opportunities while children forgo educational opportunities. These groups also suffer significantly from waterborne diseases due to use of water unfit for human consumption and from the high cost of health care due to illness. The provision of safe water will enable these beneficiaries to make more productive use of their time and will yield significant health benefits.</p>

Section III of the 2001 Millennium Development Goals includes halving, by 2015, the proportion of people who are unable to reach or cannot afford safe drinking water. The goals also identify increased investment in the water and sanitation sectors, as one of the main strategies. In its 10th National Development Plan and its poverty reduction strategy, the Government emphasizes the need to improve water supply, sanitation, and community health services. It aims to increase sector coverage efficiently and equitably as a means of reducing poverty and accelerating broad-based economic growth to meet the needs of the poor and disadvantaged groups. It identifies access to safe drinking water and appropriate sanitation as one of its priorities in the Medium-Term Expenditure Framework.

## Objectives

The overall objective is to expand the coverage of improved water supply and sanitation facilities to underserved populations, especially to poor and remote areas, and to improve health and hygiene practices related to waterborne and sanitation diseases. The Project will (i) strengthen participating communities' capacity and capability to plan, cofinance, implement, manage, operate, and maintain improved water supply and sanitation facilities; (ii) increase the participation of castes, ethnic minorities, and women; (iii) increase hygiene education through awareness campaigns; (iv) develop the capacity and capability of a wide range of sectoral support organizations, such as nongovernment organizations/community-based organizations, to provide efficient and cost-effective support to communities and local authorities so as to improve RWSS service delivery; (v) support the implementation of the National Water Supply Sector Policy 1998 and the Rural Water Supply and Sanitation Sector Strategy and Action Plan; and (vi) support and strengthen the Government's decentralization efforts by focusing project activities and decision making at the local authorities and community levels.

The project has two components. The RWSS component includes community mobilization and capacity building for sustainability; construction of community water supply and sanitation services; health and hygiene program; and gender, caste and ethnic minority program. The institutional strengthening component will seek to strengthen the DDCs to provide water supply and sanitation services, and support the decentralization policy and the Department of Water Supply and Sewerage (DWSS).

## Cost Estimates

The estimated project cost is \$35.7 million equivalent, comprising foreign exchange of \$12.1 million (34%) and local currency equivalent of \$23.6 million (66%).

## Financing Plan

Source	(\$ million)			
	Foreign Exchange	Local Currency	Total Cost	%
Asian Development Bank	12.1	11.9	24.0	67
Government	0.0	7.7	7.7	22
Local authorities (DDC and VDC)	0.0	0.4	0.4	1
Beneficiaries	0.0	3.6	3.6	10
<b>Total</b>	<b>12.1</b>	<b>23.6</b>	<b>35.7</b>	<b>100</b>

DDC = district development committee, VDC = village development committee.

<b>Loan Amounts and Terms</b>	It is proposed that ADB provide a loan in various currencies equivalent to \$24 million from ADB's Special Funds resources. The loan will have a term of 32 years, including a grace period of 8 years; an interest rate charge of 1% per annum during the grace period and 1.5% per annum thereafter; and such other terms and conditions set forth in the Loan Agreement.
<b>Period of Utilization</b>	Until 30 June 2010
<b>Estimated Project Completion Date</b>	31 December 2009
<b>Implementation Arrangements</b>	A project management unit will be established in Kathmandu. To head the unit, the Ministry of Physical Planning and Works (MPPW) will appoint a project director (class I officer with sector experience) who will provide management and policy support to the district-based water and sanitation support teams (WSSTs) and will facilitate a detailed strategy and the implementation of the institutional strengthening component. WSSTs will be established within the DDC in each of the selected districts to support the communities in implementing RWSS schemes and to ensure that the social programs are integrated in planning and implementation. WSST together with the DDC will provide technical support for the RWSS component. A participatory approach will be adopted to formulate and design the RWSS schemes, and the communities will have the main responsibility for scheme identification, design, and implementation.
<b>Executing Agency</b>	MPPW is the Executing Agency, with responsibility delegated to DWSS.
<b>Procurement</b>	Goods and services financed by the ADB loan will be procured in accordance with ADB's <i>Guidelines for Procurement</i> and the Government's procurement procedures acceptable to ADB. Equipment packages valued at \$500,000 equivalent or less will be procured following international shopping procedures acceptable to ADB and packages valued at \$50,000 equivalent or less will be under direct purchasing procedures. There will be no procurement by international competitive bidding. Civil works contracts for the rural component will be small, with an average value of \$10,000–15,000 equivalent and will follow community participation in procurement in ADB's <i>Guidelines for Procurement</i> .
<b>Consulting Services</b>	The Project will require 1,217 person-months of consulting services (15 person-months international, and 1,202 of domestic) for institutional reform, finance and accounting, social development, community development, and project management. One consulting firm will provide consulting services to the PMU. For the rural component, 10 consulting contracts (2 contracts per batch of districts) will provide consulting services to the WSSTs. Consultants and nongovernment organizations/private sector organizations will be recruited in accordance with ADB's <i>Guidelines on the Use of Consultants</i> using the quality- and cost-based selection method and other arrangements satisfactory to ADB for engaging of domestic consultants.

**Project Benefits and Beneficiaries**

The main benefits of the Project will be (i) improved health and nutrition; (ii) less resources (time and cash) spent by households to obtain water, especially by women and young girls; and (iii) improved conditions for women, and socially excluded castes and groups. By reducing child mortality and malnutrition due to waterborne diseases, and increasing environmental sustainability due to reduction of groundwater extraction and elimination of unsafe sanitation practices, the Project directly addresses both ADB's and the Government's goal of poverty reduction and contributes to the achievement of the Government's millennium goals.

Other benefits include improved school attendance due to better health and reduced water carrying burdens, especially for girls; support for decentralization efforts; improved sectoral management and increased sector capacity; and improved health of the general population and reduced mortality.

The Project will provide improved WSS facilities and associated health services to about 1,200 rural communities in the Midwestern and Far Western development regions. About 850,000 people will benefit from safe drinking water. The Project focuses on poor areas where conflict has heightened poverty. The project efforts will focus more on addressing the needs of the historically underserved communities in previously conflict-affected areas.

**Risks and Assumptions**

The Project assumes (i) a stable political environment and economic stability in Nepal; (ii) continuing Government support to the Project, in the form of available funds, support to the decentralization process, and implementation of the RWSS sector strategy and action plan; and (iii) DWSS acting as a facilitator of RWSS.

It is assumed that the rural communities will demand improvement of water infrastructure in their communities and will be willing and able to contribute 20% of the capital investment and to take over the operation and maintenance of the schemes.

A lack of progress in the peace process is also a significant risk as it may impede the implementation of the rural component due to security and safety concerns in some districts and because local elections are not likely to be held unless the peace negotiations take place. Project activities could continue, albeit more slowly, if the current cease-fire does not hold.



## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Kingdom of Nepal for the Community-Based Water Supply and Sanitation Sector Project. The project framework is in Appendix 1.

## II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

2. In its 10th National Development Plan and its Poverty Reduction Strategy, the Government emphasizes the need to improve water supply, sanitation, and community health services in Nepal, and increase coverage efficiently and equitably to accelerate broad-based economic growth to meet the needs of the poor and disadvantaged groups. The Government identifies access to safe drinking water and appropriate sanitation as one of its priorities in the Medium-Term Expenditure Framework. Section III of the 2001 Millennium Development Goals (MDG) includes halving, by 2015, the proportion of people who are unable to reach or cannot afford safe drinking water. The MDG also identifies increased investment in the water and sanitation sectors, as one of their main strategies.<sup>1</sup> The Asian Development Bank (ADB) country strategy for the social sectors emphasizes the development of adequate infrastructure and services in rural areas.<sup>2</sup>

### A. Performance Indicators and Analysis

3. Nepal has less than 0.4% of the world's population, but possesses 2.3% of the world's water resources. Despite the abundant of water resources, however, the country's harsh terrain makes access to water supply difficult for many segments of the population. The Government estimates water supply coverage to be around 70% nationwide, but the quality of the coverage data is highly variable and does not necessarily imply that the systems are working. Access in rural areas is substantially lower. Many rely on shallow wells, ponds, and streams, which are often both biologically and chemically contaminated. 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 as much as 4-5 hours a day fetching water from distant sources.

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

5. Currently, donors are increasing their financial support for improved rural water supply and sanitation (RWSS) services. To help focus these efforts, representatives of nearly all providers of RWSS services participated in a consensus building process to develop a broad

---

<sup>1</sup> United Nations 2001. Road Map Toward the Implementation of the United Nations Millennium Declaration. Report of the Secretary-General.

<sup>2</sup> In 2000, the Government of Nepal requested ADB assistance to prepare a community-based water supply and sanitation project. In March 2002, technical assistance (TA3844-NEP: Community Based Water Supply and Sanitation Project) for \$750,000 was approved.

<sup>3</sup> 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.

and in-depth RWSS sector strategy for Nepal. The purpose of the sector strategy is to formulate a common institutional, financial, community-based approach for planning and delivering improved RWSS services. The strategy reflects Government policies related to decentralized service provision and financial control, evolving responsibilities of line agencies and local authorities, and acceptance of the importance of full community participation in subproject planning and implementation. The sector strategy confirms the importance of strong community participation for sustainability, and supports the need to integrate community demand for improved services, willingness to pay, and affordability in project planning, financing and implementation.

6. A major institutional decentralization effort is under way across all sectors. The Local Self-Governance Act (LSGA) of 1999 mandates decentralization from central to local levels and outlines the roles of the local authorities at district and village levels. The LSGA is clear that district and village authorities will be taking increasing responsibility for planning and providing rural infrastructure (including those associated with water). Two district-level UNDP-supported programs - the Local Governance Program and the Participatory District Development Program - are being implemented. Both intend to establish an enabling environment to implement key LSGA provisions. They will be integrated in the Local Governance Strengthening Program, supported by the Department for International Development (DFID), UNDP, Norway, the Danish International Development Assistance, the Netherlands International Development Cooperation Agencies, and possibly the Gesellschaft für technische Zusammenarbeit. District development planning activities, ongoing for several years, have resulted in district periodic plans for most districts. The LSGA requires that line ministry departments such as the Department of Water Supply and Sewerage (DWSS) no longer implement subprojects at the district or village levels as they had in the past. Sectoral implementation responsibilities will change even further as major donor organizations follow best practice, lead by nongovernment organizations (NGOs), the Rural Water Supply and Sanitation Fund Development Board (Fund Board), and bilateral donors in actively supporting demand-driven, community-based project planning and implementation.

7. Compounding all the usual challenges of sectoral development is the considerable political uncertainty in Nepal. Major transitions within the last 2 years have greatly complicated not only sectoral planning, but also virtually all other activities. Local elections were not held in time and the terms of elected local authorities officials expired in mid-July 2002. National elections scheduled for November 2002 were cancelled. As a result, there is no citizen representation at any level of Government. This has specific impacts at the district level and below, where water supply and sanitation (WSS) sectoral development activities are focused. The Government's nascent decentralization efforts have yet to be firmly institutionalized, and there are clear conflicts among line ministries themselves as to how and when transfer of responsibilities and associated budgets will effectively take place. Full support for the decentralization efforts will dramatically improve services of WSS facilities to those who so desperately need them. Political stability, elections, and implementation of the terms of the LSGA would provide the framework for dramatic improvement of RWSS service delivery. A detailed discussion of the policy environment and ongoing sector reforms is in Appendix 2.

## **B. Analysis of Key Problems and Opportunities**

8. In spite of considerable RWSS investment, both water and sanitation coverage remain well below targeted levels. Awareness of the importance of hygiene and sanitation behavioral change is limited in many communities. At the core of the slow progress in the sector are limited resources, and lack of accountability and collaboration with stakeholders. About 5-7% of Nepal's

development budget is allocated to the water and sanitation sector. Of this, two thirds is financed by external sources, including ADB. Unfortunately, coordination and dialogue among assistance agencies are inadequate and result in significant overlaps in target areas and inefficient mobilization of available resources. Other significant problems are lack of transparency and comprehensive information in the sector; inadequate community participation during implementation of water supply projects; continued exclusion of women, castes and ethnic minorities from community decision making; inefficient mobilization of NGOs; weak private sector activity in rural areas; inadequate health and hygiene education programs; and lack of focus on sanitation improvements. These facts have generated considerable support for sectoral development among multilateral and bilateral donors and international and local NGOs. Each has developed a slightly different approach to dealing with these problems. Through an extensive consensus building process, a draft Rural Water Supply and Sanitation Sector Strategy, along with a financial envelope, was developed to help rationalize sector development, create workable institutional arrangements, and assist the Government in reaching its coverage targets. Appendix 3 describes external assistance in the sector.

9. The institutional context of the RWSS sector in Nepal is changing as a result of decentralization. The Ministry of Physical Planning and Works (MPPW) remains principally responsible for water supply-related activity in the country, including developing sector strategies and programs, overseeing budgets, and coordinating external assistance activities. The Department of Water Supply and Sanitation (DWSS), under MPPW, has been responsible for water supply in semiurban and rural areas. It is required to hand over completed schemes to local authorities and water user groups (WUGs) for operation and maintenance (O&M). DWSS has been unable to adequately address issues, in the past, with regard to gender, participation, and NGO involvement. The Government is restructuring DWSS by changing its role from implementation to facilitation (technical support, regulation, quality control and monitoring, etc.). Planning and implementing of smaller schemes will be decentralized to the district level and beneficiary communities. The Project's decentralized policy and implementation modality strongly support the letter and spirit of the LSGA of 1999, and is intended to support institutional reform and decentralization. This approach promotes good local governance through a project implementation framework mandating full participation by beneficiary groups in subproject planning, implementation, and follow-up support.

10. 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 fourth RWSS<sup>4</sup> project, was successfully completed in early 2002. The primary lessons learned through efforts of ADB<sup>5</sup> and others in the sector are (i) the importance of emphasizing community consultation, mobilization, to improve system sustainability; (ii) the need for inclusive gender, caste and ethnic minority implementation modalities; (iii) the need to emphasize hygiene and sanitation education programs 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. The consensus building process undertaken during project preparation revealed significant agreement on many substantive issues including community contribution; the need for gender, caste, and ethnic sensitivity; the importance of hygiene and sanitation improvement;

<sup>4</sup> ADB. 1996. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Nepal for the Fourth Rural Water Supply and Sanitation Sector Project*. Manila.

<sup>5</sup> ADB. 1997. *Project Performance Audit Report on the Rural Water Supply Sector Project in Nepal*. Manila; and ADB. 2002. *Impact Evaluation Study of Water Supply and Sanitation Projects in Selected Developing Member Countries* Manila.

the need to focus sectoral activities to address the needs of the poor; and the need to build the capacity of district development committees (DDCs) and refocus DWSS roles and responsibilities. The process also demonstrated the value of broad participation that included government agencies, NGOs, external donors, local authorities representatives, and beneficiary communities in development if a comprehensive sector strategy is to have local ownership. The process revealed issues related to institutional arrangements that were not so easily addressed, given the ongoing decentralization process. The subproject appraisal in five communities and the field visits during fact-finding substantiated and confirmed the statements and conclusions of the stakeholders.

12. In line with the Government and ADB policies and the lessons learned<sup>6</sup>, the Project will finance investments in RWSS to address the critical need to extend the coverage of water supply, sanitation, and community health services to underserved and unserved communities. The Project will focus especially on poorer communities and those in remote areas or in conflict-affected areas. The project design is based on the outcomes of a comprehensive stakeholder consensus building exercise undertaken under PPTA NEP-3844, which resulted in the draft Rural Water Supply and Sanitation Sector Strategy and Action Plan. The Project and the strategy and action plan follow the policies spelled out in the National Water Sector Policy and Strategy, 1988, the draft National Sanitation Policy, 2002, the 10th National Development Plan, Nepal's Medium-Term Expenditure Framework, and Nepal's Poverty Reduction Strategy Plan. The Project will address key sector issues by (i) including local authorities and community participation in planning and implementing of RWSS subprojects, with communities contributing at least 20% of capital costs and becoming owners of the assets; (ii) delegating O&M of the schemes to the WUG; (iii) implementing a strategy to change DWSS' role from provider to facilitator; and (iv) promoting public awareness campaigns to educate consumers about water as a scarce resource and the relationship between water, sanitation, and health.

### **III. THE PROPOSED PROJECT**

#### **A. Objectives**

13. The overall objective is to expand the coverage of improved water supply and sanitation facilities to underserved populations, especially to poor and remote areas, and to improve health and hygiene practices related to waterborne and sanitation-related diseases. The Project will (i) strengthen participating communities' capacity and capability to plan, co-finance, implement, manage, operate, and maintain improved WSS facilities; (ii) increase participation of all castes, ethnic minorities, and women; (iii) increase hygiene education through awareness campaigns; (iv) develop the capacity and capability of a wide range of sectoral support organizations, including NGOs/community-based organizations (CBOs), to provide efficient and cost-effective support to communities and local authorities; (v) support the implementation of the 1998 National Water Supply Sector Policy and the draft Rural Water Supply and Sanitation Sector Strategy and Action Plan (Supplementary Appendix C); and (vi) support and strengthen the Government's decentralization efforts by focusing project activities and decision making at the local authorities and community levels.

---

<sup>6</sup> Supplementary Appendix B describes in detail how the project design incorporated these lessons.

## **B. Sector Loan Approach**

14. This Project has been formulated as a sector loan in line with the Government's 10th National Development Plan and decentralization strategy. ADB's sector loan modality was selected as the most appropriate method of financing the Project. ADB's sector loan criteria have been met: (i) as part of the Government's 10th Plan, the RWSS sector investment plan under the Project is well-conceived and appropriately formulated to meet priority needs of the sector; (ii) the sector institutions have the capability to implement the draft RWSS sector strategy; and (iii) sector policies are appropriate.

## **C. Components and Outputs**

15. The Project intends to use a community-based, demand-driven approach to extend WSS facilities to approximately 1,200 communities in the 21 Districts prioritized by the Government, ADB, and major stakeholders. Selection of the project districts followed the prioritization set by the gender-adjusted human development index, existing WSS coverage, incidence of diarrhea and other waterborne diseases, presence of occupational castes and ethnic minorities, and remoteness from developed areas.<sup>7</sup> The Project has a rural water supply and sanitation component (the rural component) and an institutional strengthening component.

### **1. The Rural Component**

16. The rural component will implement RWSS infrastructure (gravity, hand pump on tube well, piped with overhead tank, and rainwater systems) in 21 districts. Beneficiary communities will implement WSS subprojects with support from NGOs/CBOs, village development committees (VDCs) and DDCs. The Project will be demand-driven.

17. Equity and pro-poor considerations through targeted subsidies will be incorporated in the rural component,<sup>8</sup> based on subproject selection criteria applied by the Water and Sanitation Support Team (WSST) (Appendix 4). Direct subsidy for latrine construction is recommended for poor households as defined by indicators such as food insufficiency, households with female heads, wage laborers, or disability.

18. A demand-driven approach will be used to achieve institutional and financial sustainability of the project benefits. To achieve this end, the direct beneficiaries will be required to make minimal contributions to the Project to qualify for project funding. This minimum contribution (local counterpart funding) is as follows: (i) DDCs will be required to contribute up-front and in cash 10% of their locally generated annual revenue for the previous fiscal year; (ii) VDCs will contribute up-front and in cash 2.5% of the total cost of the construction of the schemes within the jurisdiction of the VDCs to the relevant water user and sanitation committee (WUSC)<sup>9</sup> project accounts; and (iii) all communities wishing to participate in the Project will be required to contribute at least 20%<sup>10</sup> with more than 1% of this 20% in cash. Communities must also be willing to take full managerial and financial responsibility for O&M. The Project requires that regular O&M costs be fully borne by the WUG members.

<sup>7</sup> Supplementary Appendix D lists the districts and gives the district selection criteria.

<sup>8</sup> Equity and pro-poor considerations are set out in the Government's Community Contribution in Water Supply and Sanitation Policy, 2002.

<sup>9</sup> WUGs comprise the WUSC, which is the legal entity elected by and representing the WUGs.

<sup>10</sup> For poor communities in remote inaccessible areas, the minimum contribution will be reduced to 10% as set out in the Government's Policy on Community Contribution, 2002.

19. The rural component will include the following activities:

**a. Community Mobilization and Capacity Building for Sustainability**

20. The rural component focuses on developing ownership of the subprojects by the project beneficiaries, who will organize into WUGs and participate actively in design and implementation. The Project will train and assist communities to organize WUGs; develop their capacity to plan, construct, manage, operate, and maintain water supply schemes and sanitation facilities, and ensure the sustainability of water supply after project completion.<sup>11</sup>

21. The WUG will plan, build, manage and operate, and maintain their water supply and public sanitation facilities. This requirement will be made explicit to community members during initial community mobilization before any formal commitment by the Project, or the community. WUG members will receive training in the importance of O&M support, and guidelines for tariff setting and revenue collection to ensure that funds are available for O&M. The project management unit (PMU) will develop manuals to distribute to the DDCs and the WUGs. In addition, village maintenance workers, preferably married women (who are more likely to remain in the village), will be selected and trained to operate and maintain the facilities provided. To ensure that funds will be available for O&M and to foster the practice of tariff collection, communities must establish an O&M fund.

**b. Construction of Community Water Supply and Sanitation Facilities**

22. The proposed Project will finance the construction by WUG of water supply schemes<sup>12</sup> in approximately 1,200 communities,<sup>13</sup> including the rehabilitation of approximately 250 existing schemes. The 1,200 schemes will be approximately 65% gravity, 23% tube well, 11% overhead tank, and 1% rainwater. The main technical options for water supply under the Project are (i) gravity pipe system (ii) rainwater harvesting (iii) piped systems with overhead tank and (iv) groundwater wells with hand pumps. The WUG will select the appropriate water supply technology from the options in the project technical guidelines.<sup>14</sup>

23. The Project will also (i) set up a Sanitation Revolving Fund to provide credit for construction of individual family latrines, and (ii) finance sanitation facilities for schools. Management and operation of the fund will reflect best practice as established by the Fund Board that uses this approach to support community sanitation. The Sanitation Revolving Fund will provide initial seed money for the community revolving fund and will be sufficient to provide credit to 25% of the households to build approximately 30,000 family latrines.<sup>15</sup> The Project will provide subsidies of NRs5,000 in the terai and NRs3,000 in the hills to 10% of the poorest households in each community. The beneficiaries will choose among simple pit latrines, ventilated improved pit latrines, double pit latrines, and pour flush latrines.

24. The rural component will support the current National Water Supply Policy (1998) by making WUGs the center of implementation. The WUGs will register according to Water Resource Act 1992 to establish a WUSC. Each WUG will apply for a license under the terms of Water Supply Regulations 1998, after which it will be entitled to construct, operate, and maintain

<sup>11</sup> Supplementary Appendix E describes the roles and responsibilities of the WUG and their elected WUSC.

<sup>12</sup> Includes water treatment to meet WHO water quality standard if required.

<sup>13</sup> Can include ongoing Government schemes if they are in district plan and all project conditions have been met.

<sup>14</sup> Supplementary Appendix F describes the project technical guidelines for the schemes.

<sup>15</sup> Under the Sanitation Revolving Fund, the maximum credit for constructing a latrine will amount to NRs7,500 in the terai and NRs5,000 in the hills.

the scheme, and charge consumers for water provided to them. To ensure the sustainability and active participation of the community, the WUG will contribute to the scheme as follows: (i) at least 20% of the cost of the scheme<sup>16</sup> with at least 1% of that 20% to be up-front in cash; and (ii) the estimated cost of 1 year of O&M of the scheme up-front in cash. With poor communities in remote inaccessible areas, the minimum contribution is reduced to 10%<sup>17</sup> under the terms in the national Community Contribution in Water Supply and Sanitation Policy, 2002.

### **c. Health and Hygiene Program**

25. To maximize the health impact of project interventions, and to reduce the incidence of diarrhea and other waterborne diseases, the Project will adopt the hygiene improvement framework<sup>18</sup> and will (i) train and support DDCs, VDCs, and community leaders in planning, monitoring, and evaluating of sanitation and hygiene improvement following the guidelines set out in the basic sanitation package<sup>19</sup> developed by United Nations Children's Fund/DWSS; and (ii) implement for WUG members and beneficiary communities awareness programs in hygiene, health and sanitation practices. The Project will specifically incorporate gender-appropriate and user-friendly approaches for boys, girls, men and women, and out-of-school children.

### **d. Gender, Caste and Ethnic Minority Program**

26. Traditionally, women, lower caste members, and ethnic minorities have not participated fully in community decision making. Some castes and ethnic minorities have had restricted access to WSS provided through projects. The rural component will implement training and awareness programs to increase active participation of disadvantaged groups and women in all project activities. As a condition for funding, communities will have to form a WUSC with at least a proportional representation of poor, castes, ethnic minority groups and with at least 50% of their executive and general members being women (of any caste or ethnic group). Proportional representation by the Project means that if, for example 30% of households in a community are Dalits, then at least 30% of the members of the WUSC must be Dalits (regardless of gender). Appendix 5 describes the targets and activities in a program set for the poor, gender and castes and ethnic minority group.

## **2. The Institutional Strengthening Component**

27. The institutional component will support the implementation of the National Water Supply Sector Policy, 1998 and the draft National Sanitation Policy, 2002, in line with the Government's decentralization policies as set out in the LSGA. This component will assist Government institutions in the rural water sector to fully take on their new roles and responsibilities assigned under decentralization by strengthening DDCs capacity to provide WSS through a community-based demand-driven approach. The Project will also support MPPW to adopt the institutional changes required by the devolution of functions to DDCs.

---

<sup>16</sup> Including contribution in kind.

<sup>17</sup> Community contribution follows the requirements set out in the Government's Community Contribution in Water Supply and Sanitation Policy, 2002. Cost of airfreight transportation for equipment and materials will be excluded.

<sup>18</sup> The hygiene improvement framework provides an integrated approach that combines expanded access to hardware with hygiene promotion and supportive enabling environments to reduce diarrheal disease.

<sup>19</sup> DWSS and the PMU will revise the basic sanitation package before implementing of the Health and Hygiene Program.

**a. Strengthening DDC Capacity to Provide Water Supply and Sanitation**

28. The Project will train and give technical support to participating DDCs to allow them to plan, manage, monitor, and evaluate demand-driven community-based RWSS projects; and to implement and monitor gender and caste and ethnic minority groups programs, and health, hygiene, and sanitation awareness programs.

29. The Project will provide support to consolidate and develop materials, training packages and manuals focusing on community participation, O&M of RWSS, and gender, caste and ethnicity issues, which will be incorporated in the various training programs to be conducted at the district, village, and community levels. The Project will also provide for technical assistance to orient project staff and stakeholders on these issues and to monitor their progress to ensure that such issues are not overlooked during the various stages of the project and individual scheme cycle.

30. Project support to each DDC's WSST will be for a period of 4 years (two full subproject cycles) upon their satisfactory performance in meeting sector targets and successful progress in implementing and complying with project guidelines. Funding to DDCs in the first year for pilot subprojects will be in accordance with their annual plans and provision of the DDC contributions. Further funding for community mobilization and scheme construction in subsequent years will depend on the performance of each DDC. DDCs may continue to access project funds beyond two subproject cycles if their performance continues to be satisfactory. DDCs' performance will be monitored by the PMU, the MPPW Sector Monitoring and Evaluation Unit, and the RWSS sector stakeholder group.

**b. Supporting the Decentralization Policy and DWSS**

31. The Project will provide technical assistance for developing and implementing a strategy to improve human resource allocation in line with the new roles and responsibilities of DWSS defined under the RWSS sector strategy and action plan and in line with the LSGA. The Project will also (i) undertake a human resource review reflecting DWSS' new role and train DWSS in its new role, including developing and maintaining standardized databases of WSS facilities and services; (ii) rationalize and make consistent the National Water Supply Sector Policy, 1998 with the RWSS Sector Strategy and the existing policies and regulations affecting the RWSS sector; and (iii) give technical support to project implementation, such as the development of standards, manuals, and detailed technical guidelines for RWSS.

**D. Special Features**

32. **Ethnic Diversity.** All ethnic groups in the project area are significantly represented in the beneficiary population. The activities in the rural component pay particular attention to including all ethnic and caste groups so that benefits will accrue equally to all groups residing in the communities.

33. **Demand-Driven and Participatory Approach through NGOs/CBOs.** The rural component is based on a demand-driven participatory approach facilitated by NGOs to help the beneficiaries organize into WUGs and collectively take responsibility for implementation and O&M of the water systems. The counterpart NGOs work with the communities to raise awareness and introduce the project methodology. Communities are required to show their commitment by contributing 20% of the capital cost of schemes. The beneficiaries decide on the

type of technology and, with the assistance of WSST and NGOs, take responsibility for designing and implementing the schemes. The Project provides the beneficiaries with training and practical experience in project and financial management, which will provide communities with the skills to initiate other community improvements.

**34. NGOs-Supported Community-Based Approach.** National and district-based NGOs are central to project implementation. NGOs will be engaged to provide awareness programs and train community members and their WUSCs. The NGOs will assist each participating community in planning and implementing construction activities and in monitoring and reporting on progress. This NGO-supported community-based approach reflects best practices in Nepal and is successful in there. Local and district-based NGOs and CBOs have remained active in the conflict areas over the past several years of the insurgency. Because they were not politically driven and were able to work with both sides to help meet the needs of communities, NGOs are able to continue their social and local infrastructure development projects.

**35. Support to Decentralization.** The Project supports the Government's decentralization strategy and helps implement it by focusing project implementation at the district level and using NGOs and private sector organizations to assist with implementation at the community level. The DDC will receive training and assistance to develop their skills and to enhance their capacity to work with NGOs and CBOs using participatory, demand-driven approaches.

**36. Policy.** A unified program approach has been created by first developing the RWSS Sector Strategy and Action Plan through consultative stakeholder workshops that thoroughly involved the sector stakeholders at every step. This process resulted in several specific policy recommendations to update relevant sector policies and strategies. The Project assists ongoing policy reforms through support to the formal stakeholder group, which has a sector policy role. The Project also provides resources to enable DWSS to adapt to its new role in the sector.

## E. Cost Estimates

37. The project cost presented in Table 1 is based on an indicative 1,200 subprojects and other components as well as discussions with stakeholders and field visits. The total cost of the Project is estimated at \$35.7 million equivalent, including about \$2.3 million equivalent for duties and taxes. The foreign exchange cost is estimated at \$12.1 million, or about 34% of the total project cost, including \$0.7 million for interest on the ADB loan during construction. The local currency cost is estimated at \$23.6 million equivalent, about 66% of the total project cost. Detailed cost estimates are provided in Appendix 6.

**Table 1: Project Cost by Component**  
(\$ million)

<b>Project Component<sup>a</sup></b>	<b>Foreign Exchange</b>	<b>Local Currency</b>	<b>Total</b>
<b>A. Rural Water Supply and Sanitation</b>	10.1	17.7	27.8
<b>B. Institutional Strengthening</b>	1.0	2.1	3.1
<b>C. Incremental Administrative Costs</b>	0.3	3.8	4.1
<b>Interest during Construction</b>	<b>0.7</b>	<b>0.0</b>	<b>0.7</b>
<b>Total</b>	<b>12.1</b>	<b>23.6</b>	<b>35.7</b>

<sup>a</sup>Includes taxes and duties.

Source: Asian Development Bank estimates.

## F. Financing Plan

38. It is proposed that ADB provide a sector loan of \$24.0 million equivalent from its Special Funds resources, which will represent 67% of the total cost of the Project. The ADB loan will have a term of 32 years, including a grace period of 8 years; an interest rate charge of 1% per annum during the grace period and 1.5% per annum thereafter; and such other terms and conditions set forth in the Loan Agreement. ADB will cover 100% of the foreign exchange costs and part of the local currency costs. DDCs, VDCs, and the beneficiaries themselves will meet the balance of 32% of the intervention.

39. ADB will cover a portion of the costs relating to civil works, office equipment, consulting services, and training and public awareness and education campaigns, but will not include the salaries of regular project staff, procurement of vehicles<sup>20</sup> (excluding motorcycles), rental of office space, and taxes and duties. The financing of the local currency cost by ADB is justified by the nature of the Project, which will address local poverty, gender concerns, caste and ethnic minorities, and environmental health issues in the project areas. The Government will disburse the funds to DDCs as a grant through budgetary allocation. The proposed financing plan is shown in Table 2.

**Table 2: Financing Plan**  
(\$ million)

Source	Foreign Exchange	Local Currency	Total Cost	%
Asian Development Bank	12.1	11.9	24.0	67
Government	0.0	7.7	7.7	22
Local authorities (DDC and VDC)	0.0	0.4	0.4	1
Beneficiaries	0.0	3.6	3.6	10
<b>Total</b>	<b>12.1</b>	<b>23.6</b>	<b>35.7</b>	<b>100</b>

DDC = district development committee; VDC = village development committee.

## G. Implementation Arrangements

### 1. Project Management

#### a. Central Level

40. The Ministry of Planning and Physical Works will be the Executing Agency. MPPW has delegated to DWSS authority to execute the Project. A PMU under DWSS will be established in Kathmandu to support the Project. A national project steering committee (NPSC), chaired by the secretary MPPW, who will be the sector coordinator, will guide the PMU and make all policy and strategic decisions. The Government will establish the sector stakeholder group<sup>21</sup> chaired by the secretary MPPW, and will call for a meeting at least twice a year to ensure (i) coordination of sector reforms and interventions supported by external funds and the Government, and (ii) exchange of information.

<sup>20</sup> As per current ADB/Nepal policy on the use of motor vehicles.

<sup>21</sup> The sector stakeholder group will include representatives of Ministry of Finance (MOF), Ministry of Local Development (MLD), National Planning Council (NPC), DWSS, Association of District Development Committees Nepal (ADDCN), Ministry of Health (MOH), Ministry of Water Resources, the Fund Board, ADB, World Bank, Department for International Development, UNICEF, Ministry of Foreign Affairs, Finland, Water Aid, Helvetas, the private sector, and others.

41. The NPSC will provide overall coordination and guidance for the Project.<sup>22</sup> During implementation, the NPSC will deal with policy matters as they arise, and coordinate with other ministries and agencies. It will meet every 3 months, or as often as necessary.

42. The PMU will be established within DWSS' Kathmandu office. An experienced project director at the level of a Class I officer with sector experience will be appointed to head the PMU for the duration of the Project. A core team of MPPW/DWSS counterparts, along with a team of international and domestic consultants, will assist the project director. Supported by the PMU, the project director will coordinate all activities under the Project; will be directly responsible for overall project management, monitoring, and supervision under the guidance of the director general of DWSS; and will report to the MPPW secretary.

43. The PMU will (i) prepare the overall project implementation plan and consolidated annual work plan; (ii) consolidate and develop training materials, policy manuals, and technical guidelines; (iii) assist eligible DDCs in preparing annual and periodic plans for the RWSS sector; (iv) provide management and technical support to DDCs; (v) monitor and supervise all project management activities; (vi) organize all monitoring and evaluation (M&E) activities; (vii) ensure satisfactory implementation of the gender action plan and caste and ethnic minority programs; (viii) liaise with the Monitoring and Evaluation Unit of MPPW; (ix) carry out financial management and reporting of project accounts; and (x) prepare necessary progress reports and the project completion report. The PMU will be properly staffed and assisted by consultants with expertise in gender and social development, institutional reform, finance and accounting, M&E, health and hygiene, water supply, and contract management.<sup>23</sup>

#### **b. District Level**

44. The DDCs will be the project implementation agency at district level. A WSST will be established in each district as soon as it enters into a project agreement with MPPW that delineates project implementation arrangements including consulting requirements. The WSST team leader will be a Class II officer with sector experience, and appointed by MPPW in consultation with of the DDC chairperson. The officer will report directly to the DDC chairperson. A core team of DDC counterpart staff of at least one water supply engineer, two overseers, one community development officer, and one accountant (full-time and for the duration of the Project), along with a team of domestic consultants (gender and social development, financial accounting, procurement and contract management, and M&E) will assist the WSST team leader. If the DDC is unable to provide the required counterpart staff, the DDC will request MPPW to depute staff.

45. A district water coordination committee (DWCC) chaired by the chairperson of the DDC will be established in each DDC to guide and coordinate the activities of DDCs, VDCs, and communities, and liaise with the PMU. Each participating VDC will be staffed by at least one full-time secretary for the duration of the project.

46. DDCs will contract NGOs, CBOs and consulting firms to initially contact communities potentially interested in participating in the Project. Interested communities, assisted by VDCs and NGOs/CBOs, will develop and submit applications for project assistance. These applications will be reviewed and prioritized by the DDC to be included in the district periodic

<sup>22</sup> The National Project Steering Committee will be chaired by the Secretary of MPPW and will include the Director General of DWSS as member secretary and representatives from MOF, NPC, MPPW, MLD, MOH, Ministry of Water Resources, and the ADDCN.

<sup>23</sup> Details of PMU and WSST responsibilities are in Supplementary Appendix G.

and annual plans. NGOs/CBOs will (i) assist the selected communities to establish WUGs; (ii) guide communities through the creation of a community action plan; (iii) assist and train WUGs on planning, procurement, construction, management, O&M of water supply schemes; and (iv) increase awareness on gender, castes and ethnic minorities and implement a WUG strategy to ensure active participation of these groups and compliance with the proportional representation and gender targets. Consulting firms may be engaged to undertake specific tasks in support of the Project, such as technical and financial audits, training the DDCs and NGOs, and evaluations.

47. The PMU will procure equipment only for PMU-related activities. It will contract firms and NGOs for PMU-related activities and for activities to be carried out by the WSST. The WSST will procure equipment and materials for their respective activities and will assist WUSCs to contract all NGOs and firms required for supporting their activities. WUSCs will procure all materials and civil works for constructing the water and sanitation schemes.

48. At the start of the Project, the WSSTs will help the DDC formulate a budget for all project activities, with estimates for each year of implementation. The budgets will be reviewed by the PMU and ADB and updated annually. Expenditures will be recorded at source by the implementing WSST and the PMU. The PMU will be responsible for compiling project expenditures and the reports of expenditures submitted by WSSTs. It will report project expenditures monthly to MPPW and MOF, with copies to ADB, with quarterly and annual summaries.

## **2. Implementation Schedule**

49. The Project will be implemented over 6 years. The institutional component will start in the first quarter of 2004. Development and consolidation of manuals and technical guidelines will be completed by the end of the first year. The rural component will have five batches (1 pilot batch and 4 batches). Each batch will have three phases and an implementation period of 3 years. The pilot batch will have four districts with additional districts in the succeeding batches. During phase 1, the DDCs will prepare, in consultation with the VDCs and communities, their annual district plans for RWSS. In phase 2, they will begin mobilizing and training communities and form WUGs and register WUSCs. Community contribution will be collected during phase 2. During phase 3, DDCs will support and monitor the construction of water and sanitation schemes by WUGs. Each phase is expected to last from 6 months to a year. The 21 DDCs will be clustered into 5 groups as agreed with the Government. The project implementation schedule is in Appendix 7.

## **3. Procurement**

50. Goods and services financed by the ADB loan will be procured in accordance with ADB's *Guidelines for Procurement* and the Government's procurement procedures acceptable to ADB. As contracts are expected to be small, international contractors are not likely to be interested and therefore international competitive bidding will not be required. All equipment and materials as well as service motorcycles will be procured through international shopping. Certain items may be procured under local competitive bidding procedures acceptable to ADB. Some equipment and vehicles packaged at a contract value of less than \$50,000 will be procured under direct purchase procedures. Civil works contracts of the rural component will be small with average value in the range of \$10,000 to \$15,000 equivalent and will follow ADB's

community participation in procurement in the guidelines. The proposed procurement packages are in Appendix 8.

#### 4. Consulting Services

51. Consulting services of 1,217 person-months are required to facilitate project implementation and to strengthen the institutional, administrative, and financial capacities of MPPW and DDCs. One consulting firm will provide consulting services for the PMU. International consultants will be involved in project management, capacity-building, and monitoring activities. The international and domestic consultants in the PMU will advise DWSS/MPPW on best international practices in designing strategies to implement the institutional strengthening component and the gender, caste, and ethnic and related social programs.

52. For the rural component, there will be 10 consulting contracts, 2 contracts per batch of districts.<sup>24</sup> The PMU will contract suitable private sector organizations and/or NGOs to assist the DDCs in project management and implementation of social programs. The consultants (which can include NGOs/private sector organizations) to be financed under the loan will be recruited in accordance with ADB's *Guidelines on the Use of Consultants*, using a quality-and cost-based selection method and other arrangements satisfactory to ADB for engaging domestic consultants. Summary terms of reference for all consulting services are in Appendix 9.

53. The DDC will engage NGOs to facilitate community mobilization and carry out the health, hygiene, and sanitation campaigns. The WUSC will engage NGOs to help implement the water and sanitation schemes. The NGOs will be selected following criteria developed under the Project.<sup>25</sup>

#### 5. Disbursement Arrangements

54. To facilitate the timely release of loan proceeds and counterpart funds and to expedite implementation, the Government will, as a condition for loan effectiveness, open a WSS sector account at the Nepal Rastra Bank. Project funding (other than local counterpart funds) comprising (i) counterpart funds provided by the central Government, and (ii) ADB funding will be pooled at the sector account and then channeled to pay all costs of the Project (other than costs funded by the local counterpart funds) via the following routes: (a) to the district development funds (DDF) and then into each DDC's project operating account, and (b) into the PMU project operating account. From each DDC's project operating account, the funds will be used to pay incremental WSST salaries and wages and to give the WUSCs funds to pay the costs of the schemes. The funds that are paid to the PMU operating account will fund the operations of the PMU. The PMU will prepare disbursement projections, request budgetary allocations for the central counterpart funds, collect supporting documents, and prepare withdrawal applications and send them to ADB in accordance with ADB's *Loan Disbursement Handbook*. Central counterpart funds via this channeling arrangement will be allocated to the Project annually by the Government through "Red Book" allocations. ADB funding of the Project will periodically be disbursed from the ADB loan account into a subaccount of the sector account. The subaccount will be dedicated to operate de facto as an imprest account for the ADB funding of the Project. The imprest account will be replenished as often as needed, subject to the following conditions: (i) the ADB loan is drawn in six payment milestone amounts, and

<sup>24</sup> One package will include the regional social development specialist and M&E specialist for each batch of districts, and one package will include a financial accountant for each.

<sup>25</sup> The selection criteria for prequalifying NGOs are in Supplementary Appendix H.

disbursement of each amount will depend on satisfying the relevant project milestone conditions (Appendix 10); (ii) at no point may the balance of the account exceed the lesser of \$2.4 million or 6 months estimated expenditure. ADB will monitor the achievement of project milestones via the monitoring and progress reports submitted by the PMU and recommendations of the sector stakeholder group and the MPPW Monitoring and Evaluation Unit. ADB will only then approve the replenishment of the sector account.

55. To facilitate implementation the rural component and in keeping with the Government's policy on decentralization and the National Water Supply Sector Policy, a project operating account will be established in each DDC for the rural component immediately after its selection to participate in the Project. Irrespective of funding sources for the sector account, disbursements to each DDC will be made on the understanding that each disbursement may be expended in the following mix of uses: civil works, 65%; community building, 8%; gender, castes, and ethnic minority program, 12%; health and hygiene program, 4%; and project management, 11%. The project operating account will be established only after the Project-financed financial accountant and procurement specialist are fielded and the DDC accountant is appointed. The initial ceiling for each DDC project operating account will be set in accordance with the approved annual district plan and will not exceed \$100,000 equivalent.

56. For the rural component, when the WUG contributions have been satisfied, each DDC will deposit construction funds for subprojects into each of the relevant WUSCs project operating account as a grant. Before disbursing the DDC funds of to any WUSC, the WUSC will make the following contribution and commitments: (i) a cash contribution of at least 1% of the estimated construction cost of the scheme into the WUSC project operating account; (ii) 1 year's estimate of the O&M cost into the community's O&M account; (iii) a commitment to further contribute the balance (beyond any cash contribution) of the 20% of the cost of the scheme in kind.

57. The PMU will ensure that all project operating accounts are established, and will manage, replenish, and liquidate account balances in accordance with ADB's *Loan Disbursement Handbook* and with detailed arrangements agreed to by the Government and ADB. ADB's statement of expenditures (SOE) procedure will be used to liquidate advances from the subsector Account. The SOE ceiling per disbursement transaction is set at \$5,000 equivalent.

## **6. Accounting, Auditing, and Reporting**

58. The Government will submit to ADB quarterly progress reports on project implementation following ADB's standard procedures. The PMU will obtain and consolidate relevant data from WSSTs. The WSSTs will prepare the project operating accounts and related financial statements, and records of the SOEs. The PMU will particularly address progress in meeting the performance targets defined under the sector loan modality. These progress reports will be the basis for directing further funding to the DDCs.

59. MPPW/PMU and the WSSTs will maintain accounts and records so that income and expenditures related to the Project are easily identified. They will be assisted by an adequate number of suitably qualified accounting staff, including a senior financial manager. Additionally, a financial accountant will assist the PMU and WSSTs to establish the project accounting and recording systems, and to train staff to maintain them. The accounts and statements of expenditures and revenues related to the Project will be audited annually by an independent

auditor acceptable to ADB.<sup>26</sup> WUSC accounts will be audited annually by the WSST/DDC and the DDC project operating account will be audited by the PMU as set forth in the project and subproject agreements. Audited financial statements and project accounts, together with the report of the auditor, will be submitted within 9 months of the close of the financial year. The annual audit will include the audit of the sector account and the operating accounts at DDC and PMU, and SOE procedure. A separate audit opinion on the use of the imprest account and SOE procedure should be included in the annual audit report. The PMU will also submit to ADB, within 3 months of the physical completion of the Project, a project completion report following standard ADB procedures. MPPW and the DDCs have been made aware of ADB's policy on delayed submission, and the requirement for satisfactory audited accounts of acceptable quality.

## **7. Project Performance Monitoring and Evaluation**

60. To ensure that subprojects are managed efficiently and that project benefits are maximized and reach target groups, a M&E program is included in the framework of ADB's project performance management system (PPMS). PPMS activities will be conducted periodically to gather information from multiple sources to determine whether inputs have rendered expected benefits to the target population. The PPMS will also seek to detect any deficiencies and discrepancies between the plan and execution of the Project so that timely corrections can be made to improve resource efficiency, benefits, outcomes, and impacts. Indicators to be monitored have been formulated and agreed upon with the Executing Agency. Selected indicators pertain to physical progress, project impact with disaggregated data to demonstrate benefits to the poor and targets of the gender, caste and ethnicity program, capacity-building activities, and institutional reform activities.<sup>27</sup> The PMU will gather baseline physical and socioeconomic data in each of the 21 DDCs, submit a detailed implementation plan for monitoring performance, and prepare benchmark information for ADB's review and concurrence 3 months after work begins in a particular DDC. Thereafter, the PMU will submit annual M&E reports to ADB throughout project implementation.

## **8. Project Review**

61. Because of the number of districts and components to be covered by the Project, the regular joint reviews at least twice a year by ADB and the Government will be supplemented by a comprehensive midterm review. The routine project reviews will cover the DDCs financial performance and staffing; implementation of the gender, caste, and ethnic minority programs; physical progress in project implementation; and capacity-building activities. The midterm review will allow the Government and ADB to monitor the Project closely and to make appropriate adjustments in the design and implementation arrangements, if necessary. The midterm review will (i) review the scope, design, and implementation arrangements of the Project; (ii) identify changes needed since project appraisal; (iii) assess implementation performance against project indicators; (iv) review and establish compliance with loan covenants; and (v) identify problems and constraints and, if necessary, recommend changes in the design or the implementation arrangements.

---

<sup>26</sup> ADB acknowledges that the auditor general of the Kingdom of Nepal is acceptable to it as an independent auditor for the project.

<sup>27</sup> Details of these indicators are in Supplementary Appendix I.

## **IV. PROJECT BENEFITS, IMPACTS, AND RISKS**

### **A. Benefits and Impacts**

62. Investments in RWSS will generate significant benefits for approximately 850,000 direct beneficiaries at the community level, for local authorities units (at district and village levels), and for central Government oversight and coordination in accordance with redefined roles for central Government departments and agencies. Benefits will include (i) poverty reduction in historically underdeveloped areas; (ii) improved conditions for gender, castes and socially excluded groups; (iii) improved community health and environmental condition; (iv) improved sector management; and (v) increased sector capacity.

#### **1. Poverty Reduction in Historically Underdeveloped Areas**

63. Nepal is a very poor country, currently ranked 143rd out of 175 countries on the UNDP human development index. Socioeconomic surveys<sup>28</sup> reveal that household income for more than 85% of households in the 21 target districts is below \$48 per month. The Project focuses on poorer and more remote areas of western and northern Nepal, where RWSS and other rural infrastructure services have long been lacking. Good quality and reliable RWSS will help reduce poverty in poor rural communities in many ways. Additional income for project beneficiaries will accrue from (i) utilizing the saved time of women and girls for income-generating activities; (ii) improved family health and reduction in health-related expenditures; (iii) reducing missed workdays due to diarrheal disease in wage earners; and (iv) over the long run, reducing the missed school days for boys and girls. Households that currently use unacceptably low-quality water for drinking that leaves from polluted rivers or ponds will no longer spend so much on remedies for diarrhea and other waterborne diseases. Improved community health is also reflected in lower welfare costs and more resources available for community programs. The summary poverty reduction and social analysis are in Appendix 11.

#### **2. Gender, Castes and Excluded Ethnic Groups**

64. The main project beneficiaries will be women and girls who now spend 4-5 hours per day fetching water, which is often of poor quality, from distant sources. The availability of water in or near their homes will save time and improve their (and their families') quality of life due to improved hygienic conditions. Women will be relieved from the stress and discomfort of hauling water, especially during illness and extreme weather. They will be able to spend time and energy on more productive social and economic activities including better child and house care and farm production activities such as tending livestock and poultry. By working with the ADB-financed Empowerment of Women Project (where project implementation overlaps) and its microcredit promotion activities will also enable communities, particularly women, to pursue income-generating activities. Girls, who share the responsibility for water collection, could then be enrolled in schools. Men and boys will also benefit, but not to the same extent as women and girls.

65. Socially excluded castes and ethnic groups will be specifically targeted to receive benefits, rectifying historically inequitable access to many social services, including RWSS. Members of lower caste and excluded ethnic groups will be actively encouraged to participate in project training activities and RWSS management, thereby providing them with opportunities for education and facilities management that have historically been denied them.

---

<sup>28</sup> Socio-economic survey carried out by Nepal Water for Health under TA3844-NEP: Community Water Supply and Sanitation Project.

### **3. Environmental and Health Improvement**

66. Diarrheal and other waterborne diseases are endemic in Nepal. Infant mortality rates are unacceptably high. Typhoid is disturbingly common. All these indicators are generally worse in the remote or poorer areas targeted by this Project. Health benefits from improved water supply will be significant. Sanitation improvement will add significantly to health by helping isolate disease pathogens from the household and community environment. Studies have shown that regular use of improved sanitation facilities, coupled with hygiene and behavioral change, has a considerably greater health impact than just the provision of clean water. The project focus on hygiene and sanitation behavioral change, such as regularly using improved latrines, washing face and hands with soap (or suitable substitutes) at appropriate times will help ensure that these benefits are realized.

### **4. Institutional and Policy Impacts**

67. The RWSS Sector Strategy supports the improvement of RWSS facilities and service delivery by establishing a commonly agreed-upon implementation approach. The consensus-building process confirmed that a community-based approach placing responsibility for RWSS implementation in the hands of communities with support from district and village government and NGOs should be adopted. This Project builds on the experience of other donors, adopting and supporting successful institutional arrangements and strengthening institutional capacity to plan, implement, and monitor RWSS projects in accordance with the Government's decentralization process and the community-based approach.

68. The Government's long-term governance strategy is based on decentralizing central Government roles, including responsibilities and authority for many services such as RWSS, to local authorities. The LSGA establishes the legal framework for decentralization. Districts and villages will develop the capacity to take on the new decentralized responsibilities. Capacity will be improved so that districts will be able to plan and manage sector activities, and support education and training for community-based projects. Participating communities, with NGO support, will be able to build their own RWSS facilities and establish the capacity to operate, maintain, and repair the systems.

69. The Project will also support institutional reform and capacity building within DWSS, the lead central Government agency in the sector. DWSS will improve its capacity to support the sector through coordination, technical support, training, and other sector facilitation activities while at the same time relinquishing direct implementation responsibility for the RWSS sector. Establishing a rational staffing pattern will be a component of the reform process.

### **5. Economic and Financial Analyses**

70. ADB's *Guidelines for the Economic Analysis of Projects* was applied to five subprojects in the rural areas, covering five districts and with the application of every possible technical solution envisaged to be financed under the Project. The average economic internal rate of return (EIRR) for the five schemes is estimated at 68%; for the individual schemes, the EIRR ranged from 24% to 94%. The estimated EIRR for the Project as a whole is about 14%. The figure is conservative, as it does not include benefits derived from sanitation improvements and health benefits. Because the analysis is based on a five subproject sample, it is not representative of the substantial macro benefits arising from the intervention. These benefits are discussed fully in Appendix 12.

## B. Risks

71. **Policy.** It is assumed that implementing the institutional reforms related to decentralization will continue. Institutional reforms in the RWSS sector are required to reflect the decentralization process and changing institutional roles. The institutional strengthening component is designed to support this momentum by strengthening the capacity of DWSS/MPPW to function as a sector facilitator and implement the RWSS Sector Strategy and Action Plan in coordination with other external agencies.

72. The risk is that the to-be-approved sector strategy is not acted on by Government agencies and other donors, and that the harmonization process does not continue. Another risk is that NGOs do not see their experiences incorporated into Government-supported projects.

73. **Institutional Capacity.** Insufficient institutional capacity, particularly at the local authorities level, poses a risk to the implementation of the rural component. Weak local NGO capacity and capability in remote and poorer districts could make it difficult to mobilize qualified NGOs there. The Project will train and support the DDCs to build their capacity and the capacity of district-based NGOs. In addition, the Government will provide the necessary budgetary allocations for the DDCs to have at least one water supply engineer, two overseers, one community development officer, and one accountant as counterpart to be trained and to work full-time on the Project.

74. **Local Administration.** The Project assumes a stable political and economic environment at the local level. The lack of locally elected officials at the DDC and VDC levels weakens the participatory decentralized approach and may reduce community trust. District and village authorities are currently being managed by civil servants. Dedicated civil servants (in a lot of cases informally supported by former elected officials) working at the district level (principally, local development officers) do make efforts to be responsive to community needs within the constraints imposed by the current district administration system. However, the pace of project implementation may be affected.

## V. ASSURANCES

### A. Specific Assurances

75. In addition to the standard assurances, the Government has given the following assurances which are incorporated in the legal documents:

- (i) Before each fiscal year, the Government, in consultation with relevant DDCs and the PMU, will prepare and agree on adequate annual budget for central counterpart funds for the fiscal year.
- (ii) By 16 or 17 July of each year, the Government will allocate central counterpart funds in the amount budgeted in accordance with paragraph (i) in respect of the subsequent fiscal year; and the Government will ensure DDC contributions and VDC contributions are paid to the relevant accounts.
- (iii) The Government will ensure that all nonoperating and operating project accounts at central and DDC level do not get frozen for the duration of the Project.
- (iv) The Government will ensure, and will cause MPPW and DDC to ensure, that each of the following implementation units is established and staffed to the satisfaction of ADB and maintained during the term of the Project:

- (a) the PMU, by loan effectiveness;
  - (b) each WSST, not later than 1 month after selection of the relevant DDC;
  - (c) NPSC, not later than 1 month after loan effectiveness; and
  - (d) DWCC not later than 1 month after selection of the relevant DDC.
- (v) The Government will ensure that the sector stakeholder group meets at least twice a year.
  - (vi) The Government will ensure that the Project develops an environmental checklist at planning stage in accordance with the Government's and ADB's environmental assessment guidelines, and, at all times throughout the implementation of the Project, adhere to ADB's environment policy and guidelines on environmental assessment procedures and involuntary resettlement policy.
  - (vii) The Government will support the establishment and registration of WUGs in each project community, pursuant to the relevant bylaws permitting such groups to take legal ownership of, and plan, design, construct, and operate the relevant community water scheme.
  - (viii) The Government will review and approve manuals and guidelines developed by the Project for the sector.
  - (ix) The Government will ensure that, in selecting the project target communities, DDCs use the community selection criteria set out in Appendix 4.
  - (x) The Government shall inform ADB promptly of any change of the director of the PMU or WSST team leader.
  - (xi) The Government will ensure that funding made available by ADB to fund DDCs will be allocated and expended by each DDC as follows: civil works, no more than 65%; community building, less than 8%; gender, caste, and ethnic minorities program, no less than 12%; health and hygiene program, no less than 4%; and project management, no less than 11%.
  - (xii) The Government agrees that no disbursement will be made from the loan account for any subproject or scheme that is in breach of the criteria pertaining to demand-driven, community-based RWSS subproject selection namely: poverty, remote location, and unserved or underserved in terms of RWSS coverage.
  - (xiii) The Government will ensure that targets set out in the gender, caste and ethnic minorities plans (Appendix 5) are met by WUG, DDCs and the PMU.
  - (xiv) The Government will ensure that before starting project activities in any community, and as a condition for funding by ADB of the relevant district's project activities, MPPW and the relevant DDC will enter into a project agreement, to be prepared by ADB, regulating the following matters:
    - (a) contribution of local counterpart funding;
    - (b) terms and conditions of release of funding from DDC to WUGs (including conditions relating to provision of DDC contribution);
    - (c) establishment and staffing of WSST; and
    - (d) auditing and reporting mechanism to PMU.
  - (xv) The Government will ensure that, for works to be carried out in any community, the relevant DDC, the relevant VDC, and the WUG enter into a contract, acceptable in form and substance to ADB, regulating the following matters:
    - (a) provision of the VDC contribution and the WUG contribution;
    - (b) establishment of minimum specifications and standards for construction works to be performed by the WUG;
    - (c) establishment of minimum specifications and standards for the operation works to be performed by the WUG;
    - (d) establishment of environmental standards applicable to design, construction, and O&M of works;

- (e) cooperation and coordination by WUG with relevant agencies of Government, including the PMU;
  - (f) project Implementation; and
  - (g) procurement requirements.
- (xvi) The government shall ensure that by end of Project implementation period, its Cabinet review its existing policy under which, depending in size of end-user population settlements, different government line agencies implement rural water supply and sanitation projects.

## **B. Conditions for Loan Effectiveness**

76. The following are conditions for loan effectiveness:

- (i) The Government establishes and fully staffs the PMU, to the satisfaction of ADB, and maintains it during the term of the Project.
- (ii) The Cabinet approves the RWSS sector strategy and its associated action plan.
- (ii) The Government shall have confirmed that the Monitoring and Evaluation Unit under MPPW is operational.
- (iii) The Government opens the sector account at the Nepal Rastra Bank.

## **C. Condition for Initial Disbursement**

77. For the initial disbursement of ADB project funding, the Government approves the budget for project funding from central Government sources (central counterpart funds) for the first fiscal year and makes a budgetary allocation for the amount.

## **VI. RECOMMENDATION**

78. I am satisfied that the proposed loan would comply with the Articles of Agreement of ADB and acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve the loan in various currencies equivalent to Special Drawing Rights 17,246,000 to the Kingdom of Nepal for the Community-Based Water Supply and Sanitation Sector Project from ADB's Special Funds resources with an interest charge at the rate of 1.0% per annum during the grace period and 1.5% per annum thereafter; a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft Loan Agreement presented to the Board.

John Lintjer  
Vice President

5 September 2003

## PROJECT FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p><b>Goal</b></p> <p>Human development through sustainable improvement in the water supply and sanitation (WSS) sector</p>	<p>Measurable improvement in national water and sanitation availability for all residents of remote areas</p> <p>Improved sanitation and hygiene and health practices in local communities</p> <p>Reduced incidence of waterborne disease and child mortality due to diarrheal diseases</p>	<p>Geographic information system (GIS) mapping of implemented subprojects and updating of status on a biannual basis</p> <p>Reports and statistics from government agencies, donors, nongovernment organizations (NGOs) and health care statistics</p> <p>Local health or sub-health post statistics</p>	
<p><b>Purpose</b></p> <p>Provide improved WSS services through a community-based approach to support Government's poverty reduction and decentralization programs</p>	<p>3% national increase in availability of safe drinking water attributable to Project</p> <p>20% reduction in time spent collecting drinking water in participating communities</p> <p>Participating districts ranked in the lower half using district selection criteria</p> <p>Low sanitation risk status for all participating communities achieve (more than 50% coverage)</p> <p>50% reduction in incidence of waterborne disease in participating communities</p>	<p>Project performance management system (PPMS) and GIS mapping of implemented subprojects and updating of status on a biannual basis</p> <p>Initial site surveys and scheme completion reports</p> <p>Annually updated ranking using district selection criteria</p> <p>Initial site surveys and scheme completion reports</p> <p>Health impact study, local health or sub-health post statistics</p>	<p>Project areas remain safe and secure.</p> <p>Accurate data from other agencies used to establish the ranking is updated and available.</p> <p>Communities take advantage of sanitation revolving fund and subsidies for latrine construction.</p> <p>Households improve environmental health practices.</p>
<p><b>Outputs/Activities</b></p> <p><b>Component 1: Rural Water Supply and Sanitation</b></p> <p>Improved WSS facilities in remote poverty-afflicted districts</p>	<p>Approximately 1,200 water supply schemes are constructed by user communities.</p> <p>Approximately 30,000 household and school latrines are constructed.</p>	<p>Project progress reports and scheme completion reports</p> <p>Water user and sanitation committee (WUSC) files and scheme completion reports</p>	<p>Communities agree to project terms and conditions.</p> <p>Poor households participate in the sanitation revolving fund program.</p>

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>(i) Community to mobilize to apply for WSS schemes</p> <p>(ii) Communities to establish legally recognized WUSCs</p> <p>(iii) Communities to develop and sign community action plans (CAPs) for implementing WSS projects</p> <p>(iv) Community members to receive and apply training in support of sustainable operation of WSS</p> <p>(v) Communities to contribute to WSS construction in cash and kind according to ability to pay (ATP), not penalizing women, poorest, and marginalized groups</p> <p>(vi) WUSCs to implement WSS projects (procure materials and manage construction)</p> <p>(vii) WUSCs to establish revolving funds to provide credit for latrine construction</p> <p>(viii) Village development committees (VDC) and community leaders to train in planning, monitoring, and evaluating sanitation and hygiene improvement</p> <p>(ix) Project communities to implement health and sanitation improvement programs</p> <p>(x) Caste and ethnic minorities to benefit from improved WSS in proportion to community</p>	<p>Participating districts and communities within these districts are in most remote, sanitation/hygiene high-risk and poorest areas.</p> <p>1,500 communities apply for WSS projects.</p> <p>All participating communities establish WUSCs.</p> <p>All participating communities prepare and sign CAPs.</p> <p>All participating communities and their members receive WUSC training and health and hygiene education and awareness training.</p> <p>All project beneficiaries contribute in cash and kind to construction accounts and in cash to operation and maintenance accounts in accordance with community contribution policy.</p> <p>All participating communities procure materials, hire skilled labor, and otherwise manage and implement their WSS projects.</p> <p>All participating communities establish and use revolving funds.</p> <p>5 people in each community including the health promoter receive health and sanitation improvement training.</p> <p>Health and hygiene programs are implemented during the development and construction phases of community projects.</p> <p>Caste and ethnic minorities in all project communities receive improved WSS service.</p>	<p>District and community priority lists accompanied by associated selection criteria analysis</p> <p>District development committee (DDC) records and project management units (PMU) reports</p> <p>DDC records and PMU reports</p> <p>CAP copies, DDC, reports, and PMU reports</p> <p>WUSC and NGO reports to DDCs, and PMU reports</p> <p>WUSC records, DDC, reports, and PMU reports</p> <p>PMU monitoring and inspection visits, scheme completion reports, WUSC records, NGO reports, DDC records, and PMU reports</p> <p>WUSC records, NGO reports, DDC records, and PMU reports</p> <p>Survey of trained individuals, NGO reports, and participatory project evaluations</p> <p>Community surveys, NGO reports, DDC records, and PMU reports</p> <p>Community surveys, NGO reports, DDC records, and PMU reports</p>	<p>Subproject selection criteria are used with no national changes in DDC priorities.</p> <p>DDCs are able to implement the initial information "roadshow".</p> <p>Internal dissension within communities limit their ability to reach consensus agreements.</p> <p>Trained individuals do not remain in the community after training.</p> <p>Communities misrepresent their ability and willingness to pay so as to be included in the Project.</p> <p>Participating communities have the ability to pay and ability to contribute in kind.</p> <p>Trained individuals do not apply the training.</p> <p>Households in participating communities value latrines and are willing to borrow from the fund to construct them.</p> <p>Community members subvert gender, caste, and ethnicity program</p>

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>proportions</p> <p>(xi) WUSCs to be composed of at least 50% women with at least one in a management position</p> <p>(xii) WUSCs with proportional caste and ethnic minority beneficiaries</p>	<p>At least 50% of WUSC members in all participating communities are female.</p> <p>Caste and ethnic minorities in all project communities are represented in WUSCs.</p>	<p>WUSC records, NGO reports, DDC records, and PMU reports</p> <p>WUSC records, NGO reports, DDC records, and PMU reports</p>	<p>aims after subproject completion.</p> <p>Not enough women are interested in participating, educational level of women bars them from certain positions, subsequent WUSC does not maintain the ratio.</p> <p>Communities consist of a mix of castes and ethnic groups or DDC priorities ensure that projects target caste and ethnic minorities.</p>
<p><b>Component 2: Institutional Strengthening</b></p> <p>Government capacity to manage community-based WSS projects increased</p> <p>(i) DDCs to apply selection criteria to prioritize requests for project assistance</p> <p>(ii) DDCs to complete technical, social, and financial evaluation for each participating community</p> <p>(iii) DDCs to establish capacity to engage and manage NGOs to support community-based project implementation</p>	<p>21 DDCs are capable of planning and managing community-based WSS projects.</p> <p>DWSS becomes a facilitator of sector activities.</p> <p>All participating communities are priority ranked and selected based on selection criteria.</p> <p>Appraisal reports for all participating communities are completed, with copies submitted to the PMU.</p> <p>Each DDC signs contracts with NGOs to assist each community during the development phase and tripartite contracts (DDC, NGO, and WUSC) during the implementation phase.</p>	<p>PMU evaluation reports and project mission reviews</p> <p>Project reviews and mid-term report</p> <p>DDC plans, criteria scoring sheets for each village, and PMU reports</p> <p>Copies of appraisal reports and PMU reports</p> <p>NGO contracts, DDC reports, and PMU reports</p>	<p>Widespread conflict does not break out in participating districts.</p> <p>Political considerations influence decisions and information "adjusted" to favor alter priorities.</p> <p>Security considerations and travel restrictions limit DDC ability to visit communities.</p> <p>DDCs do not have staff and are unable to create posts to manage NGOs; DDCs do not have sufficient per diem budget.</p> <p>Sufficient district NGO capacity does not exist and other NGOs cannot be induced to work in participating districts.</p>
<p>(iv) DDCs to complete knowledge, facilities, and practices (KFP) surveys</p>	<p>DDCs complete performance reports for each NGO at least twice per year and provide them to the NGO.</p> <p>KFP survey is completed in each district during the first and last year the district participates in the Project.</p>	<p>Performance reports provided to PMU and PMU prepared performance report summary</p> <p>District KFP reports and PMU summary report</p>	<p>Security and travel restrictions limit the ability to complete KFP work.</p>
<p>(v) DWSS to maintain a list of NGOs prequalified to assist communities.</p> <p>(vi) DWSS to orient interested NGOs to qualify them to assist</p>	<p>A list of prequalified NGOs is updated annually.</p> <p>DWSS provides orientation training to 20 NGOs annually.</p>	<p>The NGO list</p> <p>The orientation curricula and a list of participating NGOs with notations about</p>	<p>20 NGOs express interest and are willing to participate in the</p>

<b>Design Summary</b>	<b>Performance Indicators/Targets</b>	<b>Monitoring Mechanisms</b>	<b>Assumptions and Risks</b>
communities.		which were prequalified	orientation.
(vii) DWSS to create or update community-based implementation sector manuals and guidelines and associated training packages	10 manuals and guidelines are created or updated and approved by Ministry of Physical Planning and Works (MPPW).	Copies of manuals and notification of approval	
(viii) DWSS to provide training and technical assistance to DDCs	DWSS gives training in use of manuals and guidelines to all participating DDCs.	Training curricula and training attendance sheets	DDCs send participants who will use the results of the training.
(ix) DWSS to monitor and evaluate project implementation	DWSS designs and implements PPMS with updated data twice a year.	Approved PPMS and updated PPMS reports	Security situation and travel restrictions limit ability of DWSS to get to the field.
(x) DWSS to complete special studies (UCS, KFP, etc.)	DWSS completes two special studies annually.	Approval for specific special studies and completed special studies	Sector stakeholder group (SSG) does not clearly specify special studies or their terms of reference.
(xi) MPPW to enact policy and strategy recommendations of the SSG	SSG meets at least twice annually with policy and strategy items on the agenda.	Minutes of SSG meetings and any policy or strategy working group meetings	SSG members participate in policy and strategy discussions and make considered recommendations.
(xii) MPPW/DWSS to rationalize DWSS staffing	A rationalization plan is developed, approved, and first implementation steps completed.	Copy of plan, copy of approval, PMU reports of implementation steps, and project reviews	MPPW/DWSS does not have the political will to act on recommendations.
<b>Inputs</b> <b>Component 1: Rural Water Supply and Sanitation</b>	<b>Cost (\$'000)</b>	<b>Budget Category</b>	<b>Category Amount (\$'000)</b>
Total Cost:	27.77		
Community Mobilization	1.88	International Consultants	0.00
RWSS Civil Works	24.72	Domestic Consultants	0.00
Health and Hygiene Education	1.13	NGO Contracts	1.86
Gender, caste, and ethnicity program	0.04	Civil Works	20.32
		Equipment and Materials	4.90
<b>Component 2: Institutional Strengthening</b>			
Total Cost:	3.11		
Strengthening DDCs	1.00	International Consultants	0.27
Central Government/DWSS Support and Strengthening	2.11	Domestic Consultants	2.00
		NGO Contracts	0
		Civil Works	0
		Equipment	0.11
		Materials	0.73

## INSTITUTIONAL AND SECTOR ANALYSIS

### A. Evaluating the Capacity of Government Institutions

1. The national framework for decentralized governance has been established under the Local Self-Governance Act (1999) and is now being implemented. Historical sector roles and responsibilities are changing, with local governments taking on additional responsibilities. The change has required the creation of transitional structures to manage some devolved responsibilities on an interim basis until the decentralization process is complete. The Government's decentralization implementation plan (DIP) outlines the plan and schedule for achieving the decentralization goals. The following table outlines the current functions of national and district agencies.

**WSS-Related Functions on Different Tiers of Government**

Agency	Function	Current Capacity	Comment
MPPW	Has lead role in WSS sector policy development. Ensures effective implementation of national policy. Establishes effective mechanism for coordination of WSS sector agencies. Oversees activities of agencies providing WSS services.	10 staff allocated to RWSS programs	DWSS is the Department of MPPW responsible for WSS.
DWSS	Lead government agency for providing WSS services through 5 regional and 70 division and subdivision offices	108 approved positions	A facilitating agency by national policy
WSS Division and Sub-Division Offices	Plan, implement, and operate some larger WSS schemes. Provide technical support to local bodies for planning and implementing WSS services	1,448 positions, and 70 offices	Houses most capacity at the district level
Rural Water Supply and Sanitation Fund Development Board	Facilitate implementation of WSS schemes mainly through mobilization of NGOs, community-based organizations (CBOs) and the private sector	31 positions in Kathmandu with regional expansion planned	active for 7 years under interim arrangements but has yet to be formally established by Act of Government
MLD	Supports and strengthens local bodies. Provides technical support and training to elected representatives of local bodies. Assists communities in operation, maintenance, and repair of WSS services.	125 officers and staff in all categories	DOLIDAR is the Department of MLD responsible for district infrastructure (water, roads, buildings, etc.).
DOLIDAR	Line agency currently responsible for WSS services serving communities of 1,000 or fewer	76 approved positions	Seconds staff to DDC, DTO
DDC	Plan, implements, and coordinates WSS services in the district through DTO. Has legal responsibility for the sector under the LSGA. MLD seconds limited staff to manage financial, technical, administrative functions.	Staffing varies in each DDC. DTO currently has responsibility for WSS.	No elected officials due to delays in elections
DTO	Plan and implement WSS, buildings, roads, and irrigation projects on behalf of DDCs. Staff seconded from DOLIDAR	WSS/Building sub-unit approved staffing from 3 to 5	DTO units are not fully staffed.
VDC	Plans and implements WSS services. Supports community by providing WSS services.	One secretary to support elected officials	No elected officials due to delays in elections

DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads , DTO = District Technical Office, DWSS = Department of Water Supply and Sewerage, MLD = Ministry of Local Development, MPPW = Ministry of Physical Planning and Works, NGO = nongovernment organization, RWSS = rural water supply and sanitation, VDC = village development committee, WSS = water supply and sanitation.

staff from central Government departments. Once local government elections are held, DDCs will be able to take more direct responsibility for planning and providing services based on local priorities. The Decentralization Implementation and Monitoring Committee in its third meeting in January 2002 approved the DIP and has agreed to a time frame of 5 years for establishing sector sections (including water supply and sanitation [WSS]) in all DDCs.

3. The Rural Water Supply and Sanitation Fund Development Board (the Fund Board), a formal agency of government, is constituted as an autonomous entity under the supervision of the Ministry of Physical Planning and Works (MPPW). Since its establishment in 1996, the Fund Board has developed a demand-led community-based implementation modality that has focused on direct intervention at the community level by nongovernment organizations (NGO) support organizations. This program has created a cadre of NGOs with experience in working to support the sector. Along with those of several national NGOs, this program, has provided valuable lessons to the rural water supply and sanitation (RWSS) sector. The implementation approach for the ADB investment is modeled on these modalities.

### **B. NGO and Private Sector Capacity**

4. More than 80 national and district-based NGOs have successfully implemented WSS projects financed by aid agencies. Because NGOs focus at the community level, they have been more effective in supporting social mobilization and other community capacity building needs. NGOs with the proper training have proved to be good partners in assisting communities develop and implement schemes. More NGOs are now being established at the district level. However, more remote and poorer districts are less likely to have active and capable NGOs. In such cases strong orientation programs will be necessary to attract capable NGOs and strengthen district-based NGO capacity. The Fund Board has been supporting such NGO orientation and has trained a large number of NGOs.

5. Private sector organizations (PSOs) are supporting the RWSS sector by providing technical support for design, construction, and operation and maintenance, training, monitoring and evaluation, technical auditing, and special studies. Such capacity is largely restricted to urban areas and is very limited in the remoter districts. The specific skills of PSOs have been utilized to advantage even in rural and remote areas through contracts for specific services outlined above.

### **C. Planning and Flow of Funds**

6. Under the participatory development planning process, the National Planning Commission (NPC) and sectoral ministries send to the districts information and directives, along with budget ceilings, for each year's development plan. Planning is a 14-step process, culminating in approval of the district council plan. The DDC forwards the annual district development plan to NPC through the Ministry of Local Development (MLD). DDCs also forward sectoral program plans to sectoral ministries. In the past, DDC plans and budgets have been subject to modification at central levels. Efforts are now being made to restrict such modifications. DDC and sectoral ministry plans are approved at the national level with budget details published in the "Red Book." The process starts in mid-November and ends in March. The fiscal year starts in mid-July with release of funds in the following weeks or months. At the end of the fiscal year, all Government accounts are frozen and with unspent funds returned to the Ministry of Finance.

7. The Government recently mandated that district-level program budgets flow directly to DDCs for FY2002/03. This changes the past practice that channeled funds for sectoral programs through sectoral ministries. This system was introduced even though departments of sectoral ministries may still implement district-level programs. Bloc grants to support DDC

activities (staff salaries, operating expenses, and limited program budgets) continue to flow directly to the DDC as before.

#### **D. RWSS Implementation Capability**

8. National policy has, to date, been developed through an informal consultative process. Government implementation of national RWSS programs has been the responsibility of DWSS and Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) through district-level departments. DDCs and village development committees (VDCs) have been responsible for DDC-initiated programs at the district and village levels. The Fund Board manages its programs through its centrally located office. NGOs working within the sector are legally bound to the national sector policy, but there is no mechanism to ensure that they function entirely within the national framework.

9. The LSGA now gives overall sectoral responsibility for supporting RWSS service planning and provision to DDCs. However, DDC capacity is severely constrained by central budget allocations and staffing. Historically line ministries, such as MPPW, provided capacity in relevant sectors at the district level (DWSS, a department within MPPW, maintains offices in all districts). Most RWSS capacity at the district level resides with DWSS offices. In 2002 formal responsibility for smaller systems (serving less than 1,000 people) was given to DOLIDAR, a department of MLD, which has closer institutional links to the DDC. The establishment of DOLIDAR offices at the district level (DIDO) was followed in late 2002 by the creation of district technical offices (DTOs) within DDCs but staffed by seconded DOLIDAR personnel. Approved staffing for DTOs is limited with the Water Supply and Sanitation and Building Section having one engineer, two overseers, and two water supply technicians in 42 larger districts, and only one overseer and two water supply technicians in the remaining 33 districts. Many posts within DTOs remain vacant.

10. DDCs have five kinds of staff working in the office: (i) Government staff including LDO, chief accountant, planning and administration officer, and DTO staff from MLD and its departments; (ii) administrative staff recruited by the DDC from grants given by the government; (iii) administrative staff and technicians paid for from a contingency fund used to cover the administration cost of bloc grant management; (iv) staff recruited by the DDC from its own revenue; and (v) staff assigned to it to manage special programs in the district, such as Remote Area Development Program. All DDC staff except Government are considered temporary and Government staff are subject to transfer at any time. The LSGA provides for a Local (Government) Service Act which outlines terms of employment (recruitment, promotion, transfer, pensions, etc.) and allows DDCs to establish staffing patterns and hire permanent staff. This Act is being prepared.

11. The LSGA provides for sectoral sections within DDCs including a Water Supply and Sanitation Section. When established, these sections will plan and manage investments in the sector but will not directly implement projects. Government policy supports provision of RWSS services through a community-based approach. Under this approach, communities (through legally constituted water user and sanitation committees) implement RWSS projects with the assistance of support organizations. NGO capacity is well established in some districts, but may not yet be adequate to support the program in rural and remote districts. The investment program will orient and train NGOs to build this capacity in participating districts.

#### **E. Institutional Strengthening**

12. The institutional strengthening component is designed to support the Government's decentralization process and build capacity at local levels to manage and implement RWSS projects. This component will focus on three major areas: (i) DDC training and capacity building,

(ii) strengthening DWSS capacity to provide technical support, and (iii) strengthening sector coordination and policy development.

### **1. Local Government Training and Capacity Building**

13. DDC and VDC capacity in the RWSS sector is weak. Under the LSGA, these local bodies now have formal responsibility for managing and implementing RWSS projects at the district and village levels. Existing technical capacity at the district level currently lies within DWSS regional and subregional offices, which are linked to a line ministry department. Limited technical capacity is available to the DDC through the DDC's DTO office, staffed by seconded DOLIDAR staff. The Project will work toward building local government capacity independent of the line ministries as outlined in the LSGA. This will be accomplished by (i) deputing the required capacity to manage the Project at the district level to the DDC, thereby giving them experience in planning and managing sectoral work; (ii) training DDC and VDC officials and staff in sector policy and strategy, project planning and management, and the social, technical, and financial aspects of project implementation modalities; (iii) providing funding for training and subprojects directly to the districts through the District Development Fund; and (iv) working with DDCs to formally establish and staff the water supply and sanitation sections once local government elections are held. Training and capacity building will be enhanced by giving DDCs the responsibility, authority, and funding for RWSS interventions. PMU consultants and staff will provide training and technical assistance.

### **2. Strengthen DWSS Capacity to Provide Technical Support**

14. DWSS has been the principal Government agency with RWSS sector responsibility. However, the LSGA and national policy mandate that DWSS relinquish its historical implementation role and take on a sectoral support and facilitation role. The RWSS sector strategy outlines 12 specific technical support and facilitation roles that fall to DWSS within this new institutional framework. The Project has been designed to support and strengthen DWSS' role as sector facilitator by (i) designing the PMU to be a central planning and management unit for the sector so that it fulfils a technical support and facilitative role during project implementation; (ii) assisting DWSS establish specific capability areas that DWSS will have responsibility for (the RWSS sector strategy outlines a list of DWSS sectoral responsibilities) through demonstration and training; and (iii) assisting DWSS outline a process for redeploying staff and rightsizing related to its mandated functions while at the same time retaining the staff it needs within the new institutional structure.

### **3. Strengthening Policy Development**

15. Sector stakeholders have begun to share information and discuss policy issues more openly in the broader context of sector development. The Government's decentralization program has already revealed inconsistencies with existing policies and certain weaknesses related to such issues as rehabilitation of facilities and implementation of schemes. The Project will support continuation of the sector dialogue begun during project conceptualization and expanded during project preparation. Support will be provided to establish a formal sector stakeholder group to include government and aid agencies, NGOs and others involved in furthering sector goals and agendas.

## EXTERNAL ASSISTANCE TO THE WSS SECTOR IN NEPAL 1990-2002

	Project Name	Type of Assistance	Source	Year		Amount (\$ million)
				Start	End	
<b>A. Water Supply and Sanitation in Rural Areas</b>						
1	1st RWSSSP	Loan	ADB	1985	1993	9.60
2	2nd RWSSSP	Loan	ADB	1989	1995	14.22
3	3rd RWSSSP	Loan	ADB	1992	1997	21.24
4	4th RWSSSP	Loan	ADB	1997	2001	27.00
5	RWSSP Lumbini Phase I	Grant	FINNIDA	1990	1996	11.90
6	RWSSP Lumbini Phase II	Grant	FINNIDA	1996	1999	4.40
7	RWSSP Lumbini Phase III	Grant	FINNIDA	1999	2003	6.52
8	CWSS/WI MPO 88-92	Grant	UNICEF	1987	1992	9.50
9	CWSS/WI MPO 1992-96	Grant	UNICEF	1992	1996	16.00
10	CWSS/WI MPO 1997-2002	Grant	UNICEF	1997	2002	2.56
11	Family Environmental Condition MPO	Grant	UNICEF	1997	2001	13.17
12	CWSS/WI in Hills	Grant	JRCS	1998	1997	1.43
13	CWSS/WI	Grant	Water Aid	1995	1996	4.10
14	Support to Water and Sanitation Services	Grant	WHO	1996	1997	0.70
15	SRDWSP	Grant	SDC Helvetas	1995	1997	1.15
16	CWSSP	Grant	SDC Helvetas			1.00
17	JAKPAS	Grant	JGF	1994	1996	1.50
18	RWSSFDB - Phase I	Loan	WB-IDA	1996	2000	20.00
19	Mechi Hills Development Programme	Grant	SNV	1992	1997	0.50
20	Karnali Hills Development Programme	Grant	SNV	1992	1997	0.50
21	IRDP Gulmi- Arghakhanchi – Phase I	Grant	EU	1993	1997	
22	IRDP Gulmi- Arghakhanchi – Phase II	Grant	EU	1997	2002	12.50
23	Bagmati Watershed Development Project	Grant	EU	1993	1997	
24	Gurkha Welfare Scheme Phase I - III	Grant	DFID	1989	2005	14.85
25	Mid and Far West Rural Water Supply and Sanitation (NEWAH)	Grant	DFID	1999	2005	4.45
<b>B. Water Supply and Sanitation in Urban Areas</b>						
26	Management Support to NWSC	Grant	UNDP	1992	1996	3.40
27	Consumer Education	Grant	UNDP	1992	1995	0.26
28	Human Resource Development	Grant	UNDP	1994	1996	0.50
29	Melamchi Scheme - Feasibility Study	Grant	UNDP	1995	1996	0.85
30	Leak detection and Water Control Programme	Grant	Norway	1993	1995	2.40
31	Urban WSS Rehabilitation Project	Loan	WB-IDA	1991	1999	60.00
32	Kodkhu Water Supply Project - TA	Grant	Thailand	1991	1994	0.80
33	Bhaktapur Sewerage System	Grant	GTZ	1995	1996	0.08
34	Swayambhunath Conservation and Development	Grant	GTZ	1993	1996	0.30
35	Terai Water Supply Project	Grant	ODA	1992	1995	0.34
36	Central Terai Urban Project	Grant	ODA	1995	1999	5.25
37	Kathmandu WSFIP Phase I and II	Grant	JICA	1992	1995	28.00
38	Ten Towns Water Supply Improvement	Grant	JICA	1996	2000	51.00
39	Water Supply (DI Pipes & Fittings)	Grant	Austria	1990	1993	
40	Small Towns Water Supply and Sanitation Sector Project	Loan	ADB	2001	2006	40.00
41	Melamchi Water Supply Project	Loan / Grant	ADB, NORAD, OPEC, JBIC, JICA	2001	2011	470.00

ADB = Asian Development Bank, CWSS/WI = Community Water Supply and Sanitation with Women's Involvement, CWSSP = Community Water Supply and Sanitation Project, DFID = Department for International Development, EU = European Union, FINNIDA = Finnish International Development Agency, GTZ = Deutsche Gesellschaft für Technische Zusammenarbeit, JICA = Japan International Cooperation Agency, JGF = Japan Government Fund, JRCS = Japanese Red Cross Society, NORAD = Norwegian Agency for Development Cooperation, NWSC = Nepal Water Supply Corporation, ODA = Overseas Development Administration, RWSSFDB = Rural Water Supply and Sanitation Fund Development Board, RWSSSP = Rural Water Supply and Sanitation Sector Project, SRDWSP = Self Reliant Drinking Water Supply and Sanitation Program, UNDP = United Nations Development Programme, UNICEF = United Nations Children's Fund, WHO = World Health Organization, WSFIP = Water Supply Facility Improvement Project.

## SUBPROJECT SELECTION CRITERIA

1. District development communities (DDCs) will prioritize all their communities using the project criteria for community selection. Project funding will be allocated to communities that rank first according to the criteria. The criteria are based on hardship factors, willingness to share the costs of rural water supply and sanitation (RWSS), and poverty and social factors. All schemes selected must have already been identified and prioritized in the district development plan. Failure to prioritize communities following these criteria will render the DDC noneligible for further funding.

### A. Hardship Factors

2. For a community to qualify, it must have one or more of the following hardship factors:

- (i) Time required to fetch water from existing water sources/points, i.e. average time to go, wait (if necessary), and return home is more than 30 minutes per round trip.
- (ii) Existing accessible water sources are available less than 9 months per year.
- (iii) Existing water sources are highly contaminated (arsenic or fecal coliform >1,500 pm) or physically prone to contamination (e.g., open dug wells, broken down tubewells, rivers, etc.).
- (iv) Average per capita water consumption is adequate (at least 25 liters per capita per day) or inadequate (less than 15).

### B. Willingness to Share the Costs of RWSS Development

3. Communities wishing to participate in the Project must make cash and in-kind contributions. They must also be willing to take full financial and managerial responsibility for operations and maintenance. Communities can increase their chance of being selected by agreeing to pay a higher percentage of the cost: of the scheme at least 20% community contribution, with >1% in cash. For poor communities in remote inaccessible areas the minimum contribution will be reduced to 10%, although per capita cost may be higher.

### C. Social and Poverty Factors

4. WSS services also need to be provided to poor, socially excluded, and otherwise disadvantaged communities with low income, insufficient food supply, low literacy rate, and high morbidity and mortality rates. According to the Nepal Poverty Assessment 1999 indicators poor households are:

- (i) households having food sufficiency for less than 6 months in a year;
- (ii) households whose major source of income is wage from labor;
- (iii) households with female heads with disabled persons; and
- (iv) other households with low literacy, unsatisfactory health indicators, etc.

5. The table gives draft sample of the instrument that DDCs will use to evaluate and rank communities using the community selection criteria. The PMU in consultation with the sector stakeholder group, will finalize the instrument and will submit it for ADB's concurrence 6 months after project effectiveness.

6. Community selection criteria incorporate both required eligibility elements and ranking elements. Required eligibility criteria must be met before a community can be considered for inclusion in the project.

Required Eligibility Elements		Means of Verification
<b>District Planning</b>		
1	Community must be included in the DDC plan.	DDC periodic and annual plans
<b>Social and Poverty</b>		
1	At least 50% of beneficiary households exist below the poverty line. <sup>1</sup>	Census figures
2	Percentage of occupational caste beneficiaries is greater than the district average. <sup>2</sup>	District average percentage compared with community percentage
3	Percentage of disadvantaged groups (ethnic minorities) is greater than the district average. <sup>3</sup>	District average percentage compared with community percentage
<b>Willingness to Share Cost</b>		
1	Community commits to least 20% of capital cost in cash and kind.	Community polling as part of application
2	Community commits to least 1% (of the 20%) of cost in cash.	Community polling as part of application
3	Village development committee (VDC) commits to 2.5% of construction cost.	Written commitment from VDC Chairman
<b>Economic</b>		
1	Subprojects are justified based on technology choice, water delivery, and time saved.	Community application and subproject appraisal
2	Maximum allowable subproject capital costs is maximum of household costs x number of households to be served (the values in this table will be updated by adjusting for inflation annually by the water and sanitation support team).	Maximum household cost per technology option follows: rehabilitation gravity: NRs19,700; new gravity: NRs29,800; groundwater – shallow tube wells (STW) (40 m): NRs7,600; overhead tank (OHT) with pipe: NRs 19,800; groundwater – STW (60 m): NRs9,500; rehabilitated OHT with pipe system: NRs15,900; lift with pipe system: NRs30,000; rainwater harvesting: NRs33,100
<b>Other</b>		
1	No resettlement is required.	Community application and subproject appraisal
2	Water source is not contested.	Written statement of the district's Water Resources Council
3	All environmental impacts can be mitigated.	Stated conclusion of the environmental screening process
<b>Ranking Elements</b>		<b>Weighting</b>
<b>Existing Water Supply Facilities</b>		
1	Improved water supply facilities do not exist.	10
2	Existing water supply facilities do not serve all community beneficiaries.	8 if less than 50% 4 if less than 75%
<b>Existing Sanitation Facilities</b>		
1	Less than 50% of households have improved sanitation. <sup>4</sup>	10 if less than 25% 5 if less than 50%
<b>Hardship</b>		
1	Average time required to collect water greater than 30 min per day.	10 if more than 2 h 7 if more than 1 h 5 if more than 30 min
2	Current major water source is not available all year.	10 if less than 9 mo 8 if less than 10 mo 6 if less than 11 mo
3	Current water source does not meet accepted water quality standards.	10 if WHO standards (or Nepal Standards when adopted) are not met.
4	Average water availability is less than 15 liters per capita per day (LPCD).	10 if less than 15 8 if less than 30 5 if less than 45

<sup>1</sup> The current official poverty line of NRs4,404 per capita is being updated by the Living Standard Survey.

<sup>2</sup> Information on caste is available by district in the 2001 Census.

<sup>3</sup> Definitions and information on ethnic minorities (by district) are available in the 2001 Census.

<sup>4</sup> The draft 10th National Development Plan states that 25% of households have sanitation facilities.

## **GENDER, CASTE, AND ETHNICITY AWARENESS AND EMPOWERMENT STRATEGY**

### **A. Preparatory Work Undertaken**

1. The Asian Development Bank (ADB) 4<sup>th</sup> Phase Evaluation, 2001,<sup>1</sup> highlighted that lack of woman's participation in decision making in water user and sanitation committees (WUSCs) seemed to have an adverse impact on planning, resource utilization, and tariff collection. During the evaluation survey, women questioned the lack of transparency of system costs and illegal extensions using private pipelines by WUSC chairmen. The Community-Based Water Supply and Sanitation project preparatory technical assistance Sample Survey and the subsequent Socioeconomic Survey (SES) findings confirmed that, without targeted intervention, women and poor men are all too often excluded from participating in decision making related to project planning for rural water supply and sanitation (RWSS) and resource allocation in Nepal. The poorest groups—Dalits and other socially excluded ethnic groups—often have unequal access to water, sanitation, and other project benefits like training and paid jobs. Empowering women and socially excluded men to participate in decision making about improved RWSS resources is therefore a critical issue to be addressed in this Project through intensive social mobilization efforts and gender-sensitive processes.

### **B. Capacity Building to Promote Women's Involvement in Decision Making**

#### **1. Central Level**

2. The project management unit (PMU) located in the Department of Water Supply and Sewerage under the Ministry of Physical Planning and Works, will include an international gender/social development specialist who will work with the regional gender/social development specialists in the development phase and first 2 years of implementation. All will work closely with the health and sanitation, technical and monitoring and evaluation specialists to ensure gender, caste, ethnicity, and community mobilization objectives are developed, planned, and integrated into project strategies, action plans, and processes.

#### **2. District Level**

3. The PMU gender/social development specialist will orient the regional gender and community development consultants to support the water and sanitation support team (WSST) community development specialist and the district development committee's women development officer and to ensure that all WSST staff (including counterpart staff) receive training on gender awareness and gender, caste, and ethnicity policy and process. The regional gender and community development consultant will support WSST officers to initiate and carry out their gender-sensitive and socially inclusive coordination and monitoring roles effectively.

#### **3. Community Level**

4. Before nongovernment organizations/community-based organizations (NGOs/CBOs) start implementing subprojects with communities, two staff members will be required to attend training sessions in gender awareness and project policy and processes for incorporating gender, caste, and ethnicity. This will enable NGOs/CBOs to better promote gender awareness and to facilitate gender and caste-sensitive processes in a community in all phases of a subproject and in other components such as health and sanitation.

---

<sup>1</sup> Benefit, Monitoring and Evaluation of Water Supply and Sanitation Subprojects under the Fourth Rural Water Supply and Sanitation Sector Project, Main Report, New Era, Kathmandu, September 2001.

### C. Targets for Women's Participation and Access to Subproject Benefits

5. The following targets will be achieved in implementing this project:

- (i) 50% women as executive and general members in WUSCs, with proportional representation<sup>2</sup> of all castes and ethnic groups residing in the community
- (ii) WUSCs to receive gender, caste and ethnic participation awareness and confidence building training as part of initial WUSC training
- (iii) Women as well as men trained as paid village maintenance workers (VMW) and sanitation masons where possible,
- (iv) Men as well as women trained as community health motivators to promote health and sanitation to men as well as women, boys, and girls
- (v) School water supply and sanitation construction to include separate toilet cubicles for boys, girls, and teachers. School hygiene and sanitation promotions to be extended to out-of-school boys and girls through a child-to-child approach
- (vi) Paid unskilled labor to the poorest men and women selected in a community at 50% of the standard daily labor rate
- (vii) Affordable sanitation options (in the Community Water Supply and Sanitation Catalog) available for all socioeconomic groups, and sanitation subsidies to the 10% poorest households
- (viii) Women participating in decision making on the number, location, and position of water points, and design modifications to meet practical needs for washing and bathing
- (ix) Participatory approaches applied to identify households by gender, caste, ethnicity, and socioeconomic group
- (x) Gender analysis and consultation with women conducted in all subprojects
- (xi) Subsidies to poor communities in remote middle hills and mountain areas for RWSS
- (xii) Community-based revolving funds for sanitation to offer loans for affordable latrines, with appropriate repayment schedules to enable greater access by poor men and women

### D. Gender Monitoring and Evaluation

6. The above tasks will be monitored using gender, caste, and ethnicity impact monitoring indicators, disaggregated data collected and analyzed incorporated in progress reports by NGOs/CBOs, and the project performance management system (WSST/DDCs to PMU). ADB biannual review missions and the midterm review mission will also evaluate the achievements and impacts of the targets.

---

<sup>2</sup> Proportional representation means that if there are 30% Dalit households in a community, then the WUSC should have 30% Dalit members on the WUSC.

**COST ESTIMATES<sup>a</sup>**

(\$'000)

<b>Item</b>	<b>Foreign Exchange</b>	<b>Local Currency</b>	<b>Total Cost</b>
<b>A. The Rural Component</b>			
1. Civil Works WS	7.49	10.98	18.67
2. Equipment and Materials WS	0.93	3.47	4.40
3. Sanitation	0.75	1.10	1.85
4. Community Mobilization (NGO Contracts)	0.00	1.86	1.86
5. Community Mobilization (Materials)	0.00	0.02	0.02
6. Gender, Caste, and Ethnic Minority Program	0.00	0.04	0.04
7. Health and Hygiene Program	0.94	0.19	1.13
<b>Subtotal (A)</b>	<b>10.11</b>	<b>17.66</b>	<b>27.77</b>
<b>B. Institutional Strengthening Component</b>			
1. International Consultants	0.24	0.03	0.27
2. Domestic Consultants	0.00	2.00	2.00
3. Equipment	0.06	0.05	0.11
4. Materials	0.66	0.07	0.73
<b>Subtotal (B)</b>	<b>0.96</b>	<b>2.15</b>	<b>3.11</b>
<b>C. Incremental Administrative Costs</b>			
1. Counterpart Salaries – Technical	0.00	1.84	1.84
2. Counterpart Salaries – Support	0.00	0.51	0.51
3. Equipment/Vehicles	0.26	1.46	1.72
<b>Subtotal (C)</b>	<b>0.26</b>	<b>3.81</b>	<b>4.07</b>
<b>Interest Charges During Construction<sup>b</sup></b>	<b>0.76</b>	<b>0.00</b>	<b>0.76</b>
<b>Total</b>	<b>12.09</b>	<b>23.62</b>	<b>35.71</b>

NGO = nongovernment organization, WS = Water Supply.

<sup>a</sup> Taxes and duties are included in the costs at the level of \$2.34 being 6.6% of the total project costs.

<sup>b</sup> Related to ADB loan financing.

Source: Asian Development Bank estimates.

### IMPLEMENTATION SCHEDULE

Item	2004				2005				2006				2007				2008				2009												
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4									
<b>A. Rural Water Supply and Sanitation Component</b>																																	
1. Pilot Batch Program	[Shaded]																																
a. Batch I Planning, Development, and Implementation		[Shaded]																															
b. Batch II Planning, Development, and Implementation			[Shaded]																														
c. Batch III Planning, Development, and Implementation				[Shaded]																													
d. Batch IV Planning, Development, and Implementation						[Shaded]																											
<b>B. Institutional Strengthening Component</b>																																	
1. Institutional Support to DWSS in its new role	[Shaded]																																
2. WSST and DDC Staff Trained For Each Batch	[Shaded]																																
3. Planning Completed For Each Batch	[Shaded]																																
4. Provide Managerial Support to DWSS	[Shaded]																																
5. DDC Manages NGO Support To Communities	[Shaded]																																
6. Development Of Manuals And Guidelines	[Shaded]																																
7. Manuals And Guidelines Formally Approved																																	
8. Provide Technical And Managerial Support To DDCs	[Shaded]																																
9. Review And Update Manuals And Guidelines									[Shaded]	[Shaded]	[Shaded]	[Shaded]																					
10. Complete Required Research And Studies					[Shaded]																												
11. Reform Strategy Completed And Approved By MPPW		[Shaded]	[Shaded]	[Shaded]																													
12. Annual District Workshops			▼				▼				▼				▼				▼				▼				▼						
13. SSG Meetings	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲					
<b>C. Project Management</b>																																	
1. Project Performance Management System	[Shaded]																																
2. Project Reporting	[Shaded]																																
3. Milestone Sets	I				II				III				IV								Va				Vb								
4. Project Review Missions	◇	◇			◇	◇			◇	◇	◆		◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇					
6. Project Completion Report																												✦					

DDC = district development committee, MPPW = Ministry of Planning and Physical Works, NGO = nongovernment organization, SSG = sector stakeholder group, WSST = water and sanitation team.

[Shaded] Planning Phase [Light Shaded] Development Phase [Medium Shaded] Implementation Phase [Dark Shaded] Written Plans ○ Written Approval  
 ▼ Meetings ▲ Workshops ◇ Reports ◆ Mid-term Review ✦ Final Report

### PROPOSED CONTRACT PACKAGING

Element	Estimated Contracts (no.)	Implementing Agency	Mode of Procurement	Base Cost (\$ '000)	Activities
Civil Works	1,200	WUSC	CP	19,347	Construction and procurement of materials by communities building water supply and sanitation schemes
Office Equipment and Motorcycles	5	PMU/WSST	IS/LCB/DP	115	Project management and training
Publication Materials	400	PMU/WSST	LCB/DP	2,618	Policy manuals and training materials, survey dissemination
<b>Total</b>	<b>1,605</b>			<b>22,080</b>	

CP = community-based procurement, DP = direct purchase, IS = international shopping, LCB = local competitive bidding, PMU = project management unit, WSST = water and sanitation support team, WUSC = water user and sanitation committee.

## CONSULTING SERVICES FOR PROJECT MANAGEMENT AND CAPACITY BUILDING

1. The consulting services will support the Project and build capacity in the Ministry of Physical Planning and Works, Department of Water Supply and Sewerage (DWSS), district development committee (DDC), nongovernment organizations (NGOs), community-based organizations (CBOs), water users group/water user and sanitation committee, and other sector support organizations. Consultant input covers broad areas of expertise to (i) develop detailed project and financial management guidelines, procedures, and training materials; (ii) develop gender, caste, and ethnicity (GCE) guidelines and offer training in their use; (iii) assist DWSS build the capacity to support sector development as it moves from being an implementor to being a facilitator in rural water supply and sanitation (RWSS); and (iv) strengthen the capacity of DDCs, their sectoral units, and NGOs/CBOs and private sector firms that will support communities to plan, implement, operate, and maintain RWSS facilities. The table gives the proposed consulting services.

Consultant Level and Position		Person-Months	
		Domestic	International
<b>Central Level (PMU)</b>			
1	Team Leader (RWSS Specialist)	72.0	
2	Gender and Social Development Specialist	60.0	
3	Financial Management and Accounting Specialist	72.0	
4	Hygiene and Sanitation Specialist	30.0	
5	Monitoring and Evaluation Specialist	40.0	
6	Contract Management Specialist	24.0	
7	Policy Specialist (Water)	9.0	
8	Environment Specialist	9.0	
9	Institutional Reform Specialist		3/3 <sup>a</sup>
10	Financial Management Specialist		3/1/0.5
11	Monitoring and Evaluation Specialist		3/1/0.5
12	Unallocated	20.0	
<b>District Level (WSST)</b>			
13	Financial Management and Procurement Specialist	400.0	
14	Regional Monitoring and Evaluation Specialists (1 per 5-district cluster, assuming 4 specialists in 21 districts)	183.0	
15	Regional Gender/Social Development Specialists (1 per 5-district cluster, assuming 4 specialists in 21 districts)	183.0	
16	Unallocated	100.0	
<b>Totals</b>		<b>1,202.0</b>	<b>15</b>

RWSS = rural water supply and sanitation.

<sup>a</sup> Where the number of person-months is given as 6/4/2, that indicates 6 months in the first year of project implementation, 4 months in the second year, and 2 months in the third year.

## **A. Central Level Consultants**

### **1. Team Leader/RWSS Specialist (Domestic)**

1. The team leader will be a RWSS specialist. The specialist will assist the project management unit (PMU) and its project director to firmly establish the project institutional framework and administrative and management procedures according to Government/Asian Development Bank (ADB) guidelines. The team leader will (i) verify that bidding and contracting procedures reflect ADB/Government guidelines and are fair, open and transparent; (ii) help prepare and participate in project orientation workshops for PMU/water and sanitation support team (WSST) staff and consultants; (iii) develop work plans and coordinate activities of PMU consultants; (iv) assist the PMU to develop annual work plans, budgets, and schedules for project activities; (v) make visits to districts and communities involved in the project to monitor planning and implementation, and recommend ways to streamline procedures; (vi) regularly meet senior Government staff involved in the Project, including steering committee members and the sector stakeholder group (SSG), to solicit their active support of project activities; (vii) work with project staff/consultants to develop quality control and administrative transparency guidelines for all project levels; and (viii) assist the project director in other project matters as necessary, including producing project progress reports. The team leader should have an advanced degree in water supply and sanitation, with at least 10 years international experience designing and managing large-scale, community-based WSS and health projects.

2. The team leader in his capacity as a RWSS specialist will (i) review technical guidelines and catalogues from other RWSS programs and assist DWSS to compile project technical guidelines; (ii) develop quality control procedures, including technical specifications that can be easily implemented at district level and used by communities; (iii) assist in developing standard formats and steps for subproject appraisal, periodic M&E of schemes under implementation, and other related technical matters; (iv) review and comment on WSST subproject appraisal reports; (v) develop course outlines for project WSS training modules, and assist the WSST in conducting orientation and district-based training related to water supply issues; and (vi) direct the unit cost studies that will take place periodically throughout the Project.

3. In addition he will (i) review and analyze all water quality data collected from water sources in each of the 21 districts, using best practices; (ii) assist the PMU in developing a database of water quality on the RWSS schemes; (iii) develop a water quality monitoring program for RWSS schemes; (iv) advise on action to be taken by the DDCs and communities should sources be contaminated with arsenic, iron, fluoride, and/or calcium; (v) develop standard procedures for carrying out economic and financial appraisal of individual schemes/subprojects, and model procedures to assist the WUSCs in tariff determination and financial planning; (vi) assist the policy specialist in amending the National Water Supply Sector Policy, 1998 and the Draft National Sanitation Policy, 2000 to reflect the RWSS Sector Strategy and Action Plan.

### **2. Gender and Social Development Specialist (Domestic)**

4. The specialist will (i) assist the PMU to develop and disseminate promotional materials, develop training programs, and initially train project staff and others in GCE awareness and methodologies to ensure full and equitable participation by gender, castes, and minority ethnic groups; (ii) review subproject/scheme planning, development, implementation, and postproject activities to ensure that each step addresses GCE; (iii) help integrate GCE modules into overall training programs; (iv) develop GCE monitoring indicators and processes to be used as part of

the project performance management system (PPMS) to ensure that GCE issues are properly addressed in all project activities; and (v) liaise with the Empowerment of Women Project to develop possible linkages with this project community women to enable them to access literacy, microcredit, and other services.

### **3. Financial Management and Accounting Specialist (Domestic)**

5. The specialist will (i) monitor project financial disbursement and recommend ways to smooth Government administrative procedures for disbursement; (ii) develop operational guidelines on project financial matters using Government procedures and ADB formats; (iii) set up and maintain the project financial bookkeeping and accounting system at the central level; (iv) support WSSTs to establish uniform bookkeeping and financial accounts for each scheme/subproject; (v) assist WSSTs with the water supply specialist in conducting orientation and district-based training related to financial management for NGOs/CBOs and WUSCs; and (vi) monitor WUSC financial operations related to O&M, rehabilitation, and extension during and after scheme/subproject implementation.

### **4. Hygiene and Sanitation Specialist (Domestic)**

6. The specialist will (i) lead in evaluating of various approaches currently used in community health, hygiene and sanitation, handwashing, and child survival approaches used in multilateral, bilateral, international, and local NGO projects in Nepal; (ii) based on the evaluation, fine-tune the details of the Basic Sanitation Package program proposed for this Project; (iii) develop operational guidelines/procedures on health sanitation and hygiene behavior change program for WSSTs and NGOs/CBOs and private sector groups working at the district and community level; (iv) refine and develop the various modules of the United Nations Children's Fund (UNICEF)/DWSS Basic Sanitation Package; (v) develop course outlines for the project health and sanitation-related training modules; (vi) assist DWSS to review and compile the catalog of affordable latrine options for each project district; (vii) assist in developing related information, education and communication (IEC) materials including Participatory Hygiene and Sanitation Transformation; and (viii) assist WSST in conducting orientation and district-based training related to health sanitation and hygiene behavior change.

### **5. Monitoring and Evaluation (M&E) Specialist (Domestic)**

7. The specialist will (i) work with the Department for International Development-financed Monitoring and Evaluation Unit at MPPW to determine information needs for sector monitoring; (ii) establish monitoring parameters of project-related activities; (iii) oversee the establishment of a comprehensive monitoring database to meet both the requirements of the sectoral monitoring unit and the Project; (iv) develop monitoring procedures for district, NGOs, and community project participants; (v) orient and train district M&E staff in monitoring procedures; (vi) manage the M&E program, preparing periodic monitoring reports based on information collected at the district level; (vii) with other PMU staff, determine specific project evaluation requirements, developing terms of reference for independent evaluations as needed; and (viii) manage project evaluations, reviewing and approving reports prepared under contract to others.

### **6. Contract Management Specialist (Domestic)**

8. The specialist will (i) develop model contracts and procedures for DDCs to recruit NGOs and private sector firms; (ii) develop detailed shortlisting and selection criteria for NGOs and private sector firms, and assist WSST to evaluate the skills and experience of candidate NGOs

and private firms in the selection process; (iii) train and assist to WSST in technical and cost proposal evaluation according to ADB and Government procedures; (iv) train WSSTs to use standard contracting procedures for consultants (NGOs/private sector firms), for goods and materials for construction, and to use the model contracts; (v) develop model procurement procedures for WUSC to procure goods and materials and keep appropriate records for subsequent monitoring, audits, collection, and use of water tariffs; (vi) liaise with the WSST regularly to solve specific contracting or selection problems in the districts.

#### **7. Policy Specialist (Water) (Domestic)**

9. The specialist will have extensive experience in water-related policies and will (i) work closely with the sector stakeholder group and individual sector stakeholders to review sector policies and strategies, and assess weaknesses or inconsistencies that need to be rectified; (ii) identify current policies that need revision to be compliant with current laws or are inconsistent with other policies; (iii) with the SSG, prepare specific time-based recommendations for amending the RWSS sector policy to improve the efficiency and impact of future sector projects.

#### **8. Environment Specialist (Domestic)**

10. The specialist will (i) develop guidelines for environmental screening of subprojects to be undertaken by the communities; (ii) develop an environmental checklist for the screening process based on environmental conditions of the different regions; (iii) catalogue environmental standards to be adhered to during design, construction, O&M for RWSS; (iv) train WSST staff and NGOs in environmental screening of RWSS schemes; and (v) liaise with water supply and policy specialists regarding inclusion of environmental issues in RWSS policy documents.

#### **9. Institutional Reform Specialist (International)**

11. The institutional reform specialist should have experience in public administration and will (i) carry out a human resource review of DWSS in line with the LSGA and the Civil Service Act, (ii) analyze the business processes of DWSS, (iii) perform a functionality assessment and prepare a human resource plan, (iv) prepare a training strategy for the staff taking on new roles and responsibilities and (v) prepare a financing plan to implement the human resource strategy.

#### **10. Financial Management Specialist (International)**

12. The specialist will (i) design and implement an accounting system capable of consolidating DDC implementation activities, (ii) create a management information system (MIS) that will capture all accounting data from the DDCs, (iii) design and implement an accounting system at the national PMU level to record and analyze the expenditures of the PMU, (iv) design and implement a reconciliation process for monitoring and analyzing receipts and expenditures from the WSS sector account at the Nepal Rastra Bank, (v) design financial reporting systems that meet both Government needs and ADB requirements, (vi) carry out adequate skills transfer to domestic consultants and counterpart staff to ensure sustainability of the designed and implemented systems and (vii) train the domestic consultant and counterpart staff to such a level that they will be able to take on the financial management responsibilities under the Project.

## **11. Monitoring and Evaluation (M&E) Specialist (International)**

13. The specialist will (i) meet MPPW and Fund Board M&E staff to assess their M&E procedures, indicators, and reports; (ii) visit representative DDCs and identify physical, institutional, and financial data to be analyzed to monitor sustainability and impact of project services, and achievement of GCE and poverty targets; (iii) draft a conceptual design of the MIS/M&E program; (iv) specify information that will be in project progress reports by institution (PMU, WSSTs, NGOS/CBOS); (v) after MIS conceptual design is implemented, make periodic visits to all project levels to discuss MIS/money procedures with project staff and consultants; (vi) assess the quality and completeness of data gathered and its use by communities and project management; and (vii) train the M&E domestic consultant and counterpart staff to such a level that they will be able to take on the M&E responsibilities under the Project.

### **B. Regional and District Level (WSST) Consultants**

#### **1. Regional Gender/Social Development Specialists (1 per 5-district cluster)**

14. At the regional level, all WSSTs will be supported by a gender/social development specialist who will support a 5-district cluster. The consultant will guide the gender/social development specialist to (i) help WSST disseminate promotional materials, training programs for project staff and others in GCE awareness and methodologies to ensure equitable participation by GCE groups; (ii) assist in reviewing all subproject and scheme planning, implementation, and postproject activities to ensure that GCE issues are addressed; (iii) assist in integrating GCE into all DDC and community sector activities; and (iv) collect data and monitor indicators on GCE integration and relay the information to the PMU. The regional gender and social development specialist will build the capacity of the gender and community development officers by providing backstopping support to achieve the key tasks as required.

#### **2. Financial Management and Procurement Specialist at WSST (Domestic)**

15. The specialist will (i) review the model contracts and the procedures for recruiting NGOs and the private sector developed by the contract and procurement specialist at the PMU level, with reference to the district under consideration; (ii) assist WSST in shortlisting and selecting NGOs and private firms; (iii) assist WSST in evaluating technical and cost proposals, contracting procedures, and the use of the model contracts with NGOs and private firms; (iv) disseminate information on model procurement procedures for WUSCs to procure goods and materials for construction, and keep adequate records for subsequent monitoring and audits; (v) periodically monitor WUSC records in participating communities in the district; (vi) liaise with the PMU regularly for solving specific contracting or selection problems in the districts, and keep detailed records of all the contracts in a fiscal year in the district, and (vii) monitor WUSC financial operations related to O&M, rehabilitation and extension during and after scheme/subproject implementation.

#### **3. Regional Monitoring and Evaluation (1 per 5 District)**

16. At the regional level, all WSSTs will be supported by a M&E specialist responsible for a 5-district cluster. The consultants will support the M&E staff in the DDC and WSST to ensure that information for the PPMS and sector monitoring gets collected and input into the database. They will assist the WSST in evaluating and reviewing progress in implementing the water

supply and sanitation schemes, the achievement of project milestones and sector indicators, and in preparing their periodic district monitoring reports to the PMU, the stakeholder group, and the MPPW M&E Unit.

## PROJECT PAYMENT MILESTONES

<b>Payment Milestone I to be advanced if and when Government complies with MILESTONES I</b>
<b>MILESTONES I</b>
<ol style="list-style-type: none"> <li>1. The Government establishes and fully staffs the PMU for the duration of the Project.</li> <li>2. Cabinet approves the RWSS Sector Strategy and its associated action plan.</li> <li>3. The Government makes operational the Monitoring &amp; Evaluation Unit under MPPW.</li> <li>4. The Government opens the sector account at the Nepal Rastra Bank.</li> <li>5. The Government approves the budget for project funding from central Government sources (central counterpart funds) for the first fiscal year and makes budgetary allocation for the amount.</li> </ol>
<b>Upon reaching Payment Milestones II, replenishment of IA if and when MILESTONES II have been achieved.</b>
<b>MILESTONES II</b>
<b>To be completed approximately 1 year after Project started</b>
<ol style="list-style-type: none"> <li>1. All project manual and guidelines are completed.</li> <li>2. Audit reports have been approved by ADB.</li> </ol>
<b>Upon reaching Payment Milestones III, replenishment of IA if and when MILESTONES III have been achieved</b>
<b>MILESTONES III</b>
<b>To be completed approximately 3 years after Project started</b>
<ol style="list-style-type: none"> <li>1. 70% of DDCs participating in that installment period are successfully implementing the Project according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>2. 60% of planned schemes for that installment period are completed according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>3. Audit reports have been completed and approved by ADB.</li> </ol>
<b>Upon reaching Payment Milestones IV, replenishment of IA if and when MILESTONES IV have been achieved</b>
<b>MILESTONES IV</b>
<b>To be completed approximately 4 years after Project started</b>
<ol style="list-style-type: none"> <li>1. Pilot Batch as completed at least 95% of the planned schemes according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>2. 80% of DDCs participating in that installment period are successfully implementing the Project according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>3. 80% of planned schemes for that installment period are completed according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>4. Audit reports have been completed and approved by ADB.</li> </ol>
<b>Upon reaching Payment Milestone V, replenishment of IA if and when MILESTONES V have been achieved</b>
<b>MILESTONES V</b>
<b>To be completed approximately by year 5 after the Project started or 1 year before project completion</b>
<ol style="list-style-type: none"> <li>1. 80% of DDCs participating in that installment period are successfully implementing the Project according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>2. 80% of planned schemes for that installment period are completed according to project guidelines and meeting gender and caste and ethnic minority program targets.</li> <li>3. MPPW has met all institutional and policy sector performance indicators.</li> <li>4. Audit reports have been approved by ADB.</li> </ol>
<b>Upon reaching Payment Milestone VI, replenishment of IA if and when MILESTONES VI have been achieved</b>

**MILESTONES VI****To be completed approximately 6 months before project completion**

1. Project completion report and all project audits have been submitted to ADB's satisfaction.
2. MPPW has met the sector performance targets set at national level.
3. Batch IV has established and trained 80 WUSC according to project guidelines and has met the gender and caste and ethnic minority program targets.
4. Batch II has completed 95% planned schemes according to project guidelines and has met gender and caste and ethnic minority program targets.
5. 95% of DDCs have successfully implemented the Project according to project guidelines and have met the gender and caste and ethnic minority program targets.
6. 95% of planned schemes have been completed according to project guidelines and have met gender and caste and ethnic minority program targets.

ADB = Asian Development Bank, DDC = district development committee, MPPW= Ministry of Physical Planning and Works, PMU = project management unit, WUSC = Water User and Sanitation Committee.

## SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

### A. Linkages to the Country Poverty Analysis

Sector identified as a national priority in country poverty analysis? Yes	Sector identified as a national priority in country poverty partnership agreement? Yes
<p>Contribution of the sector/subsector to reduce poverty in Nepal:</p> <p>The country poverty analysis describes the provision of basic services for the poor, including water-related needs, as being fundamental to poverty elimination. Under the Project, benefits will impact principally on the health and quality of life, with full benefits being realized in the longer term. The Project will enhance household economies in the poorest regions of the country. Anticipated benefits include stronger, more sustainable livelihoods; increased family incomes through improved crop production; improved livestock management; improved cottage industries; fewer days lost through sickness; reduced medical expenditures; and improved attendance of children, especially girls, at school.</p> <p>Economic analysis for RWSS projects in Nepal indicates that time and energy savings contribute to economic internal rates of return of around 24% for gravity schemes and 14% for tube wells.<sup>1</sup> These analyses are understood to significantly understate benefits since they measure only time savings and ignore significant quality-of-life benefits.</p> <p>Fetching water is mainly the responsibility of women and girls. Social structures and current levels of education and awareness inhibit gender equality. In the hills, time taken to fetch water, including waiting time at the source, is about 4.5 hours per household per day. A shorter time to collect water normally results in increased consumption of water, which will result in improved hygiene (more frequent personal bathing and washing of clothes and utensils) and better livestock maintenance. Health benefits cited by beneficiaries normally include improved quality of life due to better physical health, reduced mental stress (as result of less drudgery), and an improved household economy. Improving in the quality of life by providing basic water and sanitation services will have a profound bearing on poverty levels in the poorest areas of Nepal.</p>	

### B. Poverty Analysis

### Proposed Classification

<p>Under the Project, low-income families are identified on the basis of annual income. Households with an annual income of less than NRs34,000 (\$436) (on the basis of 5.45 members per household) are regarded as poor. The per capita poverty line is therefore NRs6,238 (\$80). "Better-off" incomes are taken to be those greater than NRs12,844 (\$165). Socioeconomic analysis of five accessible communities (therefore likely to be relatively well-off) showed that around 38% are poor, 43% medium, and 19% better-off.<sup>2</sup></p> <p>The short-term direct impact of the Project on poverty will be employment generation targeted at poor and disadvantaged groups in communities, especially women. Paid posts include health motivators, maintenance caretakers, and water and sanitation technicians. Wages for men and women will be the same. Low-income families will receive payments for 50% of the time they spend working on the Project,<sup>3</sup> and receive concessionary loans and subsidies to support latrine construction. The Project will also benefit the poor through direct support for environmental improvements and improved potential for income generation. The integrated assistance package will have a major impact on the quality of life, confidence, and capabilities of community members.</p> <p>The long-term benefits of the Project will arise principally from productive uses of time saved, fewer days lost to sickness, and reduced in expenditure on medical treatment. Sector studies show that 30-38% of time saved is generally used for economically productive activities such as farming, livestock rearing and maintenance, household maintenance, vegetable gardening, and cottage industries. Improved nutrition, child care, and opportunities to rest are other important benefits normally cited by beneficiaries</p> <p>Reliable data from which to gauge full health benefits are lacking and would almost certainly prove inconclusive. However, indirect evidence suggests that improved water supply, sanitation, and hygiene practices directly translate into lower morbidity and mortality from waterborne diseases. Studies<sup>4</sup> have found positive relationships between consumption levels of water and personal hygiene, especially in rural areas. Households consuming less than 15 liters per capita per day tend to have unsatisfactory hygiene practices compared with those that consume more. Further, there is a correlation between the level of literacy and awareness of personal hygiene. The community education and awareness program will promote improved personal hygiene.</p>	
--	--

<sup>1</sup> World Bank. 1996. Nepal Water Sector Review.

<sup>2</sup> Summary Report, Socioeconomic Survey, PPTA, Nepal Water for Health (NEWAH), 2003, p. 58.

<sup>3</sup> In accordance with recent policy changes related to community contribution for RWSS projects.

<sup>4</sup> ADB. 1995. Economic Appraisal of Water Supply Schemes.

Given the circumstantial evidence, it is reasonable to suggest that long-term benefits from improvements in health may well exceed the more measurable time and energy benefits in project areas and will have a significant impact on poverty levels in beneficiary communities.

Specific benefits to the poor follow:

- No exclusion of poor communities on the basis of scheme costs. Subsidies will be provided.
- Full benefits of improved water supply and sanitation services with reduced cost inputs and provision of subsidies/loans for the latrine construction component
- 50% payment of the standard daily labor rate for all unskilled labor
- Priority for paid positions during implementation and management of scheme

### C. Participation Process

Stakeholder analysis? Yes  
Participation strategy? Yes

### D. Gender and Development

Gender-sensitive processes are central to all community mobilization and scheme implementation plans. Core elements are GCE training for all NGOs, DDCs, and WUSCs; gender balanced WUSC formation; priority recruitment of women for paid positions; gender-related monitoring of project impact.

Benefits accruing to women follow:

- Significant time and energy savings through provision of water points within a few minutes of households  
Secondary benefits for child care, increased equity in division of household responsibilities
- Decision-making authority for women on the location and design of water points and latrines so as to meet the full practical needs of women
- Priority for paid positions such as health motivators, sanitation masons, and maintenance caretakers
- 50% representation on WUSC
- Improved community awareness on GCE through training of WUSC members
- Participation of men as well as women in hygiene promotion sessions. Recruitment of male as well as female hygiene promoters.
- Access to hygiene promotion activities of all girls and boys, both in-school and out-of-school

Gender plan prepared? Yes

### E. Social Safeguards and other Social Risks<sup>a</sup>

	Significant/ Nonsignificant/ None <sup>b</sup>	Strategy to Address Issues	Plan Required <sup>c</sup>
Resettlement <sup>d</sup>	Nonsignificant	No land acquisition required. Communities agree on location of RWSS structures as precondition to project agreement.	Short
Indigenous Peoples	Significant	Nepal has over 100 distinctive ethnic groups and 90 languages. The Project's GCE strategy will sensitize DDCs, NGOs, and WUSCs to power relations around caste and develop appropriate working procedures to minimize discrimination and ensure equitable distribution of benefits including economic opportunities. Strategies are outlined in the GCE and community mobilization strategy.	
Labor	Nonsignificant	Implementation depends on community commitment to provide voluntary unskilled labor and on adequate technical skills available in local markets.	No
Affordability	Non significant	Project design is in keeping with established, proven practice on cost recovery in the sector, with additional safeguards in place to protect the poorest. Procedures for subsidy and loans are described in implementation steps.	No

	<b>Significant/ Nonsignificant/ None<sup>b</sup></b>	<b>Strategy to Address Issues</b>	<b>Plan Required<sup>c</sup></b>
Other risks/vulnerabilities: occupational castes	Significant	The Project's GCE strategy is designed to ensure that lower caste households are not excluded from the Project and its benefits. These householders will share the full scheme, have proportional representation on WUSCs and a clear voice in decision making, and receive priority consideration for paid positions.	Yes

DDC = district development committee; GCE = gender, caste, and ethnicity; NGO = nongovernment organization; RWSS = rural water supply and sanitation; WUSC = water user and sanitation committee.

<sup>a</sup> Initial poverty and social analysis and/or summary poverty reduction and social strategy criteria for assessing the significance of social issues are available in the ADB *Handbook for Poverty and Social Analysis*, version available at [http://adb.org/Documents/Handbooks/Poverty\\_Social/default.asp](http://adb.org/Documents/Handbooks/Poverty_Social/default.asp).

<sup>b</sup> If not known, a contingency should be included in the technical assistance budget to predict the need for a plan.

<sup>c</sup> A plan will be required at design stage if any potential issues are found significant.

<sup>d</sup> Significant involuntary resettlement requires a full resettlement plan; nonsignificant requires a short resettlement plan.

## ECONOMIC ANALYSIS

### A. Economic Rationale for the Sectorwide Approach

1. In the rural water supply and sanitation sector, there is a unique opportunity to apply a coherent sector development approach by the Government of Nepal and a sector support approach by collective external agencies in line with declared policies of the Government and the agencies. An Asian Development Bank (ADB) supported consultative process of more than 30 workshops in the course of 8 months resulted in the design of a sectorwide approach (SWAp) to facilitate meeting the targets set for the sector in the Government's Tenth Five-Year Plan.
2. The approach decided upon by the Government and ADB raises some critical issues.
  - (i) As a result of the Local Self-Government Act (LSGA) of 1999, the central agencies (Ministry of Physical Planning and Works [MPPW], Ministry of Local Development [MLD], Ministry of Finance [MOF], and the National Planning Commission [NPC]) need to involve themselves much more deeply and strongly with planning, facilitating, and monitoring developments under the SWAp partnership; and support and enhance it. There are important implications for resource allocation, financing, and financing mechanisms.
  - (ii) It is critical that all echelons of the Government advocates a coherent sector approach. Although the decision makers at MPPW, MLD, MOF, and NPC support the approach and are aware of the opportunities, officers at lower echelons and decentralized levels district development committee/village development committee are insufficiently involved. Neither are they aware of the developments and the opportunities it offers, and thus continue to promote, develop, and attract disjunctive and project-based support.
  - (iii) It is to be expected that a considerable part of future external support to the sector will be related to direct support to community development and poverty reduction in the field. This support should make use of existing structures and decision-making mechanisms at national and district level and avoid creating parallel structures. This means that, for the sector approach to work, and agency contributions and the Government's own budget allocation to the sector should be put in the same planning framework at central and decentralized levels. This allows government funding for certain activities, aid agency funding for other activities, and government-donor agency cofinancing for again other activities. SWAp is the only way of providing for coherence and ownership of the sector support program, and could avoid the need for the Government to allocate separate counterpart funds to some aid agency investments.
3. The approach taken under this intervention is not based on the size and number of investments. Instead, the focus is on coordinating aid and the resulting benefits, supporting the decentralization process, and developing capacity at the district and community levels.
4. However, in Section B this analysis does assess the outputs directly attributable to this intervention – but the analysis in itself should not be the overall criterion for approving the intervention and support to the sector.

## B. Financial Justification for the Approach

5. The question—what are the transaction costs of managing aid in Nepal—is a potentially useful one to ask because high transaction costs may indicate inefficiencies and other problems in an aid delivery system. It is difficult to quantify transaction costs; therefore this report focuses mainly on qualitative problems. It is in the interest of both aid agencies and recipient governments to minimize all aid transaction costs whether they can be measured easily or not. This is because high transaction costs may

- (i) influence the volume of aid delivered, by discouraging donor agencies and governments from entering into agreements and reducing disbursement rates;
- (ii) reduce aid efficiency, by consuming aid and Government resources that could be otherwise employed and misallocating the resources made available under aid agreements; and
- (iii) reduce aid effectiveness, by encouraging aid agencies and recipient governments to allocate resources to activities that do not address development priorities and, in some cases, undermining institutional development goals.

6. The costs arising from the preparation, negotiation, implementation, monitoring, and enforcement of agreements for the delivery of overseas delivery assistance may take the form of administration costs (arising from inputs of resources needed for the transaction), indirect costs (resulting from the impact of the delivery mechanism on the achievement of development goals), and opportunity costs (measuring the benefits foregone from alternative applications of the resources consumed in the transaction).

7. The sector approach will allow donor agencies to specialize more easily and move to larger joint-funded projects; introduce programmatic planning processes; increase rates of project disbursements; consolidate training activities and make skills less donor-specific; and increase recipient ownership of projects, particularly at the community level. The sector approach is beneficial to both the Government and donor agencies, whether they favor a project approach or a sectorwide programmatic approach, whether they give loans or grants.

8. The SWAp approach brings Government and aid agency policies, procedures, and practices closer together over time, mitigating the problem of high transaction costs when so many players insist on different “rules of the game.” The ultimate goal of the process is that the only set of guidelines and regulations becomes those of the Government, with donor involvement limited to ensuring that practice does not deviate from the regulations.

9. Transaction costs in Nepal will be addressed and possibly reduced by this intervention by addressing issues at both macro and project cycle levels.

10. At the macro level, SWAp will have the following key accomplishments:

### 1. Improve Medium Term Resource Planning by the Government

11. Medium-term resource planning by the Government will be improved

- (i) by a planning network based on community participation that will help produce a medium-term fiscal outlook, which will be the basis for a resource allocation

policy in the sector. SWAp will also support the approach that MOF introduced, namely, rolling fiscal budgets;

- (ii) by costed, medium-term sector expenditure programs based on defined sector strategies and plans, which are currently being adopted by the Government;
- (iii) by transforming DDC plans into rolling 5-year programs, renewed annually; and
- (iv) by requiring agencies and provinces to submit consolidated recurrent and capital budget proposals simultaneously to the DDC as the focus of central planning.

## **2. Ensure Support for this Process by Donors**

12. Major contributors to the sector and DFID which have participated in the extensive consultation process express interest in participating in the SWAp because it will

- (i) provide information on the level and structure of aid agency commitments and programmed disbursements over the medium-term planning horizon used by Government;
- (ii) synchronize fixed-term country programs with the Government's 5-year planning cycle; and
- (iii) adopt medium - to long-term (5-10 years) country programs, and roll forward commitments and disbursement plans on an annual basis.

## **3. Improve The Quality Of Public Expenditure Information**

13. Detailed sector expenditure reviews, led by the Government with support from contributors, will enhance the quality of public expenditure data. A midterm review of the intervention will be written into the loan document and will form part of the Government assurances.

## **4. Improve Aid Coordination**

14. Formalizing the Stakeholder Group Committee will enhance aid coordination.

- (i) The structure of working groups can be rationalized.
- (ii) The structure of meetings can be improved.
- (iii) Government ownership of the coordination function will increase.
- (iv) Coordination group meetings can be synchronized with Government planning and budgeting cycles.

15. At the project cycle management level, key accomplishments are as follows.

## **5. Improve the Project Identification and Appraisal Process**

16. The Government adopts selection criteria developed for identifying subprojects.
- (i) Revising the project appraisal criteria will promote consistency and clarity.
  - (ii) Authority for project appraisal and approval is devolved to DDC level.
  - (iii) The community is involved in the early stages of project design and feasibility studies.
  - (iv) DDC capacity for project design and appraisal is promoted.

## 6. Ensure Support for this Process by Donors

17. Donor agencies will support this process, for it
- (i) leads to coordinated country programming missions, thus reducing administration costs; and
  - (ii) allows them to see whether they are engaging the Government appropriately and at the right level.

## 7. Standardize Procedures between Government and Donor Agencies

18. Standardizing procedures between the Government and aid agencies could generate efficiency savings, strengthen the Government's capacity to build and reinforce systems, and enhance Government ownership of ODA by ensuring Government leadership in decision making. Standardization of the project design and appraisal process will be achieved by

- (i) conducting joint missions for monitoring and evaluating projects, and joint missions to identify future interventions;
- (ii) adopting common forms for project proposals and feasibility studies, with agreement on the nature and quality of information to be provided; and
- (iii) using common appraisal criteria for projects.

18. The prospect of all Nepal aid delivery moving toward this model is a long-term one in that the macroenvironment of aid delivery and budgetary management does not yet meet several preconditions needed to embark on a fully programmatic approach. The Government and ADB (with cofinancing) have moved toward this approach slightly in the education sector, but it is not working effectively due to the relationship between the aid agencies and their international procedures.

19. In the short term, however, this intervention will assist the Government to implement measures that could achieve a *more* programmatic approach with the potential advantage of increasing aid effectiveness, although an immediate reduction in transaction costs arising from these developments is not likely. These initiatives follow

- (i) bringing projects under one sectoral, or subsectoral strategy;
- (ii) consolidating and rationalizing donor agency projects through joint funding;
- (iii) improving the quality of aid coordination;
- (iv) trying to get a sectoral allocation overview;
- (v) improving public expenditure management; and
- (vi) emphasizing Government leadership throughout, but with a community-based approach.

## C. Assumptions on Project Costs

20. Due to the nature of the intervention at a sector level, the following analysis is indicative of the type of output made possible by the approach. Because the analysis is based on a five-subproject sample it is not representative of the macro benefits arising from the intervention. These benefits are difficult to quantify. The following analysis is provided to give a visible and tangible demonstration of the effects of the intervention.

## 1. Assumptions for the Economic and Financial Analyses

21. The financial and economic analyses were in accordance with the ADB guidelines in the *Handbook for the Economic Analysis of Water Supply Projects*, 1999. Basic assumptions used for the financial analysis follow: (i) all revenues and investment costs are in constant April 2003 prices on an incremental basis; (ii) project investment costs are derived from estimated costs, less price contingencies and interest during construction; and (iii) capital expenditure are recorded at the time they are incurred, while interest and depreciation are excluded.

22. The cost estimate of the Community-Based Water Supply and Sanitation Project is calculated based on a project period of 6 years (2004-2009) with the base cost data based on April 2003 costs. An exchange rate of NRs78/\$ and price contingencies of 5.7% for local inflation and 2.5% for foreign inflation were assumed, based on the data and guidelines in ADB's Project Administration Instructions on preparation of project cost estimates. These rates were applied for the whole period from data collection (April 2003) to project completion.

23. The financial and economic analyses of the Project were conducted individually for each of the five water supply and sanitation core subprojects selected by the end of phase 2 of the project preparatory technical assistance (TA). It is not possible at this stage of the Project to anticipate the relative share of each type of water supply and sanitation subprojects (piped water supply, deep borehole equipped with hand pumps, drilled wells, etc.) that will be effectively implemented on each qualifying province and at project level.

24. For each core subproject, the economic internal rate of return (EIRR) was calculated. Key assumptions for the economic analysis follow:

- (i) The economic opportunity cost of capital is 12%.
- (ii) The economic life of the infrastructure and the forecast period for the economic cost-benefit analysis is 15 years.
- (iii) Analysis used a domestic price level numeraire, expressed in Nepali rupees. Tradable goods and services were converted into domestic prices by using the shadow exchange rate factor, which for Nepal is currently estimated to be 0.9.
- (iv) The conversion factor for unskilled labor was estimated at 0.70, reflecting the fact that the real market price of labor in the project area is lower than the official wage rates, which are used in the financial cost estimates.
- (v) All taxes and duties were excluded from the cost estimates, and the resulting economic values expressed in constant April 2003 price levels.

25. Quantifiable economic benefits from improved water supply include economic cost savings on nonincremental water consumption, and incremental water consumption induced by improved service and quality. The economic value of non-incremental water is based on the average existing economic supply price of water from existing sources and that of incremental water is based on the average demand price, all expressed in economic terms in world price numeraire. Resources costs savings include the cost of alternative water sources and time saved in fetching water.

26. Table 1 presents a summary of the Average Incremental Financial Cost (AIFC), Average Incremental Economic Cost (AIEC), and monthly tariff per household, estimated as a proportion of monthly tariff in household income; EIRR; and poverty impact ratio (PIR) for each scheme and the average of the five schemes. AIFC for water supply and sanitation projects provides a measure of the cost per cubic meter in the proposed subprojects and the tariff needed to provide for full cost recovery. AIEC is the discounted value of incremental capital costs and

operating costs (in economic prices) over the project life, divided by the discounted value of incremental quantity of water sales.

27. The estimated average EIRR for the five schemes is 68%. The EIRRs for individual schemes range from 24% to 94%. Para. 29 gives a qualifying explanation of the high values.

**Table 1 : Population, Number of HH, AIFC, AIEC, Monthly Tariff, EIRR, and PIR of the 5 Selected Schemes**

Scheme	Population	No. of HH	AIFC (NRs)	AIEC (NRs)	Monthly Tariff Per HH	Tariff	Base Case EIRR(%)	PIR
						as % of Monthly Income		
Churiyamai	1,427	234	221	215	129	1.5	87	13
Dhap	592	92	281	279	53	0.5	24	11
Hirminiya	1,669	313	95	125	16	0.2	94	21
Lalpur	1,945	291	104	103	17	0.3	47	21
Phedayak	562	97	122	120	50	0.6	91	32
<b>Average</b>	<b>1,239</b>	<b>205</b>	<b>165</b>	<b>168</b>	<b>53</b>	<b>0.62</b>	<b>68</b>	<b>20</b>

AIEC =Average Incremental Economic Cost, AIFC = Average Incremental Financial Cost, EIRR = economic internal rate of return, HH = households, PIR = poverty impact ratio.

28. A number of sensitivity tests were conducted to test the EIRR of each core subproject. Sensitivity tests include 10% increase in capital cost and operation and maintenance costs, 10% reduction in benefits linked to water tariffs and water consumption, and 20% decrease in assets' lifetime. Switching values and AIEC were also calculated for each subproject using a discount rate of 12%. No testing was conducted for possible delays in initial investment schedule as the size and type of investments considered will be completed within 1 year for each individual subproject. All results were robust to the tests.

29. The estimated EIRR for the Project as a whole is about 90%. The figure is conservative, as it does not include benefits derived from sanitation improvements and health benefits.

## 2. Expected Impact of the Main Component

30. The rural component will, in the first instance, provide for the construction of about 1,200 village water supply systems, either piped water supply systems or collective hand pump wells. It will also support the construction of individual water supply systems (hand pumps or rainwater systems) through technical advice and linking the beneficiaries with formal credit systems of microfinance schemes. This is expected to increase by about 20-30% the coverage for water supply in rural areas in the target area.

31. A community awareness program will empower the village communities to plan and participate in subproject screening, design, and implementation. The adoption of this Project will in part redress historical inequities in service provision and involvement in decision making by women, poor people, and marginalized castes and ethnic minorities. The Project will support Department of Water Supply and Sewerage at the central level and its district departments to upgrade infrastructure planning and implementation skills. More importantly it will support capacity building at DDC, VDC, the private sector, and nongovernment organizations. For the sanitation component, the Project will increase by about 15% the existing improved sanitation systems.

### **3. Assumption of Water System Type**

32. Agreed-upon district selection criteria were applied to all districts throughout Nepal, which were then prioritized by giving equal weight to the four major criteria of gender development index (GDI, a gender-modified version of the human development index [HDI]), piped water supply coverage, latrine coverage, and incidence of diarrheal disease.

33. The resulting mapping showed that an approximate 70/30% split of districts most in need of project assistance between those in the hills and mountains, and those in the terai. In the hills and mountain areas, gravity systems are the most technically viable water supply option. In the terai, the great majority of sites (except a very few sites close enough to the hills where gravity systems might be technically feasible) will use improved hand pumps with drilled or dug wells. Thus, the Project construction cost estimates assume that 70% of the systems financed by the Project will be gravity systems, and the remaining 30% multifamily drilled wells with hand pumps attached. Individual users may upgrade to small electric pumps, for which they pay 100% of the incremental cost.

### **4. Assumptions on the Realization of Economic Benefit**

34. Subprojects will be selected according to the selection criteria designed for the use of the DDC. Three key aspects will ensure that the selection criteria will focus the subproject on the anticipated economic benefits:

- (i) The technical solution will only be chosen from the sample subproject proposals that were subjected to rigorous economic analysis during the TA. All anticipated technical options provided an appropriate EIRR.
- (ii) All design options will deliver a minimum of 25 liters per capita per day. This is a prerequisite to attaining economic benefits as determined by the subproject analysis.
- (iii) The design of the technical solution must meet the demand for a minimum time saving, being the time required to fetch water from existing water sources.

### **5. Affordability**

35. The communities are aware of Government policy that, to qualify for schemes, they have to assume the responsibility for postconstruction operation and maintenance (O&M). In addition, the village has to contribute 20% to the cost of construction. As the average expressed willingness to pay for water and sanitation in each village exceeded by far the required O&M costs, it can be concluded that the overall Project is in principle sustainable.

### **6. Poverty Impact**

36. The selection of subprojects for appraisal during the TA was compromised by the security situation at the time the sites were chosen (before the current cease-fire between the Government and the Maoists), and it was strongly advised that sites relatively near road heads be chosen that did not necessarily reflect the UNDP HDI initial selection criterion to focus on poorer districts. The net result was that while one of the communities was relatively poor, the others were not as poor. Thus the PIR shown in Table 1 is not likely to be representative of the kinds of communities that will actually be supported by the Project.

## 7. Maximum Allowable Subproject Capital Cost Work Sheet

37. A basic calculation that provides a maximum justifiable construction cost is required for each subproject. The calculation is based on technology choice and the number of households served. Table 2 shows the work sheet that can be used to calculate the maximum allowable cost. Table 3 gives the technology choices.

**Table 2 : Subproject Allowable Cost Calculation**

<b>Name of the Community</b>
<b>Technology Option:</b>
1 Maximum Households Cost Taken From Table 3
2 Number of Households to Be Served
3 Multiply 1 by 2 to Get Maximum Allowable Cost

**Table 3: Technology Choice Table<sup>a</sup>**

<b>Technology</b>	<b>Maximum HH Cost (NRs)</b>
Rehabilitation Gravity	19,700
New Gravity	29,800
Groundwater – STW (40 m)	7,600
Overhead Tank (OH) with Pipe Systemen	19,800
Groundwater – STW (60m)	9,500
Rehabilitated OHT with Pipe System	15,900
Lift with Pipe System	30,000
Rainwater Harvesting	33,100

HH = households , m = meters ,OHT = overhead tank , STW = shallow tubewell.

<sup>a</sup>The values in this table will be updated by adjusting for inflation annually by the WSST.

## **ENVIRONMENTAL REVIEW PROCEDURE FOR SCREENING AND APPROVING SUBPROJECTS**

### **A. Introduction**

1. An initial environmental examination (IEE) of the proposed Project was carried out to identify necessary measures to prevent or mitigate any adverse environmental impacts that could possibly arise from its implementation. IEEs of five sample subprojects<sup>1</sup> were undertaken during the course of the project preparatory technical assistance (TA). The Project is classified as environmental category B. The IEE study was prepared in accordance with the Government of Nepal's environmental legislation and Asian Development Bank's (ADB) environmental assessment and requirements. The study is based on the TA, comprehensive reports by relevant Government agencies, research institutions, and ADB Mission findings.

### **B. Description of the Project**

2. The Project, developed as a sector loan under the framework of the Government's poverty reduction focus in the 10th National Plan, will provide rural water supply and sanitation (RWSS) facilities and services to improve community health and provide opportunities for income generation to about 1,200 communities in 21 districts. It will also facilitate the building of institutional capacity of local government institutions district development committees, village development committees reflecting the Government's commitment to decentralized decision making by focusing implementation on the district level. With its strong community-based approach, the Project will help rectify historical inequities in providing RWSS services to remote districts, and will focus on service provision to previously underserved communities and families within those communities whose access to RWSS was limited due to gender, caste, or ethnicity.

3. The Project has a RWSS component (the rural component and an institutional strengthening component). The rural component will include community mobilization and capacity building for sustainability; construction of community water supply and sanitation facilities; health and hygiene program and gender, caste, and ethnic minority program. The institutional component will (i) look at strengthening the capacity of DDCs to provide water supply and sanitation services, and (ii) support the decentralization policy and the Department of Water Supply and Sewerage (DWSS) Central Planning and Monitoring Unit in its new role as facilitator of RWSS.

### **C. Environmental Requirements**

#### **1. The Rural Component**

##### **a. Community Mobilization and Capacity Building for Sustainability**

4. This activity will involve environmentally harmless activities intended to develop the capacity of water user groups (WUGs).

---

<sup>1</sup> A sample IEE of a subproject is in Supplementary Appendix A.

## **b. Construction of Community Water Supply and Sanitation Facilities**

5. In this activity, RWSS facilities will be financed by the Project. Water supply systems facilities include (i) gravity pipe system, (ii) groundwater tube well, (iii) rainwater harvesting, and (iv) groundwater wells with hand pumps. Sanitation facilities include (i) simple pit latrines, (ii) pour-flush latrines, and (iii) cistern flush latrines. Not one of these schemes is associated with potentially significant adverse environmental impacts as they are small and environmental factors will be taken into account from the planning and design stages. However, minor and localized environmental impacts and risk may occur and could reduce the benefits. These impacts include inadequate drainage (stagnant pools of water becoming the habitat of mosquitoes and other disease vectors); pollution of source water or during transmission, distribution, or in-house storage due to improper water management; source disputes with existing or prospective water users; damage to the system or disruption of the supply due to floods, landslides, animals; and water source depletion from overuse. These environmental impacts are localized any potential negative impacts by improper siting, cumulative effects, and inadequate operation and maintenance (O&M) procedures of the systems will be managed through the Project's environmental assessment and monitoring procedures. Environmental criteria for selecting the subprojects are set out in the table. These environmental criteria as well as an Environmental Screening Procedure and Checklist for Scheme Appraisal will be attached to the loan agreement with the Government of Nepal and to the Project agreements between the Executing Agency, Ministry of Physical Planning and Works and the DDCs and the participating community.

## **c. Health and Hygiene Program**

6. This activity will involve environmentally harmless activities intended to raise communities awareness of health and hygiene issues related to water supply and sanitation.

## **d. Gender, Caste, and Ethnic Minority Program**

7. A program to increase the active participation of disadvantaged groups and women in all activities of the WUGs and water user and sanitation committee through training and awareness programs will be implemented.

## **2. The Institutional Strengthening Component**

8. This component will provide training and technical support to participating DDCs to allow them to plan, manage, monitor, and evaluate community-based RWSS. This component will also provide TA to DWSS to carry out its new role as facilitator of RWSS. Though these activities will not have any environmental impacts, the DDCs as well as DWSS will be made aware of and will be trained on environmental issues related to RWSS to ensure that technical guidelines and standards take into account environmental concerns.

## **D. Environmental Review Procedure**

### **1. Nepal's Environmental Assessment and Review Procedures**

9. The Environmental Protection Act 2053 (1996) and the Environmental Protection Rules (EPR) 2054 (1997), revised in 2055 (1999) and supported by acts such as the Forest Act, National Parks and Wildlife Conservation Act, and the Local Self-Governance Act, provide the basic legal framework for environmental appraisal in Nepal. According to EPR criteria, RWSS schemes do not require a formal environmental appraisal except for certain criteria such as number of people being served; need for resettlement if any; diversion of water from a surface

source; capacity of water treatment plant; etc. In these cases, an IEE or an environmental impact assessment will be required. Where no IEE is required, an environmental screening/appraisal of the schemes will be carried out. An environmental screening procedure and an environmental checklist for scheme appraisal have been drawn up and will be attached to the Project Agreement between DDC and the community.

## **2. Environmental Procedures to Be Used for Scheme Appraisal**

10. When a community is ready to select its scheme and start planning, with the assistance of the contracted nongovernment organization/community-based organization (NGO/CBO) the WUSC will fill out the environmental checklist for scheme appraisal and complete an environmental brief. This will be done in a participatory manner as scheme selection involves all WUGs. The documents will be submitted with the scheme application to the DDC. The DDC, with assistance initially from the WSST, will carry out the environmental screening procedure<sup>2</sup> for potential environmental impacts and compliance with formal requirements.<sup>3</sup>

11. In addition to the technical supervision during planning, design, and construction of the schemes by the NGOs/CBOs, the DDC technical officer with the assistance of the WSST will regularly monitor activities during each phase of the scheme (planning, design, construction, O&M) to ensure that environmental concerns are being addressed and appropriate mitigation measures are in place.

12. DWSS will commission two independent assessments of environmental performance during the project period by random sampling of project schemes and will focus on (i) compliance with environmental screening and related requirements; (ii) use of environmental guidelines for planning and development; (iii) satisfactory monitoring by the DDC; (iv) satisfactory support, supervision, and guidance by NGOs/CBOs; (v) general level of project environmental performance; (vi) O&M status of constructed facilities; and (vii) water quality testing of sample schemes with cross-checking of water quality test carried out by the DDC. The results of these assessments will be sent to ADB for review. During its review missions, ADB will also assess environmental compliance of the DDC and communities.

## **3. Conformity of Environmental Assessment and Review Procedures with ADB's Environmental and Social Safeguard Policies**

13. The environmental assessment and review procedures have been reviewed and found to be satisfactory and in conformity with ADB's environmental and social safeguard policies. Specific evaluations will be carried out throughout the project life to ensure that the guidelines are adhered to and that adequate training is given to DDC and DWSS staff carrying out the assessment and to the communities receiving the services.

---

<sup>2</sup> The screening includes siting, execution, and O&M considerations. The results are then fed into a matrix and mitigation measures are developed for each indicated impact. Costs and responsibilities are then assigned. The cost of the identified environmental mitigation measures will be included in the schemes' costs, and their implementation will be monitored.

<sup>3</sup> An IEE methodology and procedure has been developed for RWSS and is included in Supplementary Appendix A.

## SUMMARY OF ENVIRONMENTAL CRITERIA

Project Activity	Special Specifications
<p>An environmental appraisal and project brief will be prepared by the water user and sanitation committees and submitted to the district development committees (DDC) after which the DDC will carry out environmental screening. Environmental screening will specify how the impacts will be minimized by approaching the activities and practices in an environmentally sensitive manner. All subprojects will ensure active participation of women, excluded castes, and ethnic minority groups as set in the gender, caste, and ethnic minority program. No scheme will have a negative impact on these groups.</p>	
<p><b>Water Supply Schemes</b></p>	
<p>The source should be assessed and an agreement in writing drawn up for water use by all users (community, farmers, etc.).</p> <p>The scheme will not be located in the premises of cultural sites.</p> <p>Schemes will not be located within protected and forest areas.</p> <p>Scheme components will not be located on steep slopes, landslide areas, moist areas, and loess deposit areas.</p> <p>After selecting the source, the WUG will develop measures to prevent pollution of the water source and the system as a whole</p> <p>Source depletion will be assessed especially on south-facing slopes with no vegetation cover. Promotion of community forestry, tree/grass plantation, horticultural activities, and other activities that will increase or protect vegetation cover in the catchment/recharge area will be undertaken.</p> <p>No quarrying on unstable slopes will be carried out.</p> <p>All construction activities will be undertaken only during the dry season.</p> <p>Any clear topsoil will be set aside for later use. Vegetation cover will be replaced after construction of the scheme.</p> <p>Pipe laying on steep slopes will be avoided.</p> <p>At the site of water points, drainage problems will be considered. Water points will be located in higher areas to facilitate drainage and measures will be implemented to ensure adequate drainage. A maintenance plan will be drawn up and those designated responsible will be trained for operation and maintenance (O&amp;M).</p> <p>The DDC will set up a water quality monitoring program to monitor chemical and biological contamination.</p>	<p>The community mobilization activity will ensure that all concerned parties are consulted and agreement is reached on the use of the source.</p> <p>If this is absolutely not possible, approval in writing from the concerned community or relevant Government agency needs to be sought.</p> <p>Should a component of the scheme need to pass by a protected or forest area, approval in writing will be sought from the Protected Area Authority and the community forest user groups.</p> <p>Measures will be developed with the assistance of nongovernment organizations and the district development committees (DDC). These can include ditches to divert runoff away from source, fencing off the source to control entry of animals, providing separate washing facilities sufficiently far from the water source, etc.</p> <p>The DDC will ensure that these activities take place if the source is located on these slopes. Each DDC will set up a groundwater monitoring program for the participating communities.</p> <p>Adequate protection measures will be implemented if this is unavoidable.</p> <p>Awareness raising and training in O&amp;M and behavioral change will take place before schemes are implemented to ensure adequate maintenance of the schemes, and hygienic behavior and proper use of the facilities.</p> <p>DWSS will train technical DDC staff to carry out water quality testing.</p>

<b>Project Activity</b>	<b>Special Specifications</b>
<p><b>Sanitation Schemes (Latrines)</b></p> <p>Latrines will not be constructed on fractured rocky soil or any other soil that drains too quickly, not allowing the removal of pathogens and other pollutants.</p> <p>Latrines will not be located uphill of a water source or facility, on a river/stream bank discharging waste into it, or close to a water source or to water supply facilities such as a reservoir, tap stand, and well.</p> <p>Latrines will be located at least 30 meters away from any water supply source or facility.</p> <p>Community health, sanitation, and awareness programs will have to be carried out before latrine construction.</p>	<p>Design of the latrines is important and will consider the following:            Safe for use of children and adults, minimal human contact with raw waste, minimal odor, and minimal contamination of the surrounding water and soil. Proper latrine location, with adequate spacing between latrines and any nearby water point, and adequate maintenance are necessary.</p>