

RRP: INO 34152

**Report and Recommendation of the
President to the Board of Directors
on Proposed Loans and Emergency
Assistance Grant to the Republic of
Indonesia for the Community Water
Services and Health Project**

March 2005

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 24 February 2005)

Currency Unit	–	rupiah (Rp)
Rp1.00	=	\$0.000111
\$1.00	=	Rp9,210

ABBREVIATIONS

ADB	–	Asian Development Bank
BAPPEDA	–	Badan Perencanaan Pembangunan Daerah (Regional Development Planning Agency)
BAPPENAS	–	Badan Perencanaan Pembangunan Nasional (National Development Planning Agency)
CAP	–	community action plan
CBO	–	community-based organization
CFT	–	community facilitator team
CIT	–	community implementation team
CPMU	–	central project management unit
CST	–	central support team
DPMU	–	district project management unit
DPRD	–	Dewan Perwakilan Rakyat Daerah (local legislative assembly)
DST	–	district support team
EA	–	Executing Agency
EIRR	–	economic internal rate of return
EOI	–	expression of interest
IEC	–	information-education-communication
IEE	–	initial environmental examination
MDG	–	Millennium Development Goal
MIS	–	management information system
MOH	–	Ministry of Health
MONE	–	Ministry of National Education
MPW	–	Ministry of Public Works
NGO	–	nongovernment organization
O&M	–	operation and maintenance
PDAM	–	<i>Perusahaan Daerah Air Minum</i> (regional water supply enterprise)
PHAST	–	participatory hygiene and sanitation transformation
PMC	–	process monitoring consultant
PPMS	–	project performance monitoring system
PPTA	–	project preparatory technical assistance
PST	–	provincial support team
SHBC	–	sanitation and hygiene behavioral change

NOTE

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

This report was prepared by a team consisting of A. Weitz (team leader), F. Ahmed, L. Cattleya, D. Dole, S. Hitojo, L. Kulp, J.M. Lacombe, S. Luddin, Y. Shiroishi, and R. Thami.

CONTENTS

	Page
LOAN AND PROJECT SUMMARY	iii
MAP	viii
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. Objective	4
B. Components and Outputs	4
C. Special Features	7
D. Cost Estimates	8
E. Financing Plan	9
F. Implementation Arrangements	10
IV. EMERGENCY ASSISTANCE GRANT	14
V. PROJECT BENEFITS, IMPACTS, AND RISKS	15
VI. ASSURANCES	18
A. Specific Assurances	18
B. Conditions for Loan Effectiveness	19
VII. RECOMMENDATION	20
APPENDIXES	
1. Design and Monitoring Framework	21
2. Rural Water Supply and Health Sector Profile	25
3. External Assistance to the Rural Water Supply and Sanitation and Health Sectors	28
4. Lessons Learned	29
5. Disbursement Flowchart of Village Funds	31
6. Village Eligibility, Selection, and Appraisal Criteria	32
7. Indigenous Peoples' Development Framework	33
8. Gender Action Plan	35
9. Cost Estimates and Financing Plan	37
10. Organization Chart	39
11. Implementation Schedule	40
12. Contract Packages	41
13. Outline Terms of Reference for Consultants	42
14. Emergency Assistance Grant	46
15. Summary Poverty Reduction and Social Strategy	48
16. Summary Initial Environmental Examination	50
17. Economic Analysis	53
18. Land Acquisition and Resettlement Framework	58

SUPPLEMENTARY APPENDIXES (available on request)

- A. Indicators for Measuring Development Objectives and Performance
- B. Description of Project Components
- C. Detailed Economic Analysis
- D. Summary of Pilot Subproject Appraisal Reports
- E. Socioeconomic and Health Baseline Survey
- F. IEE of Pilot District Subprojects
- G. Outline Training Plan for SHBC
- H. Enhancing Quality Control and Quality Assurance
- I. Poverty Analysis and Classification
- J. Village Potential Survey (PODES) Data
- K. Aceh/Nias-North Sumatra Emergency Assistance Grant

LOAN AND PROJECT SUMMARY

Borrower	Republic of Indonesia
Classification	Targeting classification: Targeted intervention Sectors: Water supply and sanitation; health Subsectors: Water supply and sanitation; health and social services Themes: Sustainable economic growth; inclusive social development; gender and development Subthemes: Rural development; human development
Environment Assessment	Category B. An initial environmental examination (IEE) was undertaken, and the summary IEE is a core appendix.
Project Description	The Project will provide rural water supply and sanitation facilities and services to about 1,000 communities in 20 districts in the provinces of West Kalimantan, Central Kalimantan, Jambi, and Bengkulu, combined with capacity building for districts and communities, and sanitation and hygiene behavioral change programs. The Project will provide an estimated 1.2 million people with safe drinking water, of whom about 0.6 million will also benefit from improved sanitation facilities. An additional 500 communities in Aceh and Nias-North Sumatra will be covered through emergency assistance. Subproject selection at community level will combine elements of poverty targeting with a demand-responsive approach to ensure sustainability of the facilities.
Rationale	<p>Providing access to water and sanitation is an integral part of the Government's efforts in improving health and living conditions in Indonesia and meeting the related Millennium Development Goals (MDGs). Indonesia has made progress in providing water and sanitation services to its people, but standards remain below those for many other Southeast Asian countries. The great majority of rural and poor households still rely on self-provision through groundwater abstraction, rainwater collection, or use of surface water, with little government effort to ensure sustainable quantity or to monitor water quality. Sanitation in rural areas is limited to simple on-site facilities, and a large percentage of the rural population still rely on rivers, beaches, and rice fields for open air defecation.</p> <p>Many rural areas in Indonesia show high levels of waterborne and water-related diseases, including diarrhea, intestinal worms, skin disease, and malaria and dengue. Poor people, and particularly children, women, and the elderly suffer most from using water unfit for human consumption and from poor hygiene practices and behavior.</p>

The Government has therefore developed a National Policy for the Development of Community-Managed Water Supply and Environmental Sanitation Facilities and Services, which highlights the need for a demand-responsive approach to rural water supply and sanitation. In line with this policy, the proposed Project addresses the four major issues that have led to unsatisfactory results of similar past projects: capacity of local governments to plan and facilitate sustainable investments; ownership and capacity of communities for implementing and maintaining new facilities; appropriate financing of investments; and need for change in associated hygiene behavior, which reinforces the health impact of investments.

Objective

The objective of the Project is to enhance the health status of low-income communities in rural areas based on better hygiene behavior and sustained access to safe drinking water and improved sanitation. The Project aims to (i) improve the capacity of local governments for facilitating, regulating, and delivering quality services in water and sanitation to the target communities; (ii) strengthen the community capability to design, cofinance, build, operate, and manage community-based water supply and sanitation facilities; (iii) improve access to water and sanitation services through construction of adequate facilities based on community demand; and (iv) increase hygiene awareness through information, education, and communication campaigns.

Cost Estimates

The total project cost excluding the grant-financed emergency component is \$92.4 million equivalent, of which \$12.8 million (13.8%) is the foreign exchange cost and \$79.6 million equivalent (86.2%) is the local currency cost.

Financing Plan

Source	Foreign Exchange	Local Currency	Total Cost	%
ADB	12.45	52.24	64.69	70.0
OCR	7.98	26.12	34.10	36.9
ADF	4.47	26.12	30.59	33.1
Government	0.32	21.77	22.09	23.9
Central Govt. ^a	0.13	11.63	11.76	12.7
District Govts.	0.19	10.14	10.32	11.2
Beneficiaries	0.00	5.61	5.61	6.1
Total	12.77	79.62	92.39	100.0

ADB = Asian Development Bank, ADF = Asian Development Fund, Govt. = government, OCR = ordinary capital resources.

^a Includes provincial governments.

Source: ADB estimates.

Loan Amount and Terms	<p>The Project will be financed by two loans from the Asian Development Bank (ADB). A loan of \$34.1 million from ADB's ordinary capital resources will be provided under ADB's London interbank offered rate (LIBOR)-based lending facility. The loan will have a 25-year term, including a grace period of 6 years, an interest rate determined in accordance with ADB's LIBOR-based lending facility, a commitment charge of 0.75% per annum, and such other terms and conditions set forth in the Loan Agreement.</p> <p>Another loan of \$30.6 million from ADB's Special Funds resources will be provided that will have a maturity of 32 years, including a grace period of 8 years. Interest will be charged at 1% per annum during the grace period and 1.5% thereafter.</p>
Allocation and Relending Terms	<p>The total amount of \$64.7 million provided by ADB will cover 97.5% of the foreign exchange cost (70.0% of total project cost) and 65.6% of the local currency cost. The Government and the beneficiaries will provide the remaining \$27.7 million equivalent, amounting to 30.0% of the total project cost.</p> <p>The Government will forward the loan proceeds as grants to local governments participating in the Project, taking into account the fact that the Project will directly benefit the poor and will focus on essential water, sanitation, and hygiene services that do not generate revenues. Participating local governments will contribute to the project cost in accordance with their fiscal capacity. Beneficiaries will contribute in cash and in kind to the financing of construction costs, and will shoulder all operation and maintenance costs.</p>
Period of Utilization	Until 31 December 2011
Estimated Project Completion Date	30 June 2011
Executing Agency	The Directorate General of Communicable Disease Control and Environmental Health of the Ministry of Health will be the Executing Agency for the Project.
Implementation Arrangements	A central project management unit (CPMU) will be established at the Directorate General of Communicable Disease Control and Environmental Health. An interministerial steering committee will provide overall guidance to the Project and make policy and strategic decisions. Provincial coordinating committees will assist district coordinating teams regarding issues that cross district boundaries. Each participating district will set up a district project management unit. Participating communities will set up community implementation teams responsible for project-related community activities. Consulting services will provide support at the central, provincial, district, subdistrict, and village levels.

Procurement

Goods and services financed by the ADB loans will be procured in accordance with ADB's *Guidelines for Procurement* and the Government's procurement procedures acceptable to ADB. It is anticipated that there will be no procurement by international competitive bidding. Equipment and material packages valued at \$500,000 equivalent or less will be procured following international shopping procedures. Certain items valued at \$200,000 or less may be procured under local competitive bidding procedures acceptable to ADB. Packages valued at \$50,000 equivalent or less will be procured under direct purchasing procedures. Civil works contracts will be small, with an average value of \$10,000—30,000 equivalent and will follow the procedures for community participation in procurement as outlined in ADB's *Guide on Community Participation in Procurement*.

Consulting Services

The Project will finance 538 person-months of consulting services to support the CPMU (78 person-months international and 460 domestic), and 6,256 person-months of domestic consultants at the provincial and district levels. Suitable local community facilitators will be contracted individually and/or from nongovernment organizations to assist the community implementation teams. Consultants and nongovernment organizations 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.

Project Benefits and Beneficiaries

The main benefits of the Project will be (i) reduced poverty and increased health benefits in poor districts; (ii) increased community empowerment; and (iii) strengthened local government capacity.

Reliable access to safe water and sanitation facilities will save time and effort required to obtain good quality water, increasing time and capacity for income-generating activities. Better quality water and improved hygiene behavior will reduce the incidence and severity of waterborne and water-related diseases, particularly among infants, young children, and the elderly, leading to a reduction in sick days and health-related expenditures. This will improve levels of social welfare, and facilitate efforts to improve the economic welfare of beneficiaries. Given the high proportion of poor households in the target districts, and the proposed targeting on the poorest locations within these districts, the incidence of poverty among project beneficiaries is expected to be well over 50%.

The Project will have a positive impact on communities' ownership and leadership in their development, as they will actively participate in selecting, planning, cofinancing, implementing, operating, and maintaining the investments. The performance of local governments will be improved by introducing a simplified quality management approach to public administration, which will help improve service delivery as well as transparency of the local administration.

Risks and Assumptions

The Project assumes (i) a stable political environment and a continuation of the decentralization and regional autonomy policies currently in place; (ii) full participation of government agencies in capacity building and application of a community-driven approach; and (iii) effective community facilitation and community participation and ownership.

Emergency Assistance Grant

An emergency assistance grant totaling \$16.5 million will be provided to help restore and improve access to water supply and sanitation facilities for the rural population in Aceh and Nias-North Sumatra affected by the tsunami disaster. The emergency assistance grant will be financed through a grant contribution of Can\$5.0 million by the Canadian International Development Agency of the Government of Canada, another grant of \$5.0 million by the Government of the Netherlands, and another grant of £4.0 million by the Department for International Development of the Government of the United Kingdom. The grant contributions will be fully untied and administered by ADB. Based on ADB's *Disaster and Emergency Policy*, the emergency assistance grant will not require counterpart funding (exclusive of local taxes and duties).

Source	Amount	%
Government of Canada	4.00 ^a	24.2
Government of the Netherlands	5.00	30.3
Government of the United Kingdom	7.50 ^b	45.5
Total	16.50	100.0

^a Exchange rate: Can\$1 = \$0.80

^b Exchange rate: £1 = \$1.88

Source: ADB estimates.



I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) proposed loans to the Republic of Indonesia for the Community Water Services and Health Project, and (ii) proposed administration of emergency assistance grant for Aceh/Nias-North Sumatra provinces affected by the tsunami disaster.¹

II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

2. In December 2002, the Asian Development Bank (ADB) approved a project preparatory assistance (PPTA) for the Community Water Services and Health Project.² The PPTA started in June 2003 and was completed in May 2004. The Government, represented by the Directorate General of Communicable Disease Control and Environmental Health of the Ministry of Health (MOH), agreed to a decentralized investment project in line with Indonesia's strategies and policies for the rural water supply and sanitation sector. The Project has been designed to cover four provinces. A small-scale technical assistance was approved in February 2004 for the preparation of additional subprojects to increase the number of districts covered under the Project in these provinces from 12 to 20.³

A. Performance Indicators and Analysis

3. Providing access to clean water and sanitation is seen as an integral part of overall efforts to improve health conditions in Indonesia.⁴ The Government is firmly committed to meeting the Millennium Development Goals (MDGs), including the target of reducing by half the proportion of people without access to safe drinking water and basic sanitation by 2015 (MDG 7, Target 10).

4. Indonesia has made progress in providing clean water and basic sanitation services to its people, but standards remain below those of many other ADB developing member countries (DMCs). According to the United Nations Development Programme (UNDP), about 55% of the Indonesian population had access to improved sanitation and 78% to an improved source of drinking water in 2000.⁵ These percentages were higher than in some of the poorest countries in the region such as Cambodia and the Lao People's Democratic Republic (Lao PDR), but below those for other Southeast Asian countries such as the Philippines and Thailand (Appendix 2, Table A2.1). Following the economic crisis in 1997–98, access to water and sanitation has experienced little progress, as new investments have been largely postponed and existing systems have deteriorated due to inadequate maintenance and repair.

¹ The Project framework is in Appendix 1.

² ADB. 2002. *Technical Assistance to the Government of Indonesia for the Community Water Services and Health Project*. Manila (TA 4063-INO, for \$1,000,000).

³ ADB. 2004. *Small-scale Technical Assistance to the Government of Indonesia for the Community Water Services and Health Project: Reaching the Millennium Development Goals in a Decentralized Context*. Manila (TA 4317-INO, for \$150,000).

⁴ The *Healthy Indonesia 2010* policy document prepared by the Ministry of Health sets out the Government's national health development program to achieve the health-related MDGs.

⁵ UNDP. 2003. *Human Development Report 2003*. New York. Improved sanitation is defined as access to adequate excreta disposal facilities, such as a connection to a sewer or septic tank system, a pour-flush latrine, a simple pit latrine, or a ventilated improved pit latrine. Improved water is defined as reasonable access (20 liters per person per day within 1 kilometer distance) to household connections, public standpipes, boreholes, protected dug wells, protected springs, or rainwater collection.

5. According to the 2002 National Socioeconomic Survey (SUSENAS) only about 15% of rural households and just 13% of households in the lowest expenditure quintile obtained drinking water from pipe or pump (borehole) sources. The great majority of rural and poor households still rely on self-provision through shallow groundwater abstraction, rainwater collection, or use of surface water from nearby rivers or springs.⁶ Ensuring sustainable quantity or monitoring water quality remains a problem. The majority of households in Indonesia use on-site facilities for sanitation as access to sewerage is restricted to partial coverage in a few urban centers⁷ and is virtually nonexistent in peri-urban and rural areas. In rural areas only about 27% of households claimed to regularly use toilet facilities, and only 21% septic tanks for final disposal of human waste. As with water, the number of people with lack of access to adequate sanitation is much higher among the poor (Appendix 2, Table A2.2).

6. Many rural and peri-urban areas in Indonesia have priority disease profiles that include diarrhea, intestinal worms,⁸ skin disease, and other water-related diseases such as malaria and dengue. Poor people in remote rural areas, and particularly children, women, and the elderly among them are more affected than others. While infant mortality rates under 5 have decreased substantially over the past decades, from 145 per 1,000 live births in 1967 to 35 in 2000, they are still above those of other Southeast Asian countries such as Thailand (25) and the Philippines (30). Diarrhea remains the second largest cause of death among young children, and is the main reason why children get stunted, particularly at 12–24 months of age. The situation results from inadequate levels of access to clean water supply and sanitation, combined with poor hygiene practices and behavior, such as disposal of human waste in rivers. There is an increasing recognition of the need to integrate changes in hygiene behavior into water and sanitation programs in order to increase the sustainability of the investments made.

B. Analysis of Key Problems and Opportunities

7. Most water supply development in Indonesia has traditionally been directed toward cities and towns under the Ministry of Public Works (MPW).⁹ Regional water supply enterprises (PDAM) are in charge of operating and maintaining piped water supply networks in urban areas, though their performance over the last two decades has been largely inadequate in terms of financial sustainability and increasing coverage.

8. Rural water supply development over the past decades has essentially been undertaken by MOH, assisted by multilateral and bilateral funding agencies, and focusing on traditional sources such as wells and rivers. While service coverage figures indicate a significant increase since the 1980s, many facilities do not function properly and were quickly abandoned because communities were unable to operate and maintain them.

9. Both MPW and MOH have taken on some responsibility for sanitation, but neither one is presently in the position to lead a national effort toward reaching the sanitation-related target of the MDG. MPW has installed a large number of public communal bathing, washing, and toilet facilities in subdistrict towns and rural areas. However, these facilities have been largely unsuccessful in achieving the intended outcomes due to a lack of management and maintenance support either from local authorities or from intended beneficiaries.

⁶ The 2002 SUSENAS gave the following for rural households: container (0.3%), pipe (6.2%), pump (9.0%), protected well (36.9%), protected spring (12.1%), unprotected well (17.8%), unprotected spring (7.9%), river (5.5%), rainwater (3.9%), other (0.4%).

⁷ Only seven cities have a sewerage network, which covers only parts of these cities.

⁸ Such as ascariasis, dracunculiasis, hookworm, tapeworm, threadworm, and whipworm.

⁹ Formerly the Ministry of Settlements and Regional Development.

10. Based on these experiences and in line with the decentralization and regional autonomy policies, the Government in 2002 developed a National Policy for the Development of Community-Managed Water Supply and Environmental Sanitation Facilities and Services.¹⁰ The policy, which is to be issued as a decree, introduces a paradigm change toward a demand-responsive approach for water and sanitation facilities and services, and advocates a strengthening of local government¹¹ and community¹² capacities in the provision of water supply and sanitation services, together with sanitation and hygiene behavioral change (SHBC) programs in the communities.

11. With decentralization, local governments became responsible for delivering basic services to their communities. However, many of them have very limited capacities and require support to facilitate and finance necessary investments. Similarly, communities need support for planning, implementing, operating, and maintaining improved water supply and sanitation facilities. Numerous studies and projects in and outside Indonesia have demonstrated that the involvement of the community in the decision-making, implementation, and maintenance process correlates positively with the sustainability of improved services.

12. In the past, the lack of attention on SHBC has led to inconsistent use of the facilities provided, reducing the positive impact of the improvements on the communities' health. Recent "new generation" projects such as the ongoing World Bank Second Water and Sanitation for Low Income Communities Project (WSLIC-II)¹³ and the Rural Water Supply and Sanitation Project for Nusa Tenggara Timur (ProAir)¹⁴ combine hygiene and prevention of waterborne communicable diseases, improved water services, and sustainability of services through community participation.¹⁵

13. Key lessons learned from demand-driven, community-based, rural water supply and sanitation projects in Indonesia and other Asian countries focus on the importance of (i) manageable geographic coverage of a project; (ii) a simple water and sanitation technology menu for communities to choose from; (iii) the engagement of communities in the whole project cycle; (iv) an extensive use of community facilitators; (v) community contributions for construction, and full responsibility for operation and maintenance (O&M) costs; (vi) more emphasis on hygiene behavioral change programs; and (vii) close monitoring of construction quality and transparent project administration and procurement procedures.¹⁶ In line with the Government's policy, the proposed Project addresses the four major issues behind the weakness of similar past projects: capacity of local governments to plan and facilitate sustainable investments; ownership and capacity of communities in implementing and maintaining investments; appropriate financing of investments; and need for change in associated hygiene behavior, which capitalizes on investments and reinforces their health impact. The Project will be the Government's first major community water services project since decentralization in January 2001, and the first after developing the National Policy.

¹⁰ MPW, MOH, Ministry of Home Affairs, Ministry of Finance, National Development Planning Agency. 2002. National Policy for the Development of Community-Managed Water Supply and Environmental Sanitation Facilities and Services.

¹¹ The term "local government" comprises two administrative levels: district (including subdistrict) and village governments. The term "regional government" comprises province, district, and municipal governments.

¹² The terms "village" and "community" are used synonymously throughout the document.

¹³ Approved by World Bank in 2000 for \$77.4 million.

¹⁴ Kreditanstalt für Wiederaufbau and Deutsche Gesellschaft für Technische Zusammenarbeit, Rural Water Supply and Sanitation Project for Nusa Tenggara Timur, for €9.1 million.

¹⁵ External assistance to the rural water supply and sanitation and health sectors is described in Appendix 3.

¹⁶ Appendix 4 describes these lessons in detail and how they will be addressed in the Project.

III. THE PROPOSED PROJECT

A. Objective

14. The goal of the Project is to improve the health status and quality of life of the population of Indonesia in line with the MDG targets on safe water supply and sanitation. The purpose of the Project is to provide sustained access to safe drinking water and improved sanitation, and to improve the hygiene behavior of low-income communities in rural and peri-urban areas. The Project will improve district government capacity to facilitate and regulate basic water and sanitation services; empower communities to take responsibility for developing and implementing such services based on a demand-driven, community-based approach; and increase awareness about appropriate healthy and hygienic behavior. The Project will cover about 1,000 communities in 20 districts in four provinces: West Kalimantan, Central Kalimantan, Jambi, and Bengkulu. Selection of provinces and districts is based on a transparent process of prioritization and selection criteria agreed upon between the Government, ADB, and major stakeholders. All districts have prepared subproject appraisal reports in accordance with Ministry of Finance decree No. 35/2003 (KMK 35).¹⁷ In addition, in light of the earthquake and tsunami tidal waves that hit Indonesia and in particular the provinces of Aceh and Nias-North Sumatra on 26 December 2004, and based on the Memorandum of Understanding between the Government of Indonesia and ADB dated 5 January 2005, the Project will also include an emergency assistance grant for these provinces, covering about five districts and approximately 500 communities.

B. Components and Outputs

15. The Project consists of four components: (i) District and Subdistrict Capacity Building, (ii) Community Empowerment, (iii) Community-based Water Supply and Sanitation Facilities, and (iv) Sanitation and Hygiene Behavioral Change.

1. District and Subdistrict Capacity Building

16. Component 1 will improve local government capacity for facilitating, regulating, and—where necessary—delivering quality services in water, sanitation, and health to the targeted communities. A simplified quality management approach will be used to help catalyze development activities that go beyond the activities directly related to the Project. To participate in the Project, districts will have to show commitment to reform that includes self-assessment of their service capacity; identification, formulation, and implementation of priority quality management projects; good governance; and a dedication to evaluate and learn from results.

17. Existing training and education facilities at the provincial and district level will be used wherever appropriate. District governments will be assisted in establishing their own human resource development plan. Training modules will include strategic and leadership issues, such as management by objectives and community-driven development; technical issues such as quality assurance for laboratories, basics of rural water supply and sanitation, and water treatment; and computer skills. Capacity building on advocacy will also be provided to members of the local legislative assemblies to facilitate informed decisions about water supply, sanitation, and health-related investments.

¹⁷ A summary description of four pilot subproject appraisal reports is in Supplementary Appendix D. Executive summaries of all 20 subproject appraisal reports are also in Appendix 18 of the Project Administration Memorandum.

2. Community Empowerment

18. Efforts to strengthen the capacities of rural people are by definition community-based. The second component will strengthen community capabilities to develop, cofinance, build, operate, and maintain community-based water supply and sanitation facilities. The Project will focus on (i) advocacy and awareness-raising regarding community water supply, sanitation, and hygiene in target villages; (ii) formal confirmation of a village's commitment to participate in the Project, and the approval of the respective districts; (iii) formation of a community implementation team (CIT)¹⁸ with members drawn from community stakeholders in a transparent and inclusive manner; (iv) conducting village problem mapping to determine issues and possible solutions; (v) formulation of a community action plan (CAP), which will be a detailed plan on how to address the identified water supply, sanitation, and health problems at an appropriate level of technology and a reasonable budget level; (vi) signing of a project-related contract between communities and districts; and (vii) organizing community groups and members to implement and monitor water supply and sanitation improvements, and sanitation and hygiene behavioral change programs.

19. Local community facilitators will be either individuals or representatives of nongovernment organizations (NGOs), and will carry out, and assist communities, in these project activities. They will focus on genuine empowerment of villagers to direct their own development by addressing their lack of information, education, skills, and physical well-being. Community facilitators will undergo an initial 3-month training course to (i) improve their management and interpersonal skills as facilitators; (ii) provide them with sufficient technical understanding of water, sanitation, and related hygiene issues; (iii) train them in poverty analysis and targeting, and a variety of participatory techniques; and (iv) help them successfully assist communities with day-to-day issues they encounter during project implementation, in particular related to O&M. Refresher courses will be given periodically to meet specific needs that will be identified as the Project progresses. Community facilitators who have successfully completed training will be assigned in teams of three, consisting of one community mobilization facilitator, one water supply and sanitation engineer, and one sanitation and hygiene promotion specialist. At least one out of the three team members will be female. Each team will cover five villages on average per year, depending on the size, remoteness, and geographic spread of the villages. Productivity and effectiveness of the community facilitators will be closely monitored, and nonperforming facilitators will be replaced.¹⁹

3. Community-Based Water Supply and Sanitation Facilities

20. The Project will finance the construction of water supply and sanitation schemes in approximately 1,000 communities, including the rehabilitation of existing facilities where feasible. The main technical options for water supply schemes under the Project are (i) gravity pipe systems from spring, (ii) gravity pipe systems from spring with booster pumping, (iii) pumping from a river with slow sand treatment and chlorination, (iv) deep wells and boreholes with pumps and public standpipes, (v) medium-depth boreholes with small pumps and storage tanks, (vi) dug wells, (vii) hand-pump wells, (viii) rainwater harvesting units, and (ix) simple water treatment units.

¹⁸ The CIT will act as the management committee described in ADB's *Guide on Community Participation in Procurement*, and will be responsible for entering into a contract with the DPMU. It will be composed of a water services unit, a hygiene and sanitation unit, and a finance and administration unit.

¹⁹ The decision to replace a facilitator will be based on well-defined criteria and will be taken jointly by the consultant employing the facilitator, the DPMU, and the provincial project secretariat.

21. The main options for sanitation are (i) ventilated improved pit latrines, (ii) pour-flush toilets, and (iii) pour-flush toilets with septic tanks. The Project will support the development of sanitation facilities by providing a subsidy for latrine construction for the poorest 10% of households per village. The Project will also finance the development of simple drainage, washing platforms, soak pits, and bathing and washing steps along rivers and canals.

22. With the assistance and advice from community facilitators, communities will choose from the above menu the feasible technical option(s) that they consider to be the most appropriate based on information provided regarding technology; raw water source; environmental, social, and institutional/management issues; and O&M costs. Technical manuals and guidelines prepared by MOH, MPW, and similar previous projects²⁰ will be adapted for the Project by the Executing Agency (EA). For these investments, communities will receive funds with a maximum ceiling of Rp250 million (about Rp220 million for water supply facilities and Rp30 million for community health and sanitation facilities) per village.²¹ Communities will contribute in cash and in kind at least 20% of construction costs, and will be responsible for all O&M costs. Household surveys undertaken during the PPTA and similar recent projects such as WSLIC-II suggest that the average willingness and capability to pay on a monthly basis are sufficient to finance O&M costs of most technical options.

4. Sanitation and Hygiene Behavioral Change

23. This component will promote SHBC to maximize the health impact of project investments in water supply and sanitation, and to reduce the incidence of waterborne and water-related diseases in the project area through improved practices. The Project will adopt the hygiene improvement framework,²² use the methodology for participatory assessment (MPA)²³ and participatory hygiene and sanitation transformation (PHAST)²⁴ techniques, and build on the Basic Sanitation Package developed by the United Nations Children's Fund.²⁵ Activities focus on (i) a school health and sanitation program, (ii) hygiene promotion at religious facilities, (iii) a community hygiene program, and (iv) a home water treatment and storage program.

24. Activities will be designed for specific target groups—women, mothers of young children, boys and girls of school age, out-of-school children—applying a user-friendly approach that takes into account issues of gender as well as the culture and language of indigenous peoples. Where appropriate, the component will adopt existing materials from Indonesia and other countries and create links to ongoing activities of other organizations. Implementation of these activities will precede, run in parallel, and follow up on the construction of water supply and sanitation facilities to ensure maximum benefits.

²⁰ For example, MPW's 2003 *Guide to Prepare Design and Construction for Water Supply and Sanitation Facilities for Villages*; and WSLIC-II's *Guide to Construction of Rural Water Supply and Sanitation Facilities*.

²¹ CAPs requesting larger amounts can be considered if adequate technical and financial justification is provided, and will require ADB approval.

²² The hygiene improvement framework is an integrated approach that combines expanded access to hardware with hygiene promotion and support to an enabling institutional framework to reduce diarrheal disease.

²³ Developed in 1998 by the Water and Sanitation Program and the International Water and Sanitation Centre.

²⁴ PHAST tools developed by the World Bank involve six steps: problem identification, problem analysis, planning for solutions, selecting options, planning for new facilities and behavioral change, and participatory monitoring and evaluation.

²⁵ The basic sanitation package provides implementation guidelines for community sanitation and hygiene awareness programs to increase knowledge and improve facilities and practices of the population. It will be adapted for the Project to be compatible with the participatory planning and M&E process set out in component 2.

C. Special Features

25. **Community-Driven Participatory Approach.** The Project relies on a community-driven participatory approach. Communities decide on the type of technology to be used, plan and implement the activity with the assistance of community facilitators, take charge of O&M on a permanent basis, and monitor and evaluate the sustainability and use of the new services. Communities are required to demonstrate their commitment by contributing at least 20% of the total capital cost (16% in kind, 4% in cash) of the investment in water supply and sanitation facility construction, and by covering all O&M costs. The Project will provide training to beneficiaries in design and construction, financial management, and O&M, which will help ensure sustainability of the newly constructed facilities, and provide communities with skills to initiate other community activities and improvements. Since civil works contracts will be mostly small, community-based contracting will be allowed following ADB's *Guide on Community Participation in Procurement*.²⁶ Direct fund channeling of community funds has proven to substantially speed up the flow of funds to the ultimate beneficiaries for community-based civil works contracting. The fund-flow mechanism is outlined in Appendix 5.

26. **Selecting Project Locations and Targeting Beneficiaries.** Provinces and districts were selected using a screening process based on financial capacity, poverty incidence, health conditions, water and sanitation conditions, and political commitment to civil society involvement, transparent project management, and stakeholder participation—in line with ADB's policies on governance. Within target districts a similar approach has been applied to define a long-list of villages in each district (Appendix 6). Community facilitators will be sensitized to concerns related to poverty, gender, and indigenous social or cultural issues²⁷ to maximize the participation of women, poor households, and other marginal groups. The CAPs will need to demonstrate how the views of all segments of the community have been incorporated.

27. **Gender Focus.** A summary gender action plan (GAP) is attached in Appendix 8. The key strategies underlining the GAP include: (i) active involvement of women as implementors and beneficiaries during community consultations, workshops, and focus group discussions, focusing on the participation of poor women, female household heads, and mothers with infants and young school children; (ii) engagement of women organizations, teachers, village midwives, health volunteers, and other women activists, for information, education, and communication (IEC) campaigns; (iii) engagement of at least one female community facilitator per team to attract women's active participation in IEC campaigns and the implementation of behavioral change; (iv) adequate representation of women on the CIT to ensure that CAPs adequately reflect women's interests; and (v) specific training activities for village women.

28. **Transparency and Accountability.** Implementation arrangements will enhance transparency of project operations; increase accountability, quality control and assurance; and minimize the risk of funds diversion in the areas of (i) procurement of consulting services, goods and materials, and civil works; (ii) construction supervision and quality control; and (iii) monitoring and evaluation (M&E).²⁸ Methods to improve consultant procurement procedures will include training of procurement committee members, pre-bid conferences, external reviews

²⁶ See Appendix 2 of ADB Project Administration Instructions No. 3.05 and the Project Administration Memorandum for details.

²⁷ An indigenous peoples development framework has been prepared and is in Appendix 7.

²⁸ Details are in the Project Administration Memorandum. Recommendations of the Final Report of advisory technical assistance (ADTA) 3842-INO (ADB. 2002. *Technical Assistance to the Republic of Indonesia for Strengthening the Capacity of Ministry of Settlements and Regional Infrastructure to Combat Fraud and Corruption*. Manila) were taken into account.

of proposals, and thorough reference checking on consultant candidates as part of the proposal review. For goods and services, a unit cost study will be carried out at the start and updated regularly to ensure cost-effective and market-based construction budgets. All construction contracts will be publicly displayed in the communities, as will construction budgets, engineering designs, work schedules, and required and actual community contributions, with grievance mechanisms in place. As regards M&E, community members and their facilitators will receive M&E training during the CAP planning phase to enable them to judge the quality of consultants and of construction. Process monitoring consultants (PMCs) will be placed at the district level to monitor and address implementation problems and to carry out post-construction technical audits focusing on quality and cost-effectiveness of the infrastructure in each community.

D. Cost Estimates

29. The total cost of the Project is estimated to be \$92.4 million equivalent, comprising \$12.8 million (13.8%) in foreign exchange cost and \$79.6 million (86.2%) equivalent in local currency cost. The cost estimates include the provision of \$7.3 million in taxes and duties and 5% of base costs for physical contingencies of some activities. A summary of cost estimates is in Table 1, and further details are in Appendix 9.

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

Item	Foreign Exchange	Local Currency	Total Cost
A. Base Costs			
Local Government Capacity Building	0.06	12.03	12.09
Community Empowerment	0.05	9.38	9.43
Construction of Water Supply and Sanitation Facilities	4.30	23.89	28.20
Sanitation and Hygiene Behavioral Change	0.18	8.33	8.51
Project Management	2.49	15.40	17.90
Central Project Management	2.12	8.72	10.84
District Implementation and Coordination ^a	0.37	6.69	7.06
Taxes and Duties	0.00	7.32	7.32
Subtotal (A)	7.09	76.36	83.44
B. Contingencies			
Physical Contingencies ^b	0.26	1.21	1.47
Price Contingencies ^c	0.19	2.05	2.24
Subtotal (B)	7.53	79.62	87.15
C. Interest Charges^d	5.24	0.00	5.24
Total	12.77	79.62	92.39
%	13.80	86.20	100.00

^a Includes materials and equipment costs.

^b At 5% for materials, equipment, and civil works.

^c For foreign costs at 1.0% per year, and for local costs at 6.4% for 2005, 6.1% for 2006 and 2007, and 5.8% per year thereafter for local costs.

^d For funds from ordinary capital resources of the Asian Development Bank (ADB), includes interest at 4.24% during implementation based on indicative lending rates for loans under the London interbank offered rate-based loan facility as per the ADB Treasury Department, 20 August 2004; and a commitment fee of 0.75% per annum. For funds from ADB's Special Funds resources, includes interest during grace period of 1% p.a.

Source: Asian Development Bank estimates.

E. Financing Plan

30. The Government has requested that ADB provide funding of \$64.7 million, representing 70% of the total project cost. The Borrower will be the Republic of Indonesia. A loan of \$34.1 million will be provided from ADB's ordinary capital resources (OCR) and a loan of \$30.6 million from ADB's Asian Development Fund (ADF) Special Funds resources. The OCR loan will have a term of 25 years with a grace period of 6 years, an interest rate determined in accordance with ADB's LIBOR-based lending facility, a commitment charge of 0.75% per annum, conversion options that may be exercised in accordance with ADB's loan regulations and conversion guidelines, and such other terms and conditions set forth in the Loan and Project Agreements. The ADF loan will have a term of 32 years with a grace period of 8 years. Interest rate charge on the ADF funds is 1% during the grace period and 1.5% per annum thereafter. The Government has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility on the basis of these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

31. ADB will cover 97.5% of the foreign exchange cost of the Project and 65.6% of the local currency cost, excluding taxes. The Government and the beneficiaries will provide \$22.1 million and \$5.6 million equivalent, amounting to 23.9% and 6.1% of the project cost, respectively. The financing of local currency costs by ADB is justified by the nature of the Project, which will address regional poverty, gender concerns, and environmental health issues in the project areas, as well as assist in achieving the water- and sanitation-related MDGs. ADB funding will cover the construction of village water supply and sanitation systems, health and hygiene awareness campaigns, training for local government staff and community members, and consulting services. The summary of the financing plan for the Project is in Table 2. Further details are in Appendix 9.

Table 2: Financing Plan
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost	%
Asian Development Bank	12.45	52.24	64.69	70.0
OCR	7.98	26.12	34.10	36.9
ADF	4.47	26.12	30.59	33.1
Government	0.32	21.77	22.09	23.9
Central Government ^a	0.13	11.63	11.76	12.7
District Governments	0.19	10.14	10.32	11.2
Beneficiaries	0.00	5.61	5.61	6.1
Total	12.77	79.62	92.39	100.0

ADF = Asian Development Fund, OCR = ordinary capital resources.

^a Includes provincial governments.

Source: Asian Development Bank estimates.

F. Implementation Arrangements

1. Project Management

a. Central Level

32. The Directorate General of Communicable Disease Control and Environmental Health of MOH will be the EA. A central project management unit (CPMU) will be established at the EA. A steering committee, chaired by the National Development Planning Agency (BAPPENAS) and including representatives from MOH, MPW, Ministry of Finance, Ministry of Home Affairs, Ministry of Environment, and Ministry of National Education, will provide guidance to the Project and make policy and strategic decisions. The organization chart is in Appendix 10.

33. The CPMU will be responsible for (i) project management, monitoring, and supervision, and liaison with other ministries and ADB; (ii) preparing and managing the annual project budget; (iii) assisting the Borrower in the competitive procurement of consulting services for the central support team (CST), provincial support teams (PSTs), district support teams (DSTs), community facilitator teams (CFTs), and individual consultants; (iv) establishing detailed implementation guidelines for administration, technical support, and institutional capacity strengthening; (v) disseminating information to local government agencies, institutions, and communities involved in the Project; (vi) undertaking M&E activities; (vii) submitting periodic project progress and financial reports; and (ix) ensuring implementation of the GAP. The CPMU will be fully assisted by the CST consisting of international and national consultants with expertise in project management, finance and accounting, contract management, SHBC, rural water supply and sanitation, institutional capacity building, water quality monitoring, and quality assurance. The CST will be physically located within the CPMU.

b. Province Level

34. A provincial coordination committee appointed by the Governor and chaired by the provincial development planning agency (BAPPEDA) will support the district coordinating teams and resolve cross-jurisdictional issues among districts. A project secretariat will be established to act as the main contact at the provincial level for the CPMU, to receive instructions from the CPMU, and to pass them on to the coordinating committee and appropriate agencies. A three-person PST in each of the four provinces consisting of specialists in administration, finance, and monitoring; water and sanitation engineering; and institutional capacity building will provide support to the district- and community-level consultants.

c. District and Subdistrict Level

35. In each participating district, a district project management unit (DPMU) will be established, headed by the head of the district health office and staffed with members from the participating agencies (Health Office, Public Works Office, Community Empowerment Office, Environmental Office, and Education Office). Its main responsibilities will be to (i) manage all project-related activities at the district level and below; (ii) monitor and evaluate project activities to assure quality of project outputs, and ensure that monitoring data are properly collected and passed to the CPMU on schedule; (iii) work closely with the consultant teams at the provincial, district, and community levels to ensure that required services are provided in a timely and professional manner to communities participating in the Project; (iv) process and sign the contract with individual communities for the release of village funds; and (v) act as the secretariat of the district coordinating team.

36. The district coordinating teams will be the same that were appointed during subproject appraisal reports preparation by the district head, chaired by BAPPEDA, and consist of district government representatives from the Health Office, Public Works Office, Community Empowerment Office/Village Community Development Office, Education Office, Environmental Office, and community representatives. The district coordinating team will provide guidance to the DPMU and consultants at the district and village levels, and liaise with the CPMU.

37. In each participating district there will be a DST that will provide support to the DPMU and to the CFTs working with participating communities. The DST will consist of three specialists in community empowerment, water and sanitation engineering, and SHBC and training. In addition, there will be one PMC in each district to monitor and address implementation problems at the district level and below.

38. Cross-sector coordination teams will also be set up at the subdistrict level to support coordination among villages. The composition of these teams will mirror that of the district coordination teams and will include the head of subdistrict and representatives of the community health centers. Community health centers will be involved in particular in the SHBC activities, given the fact that they are already offering advisory services on sanitation in the context of MOH's sanitation clinic program.

d. Community Level

39. In each participating community, a CIT will be established and will be responsible for ensuring the full involvement of the community in all project-related planning, training, choice of facilities and services, cofinancing, design and construction, SHBC, and O&M. Women will be adequately represented on the CITs.

40. The CITs will be supported by CFTs working at subdistrict and village level. CFTs with expertise in community mobilization, rural water supply and sanitation engineering, and SHBC and training, will be recruited either in an individual capacity or as representatives of NGOs. CFTs will be mobilized after receiving intensive training as described in para. 19. Approximately 40 CFTs will be hired to provide support to the selected 20 districts.

2. Implementation Period

41. The Project will be implemented over 6 years. Communities will be grouped into four batches, with the first batch having about 40 communities. Community-level activities will be implemented in 2-year cycles consisting of information and socialization of the Project; establishment of the CIT; preparation of the CAP; and construction and complementary training in O&M, M&E, and SHBC. The project implementation schedule is in Appendix 11.

3. Procurement

42. All procurement of goods and services financed under the Project will be carried out in accordance with ADB's *Guidelines for Procurement* and the Government's procurement procedures acceptable to ADB. It is expected that international competitive bidding will not be required due to the small size of contracts. Equipment and material packages valued at \$500,000 equivalent or less will be procured following international shopping procedures. Certain items costing the equivalent or less than \$200,000 may be procured under local competitive bidding procedures acceptable to ADB. Packages valued at \$50,000 equivalent or less will be procured under direct purchasing procedures. Civil works contracts will be small,

with an average value of \$10,000–30,000 equivalent, and will follow community participation in procurement in ADB's *Guide on Community Participation in Procurement*. The first two of these civil works contracts in each province will be subject to ADB approval. Subsequently, the DPMU will maintain specified documents²⁹ for review by ADB. The proposed procurement packages are listed in Appendix 12.

4. Consulting Services

43. Consulting services will comprise 538 person-months of long-term and intermittent consultants to support the CPMU (78 person-months international and 460 person-months domestic), and 6,256 person-months of domestic consultants for the PSTs, DSTs, and PMCs. The PSTs will subcontract suitable individuals and/or NGOs³⁰ as CFTs to assist the CITs in the planning, implementation, and monitoring of their CAPs. The CST will consist of one consulting package. There will be four regional consultant packages, one per province, including four PSTs, 20 DSTs, and 40 CFTs. The four packages will be contracted at the provincial level, with members of the central Government on the selection committee and with assistance from the CST. All consultants to be financed under the loans will be recruited as firms or individuals in accordance with ADB's *Guidelines on the Use of Consultants*, using the quality and cost-based selection method or other arrangements satisfactory to ADB for engaging domestic consultants. Detailed terms of reference are in Appendix 13.

5. Disbursement Arrangements

44. Disbursement arrangements will ensure that funds reach the intended beneficiaries (i.e., the communities and district governments) in an efficient and effective manner, in accordance with ADB's *Loan Disbursement Handbook*. It is envisaged that the direct payment and the imprest account procedures will be used. Imprest accounts will be established for both loans in Bank Indonesia, with an initial combined advance ceiling of \$2.3 million.³¹ Liquidation and replenishment of the imprest accounts will be based on the actual releases to the village contractors and suppliers, and individual village members. Disbursement arrangements are as follows:

- (i) For CPMU, provincial secretariat and DPMU activities, the direct payment and the imprest account procedures will be used, the latter with a statement of expenditures limit of \$50,000 to cover small expenditures; the CPMU will review and certify all direct payment and statement of expenditure claims to be financed by ADB; and
- (ii) For village-level investments, the Government will utilize the imprest accounts as pass-through accounts to make payments directly to individual bank accounts held by the CITs. The latter will be highlighted in the withdrawal applications. These community funds will have a maximum ceiling of Rp250 million (about Rp220 million for water supply facilities and Rp30 million for community health and sanitation facilities) per village. Disbursement will be subject to the establishment of a CIT, an approved CAP, a signed contract between the CIT and the DPMU, and deposit of the community's cash contribution in the CIT bank

²⁹ These include the CAP, bid invitation letters, bid opening statements, bid evaluation reports or approval documents, and signed contracts between the CIT and the contractors, where applicable.

³⁰ Selection criteria will include province/district origin or at least presence, and evidence of a track record in community-based projects.

³¹ Based on the average number of villages with approved CAPs per 6-month period at Rp250 million per village. The initial imprest account advance for the OCR loan will be \$1.1 million and for the ADF loan \$1.2 million.

account. Funds will be released in tranches of 30%, 40%, and 30%, based on verification of actual implementation progress by the DPMUs and the PMCs. DPMUs will monitor community bank accounts and provide the CPMU with bank account statements and supporting documents for consolidation 10 days after the end of every month. Proposed fund-flow arrangements for the community funds are given in Appendix 5.

45. No disbursement of loan proceeds will be made to a participating district and/or village (i) if a misprocurement has been declared by ADB or procurement actions have been identified as irregular, until the misprocurement or other irregularity has been corrected by the concerned district and/or village to the satisfaction of the Government and ADB; and (ii) until a DPMU and/or a CIT, as applicable, has been established and is fully staffed.

6. Accounting, Auditing, and Reporting

46. The EA has implemented a number of similar projects financed by ADB and others during the last 5 years, and its financial management capacity is considered adequate. The EA will provide ADB with quarterly progress reports on project implementation within 30 days of each calendar quarter period. The Progress reports will be in English and include information on disbursement and physical progress of works and the status of support programs.

47. The Directorate General of Communicable Disease Control and Environmental Health of MOH and the provincial and district governments will maintain accounts and records showing a clear link between activities and expenditures related to the Project. They will be assisted by an adequate number of suitably qualified accounting staff, including a financial manager in the CPMU who will establish project accounting and recording systems and train staff to maintain the systems. Auditors will annually audit all accounts and statements of revenues and expenditure related to the Project, in accordance with auditing standards acceptable to ADB and using international accounting and auditing standards as a benchmark. Audited financial statements and project accounts, together with the report of the auditor, will be submitted within 6 months of the close of the financial year. A separate audit opinion on the imprest accounts will be included in the annual audit report.

7. Project Performance Monitoring and Evaluation

48. To ensure that subprojects are implemented and managed effectively and that project benefits are maximized, a draft project performance management system (PPMS) has been developed in accordance with ADB's *PPMS Handbook* and project objectives. The PPMS will assist the Project in community-based initiatives and interventions through a participatory approach.³² Indicators and methodology for capacity building of government agencies and communities, water improvement, sanitation, hygiene, health, financial management, and project management are incorporated in the design of the system to facilitate the M&E of project benefits. Data collection for the PPMS will be undertaken by the PMCs and one member of each CFT, with the latter being in charge of data collection and analysis related to the status of activities at the community level.

³² The participatory planning, monitoring, and evaluation approach is based on the approach developed under ADB. 2000. *Technical Assistance to the Government of Indonesia for Capacity Building for Participatory Planning, Monitoring and Evaluation*. Manila (TA 3179-INO, for \$1,540,000).

8. Project Review

49. The EA and ADB will jointly review progress biannually to assess implementation performance. Quarterly village progress reports will be synthesized at the district level, and summarized into one report for submission to the EA within 15 days of the end of the quarter. A comprehensive midterm review will be carried out by the Government, the CPMU, ADB, and suitable external auditors, after about 500 subprojects have been approved for implementation, and after about 200 have been completed, to evaluate in detail the project scope, implementation arrangements, and achievements of scheduled targets, and to recommend necessary measures to ensure successful achievement of project objectives.

9. Anticorruption Policy

50. During project processing, ADB's anticorruption policy was explained to government officials. Attention was drawn to the section on fraud and corruption added to ADB's *Guidelines for Procurement* and *Guidelines on the Use of Consultants*,³³ particularly the need for bidders, suppliers, contractors, and consultants to observe the highest standards of ethics in procuring and executing ADB-financed contracts, and the sanctions if fraud and corruption are discovered.

IV. EMERGENCY ASSISTANCE GRANT

51. To help restore and improve access to water supply and sanitation facilities for the rural population in Aceh and Nias-North Sumatra affected by the tsunami disaster, it is proposed to provide an emergency assistance grant for these provinces. The prevalence of waterborne communicable diseases was already relatively higher than the national average before the disaster. Water and sanitation service coverage was below the national average to begin with and has now been wiped out in many rural areas.

52. Activities under this emergency assistance grant will contain elements of the rehabilitation and reconstruction phases outlined by the Government.³⁴ Activities during the immediate rehabilitation phase will focus on the prevention of waterborne disease outbreaks and vector control through basic rehabilitation of community water supply and sanitation facilities, along with capacity building and training of relevant staff at provincial, district, and village levels to engage in information, education, and communication campaigns on waterborne diseases and SHBC programs. During the reconstruction phase, activities will focus on re-establishing local government and community capacity to ensure participatory planning and thus sustainability of the facilities provided, expansion and/or new development of water and sanitation facilities, and intensification of SHBC programs. The summary of the cost estimates for the emergency assistance grant is in Table 3. Further details are in Appendix 14.

³³ Section I.D. Fraud and Corruption in the *Guidelines for Procurement* and Section 1.05 in the *Guidelines on the Use of Consultants*, respectively.

³⁴ The rehabilitation and reconstruction phases may proceed in parallel.

Table 3: Estimated Grant Costs by Component
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost
A. Rehabilitation Phase	0.2	4.6	4.8
B. Reconstruction Phase	1.0	10.0	11.0
C. Contingencies	0.1	0.6	0.7
Total	1.3	15.2	16.5
%	7.7	92.3	100.0

Source: Asian Development Bank estimates.

53. The emergency assistance grant will be financed through a grant contribution of Can\$5.0 million by the Canadian International Development Agency of the Government of Canada, another grant of \$5.0 million by the Government of the Netherlands, and another grant of £4.0 million by the Department for International Development of the Government of the United Kingdom. The grant contributions will be fully untied and administered by ADB.

54. Initial implementation arrangements will follow ADB's policies and procedures as stated in the *Disaster and Emergency Assistance Policy*, to which the cofinancing governments have agreed. The Policy allows for procedural flexibility with regard to operational policies relating to procurement, consulting services, financial management, and disbursement.³⁵ Disbursements under this grant will be allowable for up to 100% of eligible project costs.³⁶ Implementation arrangements for this grant are summarized in Appendix 14 and detailed in the Grant Agreement. During the course of implementation, arrangements will be further refined, which is allowed under the Policy.

V. PROJECT BENEFITS, IMPACTS, AND RISKS

1. Benefits and Impacts

55. Investment in rural water supply and sanitation, combined with SHBC programs, will directly benefit an estimated 1.2 million people (290,000 households) in the project districts, and strengthen local government authorities and communities in facilitating and delivering these basic services. Benefits will include (i) a reduction in poverty in the target districts, (ii) improved community health and environment, (iii) improvement in gender conditions, (iv) community empowerment, and (v) increased local government capacity.

a. Poverty Reduction

56. The summary poverty reduction and social strategy is in Appendix 15. The 20 target districts contain a total population of around 6 million people of whom around 1 million were below the official poverty line in 2002. However, many more people in these districts have incomes close to the poverty line. Due to seasonal demands for labor, family illnesses, fluctuating prices, or other external shocks, they can be expected to move in and out of poverty over the course of the Project, and are equally unable to accumulate sufficient capital to meet

³⁵ ADB. 2004. Doc. R71-04: *Disaster and Emergency Assistance Policy*. Manila.

³⁶ Exclusive of local taxes and duties.

needs for safe water and improved sanitation on their own.³⁷ Given the high proportions of poor and near-poor households in the target districts, and the targeting of the poorest locations with the highest levels of unmet need (see Appendix 5), the incidence of poverty among project beneficiaries will be well over 50%. Access to safe and reliable water and sanitation facilities will translate into less time and effort spent on obtaining good quality water, freeing up time for income-generating activities. Better quality water and access to improved sanitation will reduce the incidence and severity of waterborne diseases, leading to a reduction in sick days and health-related expenditures. Healthier people with an increased disposable income constitute improved levels of social welfare, and will facilitate efforts to improve economic welfare.

b. Community Health Benefits and Environmental Improvement

57. Improved access to better quality water and sanitation facilities will reduce waterborne diseases among the general village population, thus improving their health status. This benefit will particularly accrue to infants and children who suffer more frequently and severely from waterborne and water-related diseases. The Project will contribute to reduce infant and child mortality as well as malnutrition caused or aggravated by waterborne diseases in the project areas, thus contributing indirectly to achieving MDG 4, target 5, i.e., reducing by two thirds, between 1990 and 2015, the mortality rate among children under the age of 5; and MDG 1, target 2, i.e., halving, between 1990 and 2015, the proportion of people who suffer from hunger, with the prevalence of underweight children under the age of 5 as the indicator.

58. The summary initial environmental examination is in Appendix 16. There is a positive impact on the local environment of project areas due to improved sewerage management based on new latrines, septic tanks, and waste disposal services. The amount of sewage and waste disposed of in the local rivers will be reduced. Water systems developed will include improved drainage systems in water source areas, thereby reducing mosquito habitat and waterborne diseases. The potential environmental adverse impacts are minor, temporary, and can be mitigated. An environmental management plan has been developed to guide the environmental assessment and review procedure, implementation of environmental mitigation measures, and environmental monitoring during project implementation.

c. Improvement in Gender Conditions

59. The Project will particularly benefit women who will obtain access to more and better quality water and learn about healthy and hygienic behavior. Easier access to better quality water will result in time savings for women and savings of financial and other resources otherwise needed to take care of sick family members. Since women will be actively involved in implementing village-level projects, they will benefit from training activities, and will be able to use their newly acquired experience and skills for other community-driven programs.

d. Community Empowerment

60. The Project will have a positive impact on communities' capacity to promote their own development. The communities' active involvement in selecting, planning, cofinancing, and implementing project interventions, and being responsible for the outcomes and maintaining

³⁷ Raising the official poverty line by just 25% (about \$3 per capita per month) would put an additional 1.2 million people into poverty in these districts. See Supplementary Appendix I for further discussion.

them, will result in their empowerment. The communities will subsequently be able to use these skills and social capital to undertake other community improvement activities of their choosing.

e. **Strengthened Local Governments**

61. The performance of local governments will be improved by the introduction of a simplified quality management approach in public administration. Its emphasis lies in clarifying the roles of local government with regard to continuous improvement in service delivery. This improvement will be felt not only in the sectors directly affected by the Project. With the introduction of a systematic conceptual framework and clear targets for improvement, better services for local communities can be expected, as well as greater transparency of the functioning of local administration. In combination with advocacy capacity-building measures targeted at the local legislative assemblies, these activities are expected to have a positive impact on the development of local democratic governance.

f. **Economic Analysis**

62. ADB's Economics and Research Department developed a simplified approach for the economic assessment of rural water supply projects, which is being pilot-tested in this Project. The approach focuses on time savings as the key indicator of benefits accruing from rural water supply projects. A test has been developed that is equivalent to determining whether the annual net benefits of any village subproject exceed its annualized capital costs.³⁸ The purpose of this approach is to provide criteria that can easily be applied by district staff responsible for the selection of villages for each district subproject and that, if met, provide a reasonable assurance that the village-level schemes included in the subproject would meet the normal tests of financial and economic viability, i.e., have an economic internal rate of return (EIRR) greater than 12%. Meeting the criteria established by the test will be a requirement for all villages included in the Project. The EIRR for the sum of all water supply facilities would therefore also be greater than 12%. No overall EIRR has been calculated separately for the whole Project. The economic analysis is in Appendix 17.

63. Communities will be responsible for choosing the water supply system, from among the available technical options, that best suits their needs and circumstances. Costs for both construction and O&M will be significant factors contributing to their decisions. Household surveys undertaken during the PPTA suggest that the average willingness to pay on a monthly basis is sufficient to finance the O&M costs of most technical options. The application of the economic criteria described in Appendix 17 will identify the least-cost option for each village. However, villages can opt for a higher-level system that provides easier access and costs more as long as they agree to shoulder the additional costs.

2. **Risks**

64. **Policy.** The Project assumes a stable political environment, continued positive economic growth, and continued support of the decentralization and regional autonomy policies in place. Changes to the main decentralization laws that may affect provincial- or district-level authorities and their responsibilities would need adaptation of project implementation arrangements.

³⁸ The approach and the method for applying it are outlined in Appendix 17 and elaborated in detail in Supplementary Appendix C.

65. **Local Government Capacity and Support.** The full participation of local government agencies in supplying adequate support services to communities is imperative for the successful implementation and long-term sustainability of the Project. A receptive response to capacity building will ensure that government capacity to support community-driven projects is maintained, implementation schedules are adhered to, and counterpart funds are available and released on time. Continuity in the leadership of government officials is required for timely project implementation. The Project's emphasis on facilitating change and instigating a reform within the local governments will help generate long-term commitments to better service delivery.

66. **Community Facilitation.** The key to the effective empowering of communities lies with the community facilitators. Experienced community facilitators are generally expensive and in short supply. Intensive training of the facilitators, coupled with close supervision, monitoring, and back-stopping will be required to ensure quality control and effective community mobilization. The Project has allocated sufficient resources to intensively train qualified facilitators and to supervise their performance. Nonperforming facilitators will be replaced.

67. **Community Participation and Ownership.** Communities will actively participate in the design, and accept responsibility for the management and cofunding, of water and sanitation facilities, and for O&M to ensure the facilities' long-term sustainability. Sufficient social cohesion within the community is required to manage the water supply and sanitation schemes on a sustainable basis. Participatory planning will ensure that communities mobilize sufficient resources and are willing to pay for their share of construction and O&M costs, particularly in communities where costs may be high because of physically difficult terrain.

68. **Environmental Conditions.** For particular villages, especially those in peat swamps where surface and shallow groundwater is of very poor quality, finding an appropriate and affordable technical solution for water supply and sanitation may be difficult. The Project will undertake an initial environmental screening for each village before the communities produce a CAP. The screening will encompass identification of the subproject type, scale, location, sensitivity, and nature and magnitude of potential impacts.³⁹ Subprojects in villages that do not pass the screening will not be pursued.

VI. ASSURANCES

A. Specific Assurances

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

- (i) The Government will ensure adequate budgetary allocations of the required counterpart funds for the CPMU and the DPMUs and their timely release.
- (ii) The Government will seek prior approval of ADB for any change of the CPMU project manager. The term of office of the CPMU project manager is at least for two years, and every effort will be made to identify suitable qualified women to fill some of the CPMU positions.
- (iii) The Government will ensure implementation of the GAP.

³⁹ Details are in Appendix 16 and the Project Administration Memorandum.

- (iv) The Government will promote full participation of indigenous peoples in project activities, including, among other things, developing mechanisms to include indigenous peoples in capacity building and training under the Project. The PPMS will include performance indicators that facilitate the monitoring of participation of indigenous peoples in project activities. The Government will ensure that project activities are carried out in accordance with ADB's policy on indigenous peoples, and that the Indigenous Peoples' Development Framework is implemented.
- (v) The Government will ensure that a basic environmental impact assessment is carried out as part of the planning process of subprojects at the community level, in accordance with ADB's *Environment Policy* (2002), and the initial environmental examination. The Government will ensure that all design, construction, and operation of water supply and sanitation facilities will comply with applicable national laws, regulations, and standards.
- (vi) The Government will ensure that all land acquisition and resettlement plans will be approved by ADB prior to award of civil works contracts for subprojects, in accordance with the resettlement framework agreed upon by the Government and ADB; the Government's laws, regulations, and procedures; and ADB's requirements as defined in ADB's policy on involuntary resettlement.⁴⁰ In case of discrepancies between the Government's laws, regulations, and procedures and ADB's requirements, ADB's requirements will apply.
- (vii) The Government agrees that no disbursement will be made from the loan account for any subproject scheme that is not based on an approved CAP and a signed contract between the DPMU and the CIT following the demand-driven, community-based approach outlined in the Project.
- (viii) For the Aceh/Nias-North Sumatra Emergency Assistance Grant, the Government will ensure that detailed project information, including on bidding procedures, participating bidders and winners, contract awards, goods and services purchased and actual utilization, community block grants received, and cooperation with other development agencies will be posted on a website to be determined by agreement of ADB and the Government.

B. Conditions for Loan Effectiveness⁴¹

70. The following are conditions for loan effectiveness:

- (i) The DPMUs have been set up and are staffed.
- (ii) The Government has established the project steering committee.
- (iii) The Government has certified that budget approval documents for the loan and counterpart funds for the first year of project implementation have been issued and all necessary budget approval documents for on-granting loan proceeds to at least eight (8) participating districts have been approved and disseminated.
- (iv) The Government has issued a decision or other regulation satisfactory to ADB on project disbursement arrangements and the flow of funds.

⁴⁰ Details of the Land Acquisition and Resettlement Framework are in Appendix 18.

⁴¹ Conditions for effectiveness are based on the project readiness criteria agreed upon between the Government and ADB.

- (v) The EA has made recommendations for the award of contracts for major consulting services that are to commence in the first year of project implementation.
- (vi) Guidelines for implementing the PPMS, satisfactory to ADB in form and substance and including requirements for poverty and gender-disaggregated data, have been developed at the national level for use in training and capacity-building project components and will be ready for implementation.

VII. RECOMMENDATION

71. I am satisfied that the proposed loans would comply with the Articles of Agreement of ADB and recommend that the Board approve:

- (i) the loan of \$34,100,000 to the Republic of Indonesia for the Community Water Services and Health Project from ADB's ordinary capital resources with interest to be determined in accordance with ADB's London interbank offered rate-based lending facility; a term of 25 years, including a grace period of 6 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;
- (ii) the loan in various currencies equivalent to Special Drawing Rights 19,944,000 to the Republic of Indonesia for the Community Water Services and Health Project from ADB's Special Funds resources with an interest charge at the rate of 1% 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;
- (iii) the administration by ADB of an emergency assistance grant not exceeding the equivalent of \$16,500,000 to be financed by the Government of Canada, the Government of the Netherlands, and the Government of the United Kingdom for community water, sanitation, and health service restoration, and improvement of these services in Aceh/Nias-North Sumatra provinces affected by the tsunami disaster.

Haruhiko Kuroda
President

30 March 2005

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Improved health status and quality of life of the population in line with Millennium Development Goal (MDG) targets on safe water supply and sanitation (WSS)</p>	<ul style="list-style-type: none"> ○ Halve by 2015 the proportion of people without access to safe drinking water and basic sanitation (MDG 7, target 10) ○ Reduce child mortality due to waterborne diseases by two thirds of the 1990 level by 2015 (modified MDG 4, target 5) 	<ul style="list-style-type: none"> ○ Reports and statistics from Government agencies, development partners, and non-government organizations (NGOs) ○ ADB Project Performance Audit Report (PPAR) 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ Health sector information system established, which provides reliable health statistics and data required for performance monitoring <p>Risks</p> <ul style="list-style-type: none"> ○ Community expertise/ community committees can be retained and sustained after project completion
<p>Outcome Sustained access to improved^a and safe drinking water and improved sanitation, and better hygiene behavior in selected low-income communities in rural areas</p>	<p>By 2010, in the Project area:</p> <ul style="list-style-type: none"> ○ At least 50% of households (HH) in participating villages have access to improved and safe drinking water supply ○ At least 30% of HH in participating villages have improved sanitation facilities ○ At least 50% of HH in participating villages adopt improved hygiene practices ○ Reduction of x%^b in incidence of diarrhea achieved ○ Substantial reduction in time spent for collecting water achieved 	<ul style="list-style-type: none"> ○ Ministry of Health (MOH) reports ○ Quarterly project reports ○ Project surveys (baseline survey, end-of-project health impact evaluation survey) ○ Biannual Asian Development Bank (ADB) reviews ○ Midterm and end-of-project evaluations 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ Communities are committed to the Project and ensure sustainability of project outcomes ○ Project has created enough momentum to sustain households' use of improved/new facilities and changed hygiene behavior
<p>Outputs 1. (Component 1) Improved local government capacity for facilitating, regulating and—where necessary—delivering quality services in water, sanitation, and health to the targeted communities</p>	<ul style="list-style-type: none"> ○ In at least 75% of districts the activities aiming at improvement of WSS infrastructure and related campaigns have been integrated into strategic development planning by year 4 ○ Quality management (QM) training designed and completed in 80% of districts at end of year 1 ○ Capacity needs 	<ul style="list-style-type: none"> ○ Review of district planning documents ○ Reports by project monitoring consultants ○ Reports from district project management units (DPMUs) and district support teams (DSTs) 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ District government remains in charge of delivering and facilitating basic social services ○ All decentralized mandates are adequately funded and central Government grows into its new role as facilitator and regulator ○ Strengthened internal controls within the Executing Agency mitigate the risk of fraud and corruption in the Project

<p>2. (Component 2) Strengthened community capability to develop, cofinance, build, operate and manage community-based water supply and sanitation facilities, ensuring women's participation throughout the process</p>	<p>assessment conducted in 75% of districts by end of year 1</p> <ul style="list-style-type: none"> ○ District-level QM plans available in 70% of districts by end of year 1 ○ Training courses identified and implemented starting by year 2 (with proportionate number of female trainees)\ ○ Community action plans (CAPs) prepared for 1,000 villages by 2010 ○ 70% of CAP milestones met on schedule ○ Villages submit expression of interest 2 weeks after subdistrict workshop, and letter of interest (LOI) 2 weeks after village socialization ○ Community implementation teams (CITs) are formed within 1 month of LOI submission ○ CAPs are prepared within 3 months after LOI submission and approved within 1 month after submission ○ Community project contracts are signed within 3 months after CAP approval 	<ul style="list-style-type: none"> ○ Quarterly community progress reports ○ Community health center profile reports ○ Project quarterly reports 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ Community facilitators are adequately trained and motivated to provide high quality support to communities
<p>3. (Component 3) Improved access to WSS facilities in targeted communities</p>	<ul style="list-style-type: none"> ○ Proportion of HH in participating villages with sustainable access to improved water increased from present levels^c to at least 50% by 2010 ○ Proportion of HH in participating villages with access to improved sanitation facilities increased from present levels to 	<ul style="list-style-type: none"> ○ Quarterly community progress reports ○ Project quarterly progress reports ○ MOH reports ○ Field visits and interviews ○ Regular and detailed quality control assessments of facilities constructed ○ Public posting of 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ Communities have sufficient resources and are willing to pay for their share of construction and all operation and maintenance costs ○ Communities chose technical option(s) based on broad community consent

<p>4. (Component 4) Sanitation and health behavioral change (SHBC) program delivered</p>	<p>at least 30% by 2010</p> <ul style="list-style-type: none"> ○ Construction starts 5 months after CAP approval and is completed within 14 months ○ Rehabilitation completed within 7 months after CAP ○ Construction of toilets completed 7 months after water supply construction completed <ul style="list-style-type: none"> ○ SHBC program reach extends to 100% of targeted villages by 2010 ○ Knowledge and practices related to SHBC show significant improvements from baseline conditions by end-of-project in targeted villages (80% recall of SHBC) ○ Programs designed and implemented in 50% of villages by year 3 ○ Women are trained to lead village-wide hygiene promotion 	<p>contracts and breakdown of budgets at community level</p> <ul style="list-style-type: none"> ○ Training reports ○ Quarterly community progress reports ○ Project quarterly reports ○ MOH reports ○ Survey results (baseline, end of project) ○ Field visits and interviews ○ Special studies ○ Health impact study 	<p>Assumptions</p> <ul style="list-style-type: none"> ○ Project is successful in identifying and promoting the motivating factors for communities to sustain positive changes in sanitation and hygiene behavior of their members
<p>Activities with Milestones</p> <p>1.1 Component 1:</p> <ul style="list-style-type: none"> ○ Develop QM approach and train decision makers of district governments (month 1 – month 14) ○ Conduct capacity building needs assessment (month 1 – month 14) ○ Identify and implement QM plans (month 6 – month 18) ○ Implement training (month 24 – 48) <p>1.2 Component 2:</p> <ul style="list-style-type: none"> ○ Conduct socialization workshops, ensuring adequate representation of women (month 1 – month 14) ○ Form CITs, with adequate representation of women (month 6 – month 24) ○ Prepare CAPs and sign community project contracts (month 12 – month 36) <p>1.3 Component 3:</p> <ul style="list-style-type: none"> ○ Construct water supply facilities as appropriate^d (month 24 – month 60) ○ Rehabilitate existing facilities as appropriate^e (month 24 – month 60) ○ Construct toilets as appropriate^f (month 24 – month 60) 			<p>Inputs</p> <ul style="list-style-type: none"> ○ London interbank offered rate-based ordinary capital resources (OCR) loan: \$34.1 million ○ Asian Development Fund (ADF) loan: \$30.6 million ○ Government counterpart funds: \$22.1 million ○ Community counterpart funds: \$5.6 million ○ International consultants: 78

<p>1.4 Component 4:</p> <ul style="list-style-type: none"> ○ Design and implement effective school health and sanitation program; hygiene promotion at religious facilities, community health program, and home water treatment and storage program (month 6 – month 72) 	<p>person-months</p> <ul style="list-style-type: none"> ○ Domestic consultants: 6.256 person-months ○ Civil works: \$31.2 million ○ Training activities: \$18.0 million ○ Equipment: \$2.3 million ○ Surveys, Monitoring and Evaluation: \$2.4 million
---	---

^a Improved water is defined as reasonable access (20 liters per day per person within 1 kilometer distance) to household connections, public standpipes, boreholes, protected dug wells, protected springs, or rainwater collection. Improved sanitation is defined as access to adequate excreta disposal facilities, such as a connection to a sewer or septic tank system, a pour-flush latrine, a simple pit latrine, or a ventilated pit latrine. United Nations Development Programme (UNDP). 2003. *Human Development Report 2003*.

^b Percentage will be specified once baseline health survey is undertaken in first year of implementation.

^c To be ascertained during baseline survey in first year of implementation.

^d Spring-piped systems, river systems, borehole/hydrant systems, medium-depth boreholes, dug wells, hand-pump wells, rainwater collection units, and simple water treatment units.

^e Shallow wells, rainwater collection units, and spring-piped systems.

^f Household and communal toilets at schools and public places.

RURAL WATER SUPPLY AND HEALTH SECTOR PROFILE

A. Water Supply and Sanitation

1. Indonesia has made progress in water and sanitation access over the past few decades, but standards remain below those of a number of the other countries in Asia. In 2000, water and sanitation conditions were fairly similar to countries such as Myanmar and Viet Nam, but were below those that had been achieved in the Philippines and Thailand, especially with regard to access to improved sanitation (Table A2.1).

Table A2.1: Summary Water and Sanitation Conditions, Selected Asian Countries

Country	HDI Rank	Population with Sustainable Access to an Improved Water Source (2000) ^a	Population with Access to Improved Sanitation (2000) ^b
Thailand	74	84	96
Philippines	85	86	83
Sri Lanka	99	77	94
People's Republic of China	104	75	40
Viet Nam	109	77	47
Indonesia	112	78	55
India	127	84	28
Cambodia	130	30	17
Myanmar	131	72	64
Lao People's Dem. Rep.	135	37	30
Pakistan	144	90	62

HDI = human development index.

^a Defined as the percentage of population with reasonable access (20 liters per person per day within 1 km distance) to household connections, public standpipes, boreholes, protected dug wells or springs, or rainwater collection

^b Defined as the percentage of population with access to adequate excreta disposal facilities, such as a connection to a sewer or septic tank system, a pour-flush latrine, a simple pit latrine, or a ventilated improved pit latrine

Source: United Nations Development Programme. 2003. *Human Development Report, 2003*. New York.

2. Progress has been moderate in terms of the applicable Millennium Development Goal (MDG) target,¹ and inequality in access between urban and rural areas, and between the better-off and the poor persists. Pipe and pump systems remain largely an urban phenomenon in Indonesia, and there has been little change in either levels or the urban-rural gap in recent years. In rural areas, close to one third of households still do not have access to safe water. As to sanitation, the use of toilet facilities and/or septic tanks for human waste disposal still remains the exception rather than the rule in much of rural Indonesia.

3. Based on data from the National Socioeconomic Survey (SUSENAS) 2002, more than a third (37%) of households in the poorest quintile (Q1) lack access to pipe, pump, or water from protected wells or springs for drinking purposes, and over 80% lack access to toilets and/or final disposal via septic tanks. This can be compared to the richest quintile (Q5) where only 14% of households lack access to similar qualities of water and around one fifth to one quarter (20–27%) access to similar levels of sanitation.

4. Although there is some variation, the Project's target provinces and districts are generally less well served, and the poorest quintile is worse off than national averages (Table A2.2). In most of the target districts in Kalimantan and some in Sumatra, less than 40% of households have access to safe water, and in the great majority of cases less than one third of

¹ MDG 7, target 10: to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

households have regular access to toilet facilities or final disposal of human waste using septic tanks. The problem is particularly severe in the two provinces in Kalimantan where there is heavy reliance on increasingly polluted river water for drinking, and only a small minority of households has access to toilet facilities.

Table A2.2: Selected Indicators on Access to Safe Water and Sanitation by Urban/Rural Residence and Household Per Capita Expenditure Quintiles, Project Provinces, 2002

Item	Households with Pipe or Pump Source of Drinking Water	Households with Pipe, Pump, Protected Well or Spring Source of Drinking Water	Households with Access to Toilet Facilities	Households with Final Disposal Using Septic Tank
Total Indonesia	32.8	74.6	46.3	39.8
Urban	54.5	87.2	70.0	63.2
Rural	15.2	64.3	27.1	20.7
Jambi				
Total	19.2	49.2	37.4	30.4
Urban	40.8	74.7	73.9	67.0
Rural	10.7	39.2	23.1	16.1
Q1	10.3	37.4	20.5	16.1
Q5	35.5	64.7	64.0	53.3
Bengkulu				
Total	13.5	54.3	45.0	24.3
Urban	33.6	75.8	87.4	62.8
Rural	5.2	45.4	27.5	8.5
Q1	3.6	43.3	18.2	7.4
Q5	38.6	80.3	89.8	63.1
West Kalimantan				
Total	11.3	17.4	35.4	25.4
Urban	27.5	32.9	73.1	64.8
Rural	5.7	12.1	22.4	11.8
Q1	4.0	6.6	12.6	6.7
Q5	29.3	35.8	72.0	61.6
Central Kalimantan				
Total	25.8	37.4	28.4	20.6
Urban	65.4	76.2	64.0	55.0
Rural	9.2	21.1	13.5	6.2
Q1	11.6	17.9	13.7	5.7
Q5	45.7	58.6	49.8	39.1

Q1 = poorest quintile, Q5 = richest quintile

Source: National Socioeconomic Survey SUSENAS, 2002.

B. Health and Hygiene Behavior

5. Collected data and information on the status of Indonesia's health sector in general, and on the incidence and mortality rates from waterborne or water-related diseases in particular, show varying degrees of validity and accuracy and should thus be treated with caution. The national surveillance system regarding communicable diseases is still in its infancy, and data by district are virtually unavailable.

6. Since 1990, the periodic National Demographic and Health Surveys (DHS) have reported prevalence rates² for diarrhea among children under age 5 during the 2 weeks preceding the survey. Results for Indonesia and the four target provinces from the last three

² Prevalence rates measure whether or not a child experienced a particular disease during a specific period of time. This is different from incidence, which measures the number of occurrences of a diseases during a period of time.

rounds of the DHS are shown in Table A2.3. However, the small sample sizes for province estimates, and the relatively short reference period to improve recall, make the use of this data problematic.

Table A2.3: Prevalence Rates for Diarrhea

Region/Province	Percent of Children Under Age 5 Experiencing Diarrhea ^a		
	1993	1997	2003
As compared to national average	11.0	10.4	12.1
Jambi	8.1	8.2	10.9
Bengkulu	8.2	16.5	21.6
West Kalimantan	8.3	15.0	14.4
Central Kalimantan	2.4	19.5	5.8

^a During the 2 weeks preceding each survey.

Source: National Demographic and Health Surveys (DHS), 1993, 1997, and 2003.

7. In addition, the Ministry of Health (MOH) conducts other surveys in cooperation with the National Statistics Board (BPS),³ but the quality of data is weak, table presentations are often unclear, and the results are not very widely disseminated or published. The latest of these surveys in 2000 showed a national diarrheal incidence rate of 1.278 for children under age 5. This suggests that diarrheal disease incidence in Indonesia is already fairly low for children under 5 on a national basis. However, diarrhea is only one aspect of the general health conditions of rural Indonesia, and the project focus will encompass other aspects of individual and community health that impact on the quality of life in the target provinces. A critical component will thus be the hygiene behavioral change interventions of the Project.

8. The Indonesian surveillance system for worm infestation⁴ only began in 2002. Prevalence rates have no statistical validity and there is no sampling frame for the 10 provinces surveyed. Both malaria and dengue fever are included in MOH's integrated surveillance system of 29 selected diseases, in which all provinces are supposed to participate. For malaria, passive case detection, clinical diagnosis and treatment, active case detection, and laboratory diagnosis are limited to Java and Bali, and mortality rates are not available.

9. In the past, many programs and projects have tended to focus on technical infrastructure or medical treatment solutions (such as oral rehydration therapy for diarrhea), rather than attempting to tackle the human behavior challenge. Behavioral change strategies, which focus on prevention rather than treatment, are included in projects but are found to be delayed and diluted during implementation.

10. More recently, commercial advertising techniques and various participatory methodologies have been developed to attack the chronic problems of implementation of behavioral change related to sanitation and hygiene. These new techniques have largely come from outside the medical establishment and have yet to be widely adopted by rural public health services, which continue to either skirt the issue of hygiene behavioral change or tend to impose inappropriate and often resented sanctions that do little to win popular support for improved hygiene behavior or practices. Addressing this problem in ways that are appropriate, acceptable, and that lead to sustainable changes in human behavior thus constitutes one of the major challenges for the Project.

³ These are known as the household health surveys (*Survei Kesehatan Rumah Tangga*). Several rounds have been carried out, with each survey covering 6–10 provinces at a time.

⁴ Such as ascariasis, dracunculiasis, hookworm, tapeworm, threadworm, and whipworm.

**EXTERNAL ASSISTANCE TO THE RURAL WATER SUPPLY AND SANITATION AND
HEALTH SECTORS IN INDONESIA**

Project Name	Funding Agency	Type of Assistance	Implementation Period	Amount (\$ million)
Rural Water Supply and Sanitation				
Small Towns Water Supply Sector Project	ADB	Loan	1981–1990	32.0
IKK Water Supply Sector Project	ADB	Loan	1985–1993	40.2
2 nd IKK Water Supply Sector Project	ADB	Loan	1991–1994	39.0
Rural Water Supply and Sanitation Sector Project	ADB	Loan	1995–1999	85.0
NTB Environmental Sanitation and Water Supply Project	AusAid	Grant	1988–1996	—
Flores Water Supply and Sanitation Project	AusAid	Grant	1995–1999	—
Water and Sanitation Policy Formulation and Action Planning Project (WASPOLA)	AusAid	Grant	1998–2003	8.3
Community Managed Water Program	CARE	Grant	—	—
Rural Water Supply and Sanitation Project for Nusa Tenggara Timur	KfW/GTZ	Loan/Grant	2001–present	9.1 ^a
Bengkulu-Lampung Water, Sanitation and Health Project	WHO	Grant	1980s	
Village Infrastructure Project for Java	World Bank	Loan	1995–1998	72.5
Village Infrastructure Project (02)	World Bank	Loan	1996–2000	140.1
Water Supply and Sanitation for Low Income Communities Project	World Bank	Loan	1993–1999	80.0
2 nd Water and Sanitation for Low Income Communities Project	World Bank	Loan	2000–present	77.4
Kecamatan Development Project	World Bank	Loan	1998–2002	275.0
Kecamatan Development Project (02)	World Bank	Loan	2001–present	320.2
Third Kecamatan Development Project	World Bank	Loan	2003–present	249.8
Rural Health				
Family Health and Nutrition Project	ADB	Loan	1997–2002	45.0
Health and Nutrition Sector Development Program	ADB	Loan	1999–2003	320.0
Intensified Communicable Disease Control Project	ADB	Loan	1998–present	87.4
Decentralized Health Services Project (DHSP)	ADB	Loan	2001–present	65.0
2 nd Decentralized Health Services Project (DHS II)	ADB	Loan	2004–present	100.0
Third Health Project	World Bank	Loan	1989–1996	43.5
Fourth Health Project	World Bank	Loan	1995–2000	88.0
Provincial Health Project (01)	World Bank	Loan	2000–present	38.0
Provincial Health Project (02)	World Bank	Loan	2001–present	103.2
Health Workforce and Services Project	World Bank	Loan	2003–present	105.6

— = not available, ADB = Asian Development Bank, AusAID = Australian Agency for International Development, GTZ = Deutsche Gesellschaft für Technische Zusammenarbeit, IKK = Ibu Kota Kecamatan (district administrative center), KfW = Kreditanstalt für Wiederaufbau.

^a Amount in € (not \$).

Source: Asian Development Bank.

LESSONS LEARNED

1. **Limit Project Coverage.** Experience under the World Bank's Water and Sanitation for Low Income Communities II Project (WSLIC-II)¹ has shown that coordination and application of uniform operating standards is difficult when too many provinces and districts are involved (in the case of WSLIC-II, 40 districts in six provinces). Similarly, the Rural Water Supply and Sanitation Sector Project (RWSSP)² of the Asian Development Bank (ADB) covered 80 districts in 12 provinces, with over 4,400 communities spread over very large and often relatively inaccessible areas, which had a negative impact on project implementation and monitoring. The Project has therefore limited the number of provinces and districts within these provinces, while at the same time increasing the number of villages covered in each district to maximize impact.
2. **Simplify Implementation and Fund Channeling Arrangements.** Experience under RWSSP with too many government agencies involved at various administrative levels led to poor coordination of activities and difficulties in monitoring a system of thousands of small works contracts. Complicated fund channeling mechanisms also hampered the World Bank's Water Supply and Sanitation for Low Income Communities Project (WSSLIC). Recent decentralization poses a challenge in that more hierarchy levels want to have a say in project implementation. The Project will ensure that a single project management organization will have sufficient authority to resolve coordination and implementation issues in a timely manner, and that delegation of decision making to lower levels is implemented where feasible.
3. **Offer a Simple Water and Sanitation Technology Menu.** In past projects in Indonesia, the use of standardized technology, which turned out to be too costly and too complicated to maintain and repair, was imposed on communities. To promote a sense of ownership and to increase the willingness to pay for capital and operation and maintenance (O&M) costs, communities need to choose the facilities they want and are willing to pay for. The Project has developed a menu of 10 easily understandable water supply options and three options for sanitation along the lines of the menu that was prepared under WSLIC II to help communities make an informed choice. The menu allows for incremental upgrading of basic facilities, if the community is willing to pay the full incremental cost. Communities will receive extensive advise on the costs each of the options involve (both capital and O&M), the feasibility according to topography and population, and the potential for incremental upgrading, among others. Tariffs and user fees for services will depend on the technology option chosen by the community, and should usually cover at least O&M costs. Based on the WSLIC experience, user fees will need to be determined and agreed upon in detail in the community action plan prior to construction.
4. **Engage Communities at All Project Stages.** Several previous ADB projects in rural water and sanitation were affected by poor community acceptance of schemes because of inadequate involvement and consultation, which resulted in slow uptake of connections and inadequate cost recovery. Communities need to have the right to control key activities with regard to planning, design, and construction of facilities, which in turn has proven to be an antidote against corruption in previous projects. Also, investment into upgrading community capacity and capability (particularly for O&M and repair) is needed to ensure sustainability of project investments. In the Project, communities will be engaged from the beginning and throughout the full project cycle.

¹ World Bank. 2000. *Project Appraisal Report for the Second Water and Sanitation for Low Income Communities Project*. Washington DC.

² ADB. 2002. *Project Completion Report for Loan 1352-INO: Rural Water Supply and Sanitation Sector Project*. Manila.

5. **Focus on Community Facilitators.** Community facilitators will be a key factor in ensuring the success of the Project as they are responsible for community planning and preparation before the construction of facilities. In WSLIC-II, training and mobilization of facilitators were significantly delayed, thus delaying the whole project implementation. Under RWSSP, local training programs were generally not synchronized with work implementation, not sufficiently financed, and too short in duration. The Project will ensure that facilitator recruitment, training, supervision, and replacements will be delivered in a timely and synchronized manner.

6. **Encourage Increasing Community Contributions.** The community contribution formula under WSLIC-II (20%, including 16% in kind and 4% in cash) is working well, thus a similar formula will be applied under the Project. However, the Project will encourage increasing the cash contribution by the community, in particular for facilities that go beyond basic services levels (such as fully piped, in-house water systems).

7. **Monitor Quality of Construction and Personnel Performance.** Poor quality of construction and inadequate personnel performance has plagued many rural water supply and sanitation projects in the past.³ In RWSSP, the low quality of construction was attributed to compulsory use of nonskilled and nontrained village labor by contractors, combined with lack of supervision. Performance monitoring of consultants, NGOs, participating government agencies, and private sector organizations is crucial to the success of the Project. Communities will be adequately trained to demand and assess high quality construction and assistance, combined with professional and regular independent quality monitoring and control of activities.

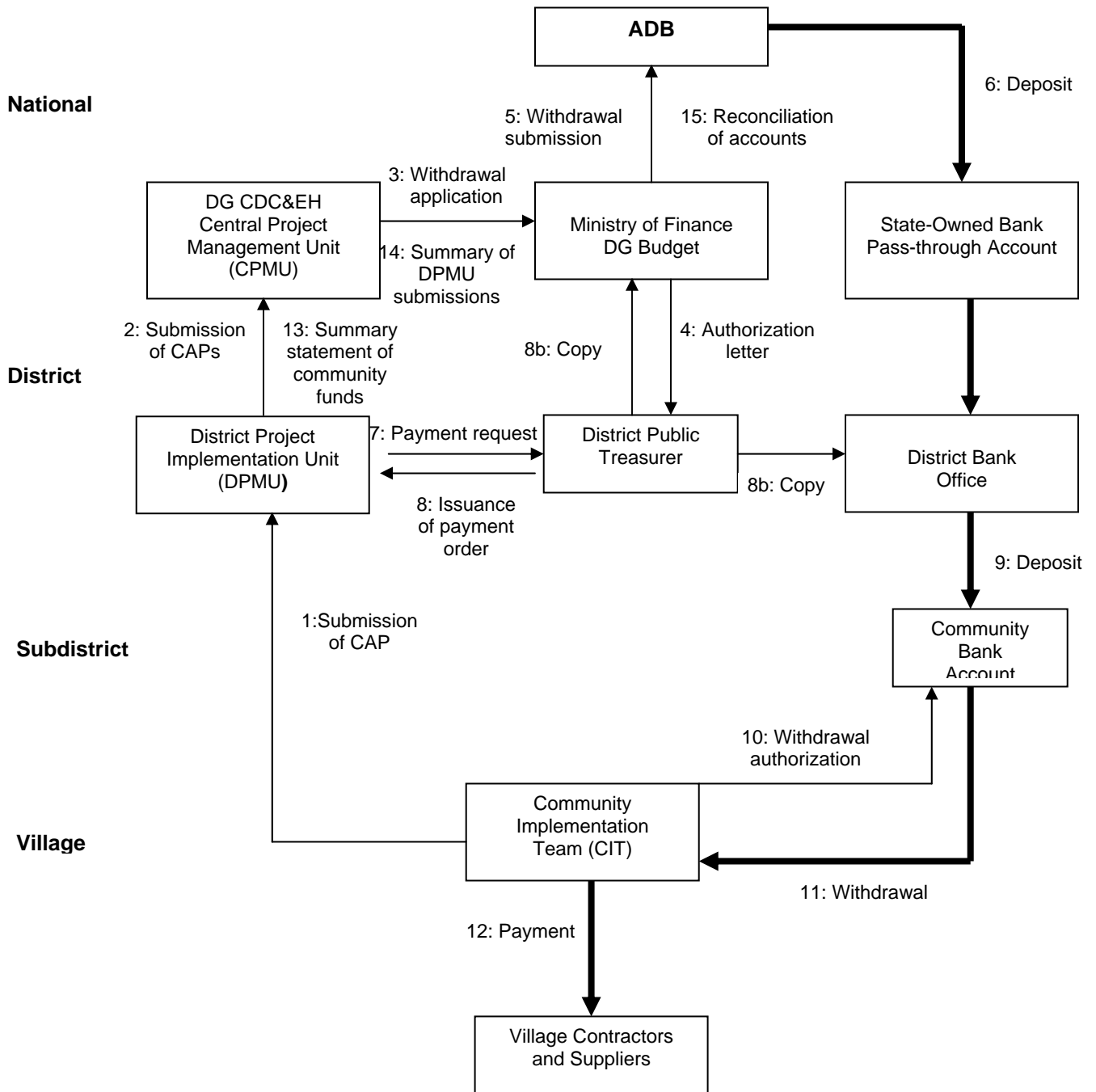
8. **Emphasize Sanitation and Hygiene Behavioral Change (SHBC).** Since improved water supply and sanitation facilities are insufficient to dramatically reduce waterborne diseases, SHBC needs to be given as much attention as the actual construction of facilities. In previous projects, such as RWSSP, health education and community programs were treated as an “add on” and based mainly on standard training, which did not adequately address the issue of sustaining a change in behavior. Experience of projects inside and outside of Indonesia has demonstrated that a range of country- or district-specific motivating factors beyond health (such as social status enhancement from having a sanitary toilet, convenience, time savings, people’s desire for a smell-free home) will need to be emphasized in the SHBC component, particularly for first-time in-house water and sanitation users.⁴

9. **Ensure Transparency and Accountability of Project Administration and Procurement.** Ensuring full transparency and public accountability of project administration and procurement is crucial to stimulating community participation and commitment to project policies and procedures. Rural water and sanitation projects are notoriously slow and cumbersome in implementation, leading to high levels of frustration among initially very motivated communities. To address this, advance actions in terms of establishing and staffing central- and district-level project offices, and recruiting central-level consultants, will be initiated well in advance of project implementation. Administration and procurement procedures will be clearly explained to communities so that they are capable of monitoring progress from their side as well. Accountability procedures such as public disclosure of budgets, tenders, contracts, and terms of reference will ensure good governance and help prevent fraud and corruption.

³ World Bank. 2000. Rural Water Projects: Lessons from OED Evaluations. *OED Working Paper Series No. 3*. Washington DC.

⁴ Water and Sanitation Program for East Asia and the Pacific. 2001. *Achieving Sustained Sanitation for the Poor*. Washington DC.

DISBURSEMENT FLOWCHART OF VILLAGE FUNDS



Cash Flow
 Document Flow

CAP = Community Action Plan; DG = Directorate General; DG CDC&EH = Directorate General of Communicable Disease Control and Environmental Health

Source: Asian Development Bank mission consultations with the Ministry of Finance.

VILLAGE ELIGIBILITY, SELECTION, AND APPRAISAL CRITERIA

1. A long-list of villages was determined during the project preparatory technical assistance based on socioeconomic and water and health technical factors. The long-list is only indicative at this stage as the selection of villages to participate in the proposed Project will be determined by the districts during the early stage of implementation through project orientation and consultation phases. Village participation criteria are in Box A6.

Box A6: Village Participation Criteria

- (i) Community commitment through Letter of Intent, confirming
 - (a) no other clean water or drinking water projects ongoing or planned for the village;
 - (b) formation of a community implementation team (CIT);
 - (c) willingness to prepare a community action plan (CAP);
 - (d) willingness to contribute 16% of subproject construction costs in-kind;
 - (e) willingness to contribute 4% in cash;
 - (f) willingness to pay all user fees afterward (operation and maintenance, etc.);
 - (g) willingness to conduct required operation and maintenance on the system; and
 - (h) willingness to conduct sanitation and hygiene behavioral change program.
- (ii) Geographic requisite: at least three qualifying villages per subdistrict.
- (iii) Socioeconomic factors, including
 - (a) village poverty rate (based on Family Planning Agency methodology) of more than 25% of households classified as pre-welfare or welfare-1; and
 - (b) minimum village population of at least 100 households per village.
- (iv) Health and technical factors (any one factor qualifies village for inclusion in Project):
 - (a) percentage of households with access to improved latrines < 50%;
 - (b) percentage of households requiring more than 30 minutes to access water and return it to home > 30%;
 - (c) water availability/reliability < 9 months per year for > 30% of households;
 - (d) level of fecal chloroform, arsenic > Ministry of Health/World Health Organization technical standard;
 - (e) percentage of dug wells intruded by salt-water, smell, or otherwise contaminated > 10%; or,
 - (f) per capita water availability < 15 liters per person per day

2. Following confirmation of village participation, villages will prepare a Community Action Plan (CAP). The CAP will be approved by the District Project Management Unit (DPMU). The CAP will

- (i) propose solutions to overcome water supply, sanitation, and/or health problems that are at an appropriate level of technology and reasonable budget level (i.e., within the proposed maximum limit of Rp250 million for water supply and sanitation facilities per village);
- (ii) be required to pass the economic assessment test outlined in Appendix 17; and
- (iii) be required to pass the environmental screening process outlined in Appendix 16.

INDIGENOUS PEOPLES' DEVELOPMENT FRAMEWORK

A. Project Background

1. The Project will provide rural water supply and sanitation facilities and services to about 1,000 communities in 20 districts in the provinces of West Kalimantan, Central Kalimantan, Jambi, and Bengkulu. Following a demand-driven, community-based approach, the Project will provide an estimated 1.2 million people with safe drinking water, of whom about 0.6 million will also benefit from improved sanitation facilities. The Project will also facilitate capacity building of local governments and the communities themselves, and raise awareness on appropriate sanitation and hygiene behavior to maximize the investment impact.

2. Indigenous peoples (IPs)¹ were identified during the sample village field studies conducted in Kalimantan, and it is probable that they will be found in other areas of all four project provinces during implementation. IP risks are expected to generally be minor due to the community-driven, participatory approach of the Project, which requires adequate representation of marginal groups on the community implementation team (CIT). The Project will seek to identify locations with significant IP presence and ensure that necessary information and facilitation is provided to ensure equal inclusion in the Project.

B. Objectives of the Indigenous Peoples' Development Framework

3. The objectives of the Indigenous Peoples' Development Framework (IPDF) are to ensure that IPs (i) participate fully in the Project; (ii) are aware of their rights and responsibilities with regard to the Project; and (iii) are able to voice their needs during the community problem mapping and planning meetings, and community action plan (CAP) formulation.

C. Institutional Arrangements/Strategy to Ensure IP Participation

4. To ensure full participation in the Project and adequate reflection of their specific needs in the CAPs, the following arrangements will be made:

- (i) Community facilitator teams (CFTs) will be trained in the identification of IPs. Through baseline surveys, community self-help exercises, and discussions on community empowerment, facilitators will identify the presence and numbers of IP groups in the community and report this to the district project management unit (DPMU) and district support team (DST);
- (ii) For the areas where IP groups are identified, the DSTs will organize orientation training for relevant community facilitators on how to work with groups of IPs to identify mechanisms for effective participation, and address specific challenges in working with such groups;
- (iii) Where IP groups are identified, efforts will be made to ensure that at least one CIT member is from the group and able to communicate easily with the group; and
- (iv) Where the IPs speak a language different from Bahasa Indonesia, relevant brochures and documents will be translated into the appropriate language.

¹ According to Presidential Decree No. 111/1999 on Empowering Social Welfare of Communities in Isolated and Remote Areas, IPs in Indonesia are defined as communities with a distinct culture, who live in remote areas, and have limited access to social, economic, and political activities.

5. CFT members will be hired locally to the extent possible and are likely to be familiar with such groups. They will also be rotated as necessary to ensure that those that have been trained in working with IP groups, or have specific skills that would be beneficial in working with such groups, are available in the right places.

D. Impacts on and Benefits for Indigenous Peoples

6. The initial poverty and social assessments done by CFTs for each subproject will indicate the magnitude and type of IP impacts. Participation of IPs is expected to lead mostly to positive benefits. If a community turns out to be fully indigenous, the CAP will serve the purpose of an Indigenous Peoples' Development Plan (IPDP), to be prepared in accordance with ADB's policy on indigenous peoples. These CAPs will be subject to the approval of ADB.

7. IP-specific actions will be commensurate with the impact severity level of each subproject affecting vulnerable groups. Impact severity is defined based on the degree of vulnerability of the affected peoples and the type of impacts, i.e., (i) limited impacts occur when (a) the affected peoples are fully integrated in mainstream society and in control of the local administrative system, and/or (b) impacts do not have broad community or sociocultural dimensions; and (ii) severe impacts occur when (a) the affected peoples maintain a degree of sociocultural and institutional distinction from mainstream society and/or (b) impacts carry a broad sociocultural dimension and have wide community effects.

8. Action for limited impacts will include a brief assessment of the affected peoples' socioeconomic and cultural status, and the preparation of specific actions to address associated concerns, which will be included in the CAP. Action for severe impacts will require the CAP to serve as a full IPDP including (i) an assessment of the affected peoples' situation, and (ii) an IP action plan detailing needed rehabilitation/development provisions and related implementation mechanisms and processes. IPDPs will be designed and implemented through a participatory methodology involving the affected peoples and other stakeholders.

9. For the preparation and implementation of CAPs to serve as IPDPs, the Project will mainly rely on the CFTs, with assistance and supervision from the DSTs. The CFTs' main tasks are to (i) ensure effective community self-organization; (ii) facilitate, monitor, and supervise the formulation and implementation of the CAP; and (iii) ensure effective monitoring of CAP activities, including IP-specific actions. The CFTs will consist of three experts, one of them being a community mobilization and equity specialist whose responsibility is to ensure the active participation of all village stakeholders, including IPs, women, and the poor. The CFTs will be hired as part of the consultant packages for each province and will assist each community throughout the whole project cycle. Thus, the preparation and implementation of IPDPs in lieu of CAPs or IP-specific actions as part of the CAPs are fully budgeted.

E. Monitoring and Evaluation

10. Where IPs are identified, these will be flagged to the DPMU by the CFTs and DSTs, and the DPMU will report to the CPMU and ADB on IPs' participation in project activities on a biannual basis. Provisions will also be made in the project reporting system for monitoring the involvement of IPs. Provisions will be made so that any issues or complaint can be raised, recorded, and resolved with the DPMU. Designated staff within the DPMU will be responsible for following up on complaints, and ensuring that they are handled promptly and adequately until resolved.

GENDER ACTION PLAN

A. Preparatory Work Undertaken

1. Workshops, focus group discussions, and the socioeconomic and health survey undertaken during the project preparatory technical assistance stage revealed widespread enthusiasm for active involvement of women in the Project. While women and men participating in the survey reported that they are equally responsible for collecting water for household use, this depends largely on the closeness of the source of water, quantity to be collected, and seasons. The survey also revealed that while local sanitation conditions were dismal, little value was placed on women's access to improved sanitation facilities. To get more women to adopt improved hygiene practices, properly trained community facilitators will need to pay particular attention to this through appropriate learning tools and materials in local languages.

B. Gender Action Plan

2. The Project will make considerable efforts to actively engage women in project activities, hire them in key positions as facilitators and trainers, solicit the support and participation of women's organizations at the grassroots level, and focus on particular groups of women, among them the poor, mothers with young children, and women-headed households. The summary gender action plan (GAP) below outlines how the Project will address gender dimensions. The key strategies underlining the GAP include:

- (i) active involvement of women as both implementors and beneficiaries; during community consultations, workshops, and focus group discussions, at least 50% of the participants should be women, including poor women, women household heads, and mothers with infants and young school children;
- (ii) engagement of women teachers, the women's Family Welfare Movement (PKK), village midwives, health volunteers, and other women activists, for information, education and communication (IEC) campaigns with particular target groups on the benefits of using clean water for hygiene and sanitation purposes;
- (iii) engagement of female community facilitators at equal salary to male facilitators to attract women's active participation in IEC campaigns and the implementation of behavioral change;
- (iv) appropriate representation of women on the community implementation team (CIT) to ensure that the community action plan (CAP) adequately reflects women's interests; and
- (v) specific training activities for village women.

C. Gender Monitoring and Evaluation

3. The Central Support Team (CST) includes a national gender specialist for a total input of 8 months over the first three years. In addition, the terms of reference for the community and equity specialist in the district support teams (DSTs) require gender expertise and awareness. The GAP will be implemented in line with the overall implementation schedule of the Project. The project performance monitoring system (PPMS) will incorporate gender-sensitive indicators specified in the GAP. The baseline and end-of-project surveys will involve at least 50% of women out of the total respondents, and disaggregate households by gender, ethnic groups, and socioeconomic background.

Table A8: Gender Action Plan

Project Components	Actions Proposed
1. District/subdistrict capacity building	<ul style="list-style-type: none"> • Ensure that at least a proportional number of female local government staff are involved in the Project. • Provide training to local government staff in charge of the Project (planning, implementation, and monitoring and evaluation) in communication skills with people at the grassroots level, covering gender awareness training that includes the role of women and men in water management at the household level, community empowerment, proper hygiene and sanitation practices and behavior, and the benefits of water, sanitation, and hygiene for improving the health of household members, and particularly for women who are mothers of young children.
2. Community empowerment	<ul style="list-style-type: none"> • Ensure that each community facilitator team of three has at least one female facilitator who receives the same salary as men. • Ensure gender-sensitive facilitation and socialization on the benefits and relations between clean water and proper healthy and sanitary behavior and practices. • Include female local health workers, women's community groups, women teachers, and other women community activists to bring the messages to other members of their communities. • Ensure that potential project beneficiaries include at least 50% females. • Ensure that there is an appropriate number of women on the Community Implementation Teams who are being properly informed about the choices they are making during the socialization phase of the Project, and thus are able to represent women's interest in the Community Action Plan. • Conduct community training in financial management (bookkeeping, accounting, and auditing) with a gender perspective, ensuring that at least 30% of the trainees are women.
3. Construction of community-based water supply and sanitation physical facilities	<ul style="list-style-type: none"> • Consult women before deciding on the location and construction of public taps, tanks, drains, public steps, and platforms to use for bathing and washing clothes. The consultations should be adequately reflected in the CAP. • Integrate appropriate contribution of women to construction of facilities, ensuring adequate pay for work accomplished • Provide operation and maintenance training for women regarding repair of taps, rotation systems (where necessary due to low water availability), home water treatment, home water storage, etc.
4. Sanitation and hygiene behavioral change	<ul style="list-style-type: none"> • Ensure that the curricula and training materials appropriate to involve women are prepared and available according to schedule • Facilitate women's choice for appropriate training, making sure it is relevant to local needs • Ensure that the community facilitators are hired and trained on schedule, with the hygiene behavioral change facilitator being female, to enable better relations with schools and school children, mothers of young children, women leaders, and women's groups • Ensure that training materials are prepared in local languages and that community facilitators speak local languages so that women with low educational attainment have access and can communicate • Ensure that some materials are primarily visually/pictorially oriented to assist those with limited literacy skills • Conduct village campaigns related to personal, domestic, and environmental hygiene, planned and run by women • Coordinate closely with various national and local coalition groups who have programs that target women, or that focus on health and hygiene

COST ESTIMATES AND FINANCING PLAN

Table A9.1: Cost Estimates by Components
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Local Government Capacity Building			
1. Training, Workshops, and Training Materials	0.0	5,623.5	5,623.5
2. Awareness and Promotion Campaigns	0.0	169.4	169.4
3. Service Contracts (RSTs)	0.0	2,265.7	2,265.7
4. District Supervision and Planning	0.0	0.0	0.0
5. Support Costs	61.7	3,969.1	4,030.8
Subtotal (A)	61.7	12,027.8	12,089.5
B. Community Mobilization and Empowerment			
1. Training and Workshops	0.0	3,341.6	3,341.6
2. Awareness and Promotion Campaigns	0.0	84.0	84.0
3. Service Contracts (RSTs)	0.0	2,356.7	2,356.7
4. Service Contracts (Community Facilitators)	0.0	3,381.7	3,381.7
5. District Supervision & Planning	0.0	74.9	74.9
6. Support Costs	49.4	144.6	194.0
Subtotal (B)	49.4	9,383.5	9,432.9
C. Construction of Water Supply & Sanitation Facilities			
1. Water Supply and Sanitation Facilities	4,303.3	21,580.7	25,884.0
2. Service Contracts (RSTs)	0.0	2,312.0	2,312.0
Subtotal (C)	4,303.3	23,892.7	28,196.0
D. Sanitation and Hygiene Behavioral Change			
1. Training, Workshops, and Training Materials	0.0	3,179.0	3,179.0
2. Awareness and Promotion Campaigns	0.0	1,171.6	1,171.6
3. Service Contracts (RSTs)	0.0	2,363.8	2,363.8
4. District Supervision & Planning	0.0	30.1	30.1
5. Other Materials	159.0	1,004.7	1,163.7
6. Surveys	19.5	579.6	599.2
Subtotal (D)	178.5	8,328.8	8,507.4
E. Project Management			
1. Central Project Management	2,121.2	8,715.3	10,836.6
2. District Implementation and Coordination	372.5	6,686.7	7,059.2
Subtotal (E)	2,493.7	15,402.1	17,895.8
F. Taxes and Duties	0.0	7,320.6	7,320.6
Total Baseline Costs	7,086.7	76,355.5	83,442.2
Physical Contingencies ^a	258.8	1,212.6	1,471.4
Price Contingencies ^b	188.5	2,047.0	2,235.4
Total Project Cost	7,533.9	79,615.2	87,149.1
Interest During Implementation ^c	4,796.0	0.0	4,796.0
Commitment Charges ^d	443.0	0.0	443.0
Total Costs to be Financed	12,773.0	79,615.2	92,388.2

RSTs = Regional Support Teams

^a At 5% for materials, equipment, and civil works (WSS).

^b For foreign costs at 1.0% per year; for local costs 6.4% in 2005, 6.1% in 2006 and 2007, and 5.8% per year thereafter.

^c For funds from the ordinary capital resources of the Asian Development Bank (ADB) includes interest at 4.24% per year for disbursed funds based on indicative lending rates for loans under the London interbank offered rate (LIBOR)-based loan facility as per ADB Treasury Department, 20 August 2004; for Asian Development Fund includes interest of 1% per annum during grace period.

^d At 0.75% per annum for the ordinary capital resources loan.

Source: Asian Development Bank estimates.

Table A9.2: Financing Plan by Expenditure Accounts
(\$'000)

Item	ADB OCR	ADB ADF	Central Government ^a	District Govts.	Beneficiaries-	Total
Investment Costs						
A. Consulting Services	9,122.5	9,122.5	1,700.0	0.0	0.0	19,945.1
B. Training Activities	5,382.7	5,382.7	3,023.7	4,186.7	0.0	17,975.9
C. Surveys, M&E	1,069.9	1,069.9	62.2	206.1	0.0	2,408.2
D. Management Support	0.0	0.0	4,130.4	1,239.5	0.0	5,369.9
E. Support Costs ^b	2,932.3	2,932.3	2,710.6	833.6	0.0	9,408.8
F. Vehicles ^c	0.0	0.0	137.4	739.9	0.0	877.3
G. WSS Facilities	11,219.1	11,219.1	0.0	3,116.4	5,609.5	31,164.1
Total Project Cost	29,726.5	29,726.5	11,764.3	10,322.2	5,609.5	87,149.1
Interest During Implementation	3,929.2	866.8	0.0	0.0	0.0	4,796.0
Commitment Charges	443.0	0.0	0.0	0.0	0.0	443.0
Total Disbursement	34,098.8	30,593.4	11,764.3	10,322.2	5,609.5	92,388.2

ADB = Asian Development Bank, ADF = Asian Development Fund, Govts. = governments, M&E = monitoring and evaluation, OCR = ordinary capital resources, WSS = water supply and sanitation.

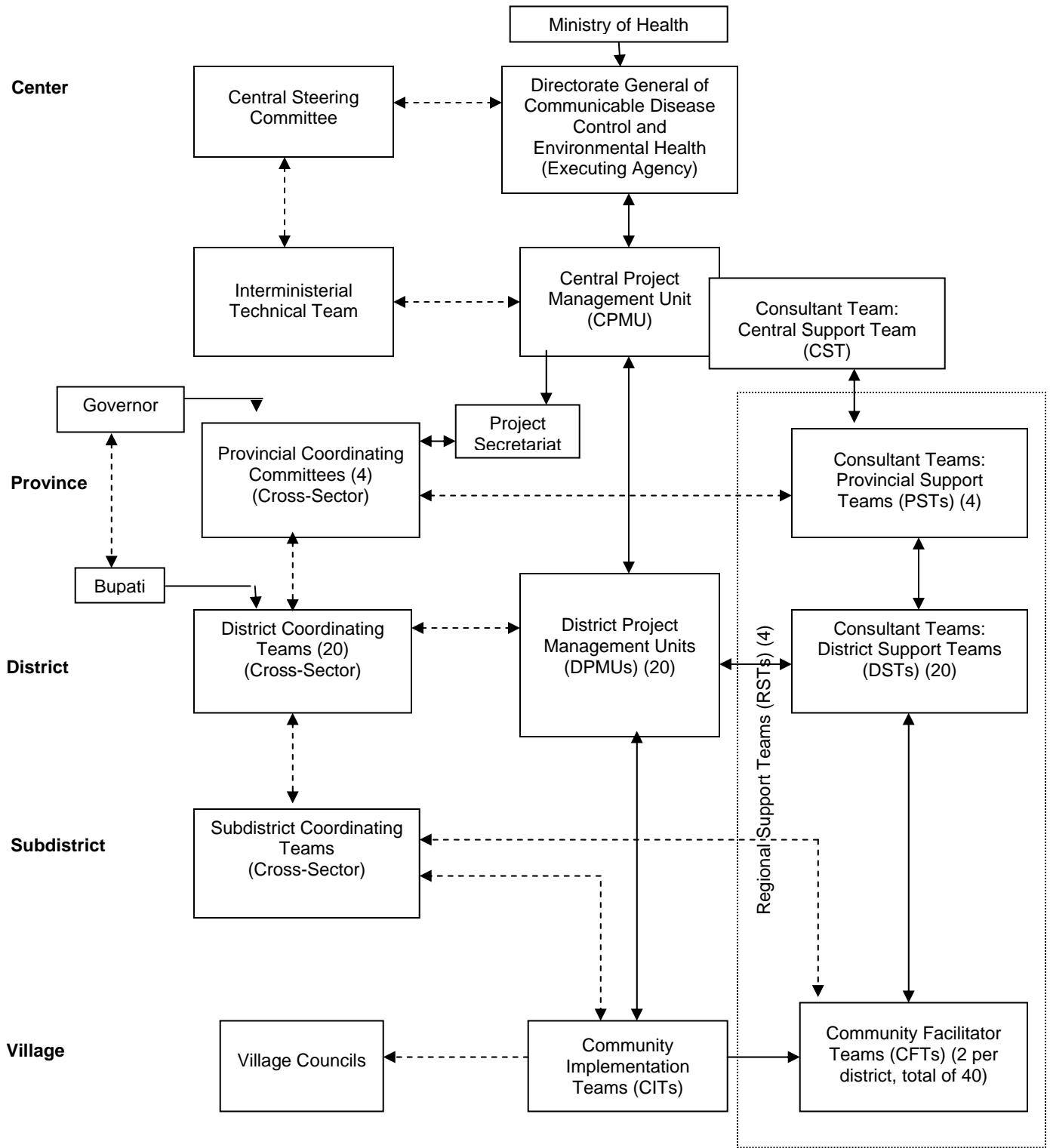
^a Includes provincial governments.

^b Includes computers, laboratory equipment, office operation, and travel and transportation costs.

^c Includes cars, motorcycles, and speed boats.

Source: Asian Development Bank estimates.

ORGANIZATION CHART



IMPLEMENTATION SCHEDULE

Description	2005				2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Centrally Managed Activities																								
Contract and Mobilize Central Support Team	■																							
Contract and Mobilize Regional Support Teams	■																							
Mobilize and Train Community Facilitators				■																				
Review/Develop Detailed Training Materials	■					■				■				■				■						
Baseline Survey			▲																					
Technical Support & Facilitation	■																							
Coordination of District Level Activities				■																				
Provincial Implementation Activities																								
Coordination	■																							
Environmental Training of CITs				■																				
District Level Implementation Activities																								
Local Government Capacity Building Activities				■																				
Technical Support and Facilitation				■																				
Community Level Implementation Activities																								
(in Batches by District)																								
Village Socialization and Formation of CITs				■																				
PHAST Activities, CAP Preparation and Approval				■																				
Procurement of Materials, Construction of WSS Facilities				■																				
SHBC Activities				■																				
Project Management																								
Project Performance Management System				■																				
Project Reporting				■																				
Project Review Missions	▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲	
Midterm Review Mission												▲												
Health Impact Evaluation Survey																					▲			
Project Completion Report																								▲

CAP=community action plan; CIT=community implementation team; PHAST=participatory hygiene and sanitation transformation; SHBC=behavioral change; WSS=water supply and sanitation.
 Source: Asian Development Bank.

CONTRACT PACKAGES

Element	Estimated Contracts (no.)	Implementing Unit	Mode of Procurement	Base Cost (\$ million)	Activities
Civil Works	1,000	CITs	CP	29.9	Construction of water supply and sanitation facilities (in about 1,000 villages)
Equipment	10	CPMU/PCC/DPMU ^a	IS/LCB/DP ^b	0.6	Office equipment for CPMU, provincial secretariats, and DPMUs ^c
	4	CPMU/PCC	IS/LCB/DP	1.7	Laboratory/water quality testing equipment for DPMUs
Publication Materials	10	CPMU	IS/LCB	1.5	Training modules for institutional capacity building, community mobilization/empowerment, and SHBC
Total	1,024			33.7	

CP = community-based procurement, CIT = community implementation team, CPMU = central project management unit, DP = direct purchase, DPMU = district project management unit, IS = international shopping, LCB = local competitive bidding.

^a For DPMU, direct purchase of additional equipment beyond the initial equipment packages only, with a limit of \$50,000.

^b For DP, three quotations required, except as the Asian Development Bank may otherwise agree.

^c Details on equipment packages are in the Project Administration Memorandum.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Contract Packages

1. The proposed consulting services will encompass a central support team (CST) for the Central Project Management Unit (CPMU), and regional support teams (including provincial support teams [PST], district support teams [DST], and community facilitator teams [CFT]). The CST will be contracted in one package, and there will be four regional support team packages comprising PSTs, DSTs and CFTs.¹

B. Terms of Reference for Central Support Team

2. The **Team Leader/Project Management Advisor** (international) will assist the CPMU in (i) recruitment of consultant packages, in accordance with ADB procedures; (ii) project orientation workshops for CPMU/DPMU staff and consultants; (iv) development of project work plans and coordination of CST consultants; (v) establishment of financial reporting system; (vi) development of budgets and schedules for project activities; (vii) field visits to project districts and communities to monitor planning and implementation; and (viii) development of quality control and administrative transparency guidelines for all project levels.

3. The **Deputy Team Leader for Management and Policy** (domestic) will work with the CPMU Project Manager and the CST Team Leader to (i) plan, manage, and monitor the day-to-day activities of the CST; (ii) work closely with the Institutional Capacity Strengthening and Training Specialist to assess the capacity and capability of local government agencies involved, and supervise and support training programs; (iv) work closely with all CST consultants (national and international) to regularly review and assess their individual work plans, coordinate their activities, and participate in their periodic performance evaluations.

4. The **Sanitation and Hygiene Behavioral Change (SHBC) Promotion and Training Specialists** (international and domestic) will (i) evaluate various ongoing government and external-funded SHBC/health promotion efforts and assess the related information and education campaign materials for the Project; (ii) coordinate project efforts with ongoing coalitions engaged in related campaign efforts; (iii) produce a package of materials with implementing instructions for districts, including on how to develop radio programs informing local populations of project efforts and to relay key campaign messages via radio call-in programs, interviews, jingles and local radio comedy; (iv) develop a set of curricula and training materials, including materials already in use; (v) review and adapt suitable materials into course outlines, guidelines, and training modules; and (vi) produce training guidelines and modules for district levels and community facilitation, and ensure that effective practices are incorporated into the training.

5. The **Rural Water Supply and Sanitation/Water Treatment Engineers** (international and domestic) will (i) assist the CPMU to compile project technical guidelines on informed choice of rural water supply and sanitation facilities; (ii) develop quality assurance and quality control procedures that can be easily monitored and managed at district level, and used by participating communities; (iv) develop course outlines for water supply and sanitation training modules, and provide assistance to the DPMUs in conducting technical project orientation and district-based training; (v) undertake a unit cost study, with regular updates; and (vi) review

¹ Details on these consultant packages are in the Project Administration Memorandum.

water treatment technologies and advise on appropriate and affordable technologies for difficult terrains (such as peat swamps).

6. The **Management Information System (MIS)/Monitoring and Evaluation (M&E) Advisor** (domestic) will (i) based on reviews of existing MIS and M&E programs and extensive field visits, design the Project's MIS/M&E program; (ii) develop and manage the production of periodic progress reports; (iii) monitor MIS/M&E program during implementation and revise appropriately; (iv) prepare terms of reference and manage implementation of contracting independent, local firms to undertake the baseline survey; (v) supervise and assist the process monitoring consultants in the districts; and (vi) plan and implement training on MIS/M&E procedures.

7. The **Institutional Capacity Strengthening and Training Specialist** (domestic) will (i) develop the quality management (QM) model for district governments; (ii) build the necessary support structures for the process of its implementation; (iii) advise other technical consultants, in particular on the PSTs, on human resource development matters; (iv) facilitate horizontal exchange and benchmarking between participating districts; (v) develop a knowledge management system for the Project; and (vi) establish links with relevant national and international institutions regarding QM and human resource development.

8. The **Environmental Training and Monitoring Specialist** (domestic) will (i) assist the Institutional Capacity Building Specialist in developing a training plan for capacity building activities to take into account the physical and social environment of each project area; (iii) budget for and manage the tendering, selection, contracting, and performance assessment of training provided by the provincial environmental agencies; (iv) ensure that all training activities appropriately address issues of sustainability and environment; (v) assess the operation of the environmental management and monitoring plans prepared by communities; (vi) make recommendations concerning the need for additional environmental studies when specific environmental screening reports are referred to CPMU and DPMU for further comment; and (vii) develop appropriate indicators to be integrated into the PPMS to adequately assess training activities, including environmental outcomes, and undertake training evaluations.

9. The **Media Specialist** (domestic) will (i) develop a communication strategy and program to improve health, hygiene and sanitation behavior among individuals, families, and the communities in the project area; (ii) assist with the development of district-specific mass media packages that can be implemented at district, subdistrict and village level; and (iii) develop a system for monitoring the communication program.

10. The **QA Specialist** (domestic) will (i) prepare QA procedures for review of outputs from consultants, stakeholder participation, and for each project component; (ii) prepare procedures for QA systems to include forms, filing, signing off, internal audits, and the need for higher level, independent audits; (iii) training of QA needs and transparent stakeholder participation; and (iv) liaise with media communication activities to ensure QA systems are incorporated.

11. The **Procurement and Contracting Specialist** (domestic) will (i) prepare the detailed agency estimates and requests for proposal for contracts to be bid out; (ii) prepare proposal evaluation guidelines and scoring sheets, and provide training in their use prior to actual proposal evaluation; (iii) propose options for procurement decentralization; (iv) develop quality assessment and control guidelines for procurement of consulting services, goods and materials, and civil works; (v) develop/improve community procurement procedures, especially for goods

and materials for construction and civil works; and (vi) identify procurement and contracting staffing requirements.

12. The **Accounting and Auditing Specialist** (domestic) will (i) establish the project accounting systems and procedures following Generally Accepted Accounting Principles (GAAP) and the financial conditions of the Loan Agreement; (ii) prepare quarterly project financial statements; (iii) review funding requests from the DPMUs and prepare CPMU's endorsement for the release of block grants to the CITs; (iv) design a computerized accounting and financial reporting system; (v) work with the Procurement Specialist to monitor the Project's procurement of goods and services; and (vi) design and conduct financial and procurement training.

13. The **Hydrogeologist** (domestic) will (i) assist water and sanitation engineers in PSTs, DSTs, and CFTs with assessments of rural water supply schemes involving groundwater development; (ii) conduct quantitative groundwater assessments to ascertain abstractions, groundwater recharge, water quality, and groundwater protection zones in and around target villages; (iii) develop modules and material for capacity building of local government staff in hydrogeology and groundwater; (iv) assess any ongoing water resource surveys, particularly concerning groundwater resources; and (vi) evaluate water resources planning.

14. The **Water Quality Monitoring and Treatment Specialist** (domestic) will (i) assist MOH with establishing laboratories or upgrading existing ones for drinking water quality surveillance; (ii) review and update technical manuals, training modules, and equipment standards; (iii) assist MOH with developing improvements in annual surveys of the condition of drinking water supply and sanitation facilities; and (vi) develop a water quality monitoring toolkit and teaching materials for schools.

15. The **Gender Specialist** (domestic) will (i) facilitate the implementation of the Gender Action Plan; (ii) assist the CPMU and DPMUs to develop and disseminate promotional materials, develop training programs, and initially train project staff, facilitators, and others in gender and development awareness training; (iii) review project components, preparation, implementation, and post-project activities to ensure that each step addresses gender concerns; (iv) help integrate gender modules into overall training programs; and (v) develop gender M&E indicators and processes to ensure that gender issues are properly addresses in all project activities.

C. Terms of Reference of Provincial Support Teams

16. The **Administration, Finance, and Monitoring Consultant** on each PST will take primary responsibility for all data collection and analysis related to the status of all project activities at provincial level and below. In particular, the consultant will (i) ensure that data is synthesized at provincial level meeting quality and timeliness criteria and transmitted to CPMU; (ii) organize training of district staff and CFTs in all aspects of impact and sustainability monitoring; (iii) together with DSTs, plan the training of CFTs in the monitoring and evaluation (M&E) system to be applied at community level, and assist provincial and district level in the implementation; and (iv) train office staff at provincial and district levels in the use of M&E computer programs.

17. The **Water, Sanitation, and Water Quality Engineer** on each PST will (i) assist DSTs and CFTs to apply project technical guidelines and quality assurance and control procedures on informed choice of facilities; (ii) carry out periodic M&E of schemes under implementation

(iii) review DPMU budget proposals during each budget cycle; (iv) provide assistance to DPMU in conducting technical project orientation and district training related to water and sanitation; (v) assist with periodic unit cost studies; and (vi) make frequent monitoring and supervision trips to assess the status of physical project implementation and the quality of CFT support.

18. The **Institutional Capacity Strengthening and Training Specialist** of each PST will (i) provide consulting assistance to the processes of introduction of QM in the districts; (ii) facilitating horizontal learning and benchmarking in the districts; and (iii) synthesize and report back on the experience from the QM processes in the districts to the national level.

D. Terms of Reference of District Support Teams

19. The **Community Development Specialist** on each DST will (i) ensure effective community self-organization, with appropriate consideration to active participation of all local community members; (ii) socialize the goals, objectives, and mechanisms of the Project to the target communities in the assigned work area; (iii) facilitate, monitor, and supervise identification of community needs, and formulation and implementation of the CAP; (iv) ensure effective monitoring of project activities as well as social control of CIT by the community; (v) manage CFTs including training, knowledge-sharing, supervision, performance evaluation, and replacement of nonperforming facilitators; (vi) conduct regular meetings between DST and CFTs; and (vii) assist the Gender Specialist in the implementation, monitoring, and supervision of district GAPs.

20. The **Water, Sanitation Engineering and Quality Control Specialist** on each DST will (i) assist the CFTs in applying technical guidelines on informed choice of facilities; (ii) carry out periodic M&E of schemes under implementation; (iii) review DPMU budget proposals during each budget cycle; (iv) provide assistance to DPMU in conducting technical project orientation and district training related to water and sanitation; (v) assist with periodic unit cost studies; and (vi) make frequent monitoring and supervision trips to assess the status of physical project implementation and the quality of CFT support.

21. The **SHBC Specialist** on each DST will work closely with the National SHBC Specialist to (i) define an appropriate package of IEC materials and activities for the school health program, and for training and support given to women's groups in local communities; (ii) work closely with the local primary school teachers and women's groups, and providing guidance and support to the CFTs.

E. Terms of Reference of Community Facilitator Teams

22. CFTs, consisting of one senior facilitator, and two field facilitators, will be recruited, trained, and deployed by the respective DST, for every five target villages. Facilitators, as the primary interface of the Project with the community, will (i) conduct project socialization; (ii) assist in community participatory rapid appraisal of hygiene, sanitation, and water problems and solutions; (iii) assist in the CIT formation; (iv) assist communities and CITs in preparing the CAP; and (v) monitor implementation progress, reporting monthly in the project performance monitoring system, for each of their assigned villages.

23. Facilitators will have three specializations: (i) water supply and sanitation engineering, (ii) health and hygiene promotion, and (iii) community mobilization. Facilitators will be under the direction and supervision of the senior coordinating facilitator, who in turn is directly responsible to the district coordinator assigned by the DST.

EMERGENCY ASSISTANCE GRANT

1. To help restore and improve access to water supply and sanitation facilities for the rural population in Aceh and Nias-North Sumatra affected by the tsunami disaster, it is proposed to provide an emergency assistance grant for these provinces. The emergency assistance grant will be administered directly by the Asian Development Bank (ADB) and funded by the Government of the United Kingdom, the Government of Canada, and the Government of the Netherlands. About five districts and 500 villages will be covered by the grant over a period of 4 years. Activities under this grant will contain elements of the rehabilitation and reconstruction phases outlined by the Government.¹ The total cost of the grant is estimated to be \$16.5 million equivalent, comprising \$1.3 million (7.7%) in foreign exchange cost and \$15.2 million (92.3%) equivalent in local currency cost. A summary of cost estimates is in Table A14 below.

Table A14: Estimated Costs by Component
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Rehabilitation Phase			
Support for Health Offices in Water and Sanitation Service Rehabilitation, and Health and Hygiene Promotion ^a	0.00	1,019.00	1,019.00
NGO/Community Facilitator Recruitment and Training	0.00	267.00	267.00
CDC Activities (ORT, Diseases Screening and Surveillance)	0.00	829.00	829.00
IEC Campaigns on Waterborne and Water-Related Communicable Diseases, and SHBC Programs ^b	0.00	412.00	412.00
Rehabilitation ore replacement of WSS Facilities	108.00	972.00	1,080.00
Project Management Support ^c	57.00	1,088.00	1,145.00
Subtotal (A)	165.00	4,588.00	4,753.00
B. Reconstruction Phase^d			
Local Government Capacity Building	0.00	69.00	69.00
Community Empowerment	0.00	566.00	566.00
Construction of Water Supply and Sanitation Facilities	1,040.00	9,360.00	10,400.00
Subtotal (B)	1,040.00	9,995.00	11,035.00
C. Contingencies			
Physical Contingencies ^e	56.00	500.00	556.00
Price Contingencies	12.00	146.00	158.00
Subtotal (C)	68.00	646.00	713.00
Total	1,273.00	15,228.00	16,501.00
%	7.7	92.3	100.0

CDC = communicable disease control; IEC = information, education, and communication; ORT = oral rehydration therapy; SHBC = sanitation and hygiene behavioral change; WSS = water supply and sanitation.

^a Includes consultant expertise training costs, and office operation costs.

^b Extends over rehabilitation and reconstruction phases.

^c Includes materials and equipment costs, and extends over rehabilitation and reconstruction phases.

^d Each component includes training, awareness and promotion campaigns, consulting services, and monitoring and supervision costs.

^e At 5% for materials, equipment, and civil works.

Source: Asian Development Bank estimates.

¹ A detailed description is in Supplementary Appendix K and in the Grant Agreement with the Government of Indonesia.

2. Implementation arrangements for this emergency grant will be finalized during implementation, which is acceptable under ADB's *Disaster and Emergency Policy*. Initial implementation arrangements envisage a domestic Aceh Coordinator, seconded by an international adviser and a procurement specialist, to be placed with the Central Project Management Unit of the Project at the Ministry of Health. It is estimated that around 8 person-months of international and 408 person-months of domestic consulting services will be needed to support the Central, Provincial, and District Project Management Units. In addition, suitable NGOs and/or individuals will be contracted as community facilitators to be placed at subdistrict and village level.

3. Following project "road shows" in districts and subdistricts, village representatives will be able to directly hand in a simple application form. Village selection will be based on priority criteria such as the extent of damage from the earthquake or the tsunami, the number of IDPs taken in, and health and technical factors (such as percentage of households with access to water and latrines, water quality standards, and prevalence rates for diarrhea among children under age 5, among others).

4. Villages who have applied will be visited by the community facilitators to conduct a participatory rapid appraisal, which will be the basis for a rapid community action plan (CAP). Communities will receive a block grant of maximum Rp200 million for the investments.² Cash contributions of 4% of the total block grant as implemented in the other project provinces will be waived; in-kind contribution in the form of labor or material input will be strongly encouraged, with adequate cash remuneration to help restore livelihoods. Latrine construction will be subsidized for up to 80% of the village population to ensure adequate sanitation coverage.³ As in the other project provinces, communities will be fully in charge of the continuous operation and maintenance costs of the facilities provided. However, in severely affected villages, operation and maintenance cost responsibility may be phased in after an initial period of 1 to 1 ½ years during which the grant would cover these.

5. In order to provide a rapid response to the natural disaster, community facilitators from Aceh and Nias-North Sumatra will be trained while villages are enrolling, using a mentoring and on-the-job training approach through an experienced NGO from elsewhere in the country who will provide field team facilitators for each district and will develop the first 10 rapid CAPs for funding in 2005. The community facilitator teams will have the same composition as in the other project provinces, and will receive further stages of training during the life of the grant. While basic approaches to participatory planning will be used for identification of technologies and strategies for implementation, this approach will be modified during the rehabilitation phase to encourage a rapid response to those areas affected by the disaster. During the reconstruction phase, the development of CAPs will be staged to be more in line with the guidelines for the other project provinces.

² The block grant ceiling may be adjusted depending on the average size of villages to be included, which can only be assessed during project implementation.

³ For comparison, in the original project provinces, the subsidy is for the poorest 10% of households per village only. The sanitation subsidy program will be designed in a way to maximize village sanitation coverage.

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the sector identified as a national priority in country poverty partnership agreement?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Contribution of the sector or subsector to reduce poverty in Indonesia: Access to a reliable supply of clean water is a major problem for poor rural households. Community planned, implemented, operated, and maintained water services improve sanitation and health of residents, increase work productivity, improve livelihood security, and provide opportunities for sustainable livelihood development for poor rural families. These contributions are in line with the poverty partnership agreement (2001–2004) signed by the Government and the Asian Development Bank (ADB), which emphasizes increasing the productivity of the poor through empowerment, development of infrastructure (especially in rural and remote areas), and human resource development by improving access to and quality of basic services of the poor and in remote areas. It is also in line with the ADB Country Strategy and Program (CSP) Update (2004–2006) with its focus on strengthening institutions that govern the poor, supporting sustainable pro-poor growth, promoting balanced regional equity focusing on rural and isolated area development, investment in human and social development and strengthening environmental management to ensure sustainable use of natural resources.</p>			

B. Poverty Analysis

Targeting Classification: Targeted Intervention

What type of poverty analysis is needed?

The Project will provide access to reliable water supply and improved practices in sanitation and hygiene to some of the poorest and most underserved areas in the country. The 20 target districts contain a total population of around 6 million people of whom about 1 million were below the official poverty line in 2002. However, many more people in these districts have incomes close to the poverty line. Due to seasonal demands for labor, family illnesses, fluctuating prices, or other external shocks, they can be expected to move in and out of poverty over the course of the Project, and would be just as unable to accumulate sufficient savings to meet needs for water and sanitation on their own as the officially poor.

Access to safe water and sanitation is low in the target provinces compared to national averages, especially among the poor. Among the poorest quintile access to clean water is less than 25% (compared to 54% among the richest quintile) and barely 10% have access to toilet facilities and/or septic tanks (compared to closer to half of the richest quintile). Based on the high proportions of poor and near-poor households in the target districts and given the Project's focus on the poorest locations with highest levels of unmet need (Appendix 5), the incidence of poverty among project beneficiaries will be well over 50%. Access to safe, reliable, water and sanitation facilities will help reduce poverty in these districts in a number of ways. Improved access will translate into less time and effort spent on obtaining good quality water, freeing up time for income-generating activities. Better quality water and access to improved sanitation will reduce the incidence and severity of waterborne and water-related diseases, leading to a reduction in sick days and health-related expenditures. This is expected to lead to improved levels of social welfare, and to facilitate efforts to improve economic welfare of beneficiaries that are beyond the specific scope of the Project.

C. Participation Process

Is there a stakeholder analysis?

Yes No

Is there a participation strategy?

Yes No

The participation strategy for activities supported by the Project will focus on empowering people, especially poor families, women, women-headed households, and other vulnerable groups in communities with significant problems of access to clean water supply and sanitation facilities and of related health problems due to poor sanitation and hygiene behavior. This will be accomplished through intensive community consultations, and the creation of community implementation teams, which will include representatives of the poor and women. District government technical staff and trained community facilitators will use Participatory Hygiene and Sanitation Transformation (PHAST) techniques to assist in the creation and strengthening of these teams. The teams will be responsible for (i) analyzing their own situation in terms of water, sanitation, and hygiene behavior affecting health; (ii) formulating community actions plans as the basis for project investments; (iii) participating in the implementation and monitoring; and (iv) undertaking continuous maintenance and operation activities in a participatory manner, with adequate cost sharing among all community members involved.

D. Gender Development

Strategy to maximize impacts on women:

The gender and development strategy will include various steps (including PHAST techniques) to enhance women's access to information, participation in water service, sanitation, and hygiene behavioral change activities, and their ability to protect their interests and improve their livelihoods. Through gender sensitization, use of gender-disaggregated data, and gender analyses in the water and health development planning, awareness about gender and development issues will be created among the local government staff as well as in community groups and among service providers. Where they are active, the project will seek to actively involve existing women's groups or organizations in the project structure.

Has an output been prepared? Yes (Appendix 9) No

E. Social Safeguards and Other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	Past experience with similar projects suggests that subprojects can be designed in a way that no physical relocation is required. However, many subprojects are likely to involve minor local land, right-of-way, or asset acquisition. This will be governed under the procedures outlined in the Land Acquisition and Resettlement Framework (Appendix 18) prepared for the Project.	<input type="checkbox"/> Full <input checked="" type="checkbox"/> Short (Appendix 18) <input type="checkbox"/> None
Affordability	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	The project design is based on experiences regarding affordability and cost-recovery, which have proven to be successful. When allowed to make their own choice, communities tend to chose water and sanitation systems that are within their overall affordability limits. Additional safeguards are in place to protect access of the poorest in project communities through targeted subsidies.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Labor	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	No disruption to existing patterns of economic activity is anticipated. Subproject participants will voluntarily contribute their own labor and cash for community planned, constructed, and maintained water services and health activities.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Indigenous Peoples	<input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	In all project provinces there are likely to be participating communities with distinct ethnic identities. Indigenous peoples' (IP) risks are expected to generally be minor due to the community-driven, participatory approach of the Project, which requires adequate representation of marginal groups on the community implementation team. Where significant IP presence is identified, the procedures outlined in the Indigenous Peoples' Development Framework (Appendix 8) will be followed.	<input checked="" type="checkbox"/> Yes (Appendix 8) <input type="checkbox"/> No
Other Risks and/or Vulnerabilities:	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	Governance is a risk in highly decentralized projects involving a large number of small-scale procurement activities. This will be addressed through specific measures outlined in para. 30 of the main text and the Project Administration Memorandum.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

SUMMARY INITIAL ENVIRONMENTAL EXAMINATION

A. Introduction

1. An initial environmental examination (IEE) for 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. The Project is classified as environmental category B. IEEs for four pilot subprojects were carried out during the project preparatory technical assistance, and a summary of these is in Supplementary Appendix D. The IEE was prepared based on meetings held with provincial- and district-level environmental agencies, reports by relevant government agencies, and Asian Development Bank (ADB) mission findings, and is in accordance with ADB's *Environment Policy* (2002) and applicable environmental legislation and regulations of the Government of Indonesia.

B. Description of the Project and Environment

2. The Project will provide rural water supply and sanitation facilities and services to about 1,000 communities in 20 districts in the provinces of West Kalimantan, Central Kalimantan, Jambi, and Bengkulu. Following a demand-driven, community-based approach, the Project will provide an estimated 1.2 million people with safe drinking water, of which about 0.6 million will also benefit from improved sanitation facilities. The Project will also facilitate capacity building of local governments and the communities themselves, and raise awareness on appropriate sanitation and hygiene behavior to maximize the investment impact.

3. Except for Bengkulu, all project provinces have a distinct dry season which varies from 2 to 5 months and enjoy comparatively high annual rainfall compared to other regions of Indonesia, i.e., 1,500 millimeters (mm) to 3,400 mm. Water resources are generally abundant in the wet season but extreme water shortages are common during the dry season. Water quality is particularly poor in Central Kalimantan during the dry season due to a combination of naturally acidic soils, and poorly-planned developments in the past involving broad-scale clearing of forest, which has in some cases led to exposure of acid-sulfate deposits. Much of the abundant river water in these areas is only usable during the wet season. There is high reliance on purchasing bottled water for drinking and cooking purposes in Central Kalimantan and Jambi. Bengkulu has a much shorter dry season and relatively good quality water.

4. All four provinces have had relatively small populations due to a lack of development until recent times. Growth rates in the past 10 years have been relatively high compared to Indonesia as a whole due to transmigration. Kalimantan stands out as being particularly environmentally sensitive. The island has high species richness, particularly for plants, fish, amphibians, reptiles, and invertebrates compared to Sumatra and other islands. At the same time, it lacks the fertile volcanic soils, which are the basis for Java's agricultural productivity. Reflecting the paucity of suitable areas for intensive cultivation, Kalimantan's population is clustered on the more fertile alluvial plains, mostly along the rivers and around the coast. The lack of viable development opportunities will make it more difficult to find adequate and affordable water and sanitation improvement solutions for these areas.

5. In Bengkulu and Jambi, some of the targeted districts include or adjoin fragile and sensitive "protected areas" in the Kerinci Seblat National Park, which stretches over two other provinces in Sumatra. The natural ecological communities of the Kerinci Seblat area are of outstanding biodiversity significance. The biodiversity value of the Kerinci Seblat area is considered to be threatened by any reduction in park area, and by a host of development

pressures such as access proposals, encroachment for shifting cultivation and cinnamon plantations, and logging in the lowland forests.

C. Potential Environmental Impacts and Mitigation Measures

6. Potential impacts of the Project and recommended mitigation measures are indicated in Table A16 below. The recommended measures are simple and easy to integrate in the feasibility and detailed engineering design studies.

Table A16: Environmental Impacts and Recommended Mitigation Measures

Impacts	Recommended Mitigation Measures
<p>Environmental Impacts due to Location:</p> <ul style="list-style-type: none"> Potential water sources may not meet basic water quality standards due to geological or other conditions 	<ul style="list-style-type: none"> Where feasible, water treatment at source or household level Where treatment is not possible (i.e., due to mercury poisoning), water sources will not be tapped
<p>Environmental Impacts due to Design:</p> <ul style="list-style-type: none"> Overextraction of water resources, resulting in lowering of the groundwater table; increasing pumping costs; surface subsidence; and deterioration of roads, buildings, and pipelines Pollution of groundwater resources through infiltration from pit latrines and overflow from septic tanks 	<ul style="list-style-type: none"> Regulation of groundwater extraction to maintain a level less than or equal to the recharge rate Land use and land management/development controls in recharge area; management of human and industrial waste disposal procedures; watertight casing for groundwater wells; minimum distance of 10–15 meters between groundwater intake and nearest source of pollution; construction of dug wells and infiltration galleries in straight line across the direction of groundwater flow; ground surface around platform sloping away from well for good drainage
<p>Environmental Impacts due to Construction:</p> <ul style="list-style-type: none"> Hazards to workers and nearby residents from emissions of dust, fumes, noise and vibrations 	<ul style="list-style-type: none"> Since construction impacts will be of small scale and localized, use standard operating procedures of the Ministry of Public Works as an attachment to any formal construction contract If works are being carried out by communities themselves, provide adequate capacity building on water resource conservation, water quality, and general environmental awareness through training package

Source: Asian Development Bank.

D. Institutional Requirements and Environmental Management System

7. The responsibility for implementation of the Indonesian Environmental Impact Management System (AMDAL) has recently been decentralized. According to Ministry of Environment Decree No. 17/2001, water supply projects require a full environmental impact assessment if they involve extraction of more than 250 liters per second (l/s). For projects with lower extraction, which would apply to all subprojects under the Project, it is necessary to prepare a brief summary including a checklist and management plan with proposed environmental measures to overcome any potential environmental impacts. Given the limited capability of environmental agencies at the district level, an environmental training program will

be carried out by provincial environmental agencies.¹ The training program will cover a 2-day workshop for targeted communities and will involve a general introduction to potential environmental issues that communities may face during planning, design, and implementation of subprojects (catchment protection, impacts of illegal logging and mining, etc.), and how to comply with the simplified environmental checklist and management and monitoring plan to satisfy the AMDAL procedures and to ensure that communities understand their responsibilities in terms of subproject sustainability.

8. Villages submitting an expression of interest will be prescreened for sustainability considerations, based on a proposed screening checklist. The screening will identify the subproject type, scale, location, sensitivity, and the nature and magnitude of potential impacts.² If the economic development opportunities of a village are limited, and there are also severe local environment constraints regarding further water resource exploitation, investment in that particular village would face serious sustainability issues beyond the life of the Project and will thus not be pursued. The community facilitators will need to ensure that such villages will be screened out before submitting a letter of intent or a Community Action Plan (CAP).

9. To ensure that the Project takes full account of its environmental responsibilities, an environmental protocol has been prepared in draft form. Community facilitators will assist villages in the preparation of a standard environmental management and monitoring plan as part of the CAP. The standard format will include a description of the activities proposed, and compliance with any applicable guidelines on environmental impacts. All CAPs will be reviewed at the district level for their feasibility, technical soundness, and compliance with guidelines before they are considered for project financing.

10. Compliance with the individual environmental management and monitoring plan will be periodically checked by the community facilitators, and the districts will aggregate and review environmental reports and flag them in their quarterly reports. The CPMU will flag them in their reports to ADB.

E. Public Consultation and Information Disclosure

11. Public consultation is an inherent part of the Project as it is based on the principle that communities develop their own solutions to water supply, sanitation, and health. Community workshops, the socioeconomic and health survey, and the technical survey conducted by the project preparatory technical assistance indicated the technical options preferred by the community. During project implementation, each CAP will be publicly displayed and discussed in the village so that all stakeholders have ample opportunities to understand and discuss these proposals and impacts.

F. Conformity of Environmental Assessment and Review Procedures with ADB's Environmental and Social Safeguard Policies

12. 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 project monitoring will be carried out during the project implementation to ensure that the guidelines and environmental management system are adhered to.

¹ In three of the four project provinces, this agency is referred to as Bapeldalda.

² An environmental screening checklist has been developed and is in the Project Administration Memorandum.

ECONOMIC ANALYSIS

A. Introduction

1. For this Project, a simplified approach for the economic assessment of rural water supply projects has been developed with the Economics and Research Department of the Asian Development Bank (ADB). The approach focuses on time savings as the key indicator of benefits accruing from rural water supply projects. The purpose is to provide a criterion that can easily be applied by district staff responsible for the selection of village subprojects and that, if met, provides an assurance that the village-level schemes to be constructed would meet the normal tests of financial and economic viability. The proposed criterion is equivalent to requiring each subproject to have an economic internal rate of return (EIRR) greater than 12%. The EIRR for the sum of all water supply facilities would therefore also be greater than 12%. No overall EIRR has been calculated separately for the whole Project.

B. Time Savings Benefits

2. One of the most important measurable benefits of improved water supply systems in project villages are the time savings that accrue to households because they no longer have to travel so far to water sources. At present, households travel considerable distances to water sources for drinking, cooking, and other in-house uses, especially in the dry season. Activities requiring larger amounts of water, such as bathing and washing laundry, are carried out at the water source. With project implementation, the greater ease of access to water is likely to increase the consumption of water at the house and reduce the consumption at source, although where households still have to carry water, some bathing and washing will continue to take place at source rather than at the house.

3. From the household surveys carried out for the preparation of the initial four subproject appraisal reports,¹ data are available on water consumption at the house. This is based on information about the number of water collecting trips made each day by members of the household and the average quantity of water carried on each trip. The data excludes consumption from tap connections and rainwater since there was no way of measuring it.

4. Table A17.1 shows the household and per capita² water consumption in the surveyed villages, averaged by province and across the whole sample. The data are weighted averages of wet and dry season consumption. In-house consumption has been normalized to include an estimate for tap and rain water, based on the average of consumption from other sources. The survey provides no data on the actual amount of water consumed outside the house but a level of twice in-house consumption is probably a good average, based on knowledge of water use practices elsewhere in the country, in order to give an estimate of total water consumption. Based on this, the average per capita consumption of water in the four project provinces is around 45 liters per capita per day (lpcd).

¹ The surveys conducted in each province covered three villages each in the districts of Landak, Kapuas, Tanjung Jabung Barat, and Bengkulu Utara.

² Per capita estimates are based on average household size per province, ranging from 5.4 in West Kalimantan to 4.4 in Jambi.

Table A17.1: Household Consumption of Water

District	Liters per Household per Day			Liters per Capita per Day		
	In House	Outside House	Total	In House	Outside House	Total
Landak	66.3	133	199	12.3	25	37
Kapuas	108.5	217	325	23.6	47	71
Tanjung Jabung Barat	52.1	104	156	11.8	24	36
Bengkulu Utara	63.4	127	190	12.9	26	39
Average	72.6	145	218	15.2	30	45

Source: Project preparatory technical assistance household survey.

5. Table A17.2 shows average collection times, waiting times, and distances traveled to sources for each district. These are daily totals, including multiple trips to collect water. The distances and times are weighted averages of dry season and wet season data. The table shows that, on average, a household will spend about 8.8 minutes collecting water each day for every 50 meters to the source (or for every 100 meters of the round trip).³

Table A17.2: Water Collection per Household per Day

District	Collection Time (minutes)	Waiting Time (minutes)	Carrying Distance (meters)	Collection Speed (kilometers/hour)
Landak	19.8	1.0	544	1.65
Kapuas	27.6	17.2	504	1.10
Tanjung Jabung Barat	19.0	10.8	221	0.70
Bengkulu Utara	104.5	1.7	681	0.39
Average	42.7	7.7	487	0.68

Note: Times and distances are totals per household per day. Most households make several trips per day to sources. Source: Project preparatory technical assistance household survey; sample averages.

6. The project preparatory technical assistance identified nine technical options for water supply projects, covering piped and nonpiped systems. Capital and operation and maintenance (O&M) costs have been estimated for various system capacity levels. Capital costs per household range from Rp300,000 for a well with hand pump to Rp3.6 million for abstraction from a river with slow sand filter treatment. O&M costs start under Rp1,000 per household per month but are significantly higher for the more sophisticated systems built for relatively small numbers of households.

7. Communities will be responsible for selecting the water supply system that best suits their needs. Costs for both construction and O&M will be a significant factor contributing to their decisions. The application of the economic criterion described below will identify the least-cost option for each village. However, villages can opt for a higher-level system that costs more as long as they agree to shoulder the additional costs.

8. An investment is economically justified if the annual net benefits exceed the annualized costs of the investment—i.e., if it has positive net present value. Supplementary Appendix C shows that under certain conditions, this condition is met if the daily time cost savings are greater than the annualized capital costs per day plus the daily O&M costs. The criterion can also be expressed in terms of time savings and costs per trip. This criterion must be met by each of the proposed village water supply systems.

³ Based on the average collection speed of 0.68 kilometers (km)/hour, which translates into 11.3 meters (m)/minute, thus $100 \text{ m}/11.3 = 8.8$.

9. The economic analysis is based on an asset life of 15 years for all technical options. The domestic price numeraire is used, with a shadow exchange rate factor of 1.11 applied to the foreign exchange portion of costs (mostly pumps) and a standard wage rate factor of 0.8 for unskilled labor costs. Local material costs are not adjusted.

10. The criterion has been applied to the 12 villages surveyed for the original four subproject appraisal reports. These villages represent a wide range of situations. The two tables below show the results of applying the economic criterion for two different system options: (i) a spring source with gravity supply (Table A17.3) and (ii) shallow wells with hand pumps (Table A17.4). When an option meets the economic criterion for a particular village, this is equivalent to it having an EIRR greater than 12% for that case.

Table A17.3: Results of the Economic Test for Spring Source with Gravity Supply

Village	No. of Households	Daily Capital (Rp)	Daily Operation and Maintenance (Rp)	Total Cost/Trip (hours)	Carrying Time/Trip (hours)	Pass Test
Jangkang	387	16,047	23,748	0.019	0.019	No
G-5 Manggala Permai	188	12,209	20,954	0.154	0.500	Yes
Batanjung	459	16,047	23,748	0.084	0.000	No
Kerohok	223	10,466	20,954	0.063	0.038	No
Darit	661	18,840	29,336	0.041	0.065	Yes
Sekendal	630	18,840	29,336	0.020	0.023	Yes
Pulau Pauh	240	3,086	20,954	0.022	0.017	No
Tanjung Sayas	205	3,086	20,954	0.028	0.021	No
Betara Kiri	1026	5,556	29,336	0.031	0.285	Yes
Suka Merindu	156	3,409	20,954	0.018	0.022	Yes
Marga Sakti	1891	8,280	8,280	0.002	0.000	No
Talang Rasau	443	4,481	23,748	0.006	0.016	Yes

Note: Total cost/trip (hours) is derived from daily capital and daily operation and maintenance by dividing by the economic opportunity cost per hour of carrying water.

Source: Project preparatory technical assistance household survey estimates.

11. For each of these options there is one village (Jangkang for Option 1, Pulau Pauh for Option 2), which only just fails to meet the economic criterion. These are cases where including consideration of other external benefits, such as potential health benefits (see para. 13 below), can justify acceptance of the respective water supply schemes.

Table A17.4: Results of the Economic Test for Shallow Wells with Hand Pumps

Village	No. of Households	Daily Capital (Rp)	Daily Operation and Maintenance (Rp)	Total Cost/Trip (hours)	Carrying Time/Trip (hours)	Pass Test
Jangkang	387	4,050	10,812	0.010	0.012	Yes
G-5 Manggala Permai	188	1,967	5,252	0.047	0.674	Yes
Batanjung	459	4,804	12,824	0.054	0.000	No
Kerohok	223	2,001	6,230	0.024	0.038	Yes
Darit	661	5,930	18,467	0.031	0.084	Yes
Sekendal	630	5,652	17,601	0.014	0.022	Yes
Pulau Pauh	240	635	6,705	0.010	0.010	No
Tanjung Sayas	205	542	5,727	0.011	0.012	Yes
Betara Kiri	1026	2,714	28,665	0.037	0.351	Yes
Suka Merindu	156	456	4,358	0.005	0.018	Yes
Marga Sakti	1891	5,526	52,832	0.003	0.000	No
Talang Rasau	443	1,295	12,377	0.004	0.007	Yes

Note: Total cost/trip (hours) is calculated as in Table A17.3.

Source: Project preparatory technical assistance household survey estimates.

C. Other Quantifiable Benefits

12. **Incremental Water.** The analysis of water supply projects usually makes a distinction between incremental water (the additional water provided by the project) and nonincremental water (the water provided by the project that replaces preproject consumption from other sources). The volume of incremental water in project villages will depend on present total consumption levels (including consumption both at the house and at source) and the technical option selected by villages for implementation. Comparing the household survey data with expected per capita with project consumption levels, it appears that incremental at-the-house consumption is likely to be in the range of 10-40 lpcd. The economic test takes into account all future in-house consumption, both nonincremental and incremental, and values all in proportion to the cost and time savings of the new water source.

13. **Health.** Access to improved water supplies will have a beneficial effect on community health by reducing the incidence of waterborne and water-related diseases. More water consumption at the house will help households maintain better sanitary and hygiene conditions in their dwellings. Where new, unpolluted water sources will be tapped, or where filter units at source or at household level will be installed, the quality of the water provided will also increase significantly, thus reducing the risk of consuming contaminated water. Polluted water causes diarrhea, which has a drastic impact on child morbidity and mortality, and on child growth and intellectual development over the long term. With lower levels of these diseases, households will lose fewer days of work (or education for children) to ill health. Achieving these benefits depends not only on the new water supply systems but also on changing individual and household behavior and practices, and they therefore accrue in a less certain manner than financial benefits or time savings. Health benefits are not included among the benefits counted for the simplified economic analysis but should be in marginal cases as mentioned above.

14. **Sanitation.** The adoption of improved sanitation facilities will add to the health benefits of subprojects. For assessing the subprojects, these additional benefits are not considered separately from the health benefits.

D. Application of the Simplified Economic Assessment for Subprojects

15. To apply the economic criterion for the selection water supply schemes for villages under the Project, it is only necessary that a survey be implemented in each candidate village in order to estimate the average current in-house consumption per household per day, average distance to water sources, average number of trips per day per household, average time spent collecting water per day, and average time spent waiting at source for water. Together with the design criteria for the scheme, which will provide an estimate of the future collection distance and future waiting time for water at source, this is sufficient to determine time cost savings. Sample survey sizes for each village should be 20% for villages with less than 100 households; 10% for villages of 100–300 households; and 5% for villages with more than 300 households.

16. Capital and O&M costs for each option have been calculated during the project preparatory technical assistance and are in Supplementary Appendix C. The annualized costs depend also on the life of the Project, the opportunity cost of capital, and the annual growth rate of benefits (for which the annual growth rate of population is used as a proxy). The opportunity cost of capital and project life are the same for all villages. Population growth rates are available for each district. Thus annualized capital costs are constant across all the villages in each district. These have been estimated and can be provided to district staff to facilitate their application of the economic criterion.⁴

E. Willingness and Capacity to Pay, and Poverty Impacts

17. In the 12 villages surveyed, 90% of households expressed a readiness to pay for water. Average willingness to pay (WTP) for a household connection varied from Rp30,000 to Rp134,000. Comparing the average WTP on a monthly basis with O&M costs suggests that most villages would be able to find affordable options, at least as far as O&M costs are concerned, and bearing in mind that at least part of the O&M costs would be provided in kind rather than in cash. Only a few options have monthly O&M costs greater than Rp5,000 per household. Higher levels of O&M are associated with smaller systems and with pumping rather than gravity flow for piped systems. Sustainability will depend in part upon ensuring that villages select a technical option that is affordable for them to maintain.

18. To facilitate participation by poor households, the expected monthly O&M charge for each household should not be greater than 5% of income for poor households. Since there are no published data available on actual incomes of different groups at village level, the simplest way to apply this criterion is to identify the scale of system for the proposed options above under which the criterion is likely to be met in most circumstances. For example, piped systems for 300 households or less should include public hydrants for poor households, river abstraction with slow sand filter treatment and piped distribution should not be set up for more than 300 households, deep wells with public hydrant should serve at least 150 households in poor and very poor areas, and shallow wells with hand pumps should serve at least five households per well for poor and very poor households. Estimates of O&M costs as a percentage of poor household income are shown in Supplementary Appendix C.

⁴ A step-by-step explanation for district staff applying the test for the economic criterion is provided in Attachment 5 to Supplementary Appendix C.

LAND ACQUISITION AND RESETTLEMENT FRAMEWORK

A. Background

1. The Project provides support for community-led efforts in water supply and sanitation in subproject schemes through an intensive community-based participatory process. Of the 20 project districts, none will require any resettlement, but all will require minor land right-of-way and asset acquisition. Measures have been incorporated in the project design to adequately address land acquisition and resettlement (LAR) during the course of project implementation.

B. General Policy

2. LAR issues will be handled in accordance with national law and relevant Asian Development Bank (ADB) policies. ADB's involuntary resettlement policy (as detailed in the *ADB Handbook on Resettlement: A Guide to Good Practice*) requires loan financed projects to prepare (i) a compensation policy framework and procedural guidelines (CPFPG) for the subprojects, (ii) an initial poverty and social assessment for each subproject indicating the magnitude of LAR impacts, and (iii) land acquisition and resettlement plans (LARPs) for each subproject whose initial poverty and social assessment indicates significant LAR impacts.

C. Compensation Policy Framework and Procedural Guidelines

3. The CPFPG reflects the main LAR preparation and implementation principles. These include: (i) negative impacts will be minimized as much as possible, (ii) compensation will be sufficient to improve or at least restore preproject incomes and living standards of affected persons, (iii) affected persons will be fully consulted on compensation options and land acquisition planning, (iv) asset compensation will be provided at replacement rates, and (v) lost asset compensation and rehabilitation provisions/allowances will be provided in full before ground leveling and demolition. ADB approval of a subproject involving significant land acquisition or resettlement will be subject to ADB's approval of the LARP.

4. The CPFPG stipulates eligibility and entitlements for land and eventual house or income losses, and sets rehabilitation subsidies as follows: (i) permanent agricultural/residential land losses will be compensated in cash at market rates; (ii) temporary land losses will be paid in cash at market rates; (iii) house and building losses will be compensated in cash at replacement rates, free of demolition expenses and salvaged materials; (iv) crop losses will be paid in cash at market rates; (v) relocation expenses covering transport costs will be paid to the affected persons; and (vi) compensation for business losses based on tax declarations will be paid to each affected person for each month of interruption of business activities. The CPFPG establishes that (i) after subproject identification and completion of preliminary design, the district government will carry out an initial social assessment (ISA) to determine preliminary impact data and the socioeconomic features of the affected persons; (ii) if subproject impacts are identified as significant, a full LARP will be prepared; (iii) if impacts are identified as less than significant, a short LARP will be prepared.

5. The CPFPG also details the main organizational features and tasks of the LAR process. The Government will ensure that there are sufficient funds to cover LAR costs. The Minister of Home Affairs has overall supervisory, review, and financial responsibility for the LAR. Community groups will prepare and implement specific LARPs with the full participation of their members and support of district project management units (DPMUs) for tasks such as asset valuation; entitlement delivery; and issuance of land acquisition, demolition, and building

permits. Field tasks such as paying compensation, selecting replacement land, and providing livelihood support will rest with village personnel. Subproject schemes, including LARPs, will be designed and implemented by the community groups based on a community action plan (CAP) prepared with the full participation of group members and beneficiary communities. A primer summarizing the CPFPG will be sent to all affected persons. The CPFPG and LARP in Bahasa Indonesia will be made available at the village office of each scheme that requires land acquisition. The same documents in English will be put on the ADB web site. Primers for subprojects in indigenous peoples' areas will be compiled in local languages.

6. Both internal and external monitoring will be carried out. The district government will set up a monthly reporting system involving the land acquisition and resettlement units. External monitoring will be assigned to an independent institution such as a nongovernment organization (NGO) or a local university, and will be carried out on a selective basis for schemes with substantial impacts resulting from LAR and/or involvement of vulnerable peoples. External monitoring will be conducted through field visits, and monitoring reports will be submitted to the DPMU, which in turn will pass them to the central project management unit (CPMU). At project conclusion, the external monitoring agency will prepare a report providing a comprehensive evaluation of the LAR program.

7. Unit compensation rates for items negatively affected by each subproject and detailed budgets for impacts compensation will be provided in each LARP. Cost estimates will be adjusted annually, based on the inflation rate of the preceding year.

D. Guidelines for Land and Asset Acquisition

8. Land acquisition will be kept to a minimum. No person will be physically displaced from their places of residence by subprojects financed under the Project. Subproject proposals requiring demolition of buildings or acquiring productive land should be carefully reviewed to reduce their negative impacts through alternative alignments or locations for pipes, wells, sanitation facilities, or selection of alternative water sources.

9. Land or other assets may be acquired through (i) voluntary contribution: in accordance with traditional practices, villagers may elect to voluntarily contribute land or other assets and/or relocate temporarily or permanently from their land without compensation; or (ii) contribution against compensation: a contributor considered a "project-affected person" will be eligible for compensation from the village. Voluntary contributions will be closely monitored to ensure that no coercion is exercised. In accordance with ADB guidelines, any voluntary donation will be confirmed through oral and written record and verified by the community facilitator or any other independent third party.

10. These guidelines provide principles and instructions to compensate affected persons under (ii) above, to ensure that all such persons negatively affected, regardless of their land tenure status, will be assisted to improve, or at least restore, their living standards, income earning, or production capacity to preproject levels. However, if acquired assets are less than 20% of the total value of the subproject, the village facilitator may dispense with the procedural requirements delineated in para. 12 below.

E. Compensation Principles

11. The village government will ensure that any of the following means of compensation are provided in a timely manner to "project-affected persons" (ADB loan funds cannot be used for

compensation): (i) replacement land with an equally productive plot or equivalent productive asset; (ii) materials and assistance to replace fully solid structures that will be demolished; (iii) replacement of damaged or lost crops, at market value; (iv) cash payment at market value for other noncrop assets; or (v) other acceptable in-kind compensation.

12. The village government will ensure that all occupants of land and owners of assets located in a proposed subproject area are consulted. There will be a village meeting to inform villagers about their rights to compensation and options available in accordance with these guidelines. The minutes of the village meeting will reflect the discussions held and agreements reached, including (i) for any voluntary contribution, the name of the contributor and details of the contribution; and (ii) for land/asset acquisition against compensation, names of project-affected persons and details about the nature and level of compensation as summarized in the example below.

Table A18: Sample Compensation Form

Summary Agreement Reached	Compensation Amount and Type
Agricultural land (square meters)	
Plots affected (square meters)	
Houses/structure to be demolished (units/square meters)	
Trees or crops affected	
Other deleterious impact (loss of income)	
Signatures of villagers, village chief	
Record of complaints filed by affected persons	
Map showing affected area and replacement area	

Source: Asian Development Bank.

13. The community facilitator will provide a copy of the minutes to affected persons and confirm with them their requests and preferences for compensation, agreements reached, and any eventual complaint. Copies will be recorded in the CAP and be available for review.

F. Subproject Approval

14. In the event that a subproject involves acquisition against compensation, the village facilitator will (i) not approve the subproject unless a satisfactory compensation has been agreed between the project-affected person(s) and the village government; (ii) not allow works to begin until compensation has been completed satisfactorily; and (iii) prepare a compensation plan for CPMU and ADB approval if more than 200 persons are affected.

G. Complaints and Grievances

15. All complaints should first be lodged and negotiated within the community group. If no settlement is reached within 2 weeks, the complainant will have 1 month to raise the case with the DPMU, copy to ADB. If this fails to illicit a satisfactory response within 2 weeks, the complaint may be directed to the district head for a decision. All complaints not solved at the village level should be copied to the CPMU and ADB. Final appeal is available in the courts.

H. Verification

16. The village minutes and evidence of compensation having been made will be provided to the community facilitator assisting the village, as well as to supervising consultants, auditors, and project monitoring and evaluation teams.