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Evaluation of Peru's National Sanitation Policies

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Contents

Executive Summary

Purpose

The purpose of this activity is to conduct an evaluation of Peru's national sanitation policies with a view toward supporting and collaborating with the Peruvian Ministry of Housing, Construction and Sanitation. This evaluation will analyze the adequacy of Peru's sanitation policies for improving services involving excreta and wastewater disposal and will focus on the needs of the currently unserved population, defined as poor urban population groups in large cities, including the residents of small cities and rural communities.

The evaluation guidelines constitute a first step in the development of effective sanitation policies for Peru, and they are expected to contribute to initiating the policy development process, managing the procurement of resources, and undertaking initiatives focused on developing capabilities for implementing sanitation policies and programs.

The policy evaluation process has been designed for the purpose of examining the clarity, existence and effectiveness of the vision and policy instruments. Are strategic plans currently underway? Do they reflect a well-founded process complete with sector-level consultation? Does the intention reach the operating level? Are policy instruments in place and functioning? Is there a coherent water and sanitation law in effect at the national level? Are sector roles and institutional arrangements clear, and do they provide for a clear process of decision-making and information flow? Is there leadership at the sector level? Is sector dialogue facilitated so that lessons learned and best practices can be shared?

Principal existing policy framework

Strategic plan of the Vice-Ministry of Housing, Construction and Sanitation

The Strategic Plan represents the government's policy intention. It affirms policies addressing the following:

- Access to sanitation services in adequate conditions of quality and price.
- Expansion of coverage and improvement of the quality of drinking water, sewerage, wastewater treatment and excreta disposal services.
- Rates must cover costs in order to eliminate dependency on the Central Government.

- Subsidies must be focused on the poorest population groups.
- Investment subsidies must be tied to efficiency in service provision.
- Review and simplification of the rate structure.
- Prioritization of investments in water metering programs and rehabilitation work.
- Define on a case-by-case basis the policy for managing public sector debt. With regard to estimating investments in rural areas, consideration has been given to increasing water and sewerage service coverage with the proceeds of loans received from multilateral organizations.
- No provisions have been made for identifying sewerage and wastewater treatment solutions for the rural area; rather, latrine-based solutions are proposed.
- Grants or nonreimbursable loans earmarked for construction works will be directed primarily to the rural area, to communities with less than 500 inhabitants.
- In the rural area, a minimum contribution of 20%, between community and municipality, is proposed to help finance community investments.
- Consideration is being given to increasing sanitation service coverage throughout the country, primarily through latrine construction.
- In urban areas, vegetative[1] population growth will be taken into account by means of sewerage hookups, as a complementary activity.
- In order to receive financial support, communities must be formally organized and in addition demonstrate their ability to cover operating and maintenance costs. In the case of small and rural cities, the community and the municipalities will be required to contribute a minimum of 20% of the cost of investments, in either cash, labor or materials.

SUNASS regulatory framework

SUNASS's oversight activity is aimed at verifying compliance with established norms governing the provision of sanitation services, as well as the commitments set forth in rate increase authorizations, and this agency is empowered to take punitive action against provider organizations for any infractions committed.

[1] In demographic terms, vegetative growth refers to the natural population increment deducted from the birth rate to mortality rate, all other considerations aside (i.e. migration). This paragraph corresponds to a text formulated by the Vice Minister of Construction and Sanitation and reflected in his Strategic Plan. The term is well known in reference to population growth where the two vital indicators—birth and mortality—are considered.

Areas subject to oversight include the following:

- The coverage and quality of sanitation service provision in general.
- Levels of service quality are set by SUNASS and contained in the commitments that form a part of the rate increase authorizations, which in turn become management goals such as improvement of service quality (continuity, bacteriological quality, turbidity).
- Increase in service coverage (safe water and sewerage).

Principal findings of the analysis

The key elements of the national sanitation policies addressed in this analysis include the following:

Political will and policy acceptance

The Government of Peru has demonstrated a substantial degree of political will as regards the subsector, granting it an institutional presence at the national level. The Ministry of Housing, Construction and Sanitation was created in 2002 and includes the Vice-Ministry of Construction and Sanitation (VMCS), under which the National Directorate of Sanitation (DNS) is responsible for policy development for both safe water supply and sanitation. This is an important indicator of political will that is absent in many other countries of the region. More than US$2 billion has been invested in water supply and sanitation projects over the past 12 years, and a total investment exceeding that amount has been projected for the next 10 years. A large part of these investments, however, have been unsustainable. In addition, benefits have likewise failed to reach the targeted population groups. It is somewhat difficult to measure the degree of acceptance of national sanitation policies, since many of these are either new or are currently being developed.

Target population

The VMCS's Strategic Plan alludes specifically to two of the three target groups: rural communities and small cities (*pequeñas localidades*). The Ministry has not, however, proposed policies or programs designed specifically to meet the needs of low-income urban families. As a rule, the decision as to how to respond and focus resources in order to best serve this group has been left to the local utilities and to local governments.

Currently operating in the rural water and sanitation sector are a series of organizations with no prior coordination and with priorities and criteria that have not yet been validated and that often are inconsistent with sector policies, as a result of either ignorance or the absence of those policies. This situation is seen in communities that receive services from their municipality, while others in the same jurisdiction benefit from external financing. In addition, there are no national

standards related to construction, assignment of system costs, or ownership of systems installed under these programs.

The national sanitation policy framework includes little explicit recognition of the needs and special challenges of Peru's small cities. In cases where this issue is addressed, there appears to be uncertainty as to whether the VMCS perceives small cities as more appropriately falling under a policy framework for urban or rural areas. The sector policy for this population segment is currently being developed.

The VMCS has stressed in its Strategic Plan that "subsidies must be targeted toward the poorest population groups" but does not specify the criteria to be used to determine household eligibility and/or prioritization for receiving subsidy assistance. At present, capital subsidies range from 70% to 100% of costs for both water supply and sanitation projects, with the specific level of subsidy being determined on the basis of the specific characteristics of the project (for example, source of financing and implementing agency).

Service levels

Historically, sanitation programs implemented by government agencies have installed conventional sewerage systems and, in rural areas, latrines that are likewise conventional. Recent evaluations of such programs have found low rates of connection to piped networks (on the order of 20%) in both poor urban and rural communities (CENCA, 2001). The VMCS has responded to these disheartening results in its Strategic Plan by limiting all investments in rural sanitation works to on-site technological options (i.e., latrines) until the year 2011. It appears that there is no support at present for the idea of offering a range of options, each with its own costs and associated obligations for beneficiary families.

Legal framework

The constitutional mandates with implications for sanitation subsector policies are the right to health, decentralization, and public services, three core elements that define the desired orientation of the policies, strategies and planning of the various institutional rates active in the subsector.

The issue of technical norms presents a large gap in Peru. Currently existing norms date to the 1940s, 1960s and 1970s, thus providing evidence that one of the fundamental functions in managing the sanitation subsector, i.e., the normative function, is extremely precarious.

The decentralization process has established a new order in the structure and organization of the State and a new legal framework within which the General Law Governing Sanitation Services (*Ley General de Servicios de Saneamiento*, or LGS), which constitutes the legal framework for the sanitation subsector, is now obsolete. In addition, many of its norms are inconsistent with the provisions set forth in the

Organic Law Governing Municipalities (LOM) and the Organic Law Governing Regional Governments (LOGR).

The *ad hoc* Technical Commission established to review normativity and propose the new General Law Governing Sanitation Services (Ministerial Resolution No. 094-2003-VIVIENDA) should make any norms formulated consistent and compatible with existing provisions (primarily the organic laws governing municipalities, regional governments and others), so that the two central rates in the subsector, namely, the Vice-Ministry of Construction and Sanitation and the National Superintendency of Sanitation Services, can be given true leadership and regulatory powers.

Health considerations

The team found that health considerations were active elements in the rural sanitation programs implemented by nongovernmental organizations. At the macro level of government policies in the Ministry of Health, sanitation and health were intertwined and considered to be components of the goal or driving force behind sanitation. However, in the team's consideration of the active planning or strategic links between the Ministry of Health and the Ministry of Housing, Construction and Sanitation, a number of gaps were detected, with the result that the opportunity to cooperate through the presence of community health promoters and health clinics currently in operation on all local levels in the country is lost.

It is evident that sanitation is one of the strategies for implementing the government's health policy, hence its transformation into a priority for the sanitation subsector in order to assist in achieving the government's health goals. In addition, as regards the application of this policy, strategies for both the health sector and housing sector must be developed and shared, in order to create the synergies required to make shared interventions both efficient and sustainable.

Environmental considerations

Despite the evidence of the environmental problem created by dumping untreated wastewater into the environment, there is no evidence in subsector policies of any intent to protect the environment from sanitation service provider (EPS) effluents, as the stated objectives do not call for a marked increase in coverage for treatment of wastewater. This position is supported in addition by the substantial investment involved, which is why priority has been assigned to beginning with increased coverage of water and sewerage.

Financial considerations

Peru's sanitation subsector has benefited from a substantial level of investments over the past decade, and current projections suggest that this level of capital expenditures will continue through 2011. Whether these funds translate into sustained access to

improved sanitation services will depend on the extent to which municipalities and other institutions earmark resources for promotion, education and capacity development initiatives and for maintenance of existing infrastructure. It is also likely that poor urban families and the residents of small cities will be among the last to benefit from the VMCS investment program over the ensuing ten-year period. In its efforts to attract private sector investments to the sector, the VMCS will need to target the country's largest urban service provider enterprises and their existing networks.

The greatest percentage of funds for water and sanitation services (47%) is being requested from external organizations. An additional 30% is projected to be received from water supply and sanitation organizations (Table 4.7.2). Projections indicate that only 3% of investment funds will come from local governments and community associations. In addition, the VMCS has great expectations regarding private sector participation in water supply and sanitation, as reflected in the line item for private investments totaling more than US$200 million included in projections for 2002–2011.

The level of investment proposed by the VMCS for the 2002-2011 period (US$2.4 billion) represents a level of expenditures that is greater, by an average of 37%, than the amount invested in the water and sanitation sector during the 1990-2001 period (Table 4.6.4). This projection represents a rate of expansion of coverage 2.25 times greater than the rate recorded during the 1990s.

An important observation is in order: VMCS estimates typically do not include "soft" elements for investments in sanitation, including activities focusing on promotion, hygiene education, community organization, etc. For sanitation services in particular, where the domestic demand for improved services tends to be much less than the demand for improved water services, such "soft" components frequently require substantial investments. It is not clear whether the additional financing for the successful implementation of sanitation programs can be obtained and — if it can indeed be obtained — how.

Perhaps one of the most important gaps in the policy framework for Peru's sanitation services involves the institutional and financial support required for the sustained operation and maintenance of installed infrastructure. Although the VMCS supports the construction of sanitation facilities in urban and rural areas, it does not provide financing or technical assistance for operations and maintenance.

Institutional roles and responsibilities

The roles of the various institutional actors involved in the subsector are, for the most part, complementary, particularly those played by NGOs and ICAs in the areas of training and advisory assistance (where their involvement is intensive) and the financial role played by ICAs, which support investments in the subsector. The skills of sector authorities are incompatible with a shared vision, and institutional linkages for implementing joint, shared or coordinated actions are minimal. Skills are not lacking. What is absent is the institutional linkage to improve the efficiency of subsector activities.

The subsector is in urgent need of a new legal framework (a task which becomes a challenge for the VMCS as lead agency), so that policies and their application will be compatible with the process of decentralization and strengthening of its strategic management capabilities.

When roles are analyzed in accordance with the three target groups of the research study — rural population, periurban population and population residing in small cities — it is possible to observe gaps in the normative, regulatory and oversight areas of responsibility. In addition, there is no evidence in the target group of small cities of supervisory, training and advisory responsibilities, and likewise no evidence of a supervisory responsibility in the periurban target group.

Summary of conclusions and recommendations

Subsector priorities

- Is it the desire of the VMCS to increase its focus and prioritization in order to improve and extend sanitation services to marginal urban areas and small cities? If so, what strategies are required to establish this focus?

  Comments: The team finds little evidence in the VMSC Strategic Plan that small cities or poor urban population groups constitute a priority for the Ministry. Investments in these areas are left up to the water and sanitation enterprises, as in the case of the PAC implemented by SEDAPAL.

Access to sanitation services for low-income population groups

- How can levels of service be established that offer a range of options for low-income individuals, in both urban areas as well as in small cities and rural environments, and how can those levels of service be enforced?

  Comments: The team recommends that the VMCS consider adopting three principal strategies as a national policy for improving access to sanitation services by poor marginal urban families: offer lower-cost technical options; lower the

financial burden of initial costs through the use of subsidies and/or credit programs; and keep services affordable by applying cross-subsidized rate structures.

Regulatory functions

- How can the SUNASS regulatory function be strengthened so as to include all water and sanitation providers?

  Comments: One of the gaps detected was that not all sanitation service provider entities are subject to SUNASS regulation and oversight. The legal provisions governing SUNASS would need to be modified and updated, so as to not limit its domain exclusively to entities of a commercial nature.

- How can the regulatory function of the Juntas Administradoras de Agua y Saneamiento (Water and Sanitation Administration Boards) be established, taking into account the new role played by the regional government?

  Comments: Consideration should be given to the idea of decentralizing to the regional governments the supervisory and oversight functions of the regulatory agency. The regional government would carry out supervisory and oversight functions, in both the urban and rural areas, in accordance with specific norms issued by the regulatory agency.

Sectoral organization

- What policies can be developed to strengthen and assist regional governments in assuming their new role as regional sector planners and focal points for rural system sustainability and regulatory oversight?

  Discussion: Based on the new structure and organization of the State, the regional government has the authority to formulate and approve the regional development plan negotiated with the municipalities and civil society. The regional government is an institutional link between the Central Government and the local government that the VMCS should fully exploit, and the Vice-Ministry should adopt as one of its policies a line of action focusing on institutional coordination and strengthening, at both the regional and levels.

Strategic planning and sustainability

- We agree with the emphasis on the objectives related to system rehabilitation and concern over the investment sustainability over the past ten years. How can this priority be monitored in order to ensure that subsector actors are pursuing these objectives on a priority basis at all levels?

  Discussion: To achieve this objective, it will be imperative for the VMCS to maintain close communication with investment agents and projects currently being implemented by NGOs and municipalities. An additional effort will be

required to ensure that the enterprises plan and invest in rehabilitation. In addition, perhaps more importantly would be the need to ensure the availability of incentives or other instruments to ensure that existing infrastructure is used to 100% capacity. Much of the infrastructure already exists, and approximately 40% of potential clients (some 12,000,000 inhabitants) are without domestic sewerage hookups in urban areas. A large percentage of installed latrines were constructed without the benefit of promotional activities or community participation and without appropriate technology, and accordingly are not being used. All strategic plans, on all levels, should include priority objectives for addressing these concerns.

- How can the subsector planning process be opened so as to encourage dialogue and expand participation in both the development of the subsector vision and the formulation and review of the Strategic Plan, in order to ensure ownership thereof on the municipal and regional levels, in conjunction with rates from other ministries, international organizations and NGOs?

  Discussion: One way to achieve the viability of a sectoral coordinating instrument for strengthening capacity for strategic management is by establishing a Sanitation Subsector Coordinating Committee (*Comité de Coordinación del Subsector de Saneamiento* – CCSS). In addition, one possible way to achieve institutional linkages and strengthen strategic capabilities in the subsector would be to put in place an information system linked to the three levels of government. An active and informal process of consultation, meetings and dialogue at all levels would be another important mechanism for achieving consensus, ownership and contributions by the sector rates in the strategic plans.

Investment strategy

- Is the VMCS's intention to contribute to alleviating poverty a major element in its investment strategy? If so, what changes need to be made to the budget process to make it possible to monitor and prioritize the flow of funds to the urban poor and small communities?

  Discussion: At the national level, Peru has pursued an intersectoral strategy of discussion and planning that focuses on poverty alleviation. What lessons can the VMCS draw from this process — for example, as regards consultation, coordination, planning and budgeting — that might help enhance the profile of poverty alleviation in its own work?

- How can the VMCS improve its coordination of financing for the sector in such a way as to use external sources of financing to support a coherent national plan for investment in sanitation?

  Discussion: To a large extent as a result of the absence during the past few decades of an agency to coordinate investments in sanitation, international organizations have opted to work with other ministries (for example, MINSA and

MINDES), while at the same time implementing programs through the former Ministry of the Presidency (for example, PRONAP/PARSSA) that reflected their priorities and their individual modus operandi. The VMCS now has an opportunity to align these flows of funding within a single planning framework.

- How can the Vice-Ministry of Construction and Sanitation take on a leadership role and assume its new function as lead agency in order to ensure broad intersectoral communication, a process of intersectoral learning, and the sharing of successful results in terms of sustainability, promotion and technology?

  Discussion: The focus groups conducted during the course of this study produced a number of positive suggestions aimed at encouraging and strengthening intersectoral communication under the leadership of the VMCS:

1. It is possible to combine the efforts of the MINSA, the MVCS and SUNASS with respect to training in the sector, particularly as regards subjects such as sanitation?

2. An integrated information system can be developed.

3. It will be possible to carry out combined sanitary education and training by means of management agreements, accreditation of operators and training of promoters.

4. Is it possible to have political goals and a shared, common vision for treated water and sanitation: reinforce the emphasis in the Strategic Plan?

5. It is possible to conduct joint planning: develop a strategic plan with the participation of all, and include the Ministry of Finance in the process?

About the Authors

Daniel Edwards has 30 years of experience in institutional development, strategic planning, project management, management training, and program development. He is a founding partner of Training Resources Group, Inc. A significant part of his career has been dedicated to working with water and sanitation. He has worked under numerous USAID-funded programs and activities, including the Environmental Health Project (EHP), and the Water and Sanitation for Health Project. Mr. Edwards has worked throughout the world, including many countries in Latin America, in such technical sectors as water resources, water supply and sanitation, environment, and health. He is fluent in Spanish. Recent work includes conduct of Regional Workshops for Improving Sanitation in Small Towns in Peru and Honduras for EHP. He served as Team Leader for EHP between 1997-2002 of the development of a strategy for decentralizing responsibility for rural water supply and sanitation to communities in the Dominican Republic. He facilitated a regional workshop in Guatemala in Decentralization in Water and Sanitation as part of USAID's Environmental Health Project. From 1995-2000, Mr. Edwards was the Team Leader for the USAID Bushbuckridge Retail Water Distribution Project in South Africa. In El Salvador, Mr. Edwards conducted a sector assessment for water and sanitation for the InterAmerican Development Bank and the National Department of Planning of the Presidency. He designed and implemented an institutional development project for the National Water Supply and Drainage Board in Sri Lanka.

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Acronyms

ADD	Acute diarrheal disease
ADRA-OFASA	*Agencia Adventista para el Desarrollo y Recursos Asistenciales* (Adventist Agency for Development and Resource Assistance
AGC	*Acuerdos de Gestión Compartida* (Shared Management Agreements)
BN	*Banco de la Nación* (National Bank)
CARE-PERU	Cooperative for Assistance and Relief Everywhere - Perú
CARITAS	Caritas Internationalis
CCSS	*Comité de Coordinación del Subsector de Saneamiento* (Sanitation Subsector Coordinating Committee)
CEPIS	*Centro Panamericano de Ingeniería Sanitaria* (Pan-American Center for Sanitation Engineering)
COSUDE-AGUASAN	Swiss Agency for Development and Cooperation
DGCP	*Dirección General de Crédito Público* (General Directorate of Public Credit)
DGPMISP	*Dirección General de Programación Multianual de Inversiones del Sector Público* (General Directorate for Multi-Year Programming of Public Sector Investments)
DIGESA	*Dirección General de Salud Ambiental* (General Directorate of Environmental Health)
DNS	*Dirección Nacional de Saneamiento* (National Directorate of Sanitation)
ESA	E*mpresa de Saneamiento y Agua* (Sanitation and Water Enterprise)
FONCODES	*Fondo Nacional de Compensación y Desarrollo Social* (National Fund for Compensation and Social Development)
FONCOMUN	*Fondo de Compensación Municipal* (Municipal Compensation Fund)
GDP	Gross domestic product
GNP	Gross national product
GTZ	German Technical Cooperation

HDI	Human development index
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
INEI	*Instituto Nacional de Estadística e Informática* (National Statistics and Informatics Institute)
JASS	*Juntas Administradoras de Servicios de Saneamiento* (Sanitation Service Administration Boards)
JBIC	Japanese Bank for International Cooperation (formerly OECF)
MEF	*Ministerio de Economía y Finanzas* (Ministry of Economy and Finance)
MESIAS	*Mejoramiento del Sistema de Alcantarillado de la Zona Sur de Lima* (Improvement of Sewerage System in Lima's Southern Sector)
MINSA	*Ministerio de Salud* (Ministry of Health)
MVCS	*Ministerio de Vivienda, Construcción y Saneamiento* (Ministry of Housing, Construction and Sanitation)
PAHO/WHO	Pan-American Health Organization/World Health Organization
PARSSA	*Programa de Apoyo a la Reforma del Sector de Saneamiento* (Program of Support for Sanitation Sector Reform) (formerly PRONAP)
PCM	*Presidencia del Consejo de Ministros* (Presidency of the Ministries Council)
PRONASAR	*Programa Nacional de Agua y Saneamiento Rural* (National Rural Water and Sanitation Program)
SEDAPAL	*Servicio de Agua Potable y Alcantarillado de Lima* (Water and Sewerage Service of Lima)
SUM-CANADA	*Servicio Universitario Mundial del Canadá* (World University Service of Canada)
SUNASS	*Superintendencia Nacional de Servicios de Saneamiento* (National Superintendency of Sanitation Services)
UTE-FONAVI	*Unidad Técnica del Fondo Nacional de la Vivienda* (National Housing Fund Technical Unit)
VMCS	*Viceministerio de Construcción y Saneamiento* (Vice-Ministry of Construction and Sanitation)

W&S	Water and Sanitation
WB	World Bank
WB/WSP	World Bank/Water and Sanitation Program

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1. Introduction

1.1. Background

The purpose of this activity is to conduct an evaluation of Peru's national sanitation policies with a view toward supporting and collaborating with the Peruvian Ministry of Housing, Construction and Sanitation. This evaluation will analyze the adequacy of sanitation policies for improving services involving the disposal of excreta and wastewater and will focus on the needs of the unserved population, defined as the urban poor in large cities, including residents of small cities and rural communities.

The key partners in the implementation of this activity include the National Directorate of Sanitation of the Vice-Ministry of Construction and Sanitation, the Pan-American Center for Sanitary Engineering (*Centro Panamericano de Ingeniería Sanitaria*, or CEPIS) pertaining to the Pan-American Health Organization (PAHO), the World Bank's Water and Sanitation Program (WB/WSP) and the Environmental Health Project (EHP), funded by the United States Agency for International Development (USAID). This activity is viewed as part of the process of reforming water and sanitation policies currently underway in Peru and constitutes a major step toward expanding the Government of Peru's provision of sanitation services with a view toward achieving the Millennium Development Goals (MDG).

The USAID-funded Environmental Health Project (EHP) and its partners, which include UNICEF, CARE, EAWAG Agua y Saneamiento en Países en Desarrollo, IRC, International Center for Water and Sanitation, PAHO, WELL2/DfID, WHO, World Water Council, Collaborative Council on Water and Sanitation, and the World Bank Water and Sanitation Program, created a task force to focus on evaluating national sanitation policies. As a result of this initiative, a document was prepared that contains guidelines for evaluating the adequacy of national sanitation policies in developing countries throughout the world, particularly as regards the way in which such policies address the needs of the urban poor in large cities and of families residing in small cities and rural communities.

The Guidelines for Evaluating National Sanitation Policies are intended to be a practical tool for conducting an inventory of national sanitation policies and assessing their adequacy. Based on the experience of the study carried out in Peru, the guidelines will be modified.

A three-person EHP-WSP-CEPIS/PAHO team conducted the evaluation, in the form of a rapid assessment, over a period of three weeks. One month earlier, a baseline study was carried out by CEPIS. The document gathers together statistical, financial and descriptive information that facilitates an understanding of the policy

environment in which the conduct of Peru's water and sanitation sector takes place (Chapter 2 contains a summary of the baseline study). The information requirements for establishing the baseline and conducting the study were elicited from the institutions involved by means of meetings, communications and interviews with the individuals responsible for the sources of information. The gathering of basic data, documents and reports took place over a period of four weeks, while the rapid assessment was conducted over a period of three weeks, by means of visits to officials in the ministries, programs and other organizations involved in the sanitation subsector.

The individuals contacted through personal interviews or focus groups are listed in Annex 1.

1.2. Purposes of the evaluation

National policies can serve as a key stimulus for promoting activity at the local level … . These policies make it possible to establish priorities and constitute the basis for translating needs into actions, by creating the conditions for improving sanitation services.

The evaluation guidelines constitute a first step in developing effective sanitation policies in Peru, and are expected to initiate policy development, seek resource procurement and launching of initiatives to develop capabilities for implementing sanitation policies and programs.

As defined in this document, the ultimate purpose of the policy evaluation process is to promote the development of sanitation policies and achieve sustainable coverage focused on critical needs and improvements to sanitation services. For this reason, the relationship between basic issues and process issues is essential.

Objectives

- To promote clarity of vision and consistency among policies and their implementation and the results obtained
- To encourage dialogue
- To focus on key issues

The purpose of the evaluation is to identify the positive aspects of sanitation policies and regulations and highlight those aspects not yet adequate. This analytical work and policy development will contribute to achieve the goal of improving sanitation services. A positive evaluation process will be one that is highly participatory and uses techniques that take into account and encourage the participation of all rates. An appropriate process will be one that uses the information generated by the evaluation to identify the current scale of the sanitation problem and the essence of the sanitation policy environment. By means of appropriate evaluation practices, participation of the various rates will be mobilized, thus creating a positive environment for achieving policy change and implementing

Core Questions

- What are the national sanitation policies?
- How adequate are these policies?
- How do these policies translate into programs?
- How effective are these programs in improving services?

the corresponding follow-on activities. The evaluation of Peru's national sanitation policies will focus on the needs of the unserved population, defined as the urban poor residing in large cities, including residents of small cities and rural communities. On a general level, the evaluation will study the adequacy of Peruvian national sanitation policies and address a number of key questions:

The answers to these general questions will be addressed through the application of key policy elements that describe specific elements of adequate policies and pose a series of questions for identifying the current status of policies and programs. The key elements represent a series of subject areas deemed to be important components of adequate sanitation policies. Given the multifaceted nature of sanitation subject areas, the application of these elements during a policy evaluation requires the careful examination of a number of factors, sectors and rates. The key elements in the national sanitation policies addressed in this study include the following:

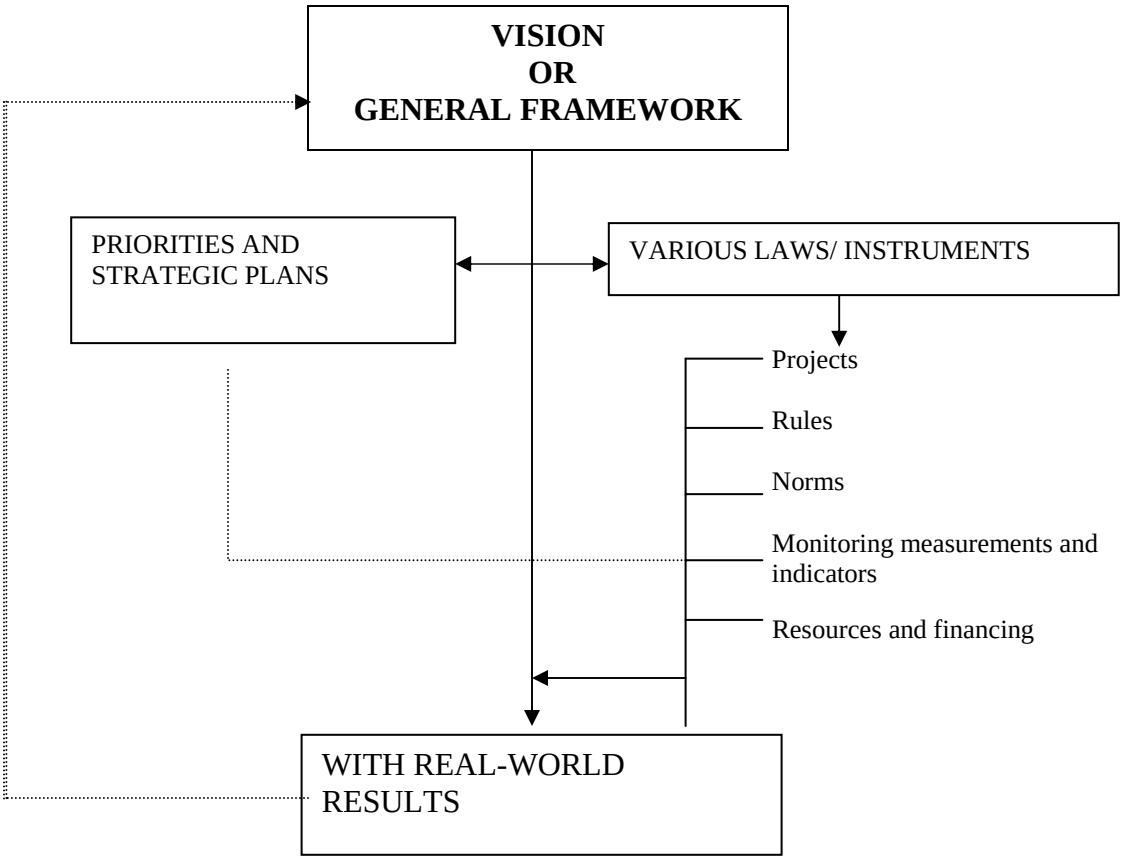
- political will
- policy acceptance
- legal framework
- target population
- service levels
- health considerations
- environmental considerations
- financial considerations
- institutional roles and responsibilities

1.3. Definitions

1.3.1. Policies

Our definition of the concept of policy is illustrated graphically in Figure 1.A.

Figure 1.A



Policies, as defined by the policy review team for this study, begin with a series of clear intentions, a vision, and a framework for creating a result in the real world. One example is the desire for a healthy population, free from infections and diseases caused by the inadequate disposal of excreta. Another clear intention would be the self-management of community systems, private sector management of large commercially viable systems, and a viable process for recovering operating and maintenance costs, that is, self-sufficiency. Clear intentions are translated into a series of actions or results in the target population using a series of policy instruments. The basic instruments are, above all, clearly based consensual strategic plans and a legal framework that supports and protects the risks inherent in sector activities. Secondary but essential policy instruments include rules and norms, legal requirements and implementation actions applied to project activities and daily sector tasks (for example, operation of a treatment plant, creation of an incorporated water service organization, disposal of wastewater, construction of latrines and water treatment plants, etc.). Policy instruments include monitoring instruments and performance indicators (audits, enforcement measures, incentives, quality testing routines) and financial processes and controls. If the policy is effective, the various instruments translate into the desired results, and the vision is shaped by those results to achieve an ongoing process of development.

The policy evaluation process has been designed for the purpose of examining the clarity, existence and effectiveness of the vision and policy instruments. Are strategic plans in place? Do those plans reflect a well-founded process and sector-level consultations? Does the intention reach the operating level? Are policy instruments in place and functioning? Is there a coherent water and sanitation law in effect at the national level? Are sector roles and institutional arrangements clear, and do they provide for a clear decision-making process and information flow? Is there leadership at the sectoral level? Is sector dialogue facilitated so that lessons learned and best practices can be shared? These are some of the macro questions whose positive answers indicate that the procedural work is being carried out so that effective results can in turn be achieved by that side of the equation involving concrete investments and practical issues.

1.3.2. Sanitation

It is necessary to perceive, and conceptually express, that sanitation is different from water supply, and that to quantify need and monitor its progress, one needs to differentiate data and information gathering in the areas of safe water, excreta and solid waste disposal, health and environment. Interaction among these factors produces a social good, which is health protection. In this document, the term “sanitation” refers solely to excreta disposal. The team found that when this term is used in Peru, it refers to a combination of potable water as well as excreta disposal including solid waste. Much of the data and information on excreta disposal is not differentiated.

2. Basic Data

2.1. Introduction

This chapter presents a summary of the rapid assessment conducted pursuant to Chapter 2 of the Guidelines for the Evaluation of National Sanitation Policies (*Directrices para la Evaluación de Políticas de Saneamiento Nacionales, EHP/USAID*), at the request of CEPIS, and is intended to provide baseline information to the evaluation team (see the document entitled Baseline (*Línea de Base*) published separately as an Annex). This chapter brings together statistical, financial and descriptive information that makes it possible to understand the policy environment in which Peru's water and sanitation sector operates. The information requirements for establishing the baseline have been requested from the institutions involved by means of meetings, communications and interviews with those responsible for the sources of information. The gathering of basic data, documents and reports took place over a period of four weeks, through visits to the ministries, programs and agencies involved in the sanitation subsector. The study focused on three principal sources of information:

- the national authorities involved in the water and sanitation sector
- international technical cooperation organizations
- nongovernmental organizations (NGO)

2.2. Demographic data

Peru has a total mainland area of 1,285,216 km^2 and shares borders with Ecuador, Colombia, Brazil, Bolivia and Chile. Politically, it is divided into 194 provinces and 1,821 districts located in three naturally occurring regions: coast, mountains and jungle, each with its own level of socioeconomic and cultural development.

According to the most recent population and household census (1993), Peru had a population of 21,801,600. It is estimated that the total current population is 27,148,000, with an annual intercensal growth rate of 1.7% (INEI projection for 2003), of which 50.3% are male and 49.7% female.

Birth and death rates are 23.7 and 6.2 per 1,000 inhabitants, respectively. Between 1993 and 2002, average life expectancy increased from 66.9 to 69.7 years. During the same period, the urban population increased from 70.1% to 72.2%, while the rural population decreased from 29.9% to 27.8%. It is estimated that between 75% and

80% of Peru's total rural population consists of indigenous peoples (according to INEI data).

The country is also divided into population centers, which are in turn classified as either urban or rural. A rural population center is one with less than 100 homes grouped contiguously or in which, in cases of more than 100 homes, the latter are widely dispersed and do not form urban blocks or nuclei. An urban population center is one with a minimum of 100 homes grouped contiguously. According to the 1993 INEI census, Peru had 84,046 population centers: 8,847 urban and 75,199 rural. For the water and sanitation sector, rural population centers are those with a population of up to 2,000 inhabitants. In addition, another category has arisen between these latter two: that of the so-called "small cities" (*pequeñas localidades*) which, according to the sector law, are urban centers with between 2,000 and 30,000 inhabitants.

Table 2.2.1: Geographic area and population

Area	PERU	
		1,285,215,60 km^2
Population	1993[1]	2002[2]
Total population	21,801,600	26,749,000
Men	10,956,375	13,454,000
Women	10,845,225	13,295,000
Urban population	15,282,922	19,312,778
Men	7,606,489	9,637,780
Women	7,676,433	9,674,998
Rural population	6,518,678	7,436,222
Men	3,349,886	3,816,220
Women	3,168,792	3,620,002
Growth rate (%/year)	2.0	1.7

Sources: [1/] INEI, 1993 Census;[2/] INEI, Population projections 1950-2050

Peru's current rural population totals some 7.6 million (INEI projection), of which more than 3.3 million have no access to safe water and 6.2 million lack appropriate sanitary disposal of excreta and wastewater. Of the total number of towns with safe water service, it is estimated that only 30% receive service that is adequate in terms of amount, quality and continuity; that approximately 40% receive services affected by management problems and with infrastructure in a state of disrepair; and that the remaining 30% receive either poor services or no services at all. As regards the status of sanitation services for rural communities, it is estimated that 40% have access to either a latrine or a conventional sewerage system, but that neither is not sustainable.

Table 2.2.2: Geographic area and population

Population (thousands)	1990	1995	2000	2005	2010	2015
Urban						
Men	7,487	8,496	9,348	10,162	10,982	11,789
Women	7,468	8,437	9,299	10,134	10,985	11,833
Total	14,955	16,933	18,647	20,296	21,967	23,622
Rural						
Men	3,457	3,499	3,702	3,889	4,067	4,254
Women	3,341	3,404	3,590	3,761	3,923	4,096
Total	6,798	6,903	7,292	7,650	7,990	8,350
Total	21,753	23,836	25,939	27,946	29,957	31,972
Men	10,944	11,995	13,050	14,051	15,049	16,043
Women	10,809	11,841	12,889	13,895	14,908	15,929

Sources: INEI, Population projections 1950-2050

The results of the Standards of Living Survey (INEI-ENNIV 2000) revealed that the rural population was concentrated in some 1.8 million households, geographically distributed by region as follows: 41% in the mountains, 25% in the coastal region and the remaining 34% in the jungle. Half of these rural households are located in small hamlets, while 14% form a part of *campesino* communities (an organization found primarily in Andean regions).

2.3. Health indicators

The insufficiency of appropriate water and sanitation services in urban areas (particularly among the urban poor), as well as in rural regions, impacts directly (INEI, ENDES 2000) on the following:

- the child mortality indicator, which reflects a national average of 47%
- live births and the fact that acute diarrheal diseases (ADD) total 4.23%
- elevated prevalence rates for diseases contracted by fecal-oral transmission, to which children under age five are particularly susceptible
- failure to attend school as a result of ADD or the need to haul water
- loss of person-hours of labor and decrease in productivity as a result of diseases tied to the lack of water and sanitation services, both of which impact on the precarious economy of the rural population

Cases of children under age five years treated for acute diarrheal diseases (ADD) decreased from 607,871 cases in 1996 to 538,245 in 2001. In 2000 it was reported that the cause of 1.2% of the deaths among the general population was infectious intestinal disease (INEI, *Perú en Cifras*). The human development index (HDI) reached a level of 0.73 (UNDP, *Evaluación 2001*). Birth and mortality rates are 23.7 and 6.2 per 1,000 inhabitants, respectively. Between 1993 and 2002, average life expectancy rose from 66.9 to 69.7 years.

Table 2.3.1: Health indicators

Indicators	1993	2002	Observations
Life expectancy (years) [1]	66.9	69.7	
Men	64.6	66.6	
Women	69.4	71.6	
Birth rate [1]		23.7	Births/1,000
Mortality rate [1]		6.2	Deaths/1,000
Infantile mortality rate	55.5[1]	33.4[1][2]	Deaths of children <1 year/1,000 live births
Child mortality rate		55.5[2]	Deaths of children <5 years/1,000 live births
Regional averages [2]			
Infantile mortality rate		34.4	Deaths of children <1 year/1,000 live births
Child mortality rate		26.8	Deaths of children <5 years/1,000 live births
Deaths recorded from acute diarrheal disease (ADD) [2]		5	% of deaths of children <5 years

Sources: INEI, Population projections 1950-2050; Country Health Profile, PAHO/WHO 2002.

2.4. Coverage

2.4.1. Service area

There are some 54 service provider companies (empresas prestadoras de servicios, or EPS) operating in the subsector, including SEDAPAL, with the latter responsible for serving 29% of the country's total population, while the remaining EPSs account for 31%. There are other urban administrations, under the direct responsibility of the municipalities, that are required to serve 6% of the population, and community organizations that serve 34%, primarily in the rural area. Available figures do not disaggregate coverage provided by domestic hookups for safe water and wastewater.

Table 2.4.1-a: Commercially Established Service Coverage for the Sanitation Subsector - 2000

Commercially Established Service Providers (CEPS)	EPS		TOTAL EPS [2]	Service Coverage		
	Recognized by SUNASS	Not recognized by SUNASS [1]		Nº Towns Served	Population (thousands)	%
SEDAPAL	1		1	1	7.405	29
Large EPS	10	1	11	80	5.320	20
Medium EPS	16		16	54	2.057	8
Small EPS	18	8	26	26	848	3
Total	45	9	54	161	15.630	60

[1/] It refers to the District Municipalities (with the exception of Huancayo's Provincial Municipality) which have formed their own service providers and decided not to belong to the Provincial Service Providers. This is due mainly because of geographic and economic-finance constrains. Also, SUNASS only recognizes those Provincial or Multi-Provincial Service Providers (no by District) which have within their direct administration more than 1.000 domestic potable water connection. ; [2/]Includes de following service providers: SEDAM HUANCAYO, EMSAPA YAULI – LA OROYA, EMAPA CHANCAY, EPS AGUAS DEL ALTIPLANO, EPS PATIVILCA, EMAPA SALAS, EMSAPA CALCA, EMSAP ACOBAMBA and EMAPA LUYA – LAMED, which currently don't have the SUNASS approval.

Table 2.4.1-b: Non-Commercially Established Service Coverage for the Sanitation Subsector - 2000

Non-Commercially Established Service Provider	No. Total Localities	Service Coverage		
		Nº of Localities [4]	Population (thousands)	%
Other Urban Adm.	295	295	1.492	6
OCR[5] (500 - 2000 hab.)	5.084 [3]	2.652	2.948	11
OCR[5] (200 - 500 hab.)	10.260 [3]	4.948	3.148	12
OCR[5] (< 200 hab.)	60.421 [3]	4.200	2.730	11
TOTAL	76.060	12.095	10.318	40

[3/] Includes localities with characteristics of rural and urban population of less than 2,000 inhabitants;
[4/] Source: Evaluation of the Sanitation Services in Peru, year 2000, DIGESA-MINSA. Prepared by: VMCS; [5/] OCR: Rural Community Organization (Organización Comunal Rural)

2.4.2. Safe water and sanitation service coverage

The estimate of water and sanitation service coverage for the year 2000 was based on information provided by among others SUNASS, the EPSs, DIGESA, PRONAP, FONCODES and INEI. The population for 2000 has been disaggregated by service area of the sanitation service administrations, with classifications for urban and rural (less than 2,000 inhabitants) population. Demand was also disaggregated into eight categories, of which five correspond to urban areas and three to rural areas. The groups involved in the rural area include SEDAPAL, large EPSs, medium EPSs, small EPSs and other administrations in the noncommercial provider classification. Groups in rural areas include towns with populations of between 500 and 2,000 inhabitants, towns of between 200 and 500 inhabitants, and towns with up to 200 inhabitants.

Tabla 2.4.2-a: Percentage and Population with access to Water and Sanitation Services At National and Local Level - 2000

Service Area	National Population (millions)	Population Served			
		Potable Water		Sanitation	
		Inhabitants per millions	%	Inhabitants per millions	%
National	25.9	19.5	75	14.4	55
Urbana	17.1	14.0	82%	11.8	69
Rural	8.8	5.5	62	2.6	30

Tabla 2.4.2-b: Population with Water and Sanitation Service according to Level of Service

Service Level	Population (millions)	Percentage %
Potable Water		
Domestic hookup	17.4	67
Communal and others	2.1	8
Sanitation		
Domestic hookup	12.7	49
Latrines	1.7	6

Prepared by : VMCS

Tabla 2.4.3: Percentage of National Population with access to Water and Sanitation Services and Systems according to Service Provider and Area Served - 2000

Service Provider	Population (Inhabitants per millions)	Population served			
		Potable Water		Sanitation	
		Inhabitants per millions	%	Inhabitants per millions	%
Urbano	17.1	14.0	82	11.8	69
SEDAPAL	7.4	6.5	87	6.1	82
Large EPS[1]	5.3	4.4	83	3.7	69
Medium EPS[2]	2.1	1.6	79	1.2	56
Small EPS [3]	0.8	0.6	67	0.4	52
Other adm. [4]	1.5	0.9	60	0.4	30
Rural	8.8	5.5	62	2.6	30
Large OCR[5]	2.9	2.4	82	1.3	44
Medium OCR[6]	3.1	1.9	59	0.9	28
Small OCR[7]	2.7	1.2	45	0.4	16
National	25.9	19.5	75	14.4	55

[1/]Service providers with 3.000 to 160.000 connexions. [2/]Service providers with 10.000 to 30.000 connexions. [3/]Service providers with less than 10.000 connexions. [4/]Other Administrations (Municipalities).[5/]Large OCR: Rural Community Organization with a population between 500 - 2000 inhabitants. [6/]Medium OCR: Rural Community Organization with a population between 200 - 500 inhabitants. [7/]Small OCR: Rural Community Organization with a population of less than 200 inhabitants.

Source: Management Indicators for Sanitation Service Providers in Perú. 1998-1999-2000, SUNASS; Service Providers, General Directorate of Enviromental Health (DIGESA).

Prepared By : VMCS

2.5. Performance, management and quality of service

2.5.1. Quality and efficiency indicators

Continuity of safe water service

In the commercial provider category, with the exception of four enterprises that provide continuous service, 93% of the EPSs suffer from problems of continuity in the provision of water service. Average continuity increased from 16 hours per day in 2000 to 17.4 hours in 2001.

Table 2.5.1-a: Average continuity of safe water service in the commercial provider category

Enterprises	Hours of service per day				
	2000			2001	
Commercial provider category	16.0			17.4	
SEDAPAL	17.6			20.0	
EPSs					
Large	13.5			14.6	
Medium	15.3			14.1	
Small	16.4			16.5	
Historic evolution	1997	1998	1999	2000	2001
Hours of service per day	13.9	12.9	14.8	16.0	17.4

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises.

Prepared by the authors.

In the non-commercial provider category, which includes the rural milieu, service provision is intermittent. In its study entitled *Global Evaluation of Water Supply and Sanitation Services 2000*, PRONAP reported that, for a sample of 20 medium and small towns, 75% have intermittent service while 50% receive service less than 10 hours per day.

Consideration is being given to the possibility of increasing the level of service continuity in order to reach an average of 23 hours per day by 2006. Toward this end, projections call for improving distribution and rationalizing the availability of the unit production of water by means of macro and micrometering programs, sectorization of distribution networks, reductions in losses and wastage, and improvement of pressure levels in secondary networks.

Micrometering: unmetered water

In the commercial provider category, average micrometering increased from 48.3% to 50.3% from 2000 to 2001. Four percent of the enterprises have a level above 80%. In Metropolitan Lima, the level of micrometering for 2001 was 68.4%, while in 2002 it dropped to 66.9% (SEDAPAL).

A second problem involves the lack of programs for preventive and corrective maintenance of meters. Although most EPSs have meter calibration benches, they do not have in place serious maintenance programs, and in many cases use the bench only to calibrate meters showing high levels of consumption and user complaints. Accordingly, until such time as effective metering in Peru is improved at both the production level (macrometering) and the consumer level (micrometering), any reference to unmetered water will be questionable.

The percentage of unbilled water dropped from 46.4% to 45.6% between 2000 and 2001. SEDAPAL reduced the percentage of unbilled water to 40% in 2002.

Table 2.5.1-b: Micrometering in safe water service, historic evolution

Enterprises	Percentage of micrometering	
	2000	2001
Commercial provider category	48.3%	50.3%
SEDAPAL	62.8	68.4
EPSs:		
Large	40.7	39.8
Medium	31.5	29.5
Small	42.9	43.3

Historic evolution	1997	1998	1999	2000	2001
% micrometering	23.6	30.2	39.8	48.3	50.3

Micrometering = [No. of meters operational / Total no. of water hookups] x 100

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises.

Prepared by the authors.

Unit production

Based on safe water produced and population served, it is estimated that the enterprises produce an average per capita supply of 278 liters/inhab./day (Table 2.5.3). This per capita supply is quite high, given the level of economic development of Peruvian cities. Of note, however, is the fact that, despite these high given levels of production in most cities, problems of service intermittency continue to occur.

In 2002, unit production in Lima decreased from 274 to 263 liters/inhab./day.

Table 2.5.1-c: Unit production (liters./inhab./day)

Enterprises	Per capita production in liters/inhab./day	
	2000	2001
Commercial provider category	303	278
SEDAPAL	313	274
EPSs:		
Large	277	268
Medium	311	309
Small	281	284

Historic evolution	1997	1998	1999	2000	2001
% micrometering	23.6	30.2	39.8	48.3	50.3

Unit production (liters/inhab./day) = [volume of water produced during the year (m^3) x 1000] / [No. of active water hookups x average inhabitants per hookup x 365 days]

Services with disinfection systems

According to information provided by SUNASS, of the 45 enterprises reported, the presence of residual chlorine has been found in the network in 96.7%.

Table 2.5.1-d: Presence of residual chlorine in the networks

Enterprises	Presence of residual chlorine	
	2000	2001
Commercial provider category	95.9	96.7
SEDAPAL	99.7	99.9
EPSs:		
Large	95.1	95.7
Medium	92.5	93.8
Small	86.8	91.4

Historic evolution	1997	1998	1999	2000	2001
Presence of Cl %	90.1	84.7	91.1	95.9	96.7

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises.

The greatest problem is found in the rural area; of a sample of 1,630 systems analyzed, 59% do not disinfect water because they lack the necessary systems or commodities. Considering the fact that in towns with less than 2,000 inhabitants some 11,800 systems are currently in operation, it can be concluded that nearly 7,000 rural systems lack disinfection systems. This is why, in the current plan, one priority activity is to increase disinfection in all systems, particularly in rural areas.

2.5.2. Financial indicators

Payment Delinquency

At the enterprise level, average payment delinquency (accounts receivable) is equal to six months of billing. Approximately 46% of the EPSs have a payment delinquency

level of less than three months and 15% have a level in excess of 12 months. High levels of payment delinquency generate problems of liquidity and weakness in EPS capacities, making it difficult for them to carry out proper operation and maintenance of infrastructure and, consequently, to honor debt service commitments. Under such conditions, the regulatory agency (SUNASS) could well question the need for the rate increases requested by the EPS.

Table 2.5.2-a: Level of Payment delinquency

Enterprises	Number of months of payment delinquency	
	2000	2001
Commercial provider category	5.9	5.4
SEDAPAL	4.8	4.6
EPSs:		
Large	9.0	7.3
Medium	6.7	6.9
Small	4.4	4.3

Historic evolution	1997	1998	1999	2000	2001
Payment Delinquency (months)	4.9	6.4	6.2	5.9	5.4

Payment Delinquency (months) = [accounts receivable at year end] / [amount billed per year/12 months]

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises

Prepared by the authors

Operating Margin

In the commercial provider category, the operating margin reached a level of 28% (Table 2.5.6). This average has increased, as SEDAPAL shows a level of 35% while the EPSs record an average level of only 16%. In addition, 11% of the EPSs (1 large, 3 medium and 2 small) show a negative operating margin, meaning that they cannot even cover their operating costs, which in turn leads to deterioration of infrastructure and service quality.

Table 2.5.2-b: Operating margin as of 2000

Enterprises	Number of EPSs by operating margin					Average %
	Negative	[0 to 10%]	[10 to 20%]	[20 to 30%]	[30%+]	
Commercial provider category	6	11	12	10	8	28
SEDAPAL					1	35
EPSs	6	11	12	10	7	16
Large	1	3	2	4	1	17
Medium	3	5	6	1	1	10
Small	2	3	4	5	5	17

Operating margin (%) = [total operating revenues – operating costs without depreciation or reserves] / [total operating revenues]

No information available for: EMAPA PASCO, EPS NOR PUNO, EMSAP CHANKA, EMAPA SALAS, EMSAPA CALCA, EMSAP ACOBAMBA or EMAPAL.

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises.

Prepared by the VMCS.

In addition, the average debt indicator (total liabilities) over operating margin is 9 years. This indicator expresses, in years, the number of operating periods in which the enterprises have committed their annual operating margin to paying debts. In SEDAPAL, this figure is 6 years, while for the other EPSs it is 19 years. Twenty percent of the EPSs have an indicator greater than 15 years, while the indicator for 7% is 15 to 30 years, and for 9% 60 or more years.

Table 2.5.2-c: EPS debt – sanitation (as of 12/31/2000)

Debt (millions of US$)							
ENTERPRISE	Direct ex FONAVI	Contrib. reimb. ex FONAVI	Others [1]	Total debt	%	Total debt – contrib. reimb.	%
Commercial provider category	251	526	373	1.150	100	624	100
SEDAPAL	121	122	263	507	44	384	62
EPSs	130	404	110	643	56	240	38
Large	64	242	98	404	35	162	26
Medium	56	132	10	199	17	67	11
Small	10	30	1	41	4	11	2
%	22	46	32	100			

[1/] Debts SUNAT, SUNASS, ESSALUD, ministries, national and foreign banks, EPS workers, providers, etc.

Source: Information provided by EPSs as of Dec. 31, 2000; information from COLFONAVI.

Prepared by the VMCS.

As of December 2000, 41 EPSs had debt with third parties totaling US$1.15 million, of which 46% corresponds to reimbursable contributions to the former UTE-FONAVI (US$526 million). If the latter figure were not included, debt would drop to US$624 million, of which 62% corresponds to SEDAPAL.

From Table 2.5.7 it can be seen that of the total debt contracted by the EPSs with the former UTE-FONAVI (approx. US$777 million), 32% (US$251 million) represents debt contracted directly by EPSs, while the remaining 68% represents debts contracted by users, an amount that was subsequently transferred to the EPSs (reimbursable contributions). Based on the analysis conducted by the VMCS, it can be concluded that, if it is assumed that 30% of the gross margin of the EPSs (excluding SEDAPAL) is earmarked for payment of debt contracted directly by the EPSs. The latter would require an average of 44 years to amortize that debt.

Rates

Generally speaking, rates are low — an average of S/. 1.31/m^3 — but not necessarily as a result of the management efficiency of the enterprises; rather, these low rates are a reflection of the quality of service provided. In the commercial provider category, the average monthly payment per user is S/.41, signifying an average consumption of 30 m^3/month/user.

Table 2.5.2-d: Mean rate, historic evolution

Enterprises	Mean rate in S/./m^3				
	2000			2001	
Commercial provider category	1.45			1.31	
SEDAPAL	1.61			1.38	
EPSs:					
Large	1.29			1.33	
Medium	1.11			1.00	
Small	0.91			0.97	
Historic evolution	1997	1998	1999	2000	2001
Rate S/. /m^3	1.04	1.18	1.29	1.45	1.31

Source: Management Indicators of Peru's Sanitation Service Provider Entities.

1998-2000-2001, SUNASS; Sanitation Service Provider Enterprises.

Prepared by the authors.

Table 2.5.e: Average monthly payment in 2000

Enterprises	Average monthly payment (S/./month/user)
Commercial provider category	41
SEDAPAL	57
EPSs	26
Large	29
Medium	23
Small	19

Source: Management Indicators of Peru's Sanitation Service Provider Entities. 1998-2000, SUNASS; Sanitation Service Provider Enterprises.

Prepared by the VMCS.

2.6. Investments in sector development

2.6.1. Historic levels of investment and financing sources

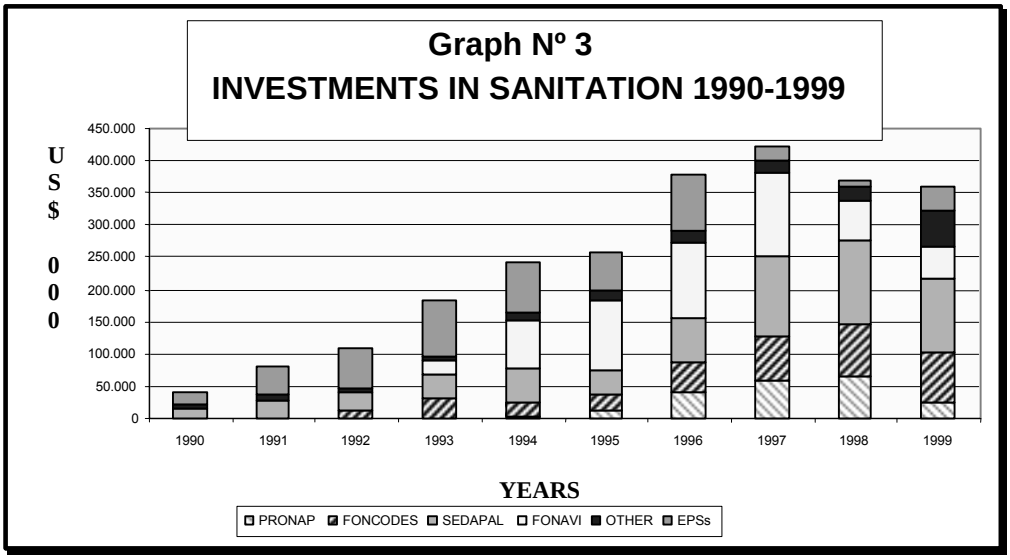
In the 1990s, approximately US$2.440 billion, equal to 14% of total public investment during the period, was invested in the sector. Some 29% of these investments were financed by the Central Government, 26% by SEDAPAL, 23% by FONAVI and the remaining 22% by other service provider entities and nongovernmental organizations. In the same period, it is estimated that investments made in urban areas totaled US$2.018 billion (83% of the total), with rural area investments registering US$425 million (17% of the total). Eighty-five percent of investments in rural areas were made by FONCODES.

Table 2.6.1: Investments in the sanitation sector, 1990-1999

Provider category	Period		Total	%
	1990-1994	1995-1999	1990-1999 (US$ M)	
SEDAPAL	162	475	637	26
MESIAS (Lima Sur)	0	36	36	2
FONAVI	96	468	564	23
Rest of urban area	323	458	781	32
Total urban area			2.018	83
Total rural area	72	353	425	17
Total	653	1,790	2.443	100
Investment per cápita (US$/inhab.)	6	15	US$11/inhab.	
%GDP	0.3	0.7	0.5%	

Source: Ministry of the Presidency. Sanitation Subsector Assessment, September 1999; Directorate General of Sanitation.

Prepared by the VMCS.



2.6.2. Management goals

The Strategic Plan for the Sanitation Subsector 2002–2011 emphasizes for the urban area, and particularly at the level of the EPSs, improvement of enterprise management, with a view toward increasing financial viability, service quality and investment sustainability.

Table 2.6.2: Average management goals for the commercial provider category: 2002-2011

Indicator	2000	2006	2011
Service continuity (hr./day)	16	23	23
Unit production (lt./inhab./day)[1]	347	311	305
Micrometering (%)	46	95	95
Payment Delinquency (months)	6	2	2
Operating margin (%)	28	52	54
Active hookups (%)	85	95	95
Average monthly payment (S/./month)	41	45	46

1/ Unit production is calculated by taking as the basis production for the base year.

Prepared by the VMCS.

Rural area

Management goals respond primarily to the strategic objective of achieving investment sustainability, for which it is necessary to organize and provide intensive training to communities and secure the active participation of both the beneficiary population and the municipalities, with the sanitary education component forming a central pillar of the strategy.

3. Summary of Current Policies

3.1. National policies that affect the sanitation subsector

3.1.1. Transector policies of the Central Government

There are a series of policies that represent a political consensus between the government and Peru's political parties. For some time now, these policies have provided a global direction to the process of government within Peru's philosophical framework. These transector policies lay out directions observed by all sectors in developing their strategic plans and programs.

Decentralization

> *"We are committed to developing an integral process of political, economic and administrative decentralization, by gradually transferring authorities and resources from the national government to the regional and local governments in order to eliminate centralism. We will build a system of political, economic and administrative autonomies, based on the application of the principle of subsidiarity and complementarity among the national, regional and local levels of government of the State, in order to strengthen these levels of government and promote the growth of their economies."*
>
> *— National Resolution, National Resolution Forum, September 2003.*

In the process of government reorganization and the most recent projections, the formulation of Law No. 27783, the Decentralization Base Law, establishes the democratic, decentralized and deconcentrated structure and organization of the State for both the national government and regional and local governments. In addition, it defines the norms that regulate administrative, economic, productive, financial, tax and fiscal decentralization. Within the provisions of that law, Law No. 27867, the Organic Law for Regional Governments, establishes and regulates the structure, organization and authorities of regional governments.

Accordingly, health administration is delegated to the local level. The Organic Law Governing Municipalities, Law No. 23853, establishes responsibility for the monitoring and provision of water and sanitation services at the level of local governments. Accordingly, water and sanitation service provision in the rural sector falls within the area of competence of the municipalities.

The war on poverty

The Draft Law for the Public Sector Budget for Fiscal Year 2004 was presented at the National Resolution Forum on Tuesday, Sept. 30, 2003. A commitment was made to give priority attention to the war on poverty and to the reduction in social inequality, through the application of integral policies and mechanisms aimed at ensuring equality in economic, social and political opportunities.

Shared environmental administration

The Nineteenth Policy of State establishes the policy of sustainable development and environmental management through the integration of national environmental policy with economic, social, cultural and land use policies so as to help overcome poverty and achieve sustainable development in Peru. The objectives establish intersectoral coordination for the environment.

Private sector participation

The National Resolution Forum established the objective of promoting responsible and well-founded participation by the private sector and civil society in environmental decision-making and responsibility for compliance. In addition, it promoted the implementation of logistical and productive infrastructure products as elements of integral local and regional development plans. With Legislative Decree No. 757, the Framework Law for the Growth of Private Investment continues in effect since 1991. To date, private sector participation has been limited to outsourcing the services required by the operators of public water and sanitation enterprises, with the exception of a concession contract for the construction and operation of a water plant in Lima's northern cone (Chillón) issued by SEDAPAL. Private participation processes are in effect at the provincial level, promoted by PROINVERSION in Piura and by the Tumbes water and sewerage enterprise.

3.1.2. The intentions set forth in the MVCS Strategic Plan

The 2002-2011 Strategic Plan grew out of a fundamental need for a governing framework to support the orderly and integrated development of the sanitation subsector. According to information provided by the MVCS on the date of the study, the plan is only a draft, as yet unapproved and with no official dissemination, so that it represents the intentions of the MVCS and provides an approximation of what could be called government policies, once approved.

This Plan, which by promoting their integration covers both the urban and rural areas, includes not only activities to be conducted pursuant to the mandate of the Ministry of Housing, Construction and Sanitation, but also those activities that by law must be carried out directly within the sphere of competence of the EPSs, small municipalities and JASS, which are responsible for service administration, operation and maintenance.

The Plan promotes the optimization of the activities to be carried out, taking into account the fact that the critical nature of the crisis affecting the subsector provides no margin for prolonged periods of analysis, but rather requires the immediate launching of an intense process of recuperation.

The problems

The Plan responds to the perceptions of problems defined by the MVCS as follows:

1. Absence of a subsector policy, primarily as regards finances, that has led the State to finance investments in the subsector without the benefit of technical, economic or social criteria (some 6 million inhabitants are without safe water service and 11 million lack latrines or sewerage service), as a result of which the EPSs find themselves in dire financial straits.

2. Low levels of service coverage that impact on the country's poorest population groups.

3. Poor quality of service provision, placing the health of the general public at risk.

4. Low level of sustainability of systems built. For the year 2000, wastewater treatment coverage was estimated at 18% for the national level, representing a serious problem of environmental contamination.

5. The size of the markets for which the EPSs are responsible precludes proper management; in addition, it makes it impossible to take advantage of economies of scale or to attain financial viability.

6. In the commercial provider category, 93% of the EPSs are affected by problems of continuity in the provision of water service.

7. Mean continuity is 16 hours per day (see Chart No. 4). Thirty-four percent have a continuity of less than 12 hours of service, while 45% have between 12 and 20 hours and 21% less than 20 hours.

8. In the non-commercial provider category, which includes the rural area, service provision is intermittent: PRONAP reports that, of a sample of 20 medium and small towns, 75% have discontinuous service while 50% receive service less than 10 hours daily.

9. Until such time as the country improves metering at the production (macrometering) and consumption (micrometering) levels, any reference to unmetered water will be questionable.

Policy summary

1. The general public has access to sanitation service under adequate conditions of quality and price by means of providers of efficient, government-regulated

services, based on coherent and environmentally sustainable sector development policies.

2. Contribute to expanding coverage and improving the quality of safe water, sewerage, wastewater treatment and excreta disposal services by implementing strategies to include modernizing management of the sanitation subsector; increasing service sustainability; improving service quality; achieving the financial viability of service providers; and increasing access to services.

3. Rates must cover costs in order to eliminate dependency on the Central Government.

4. Subsidies must focus on the poorest population groups.

5. Investment subsidies must be linked to efficiency in service provision.In urban areas, emphasis will be on improving management, including the concept of financial viability. This strategy involves:

1. Optimizing the use of installed capacity prior to any investment designed to expand production, as well as obtaining from EPSs a cash contribution to their investment programs (30-45%).

2. Decreasing the number of inactive hookups.

3. Reducing the payment delinquency rate.

4. Establishing minimum operating margins in the EPSs to contribute to investment programs.

5. Reviewing and simplifying the rate structure.

6. Prioritizing investments in metering programs and rehabilitation works.

7. Defining for each step the appropriate policy for managing debt to the State.

In rural areas, including small towns where services are administered by municipalities, the strategy includes the following:

1. Communities must be formally organized in order to be eligible to receive financial support.

2. The community must demonstrate its ability to cover operating and maintenance costs for the type of system to be installed. 3. The community and the municipalities will be required to contribute a minimum of 20% of the investments, in either cash, labor or materials.

4. Highest priority will be given to improving water quality.

5. Municipalities providing services directly will be required to create a Management Unit to administer them. The PRONASAR Project will work with rural communities through regional intermediary organizations (a variety of NGOs, consulting engineers with a social promotion capability, etc.).

6. In calculating investments in urban areas, a decision has been made to maintain the percentage of service coverage provided by means of hookups, increasing total service coverage by means of communal water points and latrines. In the case of SEDAPAL, a decision has been made to increase coverage primarily through the use of nonconventional technologies in the form of communal water points and latrines.

7. In calculating investments in rural areas, it is under consideration to increase water and sewerage service coverage using the proceeds of loans from multilateral organizations.

8. No provision has been made for implementing sewerage and wastewater treatment solutions for the rural area. Rather, latrine-based solutions are proposed.

9. Grants or nonreimbursable loans earmarked for works will be directed primarily toward the rural area, specifically to communities with less than 500 inhabitants.

10. In the rural area, a contribution of at least 20%, between community and municipality, has been established for financing their investments.

11. At a minimum, user fees must cover the operating and maintenance costs of the services provided.

12. In the rural area, Sanitation Service Administration Boards (*Juntas Administradoras de Servicios de Saneamiento,* or JASS) must be created prior to the implementation of any work.

13. It is under consideration to increase the coverage of sanitation services at the national level, primarily through the construction of latrines.

14. In the urban area, as a complementary action, vegetative population growth will be covered by means of sewerage hookups.

3.1.3. SUNASS regulatory controls

Regulatory control constitutes national policy. At present, the role played by SUNASS is changing. SUNASS is a national-level regulatory and oversight agency for service provision. Its mission is to oversee quality, coverage and rates in EPSs registered with the agency, regardless of whether they are public, private or mixed. In practice, this mission covers only services provided in urban areas.

SUNASS' oversight function focuses on verifying compliance with established norms governing the provision of sanitation services, as well as the commitments contained

in rate increase authorizations, with SUNASS empowered to take punitive action against any violations committed by provider entities.

Areas subject to oversight include the following:

- Coverage and quality in the provision of sanitation services in general.
- Service quality levels are established by SUNASS and specified in the commitments that form a part of rate increase authorizations, which thus become management objectives with which the EPSs are required to comply.

The primary criteria for service oversight include the following:

- Improvement of service quality, including:
  - average continuity
  - bacteriological quality of water
  - turbidity
  - per cápita production
  - average period for responding to complaints
- Increase in service coverage (safe water and sewerage).
- Service quality levels are established for each town served by the EPS.
- Compliance with sanitary norms, including those applicable to environmental and water resource conservation, without detriment to such actions as might be taken by other competent authorities.

Sanitary norms refer specifically to existing legislation governing the quality of water for human consumption, as well as the water quality control parameters established by SUNASS for each EPS.

With regard to norms governing environmental and water resource conservation, oversight activities will focus on verification of the proper operation and maintenance of existing wastewater treatment units and the quality of their effluents.

In the following chapter, Section 4.4 presents the legal framework for the sanitation sector. In broad terms, the legal framework is currently in transition, with a draft law currently being processed.

4. Results and Principal Findings

4.1. Political will

The Government of Peru has shown a substantial degree of political will toward the subsector, granting it an institutional presence at the national level. The Ministry of Housing, Construction and Sanitation was created in 2002 and includes the Vice-Ministry of Construction and Sanitation (VMCS), within which the National Directorate of Sanitation (DNS) is responsible for policy development as regards both safe water supply and sanitation. This is an important indicator of political will that is absent in many other countries of the region.

Another sign of the substantial support granted to the sector is the amount of US$2 billion invested in water supply and sanitation projects over the past 12 years and a total projected investment in excess of that amount over the next 10 years. Section 4.6 provides additional information on the investment made by Peru in water supply and sanitation works.

It is somewhat difficult to measure the degree of acceptance of national sanitation policies, as many of these are new or currently in the process of being developed. Many sectoral rates are unaware of VMCS policies that impact directly on their programs and responsibilities. In some cases, the assignment of responsibilities among sector institutions is not clear. For example, both the national regulatory agency (SUNASS) and the Ministry of Health have established quality standards for safe water. The VMCS now faces the challenge of facilitating dialogue between the various sectoral rates and assuming its lead role in matters involving planning and policy development.

4.1.1. Indicators of political will

What indicators or evidence exists to demonstrate the existence of political will to support the subsector, especially as regards the urban poor, the rural poor and small towns?

Indicators that political will does indeed exist include the following:

Clarity and sectoral emphasis in the budget: Thirty-eight percent of the projected budget amount of US$2.4 billion for the period 2001-2011 is committed. Programs are being implemented.

Formulation of the VMCS 2001-2011 Strategic Plan: The plan has not yet been distributed and is still subject to a broad process of consultation with, and participation by, sectoral rates.

Review of old laws and draft law: The law approved in 1994 is still in force. A 2000 draft law is still lacking implementing regulations and accordingly is not yet in force. There currently exists a legal commission, made up of sector representatives, with provisions regarding sectoral organization, control norms and principals, and expansion to allow private participation through concessions or other alternatives.

External cooperation within limits of indebtedness: External cooperation continues through a combination of loans and grants. Collaborating organizations include the Pan-American Health Organization (PAHO) and the Pan-American Center for Sanitary Engineering (CEPIS), the World Bank Water and Sanitation Program, Canadian Cooperation, Swiss Agency for Development and Cooperation (SANBASUR project and PROPILAS-CARE), German Technical Cooperation (PRO AGUA-GTZ supports SUNASS), USAID (Environmental Health Project), the European Union (Water and Food for Young Towns Program, associated with SEDAPAL), Japanese Cooperation (channeled by the JBIC and earmarked for areas along the northern border) and a number of international NGOs. Bilateral and multilateral institutions serve as anchors and to a large extent represent the institutional memory for the sector. It is the latter that convene meetings with sectoral rates and maintain stability during the absence or inactivity of national authority or in times of change or political instability.

Rural benefits with projects implemented: The results of recent projects in a number of periurban programs — for example, those implemented by CENCA, Center for Social Research and Popular Education (Alternativa), Center for Population Research, Documentation and Advisory Assistance (CIDAP), ECOCIUDAD, Asociación SER and SEDAPAL — are generating promising results. Among rural projects, support provided by the Swiss Agency for Development and Cooperation (COSUDE), through the Project for Basic Sanitation in the Southern Sierra (SANBASUR), shows good results, and especially promising is the fact that the second phase links sustainability to the process of strengthening the regional level of government. Programs implemented by PRONASAR, FONCODES (supported by loans from the World Bank, the Inter-American Development Bank and Canadian Cooperation) and JEVIC (Japanese Cooperation) have prioritized the rehabilitation of 70% of the rural systems already built. Government priority for systems rehabilitation recognizes that the errors of mass investments without appropriate levels of promotion, community participation and improvement in levels of service and adequate design must not be repeated. Although historic results may be an indicator of political will, follow-up and the continuation of efforts already underway will be the most appropriate indicators for judging the present.

The government encourages private sector participation: The intentions set forth in the Strategic Plan demonstrate the intent to involve the private sector: it is national policy. Recognizing that it is necessary to attract private sector investments and that

such investments are an essential element for expanding sanitation coverage is a demonstration of political will. Active support for the enterprises in their efforts to attract private sector participation is a second indicator, as evidenced by the EPSs in Piura and Tumbes and the pilot projects for small towns and communities being promoted by the VMCS.

Long-term effort and programs, such as "The War on Poverty": The government has committed to granting effective priority to the fight against poverty and reduction of social inequality by applying integral policies and mechanisms aimed at guaranteeing equal economic, social and political opportunities. This action is consistent with international cooperation policies, such as those of the World Bank and the United States Agency for International Development (USAID).

Indicators not in evidence

No evidence was found that the VMCS profile is particularly high as regards press coverage and presidential pronouncements. Many of the messages emanating from the Ministry refer to housing. Research provided no evidence of public debates or invitations to meet with subsector social rates. This function is evidenced more by external cooperation organizations.

4.1.2. Policy acceptance

Policies that are very specific and closely related to the area of application, such as the regulations and norms applicable to the water enterprises and management boards (rates, management norms), are as a rule both accepted and observed. Policies that involve expenses that exceed the financial capacity of the enterprises are not always observed (such as requirements in terms of water quality and use of chlorine in small rural systems). In many cases there are no norms governing construction of latrines. Policies present many gaps, an issue that will be covered in the section on conclusions (national policies for periurban areas and small towns). Generally speaking, national VMCS policies are unknown. SUNASS oversight policies with regard to registered Service Provider Enterprises (*Empresas Prestadoras de Servicios*, or EPS) are known. There are indicators of resistance to their acceptance as regards rate forms (although ultimately the acceptance of the local board is required in order for the EPS to implement a rate) and the process of preparing an economic plan for SUNASS.

Acceptance of responsibility at the regional levels

Inasmuch as the VMCS has not yet put forth any concerted effort to publicize and seek feedback on its Strategic Plan, it is perhaps not surprising that many other sector rates have available so little information on the sanitation policies currently being considered by the Ministry. Regionalization and decentralization policies granting increased responsibility to municipalities for providing sanitation and safe water services enjoy considerable support; however, these institutions are concerned about their lack of capacity and resources to meet their obligations. Indeed, capacity and

resources appear to be the critical elements of most conflicts involving the sanitation policy framework. For example, the municipalities and enterprises are not opposed in principle to the quality standards set by the Ministry of Health for discharged wastewater; many, however, claim to have insufficient resources to comply with those standards.

There is also a considerable degree of tension as regards the policy framework vis-à-vis the rates applicable to water and sanitation services.[2] Both the VMCS and SUNASS advocate, at least nominally, a policy of total recovery of operating and maintenance costs through the application user fees. In addition, in its capacity as consumer protection agency, SUNASS has also pressured the service provider enterprises to apply "social rates" and to include cross-subsidies in its rate structures, a decision which, in the opinion of some enterprise officials, undermines their ability to move toward financial self-sufficiency. Moreover, rate policies that provide for cost recovery clearly have not been accepted by elected officials, a situation which, in view of the approval authority of the latter over rate increases, has important implications for the fate of this area of sanitation policies.

There has been no evidence to date to suggest that the regional levels have assumed their normative and oversight responsibility with respect to the provision of urban, periurban and rural water and sanitation services in their service areas. The lack of technical personnel and regulation of norms are two of the difficulties faced by regional governments.The experience of the SANBASUR projectin Cusco is of interest because of the strategic-level objectives proposed, such as strengthening regional government over the next three years. If this model turns out to be satisfactory, it will benefit the subsector, and this experience would in addition provide the VMCS with a priority strategy to include in its Strategic Plan and work plan.

Implementation plan priorities for sector rates

There has been no evidence to date to suggest that rates are observing the framework of a sectoral master plan with priorities for serving the urban poor, small towns and rural population through excreta elimination programs. Each rate (particularly the NGOs) follows its own separate plan (this topic will be addressed in greater detail in subsections 5.3 and 5.4).

Promotion, experimentation and learning of technological solutions based on effective field-testing

Considerable experimentation has been carried out with a variety of technological solutions for the rural sector (composting latrines, pour-flush latrines), and also for the marginal urban population with management systems, condominial solutions and latrines. These experiments need to be taken to the national policy level, with support from appropriate governing and oversight agencies.

[2] Generally speaking, this debate is limited to the urban areas, as responsibility for the operation and maintenance of sanitation systems installed on site in rural areas falls to individual families.

Promoting and supporting intersectoral cooperation

There is a need to support both the development and acceptance of policies that promote the learning of good practices and technological solutions for the jungle regions. In addition, national universities could be invited to participate more actively in the process of sectoral experimentation and learning.

4.2. Target population

Peru's sanitation policy framework, as articulated in the Strategic Plan for the Vice-Ministry of Construction and Sanitation, refers specifically to two of the three target groups: rural communities and small towns. Following is a brief description of how these two groups are addressed. Although the urban poor are discussed briefly with regard to coverage plans for SEDAPAL, Lima's water and sanitation enterprise, the Ministry has not proposed any politics or programs adapted specifically to the needs of low-income families. As generally interpreted, the policy is to leave the provision of service to this sector of the population to the initiative of provider enterprises and local governments, with limited guidance from the VMCS.

Rural communities

The Strategic Plan expresses special concern for the sustainability of water supply and sanitation infrastructure in rural areas. Consequently, VMCS priority activities for its rural programs include the use of a number of "demand filters," such as requirements for community organization and cost sharing, with a view toward improving the financial viability of water systems in particular.[3] Although they are doubtless justified, these strategies may also have the effect of delaying sanitation improvements in the country's poorest villages, which tend to have the lowest levels of organizational capacity and disposable income. The VMCS stresses the need for extension and training services which, if properly targeted, could help "level the playing field" for the poorest rural communities.

As regards sanitation, the VMCS will no longer approve sewerage projects for rural communities, opting instead to focus on latrine construction for purposes of improving sanitation services. Unlike the shared water systems, which are administered by the Sanitation Service Administration Boards (*Juntas Administradoras de Servicios de Saneamiento*, or JASS), either at the local level or by the municipalities, household latrines are typically not regulated, and their maintenance falls entirely to users. Apparently, the VMCS has not developed any specific strategies to promote the long-term sustainability of household sanitation facilities in the same way that it has done for community systems.

[3] In developing its cost sharing policy, the VMCS has defined eight categories of communities, using criteria such as population, density, etc. For each of these categories, guidelines would be established to determine the percentage of capital costs to be covered by users (although the VMCS will have no authority to enforce compliance with these guidelines). The exact percentages are still being developed and were not made available to the study team at this time.

Indeed, many aspects of the rural sanitation policy framework have yet to be clearly defined at the national level, which is not surprising in view of the challenge of unifying the wide variety of institutional rates and operating procedures currently in play in the sector. For example, the government's rural water and sanitation program (*Programa Nacional de Agua y Saneamiento Rural*, or PRONASAR) prioritizes communities based on need (poverty and low level of water and sanitation services, among other indicators), which in one or more ways runs counter to the emphasis given by VMCS to financial viability. A number of additional organizations, such as CARE and SANBASUR, implement water and sanitation projects in specific districts using unique approaches to address promotional, prioritization and implementation activities. In short, within the rural water and sanitation sector some communities receive services from their municipalities while others benefit from projects carried out with external financing. There are no national standards applicable to construction, assignment of system costs, or ownership of the systems installed under these programs.[4]

Small cities

Some 3.7 million Peruvians reside in 485 "small cities" (*pequeñas localidades*), defined as settlements with between 2,000 and 30,000 inhabitants. In 300 of these communities, water and sanitation services are administered directly by local governments. In the remaining 185, a "service provider enterprise" (*empresa prestadora de servicios*) provides services (although typically these smaller enterprises are not registered with SUNASS, the national regulatory agency). Coverage and service quality in these communities is typically more deficient than in large urban centers (see Chapter 2). In addition, more than half of the operating costs of this group of service providers is covered by Central Government transfers.

The national sanitation policy framework includes little explicit recognition of the challenges and special needs of Peru's small cities; in cases where this topic is addressed, there appears to exist uncertainty as to whether the VMCS perceives small cities as following more appropriately into a policy framework designed for urban or rural areas. For example, in its Strategic Plan the VMCS includes a single "Strategy for Rural Areas and Small Cities," suggesting that its rural programs will be designed to include small cities as well. Indeed, the next phase of the National Rural Water and Sanitation Program (PRONASAR) will include a US$4 million component earmarked for communities with populations of between 2,000 and 30,000.

On the other hand, with the exception of a common cost sharing policy (20% of capital costs and 100% of operating and maintenance costs) for rural residents and residents of rural areas and small cities, small cities are typically considered in the VMCS Strategic Plan to be urban communities. For example, the plan stresses the creation of networks of small water enterprises and/or municipalities to administer

[4] The VMCS is considering a policy proposal that would require rural residents to contribute 20% of the capital costs of new systems and 40% of system rehabilitation costs. It is not clear what percentage of this counterpart could be made in the form of labor or in-kind contributions. Overall, this policy is consistent with the current practice of several of the country's largest rural water and sanitation projects, which require contributions of between 10% and 30%.

water and sanitation services directly, in order to take advantage of economies of scale in the areas of management and financing, a criterion made evident in a policy, as substantiated in PRONASAR's component 2, that is aimed at small cities, where work is being carried out in eight municipalities.

Fortunately, the World Bank-supported Water and Sanitation Program (WSP) has identified and is responding to this policy gap. The WSP is currently launching a research program, in collaboration with the VMCS and the Canadian International Development Agency (CIDA), to study promising management models for small cities and develop policy proposals for eventual implementation by PRONASAR and the VMCS. The WSP initiative (Pilot Project for Small Cities, known by its Spanish acronym PPPL) includes 10 small municipalities distributed among the coastal region, the mountains and the jungle. Under this initiative, the strengths and weaknesses of various service provision options, including those involving management contracts, lease contracts and consortium contracts, will be evaluated.

Policies and programs for target groups

There are many possible strategies for improving sanitation for underserved groups, including prioritization of target groups in the budget process, providing targeted subsidies, improving family access to credit, and promoting alternative technologies that would make available sanitation services that were safer and more affordable for the poor. Sections 4.2.1 through 4.2.3 discuss the extent to which Peru's current policy framework resorts to budgetary allocations, subsidies and credit programs to target sanitation services on underserved groups. Section 4.2.4 addresses the issue of land tenancy and investments in sanitation works in urban areas. The subject of alternative technologies is addressed in Section 4.3.

4.2.1. Budget priorities: targeting poor families

One of the many challenges faced by sanitation work planners in Peru is that approximately half of Peru's population lives in poverty. The National Statistics and Informatics Institute has classified 55% of families as poor in 2001. Of these, 44% (i.e., 24% of all Peruvian families) were classified as living in "extreme poverty."[5] The highest poverty rates are found in rural areas, particularly in the mountains. Assuming a household size of five, 20% of the country's poorest families earn an average of US$234 per capita per annum, i.e., approximately US$1,170 per year (Table 4.2.1). Naturally, income amounts vary considerably between districts, as well as between urban and rural communities.

5 The INEI uses both an approach based on a "minimum basket" as well as an approach based on "basic needs" to measure poverty in its national household surveys. It does not rely exclusively on income data to classify the poverty status of households; rather, it uses a series of indicators, including minimum caloric needs (adapted to the country's three principal regions); quality of housing; access to water and sanitation services; school attendance by children; and academic achievement of adults.

Table 4.2.1-a: Average monthly per capita income, per decile, 2000 (US$)

	Total	*Urban*	*Rural*
All deciles	95.8	129.1	38.1
Decile 1	13.7	18.6	4.5
Decile 2	25.0	35.7	7.9
Decile 3	34.7	48.1	11.5
Decile 4	44.6	60.7	16.4
Decile 5	53.9	72.9	20.6
Decile 6	64.3	86.3	25.9
Decile 7	81.1	108.4	33.3
Decile 8	103.9	139.9	42.2
Decile 9	151.6	203.2	61.6
Decile 10	385.4	218.2	156.8

Source: Díaz (2001), using data taken from the INEI's ENAHO 2000 household survey

Although the poverty rate is much higher in Peru's rural areas, in absolute terms most poor families live in urban communities (Table 4.1.2). Approximately one third of the country's urban poor live in Greater Metropolitan Lima.

Given the high prevalence of poverty in rural areas, investments in sanitation works in these regions may be generally classified as "pro poor." During the 1990s, some US$133 million was invested in rural sanitation projects. For the 2002–2011 period, US$67 million has been programmed by the VMCS for construction of latrines in rural areas, an amount that represents 17% of all funds earmarked for rural investments and 2.8% of the Vice-Ministry's general investment budget. The VMCS has also stated that "priority will be given primarily to improving water quality" in its rural investment program.

Table 4.2.1-b: Distribution of poverty in Peru, 2001

	Percentage of poor	*Number of poor (000s)*
Country	54.8	14.658
Rural area	78.4	5.830
Urban area	42.0	8.111
Lima and surroundings	31.9	2.564

Source of data: INEI (2002), Population Censuses and National Household Survey (2001)

It is much more difficult to determine, based on budget assessments, the extent to which investment funds for sanitation works in urban areas will be focused on small towns and the urban poor. The VMCS has budgeted US$713 million for urban sanitation works during the 2002-2011 period, an amount that represents 30% of its programmed investments. Of this total, 17% (US$123 million) is earmarked for the rehabilitation of existing sewerage systems, 75% (US$535 million) for extension of sewerage networks; and 8% (US$55 million) for the construction of latrines. No data was available on investments programmed in different types of urban communities (e.g., periurban areas). Most urban service providers are themselves responsible for determining when and how improved sanitation services will be provided to the

marginal areas included within their service areas. In Lima, for example, SEDAPAL has launched, with support from the World Bank, a Coverage Expansion Program (*Programa de Ampliación de la Cobertura*, or PAC), which will earmark some US$29 million for the expansion of networks in low-income neighborhoods of the capital city.

4.2.2. Subsidy programs

There is no national policy or program that establishes guidelines for the provision of subsidies targeting families or communities wishing to improve their sanitation services. The VMCS has emphasized in its Strategic Plan that "subsidies are to be directed to the poorest population groups," but has not specified the criteria to be used to prioritize family eligibility for receiving subsidy assistance. At present, capital subsidies range between 70% and 100% of costs for both water supply and sanitation projects, with the specific amount of the subsidy determined on the basis of the specific characteristics of the project (for example, source of financing and implementing institution).

Recognizing that national averages frequently conceal significant regional and local differences, it appears that targeted capital subsidies could have a substantial impact on the expansion of services to Peru's poorest families. For example, the per capita cost of a latrine at the community level is approximately US$30, which represents 40% of the annual income of a family of five in the poorest 20% of the rural population. According to the policy proposed by the VMCS, i.e., family participation equal to 20% of capital costs, the financial burden would decrease substantially, but would still be equivalent to at least one month of income for the poorest rural families.

In urban areas, the installation of sanitation services is proportionately much more costly for low-income families as compared to families in rural areas. Per capita costs of conventional sewerage systems total approximately US$200, equal to more than seven months' income for a family of five in the poorest 20% of urban families. (Alternative sanitation technologies for urban areas are addressed in the following chapter.) With a capital subsidy of 80%, such a family would still have to contribute 12% of its annual income in order to satisfy its cost-sharing obligations.

Although targeted capital subsidies are uncommon, it appears that the use of cross-subsidies to set service prices is common in urban areas. For example, in Cusco the "social" rate for water supply and sanitation services is used for families residing in the poorest areas of the city. This rate is lower, by approximately 36%, than the "regular" domestic rate and almost 80% lower than the rate applicable to commercial and industrial users. Similar rate structures are used in most of Peru's urban centers. One representative of the regulatory authority (SUNASS) observed that a proposed rate that did not include a "social rate" component would not be approved.[6]

[6] According to officials from the Ministry of Economy and Finance, there is no national policy requiring the use of social rates in water supply or sanitation services, even though such a requirement does exist for electricity service.

Although naturally the intent behind such rate structures is to make water and sanitation services more affordable for the poorest families, in practice they can be difficult to administer. As pointed out by an official of the Ministry of Economy and Finance, "almost all families" receive rates that are below the average cost of service provision, a practice which undermines the purpose of the cross-subsidy. Moreover, public and regulatory attention on rate setting has come to focus simply on the need to cover operating and maintenance costs, rather than generating the excess funds needed to extend services to the poorest households that are not even connected to the network. In Peru, more than 90% of the wealthiest 20% of families have access to water supply services, while less than 40% of the lowest-income quintile have access.[7] Since cross-subsidies within rates can affect only those who are *already* connected to the network, they cannot be used to benefit society's most disadvantaged groups, most of whom are not connected.

4.2.3. Programs of assistance with credit

For most poor families, the subject of the affordability of sanitation services is not related to monthly charges (an issue that authorities have attempted to address through "social" rate structures), but rather to the initial capital costs and/or hookup fees. Poor families frequently find it difficult to accumulate the funds necessary for these "large" investments; in addition, they have limited access to formal credit markets, and the interest rates prevailing in informal markets are not within their reach. For example, one study financed in 2001 by the Japanese Bank for International Cooperation revealed that 83% of the country's poorest families had no access to credit. At present there is no national policy or program that provides for or facilitates access to credit for low-income families wishing to improve their sanitation services.[8] In urban areas, water and sanitation providers are under no obligation to offer quota-based payment plans to poor families trying to establish new hookups to the network.

In rural areas, lack of access to credit has been addressed primarily by allowing families to contribute labor in lieu of cash to satisfy their mandatory contribution to capital costs. Some organizations, however, have been experimenting with new models for providing credit to communities. For example, CARE is working with private banks to establish investment credit funds for use by eligible communities in Cajamarca. After satisfying certain requirements, the communities may request loans, which must be amortized in accordance with a fixed schedule. CARE's experience to date with repayments under the program has been satisfactory, and it hopes that the VMCS will consider adopting this "municipal community" model in its rural PRONASAR project.

[7] V. Foster 1996, "Policy Issues for the Water and Sanitation Sectors." Working document No. IFM96-101 of the Inter-American Development Bank.

[8] The program implemented by the National Housing Fund (*Fondo Nacional de Vivienda,* or FONAVI) previously included a microcredit component, but that program has ceased operations.

4.2.4. Targeting the urban poor: the challenge of land tenancy

The service area of the water and sanitation enterprises in Peruvian municipalities includes settlements in the typically poor periurban periphery, extending in addition well into the rural areas surrounding the cities. There are opposing views as to the legality of extensions of the network into unplanned areas, with the latter defined for our purpose as settlements not recognized by the municipality and whose residents do not have titles of ownership to their lands. Although representatives of the National Directorate of Sanitation reported during interviews that the law does not prohibit the enterprises from extending their piped networks to such areas, authorities of the Ministry of Health and the Ministry of Women and Social Development were of the opinion that the law could be interpreted (as it has indeed been interpreted) to mean that such investments are illegal. For example, in Lima SEDAPAL requires families to show evidence of tenancy prior to approval of a network extension project. This is an area in which the VMCS could facilitate dialogue between sector institutions with a view toward consolidating and standardizing policies related to land tenancy and investments in infrastructure.

4.3. Service levels

Given the lack of large-scale microcredit or targeted subsidy programs for investing in sanitation works in Peru, the Vice-Ministry of Construction and Sanitation (VMCS) might consider promoting alternative (and low-cost) technologies as a means of facilitating access by poor families to improved services. To date, the development of such technologies has not been hampered by the national level-of-service norms. The Ministry of Health, in collaboration with the national regulatory agency (SUNASS), which serves only urban communities, has established norms for water and wastewater but has not issued regulations related to allowable levels of service for either water supply or sanitation; nor has the VMCS proposed, in its Strategic Plan, the establishment of such norms.

Historically, sanitation programs implemented by government agencies have installed conventional sewerage systems and, in rural areas, traditional latrines. In both poor urban and rural communities, recent evaluations of such programs have found low rates of connection to piped networks (on the order of 20%) (CENCA, 2001). The VMCS has responded to these discouraging results in its Strategic Plan by limiting all investments in sanitation works in rural areas to on-site technological options (i.e., latrines) until the year 2011. It would appear that there is no support at present for the idea of offering a range of options, each with its own costs and related obligations for families.[9]

[9] A number of organizations working in the area of rural sanitation do offer limited options for participating families, but most of these appear to be variations on a single level of service (for example, toilets with septic tanks that can be installed either inside the house or in a lavatory in the yard).

The policy gap as regards level of service norms has enabled a number of nongovernmental organizations (NGOs) to develop innovative technologies designed to be used in both rural areas as well as in poor urban areas. CENCA, for example, has worked in Lima's peripheral areas to install "dry ecological toilets," which include the treatment of wastewater and the reuse of graywater for public landscaped areas. The SANBASUR project in the district of Cusco has developed designs for flush-pour latrines and small diameter sewerage systems that have met with considerable success in rural communities. Other NGOs have also used these and other sanitation technologies in their own projects.

Although there is no doubt that these projects have contributed to expanding sanitation coverage and to broadening knowledge of appropriate service levels, this diversity of innovations can also pose challenges for the enterprises, the municipalities and the Sanitation Service Administration Boards (JASS), which are required to support the operation and maintenance of installed systems. While these institutions are clearly anxious to support projects that extend coverage in their areas of service, they are possibly poorly equipped to handle new technologies. In Lima, for example, SEDAPAL has only recently established construction standards that provide for the use of shallow "condominial" sewers. Indeed, in its Coverage Expansion Program (PAC), SEDAPAL is considering for the first time a range of sanitation technologies. With support in the form of a loan from the World Bank, this program installs conventional systems, condominial systems (costing some 40% less than conventional systems) or progressive systems (on-site sanitation), depending on both technical considerations and the ability of the community to maintain and co-finance the installations. It is likely that other enterprises, as well as municipalities and the JASS, have a much lesser capability than SEDAPAL to manage the construction and operation of a wide variety of sanitation systems.

To summarize, the historically flexible policy framework for sanitation service levels has allowed a considerable degree of experimentation and the construction of accessible and locally appropriate installations in many areas of the country. As the subsector moves forward, the national regulatory agency (SUNASS) could establish level-of-service norms that promote this type of technological development, but at the same time establish minimum norms where desirable (for example, number of persons per installation, distance between safe water piping and septic fields). The VMCS, on the other hand, could help disseminate information on alternative technologies from projects implemented in Peru as well as in other countries. It could also help develop policies requiring the installation of minimum levels of water supply and sanitation service on recently constructed properties.

4.4. Legal framework

4.4.1. National Political Constitution

The constitutional mandates having policy implications for the sanitation subsector are the right to health, decentralization, and public services, three core elements that

define direction in the policies, strategies and planning of the various institutional rates in the subsector.

Article 7 of the Political Constitution of 1993 stipulates that everyone has a right to the protection of their health, the family environment and the community, as well as the obligation to contribute to the promotion and defense thereof. Accordingly, this constitutional right is also a constitutional mandate and a government policy that provides guidance to sector policies and their enforcement, as is the case with the sanitation subsector.

In addition, Decentralization, Regions and Municipalities are discussed in Chapter XIV of Title IV of the Political Constitution, which defines decentralization as an ongoing process the objective of which is the integral development of the country. The corresponding constitutional mandate is contained in Law No. 27783, Law Establishing the Bases for Decentralization, setting out the new structure and organization of the State at the level of both the National Government and the regional government and local governments and defining a new model of planning and management in governmental decision-making.

The provision of public services, including water supply and sanitation, also has a constitutional mandate, as Paragraph 4 of Article 192 of the Political Constitution states that it falls to the municipalities to organize, regulate and administer local public services under their responsibility.

4.4.2. Laws of relevance to the subsector

Law No. 26338, General Law Governing Sanitation Services

Law No. 26338, the General Law Governing Sanitation Services (Ley General de Servicios de Saneamiento, or LGS), which established the legal framework for governing the structure and operation of the sanitation subsector and optimized the provision of sanitation services, was approved in 1994. In 2000, Legislative Decree No. 908 approved; this measure provided that, as of its effective date, it would replace Law No. 26338 and its Implementing Regulations (Supreme Decree No. 09-95-PRES), along with any legal provisions that ran counter to it. However, that Legislative Decree never went into effect, since the corresponding implementing regulations were never approved, the latter being a requirement set forth in the Sixth Complementary and Final Provision of that same legal document. Accordingly, the LGS Law is still in effect and currently constitutes the legal framework for the subsector.

Decree Law No. 25965, Law to Create the National Superintendency of Sanitation Services (SUNASS)

The National Superintendency of Sanitation Services (SUNASS) was created in 1992 by means of Decree Law No. 25965, which granted that agency powers to close the regulatory gap, in addition to regulatory functions over sanitation service provider

entities. This legal instrument placed garbage collection within SUNASS' area of authority, although it was excluded in subsequent legal provisions regulating the operation of the Superintendency.

Law No. 27779, Organic Law to Create the Ministry of Housing, Construction and Sanitation. Law No. 27792, Law to Establish the Organization and Functions of the Ministry of Housing, Construction and Sanitation

Law No. 27779, an organic law designed to modify the organization and functions of the ministries and which created the Ministry of Housing, Construction and Sanitation (VIVIENDA), was approved in 2002. The organization and functions of the latter are set forth in Law No. 27792, the implementing regulations for which are contained in Supreme Decree No. 002-2002-VIVIENDA, Organization and Operations Regulations.

Law No. 27332, Framework Law for Organizations Regulating Private Investment in Public Services

Law No. 27332, the Framework Law for Organizations Regulating Private Investment in Public Services, was approved in July 2000 and modified the normative framework for the National Superintendency of Sanitation Services (SUNASS). By virtue of that law, Law No. 26284, the General Law Governing the National Superintendency of Sanitation Services, was derogated by means of Supreme Decree No. 017-2001-PCM, SUNASS General Implementing Regulations.

Law No. 27293, Law Governing the National Public Investment System

Law No. 27293, the Law Governing the National Public Investment System, was approved in 2000 along with its Implementing Regulations, Supreme Decree No. 086-2000EF. Law No. 27293 created the National Public Investment System (Sistema Nacional de Inversión Pública, or SINAIP), the purpose of which was to optimize the use of public resources earmarked for investments.

Law No. 27783, Law Establishing the Bases for Decentralization

Law No. 27783, Law Establishing the Bases for Decentralization, was approved in 2000, in substitution of Law No. 26922, the 1988 Framework Law for Decentralization. This new law launched the effective regionalization and regulation of the structure and organization of the State in a democratic, decentralized and deconcentrated fashion, with specific responsibilities assigned to the National Government and the regional and local governments. In addition, the law lays out norms to govern administrative, economic, productive, financial, tax and fiscal decentralization.

Law No. 27867, Organic Law Governing Regional Governments

Law No. 27867, the Organic Law Governing Regional Governments (known by its Spanish acronym, LOGR), was approved in 2002; as established in its Article 2, this

law regulates a new level of government arising out of the popular will, endowed with legal and public law existence plus political, economic and administrative autonomy in matters falling within its jurisdiction, together with a separate budget established for its economic and financial administration.

Law No. 27972, Organic Law Governing Municipalities

Law No. 27972, the Organic Law Governing Municipalities, was approved in 2003; this law replaces Law No. 23853, incorporating new concepts designed to modernize the management of local governments within the framework of the country's decentralization and regionalization process.

Decree Law No. 17752, General Water Law

Decree Law No. 17752, the General Water Law (known by its Spanish acronym, LGA), [was] amended by means of Decree Law No. 18735 and Legislative Decrees Nos. 106-81 and 708. The first Article of the LGA law provides that all water, without exception, belongs to the State and that its domain is inalienable and imprescriptible. There is no private ownership of water, nor rights acquired with regard thereto. The justified and rational use of water can be granted only in harmony with the country's development and social interests.

Law No. 26842, Health Law

Law No. 26842, the Health Law, was approved in 1997. This law states that health is an essential condition of human development and a fundamental means for achieving individual and collective well-being, a concept which includes sanitation, inasmuch as the latter is an effective and substantive means for contributing to public health. In addition, the law stipulates that public health is the primary responsibility of the State.

As regards sanitation, the Health Law expounds on the topic of environmental protection for health. Its Article 106 states that, when environmental contamination implies a health risk or is harmful to individual health, the national-level health authority shall establish essential prevention and control measures to ensure that the acts or situations creating such risk and harm will be halted, something that the EPSs have done on many occasions.

Legislative Decree No. 613, the Code Governing the Environment and Natural Resources

Legislative Decree No. 613, Code Governing the Environment and Natural Resources, was approved in 1990. This Code is the result of an environmental trend that was occurring both in Peru and at the international level, and is the principal legal framework for matters concerning the environment.

Chapter XIX expounds on the topic of water and sewerage in a series of five Articles (there were initially six, but Article 107 was annulled by means of Legislative Decree No. 757, the Framework Law Governing the Growth of Private Investment). As

regards environmental protection, Article 111 is worthy of particular note, as it affirms that the State encourages the treatment of wastewater with a view toward its reuse, provided that such treated water satisfies the qualitative requirements established by the appropriate authority with no adverse effects on public health. In this case, the competent authority is the Ministry of Health, according to both the Water Law and the Health Law.

The National Environmental System established in Chapter XXII of the Code was annulled and replaced by the system described in Legislative Decree No. 757, now currently in force. The current environmental management model results from the fact that the sectoral authorities empowered to deal with matters related to the application of the provisions of the Code Governing the Environment and National Resources are the ministries for the sectors corresponding to the activities carried out by the enterprises, without detriment to the attributes falling to the regional and local governments as stipulated in the Political Constitution (Article 50 D.L. No. 757).

Accordingly, the Ministry of Housing, Construction and Sanitation is the environmental authority for activities involving housing, construction and sanitation carried out within its sphere of competence, as is the case with the sanitation service provider entities.

4.4.3. Technical norms for the sanitation subsector

This subject reflects a significant vacuum in Peru. The norms currently in force were put into place in the 1940s, 1960s and 1970s, a situation that provides evidence that one of the fundamental management roles in the sanitation subsector, i.e., the policy-making role, is extremely precarious. The agencies that have been involved in this area, however, have been the sanitation service provider institutions, as in the case of the enterprise responsible for providing this service in the city of Lima and, more recently, SUNASS, each in its respective area of intervention.

Regulations Stipulating the Official Physical, Chemical and Bacteriological Requirements that Drinking Water Must Satisfy in Order To Be Considered Safe.

This legal norm was issued on December 17, 1946, and regulates stakeholders affecting the quality of water in order for the latter to be considered safe for health purposes. It defines tests and criteria for interpreting biological results together with physical-chemical characteristics, among other things. However, this sixty-year-old norm is inadequate, which is why World Health Organization guidelines are used to supplement this norm, as has been done by a number of sanitation service provider entities as well as SUNASS.

Sanitary Norm Governing the Supply of Drinking Water by Tank Trucks

In 1979, the Ministry of Health issued Ministerial Resolution No. 045-79-AS/DS, the objective of which is to establish the minimum conditions necessary to protect the quality of water distributed by tank trucks. Among other provisions, this norm

establishes the requisite concentrations of residual chlorine in water supplied by this medium.

Regulations Governing Industrial Drainage Systems

By means of Supreme Decree No. 28-60-PL, issued in 1960, approval was given to the Regulations Governing Industrial Drainage Systems, which is the only norm establishing characteristics for wastewater entering the sewerage networks.

Sanitary Norm Governing the Design of Septic Tanks, Percolation Fields and Absorption Wells

In 1966, approval was given by means of Supreme Decree to the Regulations Establishing Sanitary Norms to Govern the Design of Septic Tanks, Percolation Fields and Absorption Wells. This norm establishes the appropriate technical requirements for designing septic tanks, a solution used primarily in areas where no sewerage is available.

4.4.4. Analysis

The decentralization process has established a new order in the structure and organization of the State and a new legal framework by virtue which the General Law Governing Sanitation Services (LGS), the legal framework for the sanitation sector, is now out of date. In addition, many of its provisions are inconsistent with those set forth in the Organic Law Governing Municipalities (LOM) and the Organic Law Governing Regional Governments (LOGR).

The LGS and its Implementing Regulations stipulate that provincial municipalities are responsible for the provision of sanitation services and that as a result it falls to them to grant operating rights to service provider entities. This provision is inconsistent with the new Organic Law Governing Municipalities, which defines the areas of competence of provincial and district municipalities with regard to sanitation services in their jurisdiction, Article 80 of Law No. 27972 (LOM), as indicated in Table 4.4.1.

Article 58 of Law 27867 (LOGR) stipulates that regional governments formulate, approve and evaluate regional plans and policies as regards housing and sanitation, in accordance with local government development plans and national policies and sectoral plans. Accordingly, the LOGR establishes strategic functions for regional governments in the area of sanitation, as a government authority at the regional level not envisaged in the General Law Governing Sanitation Services.

The LOM is consistent with the Organic Law Governing Regional Governments as regards sanitation functions, since for the regional government it establishes the functions of regional planning and management consistent with local government plans. For local governments, the law defines the administration and regulation of sanitation and safe water service in provincial and district municipal jurisdictions.

Given the inconsistency with regard to responsibility for the provision of sanitation services, Article 80 of the LOM prevails over Article 3 of the LGS (Table 4.4.1), since a provision in an organic law prevails over a provision contained in a general law.

Table 4.4.1: Responsibilities for the provision of sanitation services as per the LGS, LOGR and LOM laws

Organic and General Laws	Law No. 26338 General Law Governing Sanitation Services – LGS (1994)	Law No. 27867 Organic Law Governing Regional Governments – LOGR (2002)	Law No. 27972 Organic Law Governing Municipalities – LOM (2003)
Articles alluding to responsibility for sanitation services	Art. 3 The provincial municipalities are responsible for the provision of sanitation services, and consequently it falls to them to grant operating rights to the EPSs.	Art. 58 – Functions in the areas of housing and sanitation a. To formulate, approve and evaluate regional plans and policies in the areas of housing and sanitation, consistent with the development plans of local governments and in accordance with national policies and sectoral plans. e. To implement actions involving promotion, technical assistance, training, and scientific and technological research in the area of construction and sanitation. f. To provide technical and financial support to local governments in the provision of sanitation services.	Art. 80 – Sanitation, Healthfulness and Health <u>Provincial Municipality</u> 2.1. To administer and regulate, either directly or by concession, safe water and sanitation service when, as a result of economies of scale, it is efficient to centralize service provision at the provincial level. 2.3. To provide rural sanitation services when the latter cannot be provided by the district municipality or the municipalities responsible for rural population centers. <u>District Municipality</u> 4.1 To administer and regulate, either directly or by concession, safe water and sanitation service when able to do so. 4.2. To provide rural sanitation services.
Comments	This law establishes the provincial municipality as responsible for the provision of sanitation services, a provision that is inconsistent with the norm set forth in the LOG and the LOGR.	These organic laws are consistent with the decentralization process and with the areas of competence of two levels of government, and are both complementary and supplementary in specific cases involving sanitation. In addition, [they are] explicit as regards the responsibility for the provision of sanitation services, with definitions as to which cases fall to the provincial municipality and which to the district municipality.	

In addition, information from the VMCS provides evidence of the existence of some 259 towns that enjoy sanitation service provided by district municipalities not recognized by SUNASS. If these providers were to decide to become municipal

enterprises, they could do so only if they were legally created in the manner established in Article 33 of the LOM. This norm modifies the previous procedure, stipulating dependency exclusively on the Municipal Council and SUNASS; it is now contingent on the agreement of the Municipal Council with the favorable vote of more than half of the legal number of regions, after which the National Congress can approve the appropriate law.

This lengthy procedure of negotiation among various levels of government will have the effect of discouraging enterprise creation; rather, it will encourage direct municipal administration. In such cases, the business approach regulated and overseen by SUNASS would no longer be effective.

Elsewhere, the LOM establishes and regulates a series of instruments for concerted, participative municipal development where the goals and necessary investments in sanitation are required to be included in the Concerted District Municipal Development Plans and also in their Participative Budgets. Subsequently, they are consolidated by the Local Provincial Coordinating Council, which consents to and proposes the Concerted Provincial Municipal Development Plan and its corresponding Participative Budget, so that, following their approval, they can be forwarded to the Regional Coordinating Council for consolidation into all of the concerted provincial municipal development plans for the region and also into the Concerted Regional Development Plan.

Thus, the decentralization process instruments are included in the LOM and in the Organic Law Governing Regional Governments, which are consistent with the Political Constitution. The various institutional rates in the sanitation subsector should make appropriate adjustments to their planning and management systems, primarily as regards the three areas of government: national, regional and local.

As regards the compatibility and consistency of sanitation-related functions defined in laws governing other sectors, such as in the case of the Ministry of Health, Article 107 of the Health Law states that water supply, sewerage, excreta disposal, reuse of wastewater and disposal of solid waste are subject to the provisions handed down by the appropriate health authority, with the latter empowered to enforce compliance therewith. This norm can be interpreted as excessive in light of the new structure of the executive branch, whereby the Ministry of Housing is currently the lead authority in this regard, and should therefore be revised. It should be understood, however, that the scope of the above-mentioned Article refers to the health aspects of sanitation activities, so as to ensure compatibility with the regulatory authority of the governing institution.

The *ad hoc* Technical Commission formed to review the normativity and propose the new General Law Governing Sanitation Services (Ministerial Resolution No. 094-2003-VIVIENDA), made up of a series of representatives from sector institutions involved with the sanitation subsector, should adapt and coordinate all norms proposed with previously established provisions, primarily as regards the organic laws governing municipalities and regional governments and others, so that the two

central rates in the subsector, namely, the Vice-Ministry of Construction and Sanitation and the National Superintendency of Sanitation Services, can be endowed with genuine leadership and regulatory powers given rules to structure the provision of sanitation services in both the urban and rural areas.

It is possible to observe a vacuum of technical normativity that has a negative impact on the proper structuring of technical activities and sanitation interventions; the only regulatory dispositions available date back to more than 30 years ago, effectively rendering them obsolete. This precariousness affecting one of the fundamental roles of governance, i.e., the normative function, could be seen as an indicator of inactivity in this regard.

4.5. Health considerations

"Universal access to health services and social security" is the Thirteenth Policy of State, as defined in the National Accord. With this in mind, the State will spur promotion of health and the prevention and control of contagious diseases; expand access to safe water and basic sanitation; and monitor the principal environmental contaminants, among other strategies set forth in the National Accord with regard to this policy.

It is evident that sanitation is one of the strategies for the implementation of this Policy of State, and as a result it is a priority for the sanitation subsector to contribute to the government's health goals. In addition, application of this policy requires the articulation and sharing of strategies for both the health and housing sectors, in order to create synergies to ensure that shared interventions are both efficient and sustainable.

Using as its framework this national directive of the Central Government, the unofficial Strategic Plan for the sanitation subsector for 2002–2011 was conceived on the basis of an assessment of the subsector that analyzed a series of stakeholders that have a direct impact primarily on sanitation service provider entities and for which health stakeholders have not been taken into consideration, as evidenced in the policies set forth in the Strategic Plan. However, sanitation policies will implicitly have an impact on health, despite the fact that they have not been made explicit as policies.

The Strategic Plan for the sanitation subsector is still an internal VMCS management document in the creation of which other sectors have not participated. Such is the case with the Ministry of Health, the government agency responsible for policy, regulation and monitoring of the healthful quality of water for consumption, as well as granting authorizations for the use and discharge of wastewater, with the result that the linkages required in the strategic plan for implementation of sanitation policies are still pending.

With regard to participation by the target population groups in resolving health and sanitation problems, and particularly as regards the poorest population groups in the

rural areas, the primary mechanism has been the coordinating committees for the fight against poverty operating at the municipal level.

4.6. Environmental concerns

"Sustainable Development and Environmental Management" is the Nineteenth Government Policy in the National Accord, by means of which the government agrees to integrate national environmental policy with economic, social, cultural and land use policies, in order to help overcome poverty and bring about sustainable development in Peru.

Sanitation, poverty and the environment are topics that are interlinked, and the Ministry of Housing provides a medium to serve the poorest sectors and contribute to their sustainable development. Accordingly, environmental issues are analyzed in the Strategic Plan assessment of the sanitation subsector for 2002–2011, which provides evidence of deficiencies in the treatment of collected wastewater, which at the national level were estimated at 18% for the year 2000, representing a critical problem for the environment.

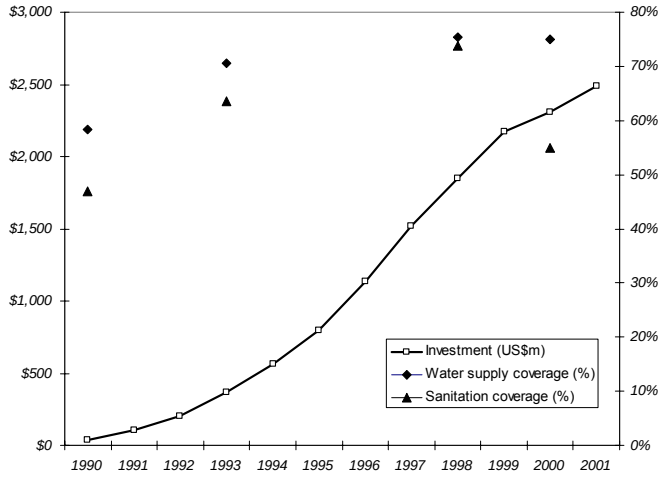
Despite the appearance of the environmental problem generated by the introduction of untreated wastewater into the environment, however, there is no evidence in subsector policies of any measures to protect the environment from EPS effluents, since the goals do not include a marked increase in wastewater treatment coverage. This position is also sustained on the basis of the substantial investment required, as a result of which priority has been assigned to begin with an increase in the coverage for water and sewerage.

4.7. Financial considerations

As indicated in Section 4.1, the Government of Peru invested some US$2.4 billion in the water and sanitation sector during the 1990–2001 period. During this same period, levels of coverage for water and sanitation have increased by 17% and 18%, respectively (Figure 4.A).10

[10] These figures should be interpreted with some caution, as they originate in different sources, each of which uses its own methodology to measure access to improved water and sanitation supply services.

Figure 4.A: Accrued investment, levels of coverage: water and sanitation sector in Peru, 1990–2001



Sources: Ministry of the Presidency, "Assessment of the Sanitation Subsector, September 1999"; INEI, "Definitive Results" (1994); PAHO/WHO, "Evaluation of the Decade" (1998); VMCS, "Strategic Plan for the Sanitation Subsector, 2002-2011".

4.7.1. Water and sanitation projections, 2002–2011

For the 2002–2011 period, the Vice-Ministry of Construction and Sanitation (VMCS) has proposed another ambitious program of investments in water and sanitation services (Table 4.7.1). Indeed, the VMCS proposes total levels of investment in the sector approximately equivalent (US$2.4 billion) to those recorded in the 1990-2001 period.

Table 4.7.1-a: Projected investments in the sanitation subsector, 2002-2011

	2002-2006	2007-2011
Urban: SEDAPAL (Lima)	US$503m (44%)	US$461m (38%)
Other urban	US$473m (41%)	US$565m (45%)
Rural	US$174m (15%)	US$227m (18%)
TOTAL	US$1150m (100%)	US$1253m (100%)

Source: VMCS, "Strategic Plan for the Sanitation Subsector, 2002-2011".

Most of the funds (47%) for water and sanitation services are being requested from external organizations. Projections call for an additional 30% to be provided by water and sanitation supply organizations (Table 4.7.2). It is estimated that only 3% of investment funds will come from local governments and community associations. In

addition, the VMCS has great expectations with regard to private sector participation in the supply of water and sanitation services, as reflected in the line item for an amount in excess of US$200 million for private investments included in the projections for 2002-2011.

Table 4.7.1-b: Projected sources of financing for investments in water and sanitation, 2002-2011

Source	Amount (US$ millions)	% of total investment
Established		
EPS resources	677	28
External loans	248	10
Currently being negotiated		
EPS resources	54	2
Central Government	221	9
Local gov./communities	72	3
External loans	897	37
Private sector	208	9
Grants	27	1
TOTAL	2.404	100

Source: VMCS, "Strategic Plan for the Sanitation Subsector, 2002-2011".

This emphasis on attracting private sector participation in the provision of water and sanitation services is a result of a number of stakeholders. In view of the fact that six million Peruvians have no access to improved water service, and some twelve million do not have adequate sanitation services, there exists a clear need to increase investments in the sector. At the same time, national-level resources are decreasing; the Law Governing the Public Sector Budget for the Year 2003 states that, of the approximately US$12.7 billion in Central Government expenditures approved for fiscal year 2003, 23% (US$2.9 billion) were earmarked for capital investments (Table 4.6.3). For fiscal year 2004, however, it is projected that capital investments will decrease somewhat from this level, i.e., to approximately 13% of the national budget (US$1.55 billion).

Table 4.7.1-c: Government of Peru budget and expenditures for fiscal years 2003* and 2004 (projected)** (US$ million)

	2003	2004
Current expenditures	7.009	7.651
Debt service	2.841	3.052
Capital expenditures	2.869	1.551
TOTAL	12.719	12.254

*Source: Law Governing the Public Sector Budget for the Year 2003, Government of Peru.
**Source "Sanitation Subsector: Assessment and Perspectives", VMCS (2003).

Within the capital expenditures budget, priority is given to projects already underway, which, according to authorities from the Ministry of Economy and Finance (MEF), account for 60-70% of available funds. Of the remaining resources, the Council of Ministers negotiates allocations based on competition for funds by all sectors

(agriculture, health, housing, infrastructure, education). At present, initiatives in the areas of health and education are given priority consideration, not only because there are limited possibilities for private sector participation in these services but also because these sectors have been identified as national priorities in Peru's Macroeconomic Framework. (Note that investments in improvements to water and sanitation services are not classified as health expenditures.) During fiscal year 2003, the Ministry of Housing, Construction and Sanitation received US$88 million, or 3% of the total US$2.9 billion budgeted for capital expenditures at the national level, assigning US$55 million (1.9% of the national capital expenditures budget) to investments in water and sanitation. If the subsector were to receive the same percentage of the capital expenditures budget in fiscal year 2004, its allocation from the national treasury would decrease by almost half, to US$29 million. This amount is consistent with VMCS financing projections for 2002-2011 (Table 4.6.2), which include an average of US$24.5 million annually from the Central Government.

The Law Governing Public Sector Indebtedness for Fiscal Year 2004 also establishes limits to the levels of Peru's foreign indebtedness, which no doubt will affect levels of investment in the areas of water supply and sanitation. Reports state that Ministry of Economy and Finance authorities are particularly cautious about the possibility of increasing external debt for infrastructure projects, given the poor payment experience under the FONAVI (Fondo Nacional de Vivienda) project. FONAVI, which supports investments in housing and public services such as water supply and sanitation, was financed by subsidized loans that were to have been paid off for the most part by subnational government agencies. In reality, however, the Central Government has had to assume responsibility for loans totaling approximately US$770 million earmarked to support FONAVI. In addition, Central Government obligations include amortization of a US$45 million IDB loan to strengthen municipal water enterprises, as well as US$365 million in loans for the rural program implemented by the National Fund for Compensation and Development (FONCODES).

Given the decrease in national transfers and the diminished likelihood of obtaining government-guaranteed loans, the VMCS finds itself pressed to find other resources to support its ambitious coverage expansion plan. Recognizing that private sector participation is among the most viable strategies for securing such funds, the Vice-Ministry has conducted a number of feasibility studies on the privatization of municipal water and sanitation enterprises, and is also currently discussing preparation of concessions for the municipalities of Piura and Tumbes.[11] Several members of the VMCS staff also observed that increased private sector participation in the sector will diminish dependency on sources of financing that they feel to be relatively unsustainable and volatile (for example, foreign loans and grants).

[11] In the mid-1990s, the Fujimori administration opted to approve a 30-year concession for Peru's largest water enterprise, SEDAPAL. Although three international consortia prequalified to submit bids, the bid process was never carried out. For an analysis of the initiative to award a concession for SEDAPAL, see L. Alcázar *et al*., "Institutions, politics, and contracts: The attempt to privatize the water and sanitation utility of Lima, Peru."

4.7.2. Compliance with VMCS goals in terms of expansion of sanitation coverage

The level of investment proposed by the VMCS for the period 2002–2011 (US$2.4 billion) represents a level of expenditures that is greater, by an average of 37%, than the amount invested in the water and sanitation sector during the period 1990–2001 (Table 4.6.4). The coverage expansion goals proposed by the VMCS in its Strategic Plan are also ambitious, particularly in the area of sanitation. While sanitation coverage increased by an average of 0.7 percentage points annually during the period 1990-2000, the VMCS projects a rate of expansion of 1.8 percentage points between 2001 and 2011. This projection represents a rate of service expansion 2.25 times higher than that observed during the 1990s.

Table 4.7.2-a: Historic and projected investment and coverage in the water and sanitation sector

	1990-2000	2000-2006 (projected)	2007-2011 (projected)
Mean annual investment	US$218 million	US$287 million	US$313 million
Mean annual growth in water supply coverage (percentage points)	1.7	2	1.25
Mean annual growth in sanitation coverage (percentage points)	0.7	2.4	1.6

Source of data: VMCS, “Strategic Plan for the Sanitation Subsector, 2002-2011.”

With such ambitious goals, it would be expected that the percentage of the VMCS budget for investments earmarked for the sanitation subsector would decrease dramatically during 2002–2011 and/or that the technical approaches for extending coverage would turn out to be considerably less costly in per capita terms. Data related to the assignment of investments during the period 1990–2002 do not permit a direct comparison to be made on these bases. For the period between 2002 and 2011, the VMCS proposes earmarking approximately one-third of its investment funds (US$780 million) for improving and extending sanitation services.

In an effort to use its funds more efficiently and promote the sustainability of sanitation services already installed, the VMCS has opted to assign a greater percentage of its funds to the construction of latrines. Indeed, the VMCS Strategic Plan excludes the possibility of supporting sewerage projects in Peru’s rural areas. Table 4.7.5 presents a summary of the projected assignment of investments in sanitation between 2002 and 2011, together with estimates of per capita costs prepared by the VMCS for each type of investment.

Table 4.7.2-b: Projections of sanitation coverage expansion, 2002-2011

	Projected investment	Cost per person served	Projected # of persons served
Network rehabilitation	US$123 million	US$12	10.250.000
Network expansion	US$535 million	US$209*	2.559.809
Latrine construction	US$122 million	US$22	5.545.455

Source of data: VMCS, "Strategic Plan for the Sanitation Subsector, 2002-2011."
*The average of two VMCS estimates for expansion of sewerage networks ($185 and $233),depending on the inclusion or exclusion of primary works.

Using VMCS data, it appears that the goal of 75% sanitation coverage for the year 2011 is attainable. At present, the VMCS estimates that 55% of the Peruvian population, i.e., some 14.7 million inhabitants, have access to adequate sanitation services. To reach 75% of the population, estimated at 30.4 million for 2011 by the National Statistics and Informatics Institute, the VMCS would have to deliver services to approximately 8.1 million individuals not currently served. Leaving to one side those residents that would benefit from network rehabilitation (who are currently included in the group that has sanitation service coverage), it is projected that system expansion and construction of new latrines will perfectly achieve the goal.

However, an important word of caution is in order: VMCS estimates generally do not include "soft" elements of sanitation investments, including activities involving promotion, hygienic education, community organization, etc.[12] For sanitation services in particular, where domestic demand for improved services tends to be much lower than the demand for improved water supply, such "soft" components frequently require substantial investments.[13] It is not clear whether additional financing can be obtained for the successful implementation of sanitation programs and, if so, how. There are several stakeholders responsible for financing and carrying out promotion and training activities, including PRONASAR, NGOs, community organizations, the JASSs and the municipalities. To date, the VMCS has not considered developing a policy to guide the estimation of these costs or their distribution among sector institutions.

It should also be noted that, unlike the water supply unit cost estimates prepared by the VMCS, which are provided for eight different types of community (from large cities to small rural settlements) using a large series of technical variables, its estimates of the costs of sanitation improvements are more general in nature. No consideration is given to differences in the construction costs of latrines resulting from, for example, soil conditions. Likewise, no consideration is given to the increase in costs that frequently results from the installation of sewerage services in marginal urban areas.

[12] This statement has its exceptions, such as the IDB-sponsored project to develop the capacity of the enterprises and the promotion/training components of PRONASAR: such costs are not explicitly detailed in the VMCS budgetary process. Members of the VMCS staff estimate that such expenditures probably constitute 5% of the total budget for sanitation investments.

[13] For example, one NGO uses an estimate of per capita costs for latrines in rural areas (including all "soft" and training components) of US$44 – equal to twice the amount of the estimate prepared by the VMCS.

On the other hand, it is important to recognize that the VMCS budget does not include one significant source of funds for capital investments in sanitation works — users. In most sanitation programs and projects currently in operation in Peru, families are required to contribute between 10 and 30% of the initial capital costs. (Frequently these contributions can be made in either labor or in kind.) Families not formally enrolled in sanitation projects can also invest in private facilities, although estimates of domestic investments in sanitation services were not available for purposes of this analysis.[14]

4.7.3. Maintenance of sanitation services

Perhaps one of the most significant gaps in Peru's policy framework for sanitation services involves the institutional and financial support required for the sustained operation and maintenance of installed infrastructure. Although the VMCS supports the construction of sanitation facilities in both urban and rural areas, it does not provide financing or technical assistance for operation and maintenance (O&M).[15] In many urban areas, prices of water supply and sanitation are too low to cover the costs of service provision, much less expand coverage (Table 4.7.6). The municipalities must cover those losses, either with other sources of income or through Central Government transfers.

Table 4.7.3: Average urban rates for water supply (US$ per cubic meter), 2001

Service provider	Average rate
SEDAPAL (Lima)	1.38
Large EPSs	1.33
Medium EPSs	1.00
Small EPSs	0.97

Source of data: SUNASS, "Management Indicators of Peru's Sanitation Service Provider Entities: 1998-2000-2001".

In almost all of the organizations visited with regard to this study, those interviewed stressed the need to improve the sustainability of the country's sanitation and water supply infrastructure. For example, the VMCS estimates that 30% of the installed water and sanitation systems have ceased to function, while an additional 40% are at critical risk of failure. To date, however, no broad uniform response to this challenge to sustainability has been detected. The VMCS has developed a policy of total recovery of operating and maintenance costs, through the application of user fees, as its primary strategy for supporting sustainability in both urban and rural areas. However, this strategy may not be feasible, given the authority of mayors to approve all rates (an authority that is greater even than that of SUNASS, except in the case of SEDAPAL, the water enterprise of Lima).

[14] The VMCS budget also excludes investments that Lima's water and sanitation enterprise, SEDAPAL, will make with funds obtained in the private capital market.

[15] It is interesting to observe that the national regulatory agency, SUNASS, offers workshops and short courses for the staff of some 43 municipal water enterprises on subjects such as pricing and system maintenance. SUNASS took over these responsibilities before the VMCS was created, in recognition of the fact that the enterprises required support to improve their performance.

At the program and project level, there is widespread support for the concept of cost sharing among the initiatives supported by the government, NGOs and external organizations. At the same time, the principal responses to Peru's deplorable track record in the area of sustainability appears to be, in most cases, (1) a greater emphasis on community participation in the planning and implementation of water and sanitation projects, and (2) greater attention to community support in the post-construction period. For example, the National Rural Water and Sanitation Program (PRONASAR) has modified its work plan so that participating communities receive support from certified extension workers during the initial year of operation of their systems. However, there are few indicators that resources are being earmarked for the provision of longer-term support to sanitation infrastructure works, particularly in communities located outside the immediate service area of the enterprises. The SANBASUR project in Cusco is a notable exception; this project is working to train and install support personnel as permanent local government employees to assist communities in maintaining their systems.

4.7.4. Summary

Peru's sanitation subsector has benefited from a substantial volume of investments during the past decade, and current projections suggest that this level of capital expenditures will continue through 2011. Whether these funds will translate into sustained access to improved sanitation services will depend on the extent to which municipalities and other institutions earmark resources for promotional, educational and capacity development initiatives, as well as for the maintenance of installed infrastructure. It is also likely that poor urban families and residents of small cities will be among the last to benefit from the VMCS investment program over the next 10 years. In its efforts to attract private sector investments to the sector, the VMCS should necessarily focus on the country's largest urban service provider enterprises and their existing networks.

4.8. Institutional roles and responsibilities

As previously analyzed in the chapter dealing with the legal framework, the 1993 Political Constitution stipulates that "The territory of the Republic is divided into regions, departments, provinces and districts, in whose areas unit government is exercised in a decentralized and deconcentrated fashion" (Article 189). This constitutional mandate is implemented by means of Law No. 27783, Law Governing the Bases for Decentralization, which develops and regulates the structure and organization of the State in a democratic, decentralized and deconcentrated manner, for the national government as well as for regional and local governments.

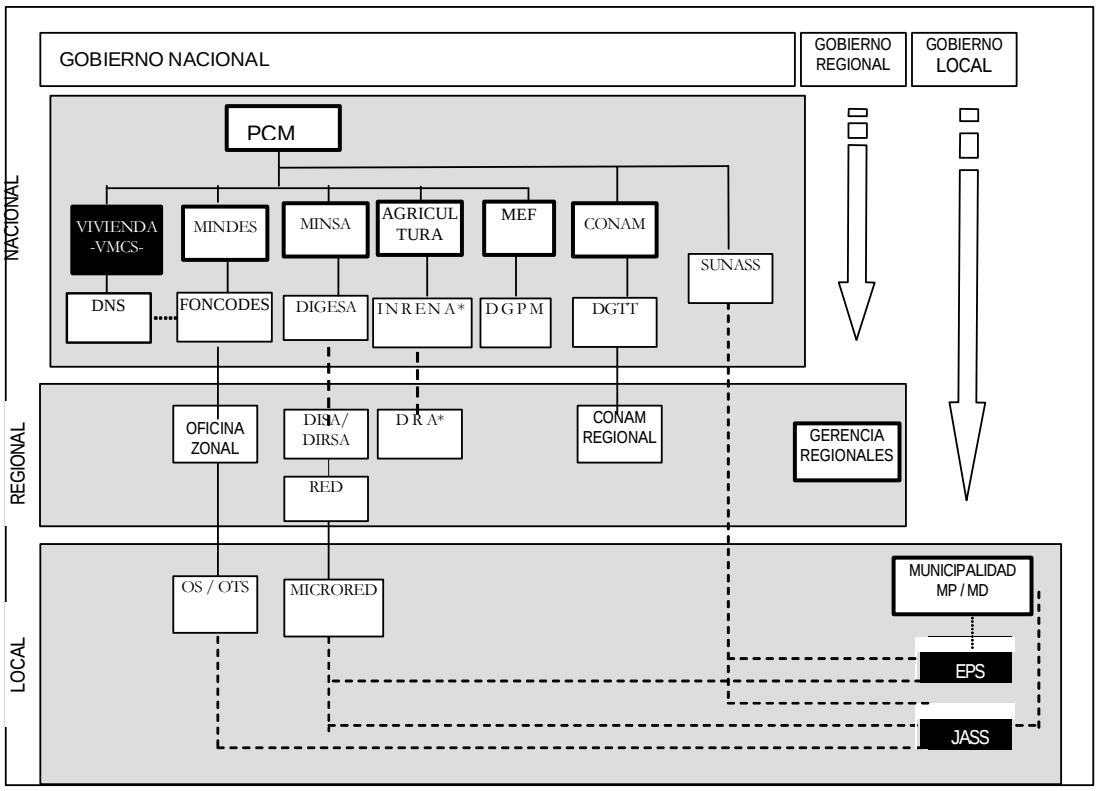
Within the framework of the decentralization process, the national government has jurisdiction throughout Peru; regional and municipal governments have jurisdiction in their respective geographic areas, in accordance with the above-cited law and Law No. 27867, the Organic Law Governing Regional Governments. Within these three levels of government, it is primarily the institutions identified in Figure 4.B, which

defines the current institutional framework for the sanitation sector, that participate in the sanitation subsector.

In this institutional scheme, which is gradually becoming linked to the decentralization process, the lead organization for safe water and sanitation subsector is the Ministry of Housing, Construction and Sanitation, as determined by Law No. 27792, the Law Governing the Organization and Functions of that ministry.

In addition, the series of institutional stakeholders from other sectors that participate in the subsector carry out complementary or supplementary functions and activities, with the hope that increased institutional coordination and linkages under the leadership of appropriate authorities of the Ministry of Housing will lead to the establishment of interlinked policies, plans and programs at the three levels of government in order to ensure activities that are efficient, effective, sustainable and fair.

Figure 4.B: Institutional framework of the sanitation subsector on the three levels of government



4.8.1. Institutional rates of the National Government

Ministry of Housing, Construction and Sanitation (VIVIENDA)

At the level of the National Government, the Ministry of Housing, Construction and Sanitation (VIVIENDA) is the lead agency in the sanitation subsector, in accordance

with the provisions of Law No. 27779, Organic Law for the Creation of the Ministry of Housing, and Law No. 27792, Law Governing the Organization and Functions. In addition, the above-mentioned Organic Law creates the construction and sanitation subsectors, immediate authority over which, after the Minister, is the Vice-Minister of Construction and Sanitation (VMCS), who is the titular head of that vice-ministry as the agency charged with formulating and adopting general policies in the area of infrastructure construction and sanitation, in accordance with guidelines established by the Ministry.

Supreme Decree No. 002-2002-VIVIENDA, the Regulation Governing the Organization and Functions (ROF), created the National Directorate of Sanitation (DNS) as the line agency charged with proposing policy guidelines, plans, programs and norms related to sanitation services. The DNS has an Office of Technical Assistance, a Directorate of Urban Sanitation and a Directorate of Rural Sanitation, as provided in Article 11 of Ministerial Resolution No. 175-2003-VIVIENDA.

A number of special projects and programs have been created at different times in the sanitation subsector for the purpose of implementing policies and strategies in both urban and rural areas. At present, the VMCS is studying the following programs and projects: the National Rural Water and Sanitation Program (PRONASAR) and the Program of Support for Sanitation Sector Reform (PARSSA) based on the National Water and Sewerage Program (PRONAP), as well as the Project for Improvement of the Sewerage System in the Southern Sector of Lima (MESIAS).

The two above-mentioned programs are used to coordinate technical and program aspects of the commitments made to international cooperation agencies, where PARSSA is the formulating and implementing unit, with technical and administrative autonomy and reporting directly to the VMCS. This is not the case with PRONASAR, which reports directly to the DNS.

Ministry of Women and Human Development (MINDES)

The other agency at the level of the National Government with involvement in the field of sanitation is the Ministry of Women and Social Development (MINDES), by virtue of the social programs being implemented by that ministry to combat poverty and those which, through the National Fund for Compensation and Social Development (FONCODES), are scheduled to be implemented by PRONASAR. MINDES has a unit linked to the sanitation subsector, which is the Vice-Ministry of Social Development, to which FONCODES is attached.

In the decentralization process, FONCODES has currently entered into a stage of transferring its authorities and functions to local governments, with a projected deadline of October of this year for completion of this process throughout the country. Accordingly, the organizational plan for implementing PRONASAR is surrounded by uncertainty. However, the latter includes as regional counterparts the Zonal Offices and the Social Technical Operators (OTS) and Supervisory Operators (OS) at the local level, with links to the Implementing Nuclei.

The Implementing Nuclei are units representing each organized beneficiary community that assume responsibility for administration and use of the economic resources delivered to them by FONCODES for the implementation of sanitation works. Figure 4.C illustrates the linkage between FONCODES and the VMCS.

National Superintendency of Sanitation Services (SUNASS)

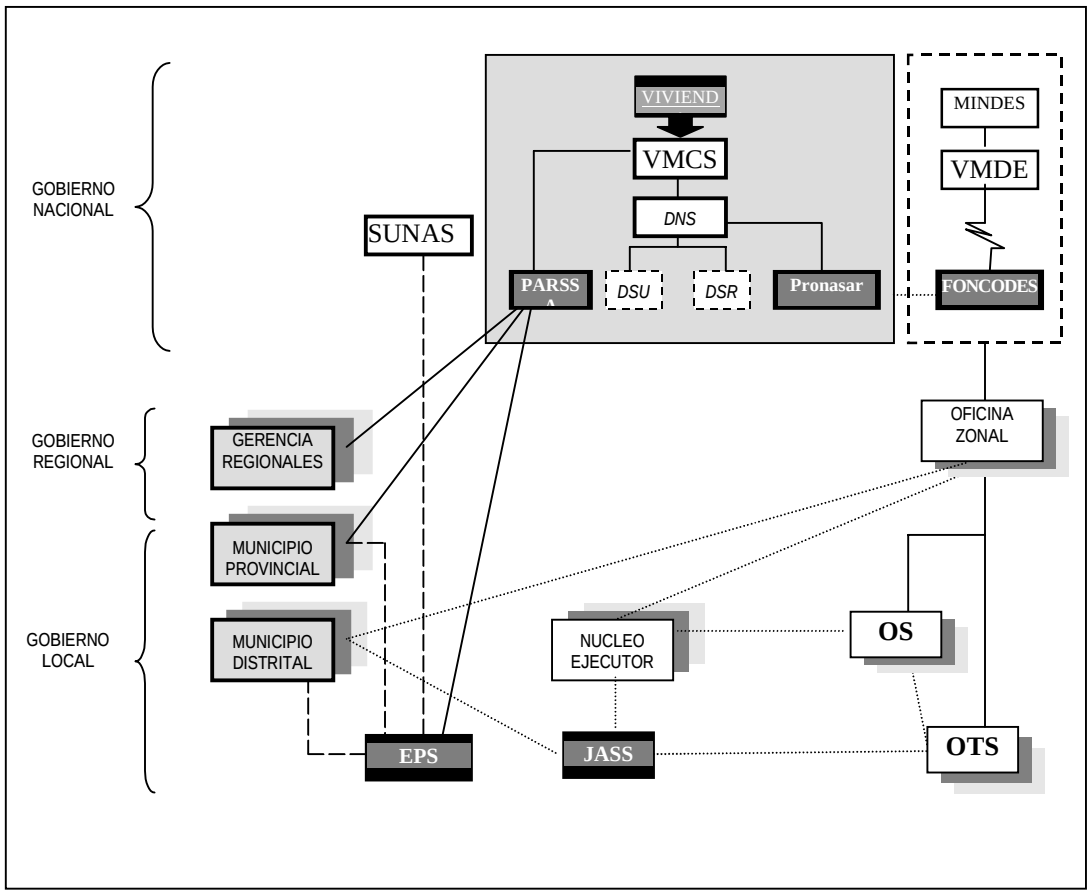
The regulatory agency for the country's sanitation services is the National Superintendency of Sanitation Services (SUNASS), created in 1992 by means of Decree Law No. 25965. Initially, it was established as a decentralized public institution of the Ministry of the Presidency, with legal public-law existence and its own patrimony and functional, economic, technical, financial and administrative autonomy to carry out its legal mandates. Subsequently, in 1993 Law No. 26284, the General Law Governing the National Superintendency of Sanitation Services, was approved and subsequently abrogated in 2002 by means of Supreme Decree No. 017-2001-PCM, the General Regulations Governing SUNASS, in accordance with Law No. 27332, Framework Law for Agencies Regulating Private Investment in Public Services and the law authorizing their creation.

At present SUNASS, according to the provisions Law No. 27332, is a decentralized agency attached to the Presidency of the Council of Ministers (PCM) with legal, internal, public-law existence and administrative, functional, technical, economic and financial autonomy. The functions set forth in this law include: supervisory, regulatory, normative, oversight and enforcement, as well as the function to resolve controversies and user claims in accordance with the scope and limitations set forth in that law.

At present, there are 45 EPSs subject to the authority of SUNASS, plus another nine not yet recognized by that agency that are accordingly not subject to monitoring and oversight except as carried out by the Ministry of Health in appropriate jurisdictions as regards the quality of the water produced and environmental issues. The enforcement function has not really been implemented, primarily due to a lack of regulation of penalties (at present SUNASS is focusing on developing such regulations). In addition, regulation of rates is carried out only partially, since in practice it has been the municipalities, by means of the boards of shareholders, that ultimately approve rates. Only in the case of the city of Lima does SUNASS approve rates, which the enterprise is required to apply.

Figure 4.C shows the organizational layout of the VMCS subsector together with the above-mentioned programs. In the figure it is possible to see the links between the various institutional rates of the VMCS and FONCODES and SUNASS at the regional and local levels.

Figure 4.C: Institutional schematic for the Ministry of Housing, the regulatory agency, and MINDES in the sanitation subsector



PARSSA's administrative and economic autonomy enables it to project itself at both the regional and local levels for implementing water and sanitation projects in the area of operation of the sanitation service provider enterprises, primarily as regards extension of coverage in the urban areas within its jurisdiction, with no particular concern for benefiting population groups residing in peripheral urban areas, and even less so for the small towns often administered by the district municipalities themselves. In addition, these interventions by PARSSA are the priorities for the subsector in urban areas, which do not necessarily coincide with those set by the national-level technical authority, i.e., the DNS.

Ministry of Health (MINSA)

The other natural agency within the sector is the Ministry of Health (MINSA), which is responsible for the health aspects of the quality of water for human consumption and protection of the environment for health purposes. Other agencies linked to the sector at the national level include the Directorate General of Environmental Health (DIGESA) and the Executive Directorate of Basic Sanitation (DESAB).

In addition, DIGESA is the health authority, as determined by Decree Law No. 17752, General Water Law, for establishing policy, supervising, evaluating and authorizing the use of wastewater and wastewater runoff, and approving wastewater treatment projects.

Functioning as regional counterparts are the Directorates of Health and, at the local area, health centers and health posts, which are administered by the health networks and micro networks, the scopes of which reach all the way to the communities in rural areas throughout the country.

The Directorates of Health are agencies which, by delegation from the highest authorities of the Ministry of Health, exercise authority in the area of health. They are deconcentrated agencies of MINSA in the department of Lima and the Constitutional Province of Callao, and are deconcentrated agencies of the regional governments in each department of the country (Article 2 of Ministerial Resolution No. 573-2003-AS-DM).

In addition, Article 5 of the aforementioned M.R. stipulates that the Directorates of Health exercise their jurisdiction as health authorities at the corresponding departmental level and with regard to all legal and corporate persons providing health care or whose activities affect either directly or indirectly the health of the population in their department, within the framework of the legal dispositions currently in force. Forming a part of these Regional Health Directorates are the Executive Directorates of Environmental Health, as executive agencies for the health aspects of the quality of water for human consumption and protection of the environment for health purposes in the corresponding jurisdiction.

National Council on the Environment (CONAM)

Law No. 26410 created the National Council on the Environment (CONAM), an agency charged with directing national environmental policy and whose purpose is to plan, promote, coordinate, control and exercise stewardship over the country's environment and natural treasures. Compliance with national environmental policy as formulated by CONAM is mandatory.

CONAM, through the Directorate for Transector and Territorial Management (DGTT), coordinates formulation of national environmental policy and enforces strict compliance therewith, while also coordinating activities in the various sectors, including the sanitation subsector, with those of the agencies of the Central Government, such as the National Directorate of Sanitation, and those of the regional and local governments in environmental issues, in order to ensure coherence with established policies. In addition, it oversees compliance with national environmental policy and environmental guidelines by Central Government agencies and regional and local governments.

However, Article 50 of Legislative Decree No. 757, Framework Law Governing the Growth of Private Investment, states that the sectoral authorities charged with dealing

with matters involving the application of the provisions of the Code Governing the Environment and Natural Resources are the ministries themselves or the oversight agencies, as appropriate, in the sectors corresponding to the activities carried out by the enterprises, without detriment to the attributes falling to regional and local governments pursuant to the provisions of the Political Constitution. The CONAM counterpart in the Ministry of Housing is the Office of the Environment, which reports to the VMCS and is the advisory agency charged with formulating and proposing the application of policies and norms and with supervising and monitoring the environmental impact of activities carried out within the sector.

Ministry of Economy and Finance (MEF)

The Directorate General for Multiyear Programming of Public Sector Investments (DGPM), as MEF line agency, provides orientation, integration, follow-up and evaluation of public sector Multiyear Strategic Plans, including the programming of public investments and the promotion of integral development in relatively poorly developed areas. In addition, it determines the viability of projects and recommends their implementation as either public investments or as projects with private sector participation. Investment projects in the sanitation subsector are carried out in compliance with DGPM norms. Accordingly, institutional coordination and linkages, which include the Directorate General of the Public Budget (DGPP), are carried out at this level in order to ensure the necessary ordinary and investment resources, and corresponding counterpart contributions for the external loans taken out, in the housing sector budget.

4.8.2. Institutional regional government stakeholders

At the level of the regional governments, Law No. 27867, the Organic Law Governing Regional Governments (LOGR), states in Article 9 that the formulation and approval of the regional development plan, in coordination with the municipalities and civil society, is a constitutionally mandated authority of regional government. In addition, as regards sanitation, the regional government is charged with formulating and evaluating regional housing and sanitation plans and policies consistent with the development plans of local governments and in accordance with national policies and sectoral plans, and with providing technical and financial support to local governments in the provision of sanitation services (Article 58).

The process of decentralization by means of regionalization is currently in a stage of affirmation and implementation, and elected regional presidents that have taken office during the present period are focusing primarily on organizing regional governments on the basis of the organic structure mandated in Law No. 27867.

The basic structure set forth in Article 11 of the above-cited law consists of the Regional Council and the Regional Presidency. The executive agency is organized into Regional Management Offices, which are coordinated and governed by a General Management Office. This basic structure is to be complemented by line, support,

advisory and control agencies as established in the corresponding regulations determined by each regional government.

The regional management offices created by the LOGR are as follows: Economic Development; Social Development; Planning, Budgeting and Zoning; Infrastructure; and Natural Resource and Environmental Management.

To date no determination has been made as to which of the regional management offices will be in charge of sanitation matters. Each regional government has the autonomous authority to organize and establish policies and priorities within its jurisdiction, as is the case with the Cusco region, which has identified sanitation as a priority subject, to be dealt with by the Regional Management Office for Social Development, along with health and education issues. Also created was the Regional Environmental Committee as a regional coordination unit to deal with sanitation matters.

All of the above, however, will be dependent on: the rate of progress of the organization process; on the extent to which sanitation is incorporated into the social development approach; on the policies of each regional government; and, most importantly, on the leadership exercised by the Regional President with regard to social issues and institutional coordination to generate synergies in the area of sanitation.

4.8.3. Institutional stakeholders of the local governments

With the approval of the Organic Law Governing Municipalities (LOM), Law No. 27972, the institutional framework for the sanitation sector at the local area became much clearer, as Article 80 of that law (Sanitation, Healthfulness and Health) establishes specific shared functions of the provincial and district municipalities with regard to sanitation services. Paragraph 2.1 of the above-cited Article stipulates that the provincial municipality will administer and regulate, either directly or by concession, safe water and sewerage and drainage service, when on the basis of economies of scale it becomes more efficient to centralize service at the provincial level, and that in rural areas it will provide rural sanitation services when such services cannot be provided by the district municipalities or the municipalities responsible for rural population centers, as stipulated in Paragraph 2.3 of the above-mentioned Article 80.

Likewise, Paragraphs 4.1 and 4.2 of the same Article stipulate as a specific shared function of the district municipalities the administration and regulation, either directly or by concession, of safe water and sanitation service, when they are able to do so, as well as the provision of rural sanitation services.

Accordingly, two institutional stakeholders are defined for the local level: the provincial municipality and the district municipality, the latter having greater coordination with rural communities. Institutional coordination as regards priorities

within the jurisdiction has been delegated to the Local Coordinating Councils, at both the provincial and district levels.

Sanitation Service Provider Entities (EPS)

Article 6 of Law No. 26338 stipulates that sanitation services are to be provided by public, private or mixed entities, hereinafter referred to as "provider entities," constituted for the exclusive purpose of providing such services, with such entities required to have their own capital and to be endowed with both operating and administrative autonomy.

In addition, the Implementing Regulations for Law No. 26338, D.S. No. 09-95-PRES, define sanitation services as the business organization and the series of facilities and equipment earmarked to satisfy the collective need for sanitation services in a given place and for each of the services referred to in Article 2 of the above-cited law (Article 4 of the Implementing Regulations).

Sanitation Service Administration Board (JASS)

Article 25 of the D.S., No. 09-95-PRES, stipulates that "in small rural population centers, service operation will be carried out by community action through the organization of administration boards to operate and maintain such services. The operation of the administration boards will be regulated by the Superintendency."

In addition, Article 89 of the Implementing Regulations of Law No. 26338 stipulates that, in compliance with Article 44 of that law, services in the so-called rural areas will be based on household fees that must cover, as a minimum, the costs of operating and maintaining the service, with SUNASS given the responsibility for establishing fee-setting procedures.

Superintendency Resolution No. 643-99/SUNASS approved the Directive Regarding the Organization and Functioning of Sanitation Service Administration Boards. Compliance with this Directive is mandatory for all entities providing sanitation services in rural population centers.

The Directive defines rural population center as a population cluster having no more than 2,000 inhabitants, in accordance with the definitions and official figures provided by the INEI. On an exceptional basis, SUNASS may include in, or exclude from, this category a given population center, pursuant to previously established criteria.

The Sanitation Service Administration Board (JASS) is a civil association charged exclusively with providing sanitation services in one or more rural population centers.

4.8.4. Analysis of the roles of subsector institutions

The correspondence, agreement or consistency among the roles or areas of competence of the various institutional rates in the sanitation subsector is analyzed in

Figures 4.C and 4.D. Participating in this analysis are three key institutional stakeholders that fall outside the sphere of government, namely, the private sector (PS), nongovernmental organizations (NGOs), and international cooperation agencies (ICA).

Figure 4.D: Matrix showing the roles of institutional stakeholders in the sanitation subsector

ROLE	VMCS	MINSA	CONAM	MEF	MINDES	SUNASS	RE	LG	EPS	JASS	PS	NGO	ICA
Sector planning	■	◘/■	◘/■	◘/■	▲		▲	▲	◘▲			◘	◘
Normative	■	◘		◘		◘			◘▲				
Regulatory						◘/■							
Financing	▲				▲		▲	▲	▲		▲	▲	▲
Implementation									▲		■	▲	
Oversight and punitive		▲/◘				■							
Supervision	■	◘			◘	◘	◘▲	◘▲					
Monitoring		◘											
Operation and maintenance									■	■	■		
Training	▲	▲				▲					▲	▲	▲
Advisory assistance	▲	▲				▲					▲	■	■

■: Total/Intensive role ▲: Partial role ◘: Specific role

The roles played by the various institutional stakeholders in the subsector are, to a large extent, complementary, particularly those played by NGOs and ICAs as regards training and advisory assistance (both of which are intensive activities) and the financial role played by the ICAs, which support investments in the subsector. The areas of competence of the sector authorities identified in Figure 4.D have been defined primarily on the basis of organic and general laws, and are consistent for actions taken within the sanitation subsector. However, compliance with these roles does not respond to a shared vision, and institutional linkages for implementing joint, shared or coordinated actions are minimal. Areas of competence are not lacking; what is lacking are the institutional linkages to improve the efficiency of subsector activities.

An analysis of the roles in accordance with the three target study groups — rural population, periurban population and population in small cities — provides evidence of gaps in normative, regulatory and oversight authority. In addition, the target group of small cities provides no evidence of authority with regard to supervisory, training or advisory assistance; likewise, the periurban target group provides no evidence of supervisory authority.

Table 4.8.1: Roles of institutional stakeholders in the sanitation subsector, by target group

N	ROLE	TARGET GROUPS		
		Rural	Periurban	Small cities
1	Sector planning	VMCS / MINSA+	MINSA +	MINSA +
2	Normative	NE	NE	NE
3	Regulatory	NE	NE	NE
4	Financing	VMCS / FONCODES / RG / LG / ICA / NGO	EPS / ICA / NGO	VMCS / LG
5	Implementation	JASS / NGO / SP	NGO / SP	SP
6	Oversight	NE	NE	NE
7	Supervision	LG	NE	NE
8	Monitoring	MINSA	MINSA	MINSA
9	Operation and maintenance	JASS	PS	LG
10	Training	MINSA / NGO	NGO / ICA	NE
11	Advisory assistance	MINSA / ICA / NGO	MINSA / NGO	NE

+: Complementary roles NE: Not in evidence

The superimposition of functions has not been verified; rather, the gaps and insufficiencies in evidence might be an indication of the weakness in governance within the subsector and the lack of leadership to coordinate with other agencies in implementing shared activities with a view toward strengthening the strategic management of the governing agency, optimizing resources and ensuring that interventions are both effective and fair. In addition, although the three target groups have only been the subject of partial investments, the nucleus for role compliance has been concentrated in the urban area.

In addition, the current legal framework for the regulatory entity (SUNASS) limits its regulatory and oversight activities to sanitation service provider entities, with the latter defined as business organizations constituted as corporations (*sociedades anónimas*) or limited liability stock companies (*sociedades comerciales de responsabilidad limitada*). In both cases, the criterion for determining the type of business organization is the number of household hookups.

Accordingly, the universe of nonbusiness provider entities, whether administered by the district municipalities or the JASSs, does not fall within the legal mandate of SUNASS. The same thing occurs with small systems that operate in rural areas and small cities. Moreover, the stipulation in the Organic Law Governing Municipalities — that a municipal enterprise must be created by means of a law — rather serves as a disincentive, as a result of the costly and time-consuming nature of the process for creating a law for such a purpose.

The normative vacuum is evidenced primarily in the three target groups that have not been subject to normativity, regulation and oversight, as well as in the series of inconsistencies of the legal framework as seen in the General Law Governing Sanitation Services and the norms regulated by SUNASS. The subsector is in urgent

need of a new legal framework, a challenging task that will fall to the VMCS as lead agency, in order to ensure that policies and activities are consistent with the process of decentralization and strengthening of its strategic management capabilities.

5. Conclusions and Recommendations

5.1. Key questions

Subsector priorities

- Is it the desire of the VMCS to increase its focus and prioritization in order to improve and extend sanitation services to marginal urban areas and small cities? If so, what strategies are required to establish this focus?

  Discussion: During this review, the team found evidence that substantial investments made during the preceding decade under the FONCODES program or its equivalent have served to support the rural poor (with approximately 13% of that financing earmarked for sanitation services). Investments in rural sanitation works are projected at US$67 million between 2002 and 2011, with 83% of the budget allocated to the water subsector and 17% to the sanitation subsector. However, the team finds little evidence in the Strategic Plan that small cities or the urban poor constitute a priority for the Ministry. Investments in these areas are left to the discretion of the water and sanitation enterprises. Discussions with SEDAPAL Lima and the Cusco enterprise indicate that, although they welcome international cooperation activities, of which there are several, these areas are not profitable for the enterprises and there is no national policy supporting the investment risk or the use of subsidies in these areas. International cooperation with the World Bank/WSP currently supports efforts to develop management options for small cities, and the international cooperation provided by Switzerland, Germany and others is supporting efforts in periurban areas, in some cases with condominial arrangements for wastewater from latrines. It will be important to take advantage of, and expand, these efforts if the VMCS is to establish and emphasize strategic objectives and support efforts in these areas. At present, the above constitutes a significant gap in the policy framework.

Access to sanitation services for low-income population groups

- How can levels of service be established that offer a range of options for low-income individuals, in both the urban area as well as in small cities and rural areas, and how can compliance with these levels of service be enforced?

- What financial mechanisms are required to assist the country's poorest families in accessing improved sanitation services?

- Are current rate policies effective in helping poor urban families pay for sanitation services? If not, how can they be improved?

  Discussion: The three principal strategies for improving access to sanitation services by poor families include offering lower-cost technical options; lowering the financial burden of initial costs through subsidies and/or credit programs; and keeping services affordable by applying cross-subsidized rate structures. Although a wide variety of technical options are currently in use throughout the country, the extent to which families are aware of such options, and the ability to choose among them, vary by project or program. There are capital subsidy programs in operation, but targeting mechanisms are in all cases determined on the basis of individual programs, rather than being articulated within a national policy framework. Credit programs are not common in the subsector. Social rates are currently in effect for urban water and sanitation services, but according to numerous stakeholders these rates are poorly targeted and prevent the enterprises from covering their costs and expanding their networks to unserved communities.

Regulatory functions

- How can the SUNASS regulatory function be strengthened so as to include all water and sanitation service provider entities?

  Discussion: One of the deficiencies observed was that not all entities that provide sanitation services are subject to regulation and oversight by SUNASS, since the legal norm in this area limits regulatory agency activities. To expand the scope of SUNASS activities to the entire universe of sanitation service providers, it would be necessary to modify and update the law that currently governs SUNASS, so as not to limit the latter's activities exclusively to overseeing entities of a commercial nature.

- How can the regulatory function of the Water and Sanitation Administration Boards be established, taking into account the new role played by regional government?

  Discussion: As part of the reform of the normative framework for both the subsector and the regulatory agency, consideration should be given to the possibility of decentralizing the regional governments regulatory agency supervisory and oversight functions, although not the regulatory, normative, enforcement and controversy-solving functions, which should be specific and exclusive attributes of SUNASS. The regional government should carry out supervisory and oversight activities, in both the urban and rural areas, in accordance with specific norms to be issued by the regulatory agency.

  The above-mentioned decentralized activities could be carried out by third parties in urban areas, while in rural areas the regional government could seek support from the health sector, in order to take advantage of the installed capacity of the latter through its health service networks. The costs involved in conducting these

activities could be covered by a percentage of the fees that SUNASS collects from the region's sanitation service provider entities.

Sectoral organization

- What policies can be formulated to strengthen and assist the regional government in assuming its new role as regional sectoral planner and focal point for the sustainability of rural systems and oversight of norms?

  Discussion: According to the new structure and organization of the State, the regional government is authorized to formulate and approve the regional development plan in coordination with the municipalities and civil society. In addition, as regards sanitation, it can formulate and evaluate regional plans and policies consistent with the development plans of local governments and in accordance with national policies and sectoral plans. Accordingly, the regional government is the coordinating entity between the National Government and the local government of which the VMCS should take advantage. In addition, the VMCS should internalize this concept in its reform of the normative framework for the subsector. To develop institutional linkages, a line of action involving institutional linkages and strengthening at regional and local levels should be applied as one of the VMCS policies to be implemented through Shared Management Agreements (*acuerdos de gestión compartida,* or AGC).

  These AGC would be the mechanism for reaching a consensus on a series of activities that would begin with the development of capacities for the planning and management of sanitation investment projects, in both the urban and rural areas, so that prioritization, formulation, monitoring, evaluation and other related activities will be carried out in accordance with the policy framework established by the VMCS, in order to generate a dynamic and logical process of institutional coordination and articulation.

Strategic planning and subsector priorities

- We agree with the emphasis on the objectives related to systems rehabilitation and concern for the sustainability of investments made during the past 10 years. How will it be possible to monitor this priority and ensure that subsector rates are applying this intention on a priority basis at all levels?

  Discussion: To achieve this objective, it will be essential for the VMCS to maintain close communication with the investment instruments and projects currently being implemented by NGOs and municipalities. The PRONASAR-FONCODES program is an instrument for the rural area, and it is understood that the current investment emphasis requires that 40% be invested in rehabilitation programs. As regards investments in the sector involving small cities and periurban and urban areas, the panorama is less clear. An additional effort is required to ensure that enterprises plan and invest in rehabilitation. And perhaps more important will be the need to ensure the availability of incentives or other

instruments to promote full use of existing infrastructure. A major portion of the infrastructure exists, and approximately 40% of potential clients (i.e., 12,000,000 inhabitants) lack household sewerage hookups in urban areas. A significant percentage of installed latrines were constructed without promotion or community participation and without appropriate technology, and accordingly are not being used. All strategic plans at all levels should include priority objectives for addressing this concern. Investors and foreign aid programs are required to protect investments already made through sustainability and social promotion programs before increasing or making additional investments in new infrastructure.

- How can the process of subsector planning be opened so as to encourage dialogue and expand participation in the creation of a vision, as well as in the formulation and review of the Strategic Plan, in order to ensure ownership of the latter at the municipal and regional levels with the rates from other ministries, international agencies and NGOs?

  Discussion: Participating in the sanitation subsector are a series of institutional stakeholders from a variety of sectors at the national, regional and local government levels. Hence the importance to have a forum for analysis, reflection, coordination and integrating linkages in order to ensure shared activities around an agreed-upon vision, policies and strategies.

  One way to ensure a viable sectoral coordinating instrument to strengthen capacity for strategic management is to create a Sanitation Subsector Coordinating Committee (*Comité de Coordinación del Subsector de Saneamiento,* or CCSS) as part of the organic structure of the Ministry of Housing, Construction and Sanitation. This Committee would be chaired by the Vice-Minister of Construction and Sanitation (VMCS), and creation would be by ministerial resolution. In addition, the operation of the executive secretariat would fall under the responsibility of the VMCS' National Director of Sanitation.

  One instrument for institutional coordination and strengthening of strategic capabilities in the subsector would be to have an information system linked to all three levels of government, so as to assist institutional stakeholders in their planning, management and decision-making activities. A series of key subsector agencies would be involved in the operation of such an instrument, design of which should be based on a Shared System of Sanitation Information.

  An active and informal process of consultation, meetings and dialogue at all levels will be another important mechanism for achieving the consensus, ownership and contributions of sectoral stakeholders in strategic plans.

Investment strategy

- Is the intent of the VMCS — to contribute to alleviating poverty — an important element of its investment strategy? If so, what changes should be made to the budget process in order to monitor and prioritize the flow of funds toward the urban poor and small communities?

Discussion: At the national level, Peru has undertaken a strategy of intersectoral planning and discussion that focuses on the alleviation of poverty (the fight against poverty). What lessons can be drawn from this process by the VMCS — for example, as regards consultation, coordination, planning and budgeting — that can help raise the profile of poverty alleviation in its own work?

- How can the VMCS improve its coordination of financing for the sector so as to use external sources of financing to support a coherent national plan for investments in sanitation?

  Discussion: To a large extent as a result of the absence in recent decades of a lead agency for investments in sanitation, international agencies have worked with other ministries (for example, MINSA and MINDES), while implementing programs through the Ministry of the Presidency (for example, PRONAP/PARSSA) that reflected their individual priorities and *modus operandi*. The VMCS now has the opportunity to align these financing flows within a single planning framework.

Sectoral leadership

- How can the Vice-Ministry of Construction and Sanitation take leadership actions and assume its new lead role in order to ensure broad intersectoral communication, a process of intersectoral learning, and the sharing of successful results in terms of sustainability, promotion and technology?

  Discussion: In the focus groups conducted during the course of this study, a series of positive suggestions aimed at stimulating and strengthening intersectoral communication under the leadership of the VMCS were put forward:

  – Can efforts be united among MINSA, the MVCS and SUNASS with regard to training within the sector, especially on topics involving sanitation?

  – Can an integrated information system be developed?

  – Will it be possible to carry out combined sanitary training and education by means of management agreements, accreditation of operators and training of promoters?

  – Will it be possible to have goals (policies) and a shared and common vision for treated water and sanitation: to strengthen emphasis within the Strategic Plan?

  – Will it be possible to plan jointly: issue a strategic plan with the participation of all, including the Ministry of Finance?

- Since the role of protecting the environment is divided among institutions (MINSA, MVCS, CONAM), how will it be possible to achieve articulation and collaboration between these agencies so as to coordinate the oversight and strategic planning role, especially in terms of setting national priorities for the subsector?

  Discussion*:* The issue at stake here is that the capacity to enforce remedial environmental actions and controls is lost between overlapping jurisdictions. For example, if a municipal wastewater treatment plant violates the regulations and pollutes rivers or streams, effective enforcement requires that the Ministry of Health identify the problem and issue a citation (which is not done because MINSA has no enforcement capacity). The body with oversight with regard to rivers is CONAM, but the latter does not have enforcement capacity, and the body with executive oversight to the municipal level for policy is MVCS, which does not have enforcement capacity. In order to address the problems and issues, measures must be taken to clarify legal responsibility and, short of that, an effective delegated mechanism from the three authorities to act in coordination will be required. In the meantime, many acts of environmental degradation and wastewater violations go unaddressed.

5.2. Conclusions

The decision to conduct a review of the country's policies was a timely one, in view of the current effort to organize the sector with a new draft law for creating the Ministry of Housing, Construction and Sanitation, with the National Directorate of Sanitation to function within that Vice-Ministry. One issue, however, remains: When is it appropriate to review policies? Another way to frame the question would be: When should the sectoral vision and its policy and action instruments be renewed? Often the difficulty lies in finding time in the midst of a whirlwind of activity. The use of external agents could eliminate this problem and include a global perspective.

It can be concluded that the political will does exist and is evidenced by a number of indicators. In addition, considerable effort is required to expand the circle of political will to a number of different levels and fields, both populational and political. New regional structures have demonstrated a considerable risk within the sector, and require technical and financial information and assistance.

The most acute need is for the rigorous application of existing policies in order to mobilize the subsector. The implementation of meetings, dialogues, workshops and opportunities to share learning under the leadership of the VMCS would be a demonstration of will and serve to fill the current vacuum.

Annex. Contacts

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