

INTRODUCTION

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Overview

The generally poor performance of the water supply and sanitation (WS&S) sector has prompted many Latin American countries to initiate reform efforts. Although most countries have recognized the failure of centralized service provision, real change is just beginning to occur. Some countries are turning to the private sector for improved service provision; others are considering increased decentralization as the primary basis of reform. A number of countries in the region have recently enacted or are currently debating legal reforms that will allow changes in the existing structure of WS&S service provision. These changes often include establishment of a central regulatory body in order to clearly separate regulatory functions from service provision. To date, most countries have not focused on developing the capacity to implement those reforms.

This document presents examples of successful local management of services. Although such examples exist throughout the region, they are not widely known; the valuable experience gained has not been available to countries grappling with similar problems. This document describes six such cases so that they can be shared with a wider audience.

The case studies were chosen around three themes: the role of small municipalities in service provision, institutional arrangements to provide backup support to rural communities, and regulation of municipal WS&S services. All the case studies selected are reasonably successful examples of decentralization and highlight two groups often overlooked in the reform process—small towns and rural communities. Each one has a track record that is based on actual performance. Taken as a whole, the case studies are a rich source of information. The last chapter pulls together the major lessons learned and major themes from the case studies.

Background

From May 1998 to June 1999, the USAID-funded Environmental Health Project (EHP) implemented a regional activity on the decentralization of WS&S systems in Central America and the Dominican Republic. The objectives of the activity were to provide technical assistance to selected missions, promote sharing of experiences among Central American countries, draw lessons learned, and disseminate them. The activity resulted in a solid understanding of the current situation in decentralization of water and sanitation services in the region, in furthering the process of decentralization in El Salvador and the Dominican Republic, and in identifying a network of individuals and organizations interested in decentralization issues. EHP Activity Report No. 76, *Decentralization of Water Supply and Sanitation Systems in Central America and the Dominican Republic*, describes the overall activity in detail.

At the conclusion of the activity, it was evident that countries and donors have a significant and growing interest in the decentralization of WS&S systems in the region. USAID missions and other donors in most countries in the region are actively supporting the reform of the WS&S sector. Most of these countries see decentralization as a key to “modernizing” the way they do business. More than simply an improvement in the delivery of WS&S services, decentralization is also seen as a way to strengthen the role of local government and democracy in general and as an effective means to address environment and health concerns. The basic tenet is that local control, as opposed to centralized control, will result in more accountable service providers and better services. In fact, most central governments have not provided the financial resources, technical assistance, and regulatory framework that municipalities need to provide services effectively. The result is that in many cases, local governments have been unprepared to assume these new responsibilities, and services have not improved. In general, local governments in small towns do not sufficiently understand what is involved in providing WS&S services on a commercial basis, and they lack the financial resources to fund infrastructure improvements.

Despite the widespread interest in decentralization, it is evident that key people in many countries are unaware of the successes other countries have had in this area. At a regional workshop on decentralization of WS&S services held in Antigua in April 1999, three case studies were presented. One of the conclusions from the workshop was that it would be very beneficial to document such case studies more fully. As countries move from policy-level discussions to field-level implementation of decentralized schemes, they will benefit from a more complete understanding of successful examples of decentralization. The Latin America and Caribbean Bureau in USAID funded a follow-on activity to accomplish this goal, the centerpiece of which was the development and dissemination of the case studies that are presented in this document.

Decentralization is defined in this report as the transfer of responsibility to lower levels of government. Typically three types of decentralization exist in the WS&S sector:

- Devolution – transferring responsibility and authority to local governments
- Deconcentration – placing resources and staff at lower levels within the same administrative structure (autonomous, regional offices of the national water company)
- Delegation – assigning responsibility to a third party, such as an autonomous regional water entity or a private sector company.

All three types of decentralization are represented in the case studies. This report does not advocate a particular type of decentralization. The case studies were selected not only because of their demonstrated success, but also because of the direct involvement of those at the local level in decision-making.

Key Themes and Related Case Studies

The case studies were developed around three themes that emerged from the previous activity. These themes, while distinct, represent three aspects of one overriding issue—the effect of reform and decentralization on the less-advantaged elements of the population. The main thrust of reform to date, and that which has received the most attention and publicity, is what has occurred in the major cities and often in the more developed countries in Latin America. The privatization of WS&S services in Buenos Aires and Mexico City and the reform of the water sector in Chile are clear examples of this trend. The themes and the related case studies addressed in this report all focus on two of the more overlooked groups in the reform process—small towns and rural communities.

The following paragraphs present the three themes and provide a short summary of the related case studies.

1. Role of small and medium-sized municipalities in service provision

In the current sector reform efforts in the region, there is disagreement over the role small and medium-sized municipalities should play in providing services. Although the definition of small and medium-sized municipalities is somewhat arbitrary and dependent on the country context, this document defines them as ranging in size from 5,000 to 40,000 inhabitants — in effect, they include the vast majority of municipalities in a country. While some argue that WS&S is an inherently local service best provided by local government, others say that municipalities do not have the management or financial capacity to take responsibility for service provision and that other options, such as private sector participation, must be found. One way to determine municipalities' potential for taking responsibility for WS&S service provision is to examine different management models that have been used successfully in small towns.

Three case studies involving small and medium-sized municipalities are presented; each represents a different management model: an autonomous municipal company, an independent water board, and a management contract. Each model is summarized below.

- *Municipal company.* A municipal company is a publicly owned company established by the municipality. It may or may not be owned by the municipality. A municipal company, including its funds, is administered separately from the municipality. It is typically governed by a board of directors consisting of both municipal government representatives and private citizens. The municipality will generally be responsible for arranging for capital investment. Employees work for the company and not for the municipality. The key to a successful municipal company is its autonomy in operational matters.
- *Water board.* The water board model is widely used in rural communities but has not often been applied to municipalities. Water boards are, in effect, local community-based associations that are legally established and completely separate from the

municipality. The water board is managed by a board of directors, and the employees work for the water board. The water board is completely responsible for running the company, including setting tariffs.

- *Management contract.* In this model, the municipality (and sometimes a regional or central government entity) contracts with a private sector company to manage the water supply and wastewater system. The contract is for a set period of time (a minimum of five years) and takes full responsibility for management of the system. The private firm does not bring any working capital to the arrangement. Capital financing remains the responsibility of the municipality.

Following is a short summary of the three case studies involving these models.

- *Municipal company – San Julián, El Salvador.* This case study describes a successful approach to provide water supply services in San Julián, El Salvador, using the model of an autonomous municipal company. San Julián is a small municipality with a population of 22,700, which includes an urban center with 5,200 people. In 1997, by municipal decree, the municipality formed an autonomous company to manage the water system for the urban center. An elected board of directors and a permanent staff of five people manage the company. San Julián has a new water supply system built with external funds and an old unimproved wastewater collection system. Since beginning full operation in 1998, the company has been very successful. Most of the population (96%) has access to the municipal water supply system; every household connection is metered. Service is provided 24 hours per day. User fees cover all recurrent costs and depreciation; they also generate excess revenues to finance modest system expansion.
- *Water board – Itagua, Paraguay.* This case study describes a successful community-based water board model which provides water supply services in Itagua, a town located 25 kilometers from the capital, Asuncion. Originally established in 1974 when the population of Itagua was 2,975, the water board now serves the entire urban population of 25,000 with water supply services and has a full-time staff of 23 employees. The water board is administratively and legally separate from the municipality, although one of the five board members is a municipal representative. By commonly accepted standards, this model, called the junta model, is highly successful. Itagua is the only town of comparable size in Paraguay that has complete coverage. Service is provided 24 hours per day, 100% of the connections are metered, and unaccounted-for water is minimal. User fees cover all recurrent costs, depreciation, and debt service, and generate excess revenues to finance system expansion. Although no wastewater services are provided, the water board is considering ways to address this pressing issue.
- *Management contract – Marinilla, Colombia.* The successful management model presented in this case study uses private sector participation for adequate provision of water supply and wastewater services in Marinilla. Located 30 miles from the province's capital of Medellin, Marinilla has a population of 26,000. Although

Colombia transferred responsibility for WS&S services to municipalities in 1987, the regional agency of ACUANTIOQUIA continued to operate the system in 40 municipalities, including Marinilla. In 1997, ACUANTIOQUIA awarded a management contract to CONHYDRA, a domestic private sector company, to manage services in Marinilla and six other municipalities. After two and a half years of coordinated work between the municipality and CONHYDRA, services have improved. An additional 3,500 people have been connected to the water supply system. Water quality has been upgraded, unaccounted-for water has decreased, and customer satisfaction has improved. The existing infrastructure has been upgraded and a long-term investment program has been developed, with the first phase currently being executed.

2. Institutional arrangements for rural systems

Although there is broad acceptance of the community management approach for daily operation of rural systems, there is less understanding of the range of institutional options available for constructing rural systems and in particular for providing backup support to rural communities after the systems are operational. National rural water supply entities have generally proven to be ineffective in providing such support. Widespread evidence exists that after several years of operation, many rural systems will face a variety of technical, financial, and management issues that must be addressed if they are to maintain services. While some communities have the capacity to address these issues with no outside assistance, most do not and will require some limited but dependable source of help. This document presents two models that have demonstrated real success and two other shorter examples. The two models that are fully presented have some central government involvement, although in a highly decentralized environment.

- *Municipal Promoter – Nicaragua.* This case study documents a model for providing backup support to community-managed rural water supply and sanitation systems in Nicaragua. The model was formalized in 1997 based on earlier experiences in the region covering the departments of Matagalpa and Jinotega — a region with a total rural population of 539,811. Water supply coverage in the region is 35% and sanitation coverage is 36%. The model builds upon the existing structure of water committees and regional promoters of the National Water Supply and Sanitation Company (ENACAL) and adds a key link at the local level in the form of a municipal operations and maintenance promoter. The municipal promoter is an employee of the municipal government but works under the technical supervision of the regional ENACAL promoter. The promoter is responsible for providing technical backup for complex repair or maintenance tasks, reviewing finances, sampling water quality, providing training, resolving conflicts, and monitoring overall performance. To date promoters have been established in nine municipalities providing services to approximately 55% of the population with improved water supply systems. After two years of operation, the results have been encouraging. Monitoring reports in the nine municipalities indicate that the current status of the 300 water supply systems under the care of the municipal promoters is rated acceptable or above average in 95% of cases. While not entirely problem-free, the model has succeeded in creating a locally

based capacity in rural WS&S within the municipality that has maintained widely accepted standards of service provision.

- *SANAA Technician in Operation and Maintenance – Honduras.* This case study documents a model for providing backup support to community-based rural WS&S systems in Honduras. The model is based on the circuit rider concept used in the United States by the National Rural Water Association. It was adapted in Honduras and renamed the Technician in Operation and Maintenance (TOM). SANAA, the National Water Supply and Sewerage Company, launched a pilot program from 1993 to 1995, in the department of Atlantida. Based on its success, the program was extended to the national level in 1995 and is now truly national in scale, covering 4,023 rural water systems serving over 2 million people. The TOM is a mobile technician who provides support to a set number of communities and visits them regularly. TOMs are employees of SANAA and work from regional offices that have substantial authority to make decisions. Currently 86 TOMS operate out of six regional offices. Despite the effects of Hurricane Mitch in 1998, the performance of the program has indicated good progress.
- *Two alternative models in Honduras – PROSAR and AHJASA.* In addition to the TOM program, Honduras has two other support mechanisms that offer operation and maintenance backup to rural communities. PROSAR (Rural Water and Sanitation Project) is managed jointly by the Ministry of Health and the Swiss Agency for Development and Cooperation. Under PROSAR, Technicians in Environmental Health are based in health centers in municipalities and are responsible for coordinating the construction of new projects, conducting training, and providing backup support to communities with existing systems. PROSAR operates exclusively in 905 communities in two departments in Honduras. AHJASA (Honduran Water Board Association) was established by Agua para el Pueblo, a Honduran nongovernmental organization. In the AHJASA model, circuit riders provide support to communities that are members of the association. This model operates in six departments and has a total membership of 300 communities.

3. Effective regulation of municipal services

The issue of regulation remains one of the most contentious and difficult to resolve. Regulation provides a consistent set of rules under which services are provided. Because of the inherent monopolistic nature of WS&S services, regulation is needed to protect the interests of consumers. Typically regulation involves setting service standards, ensuring environmental protection, establishing rules for setting tariffs, monitoring water quality, and establishing rules for contract operators. Regulatory initiatives have often occurred simultaneously with efforts to decentralize WS&S services, but these dual initiatives frequently have not been complementary. Local governments often view national regulation as continued control over their management of services, and national governments view regulation as necessary to exercise legitimate oversight. Regulation of medium-sized and small cities poses a special challenge to central regulation because of

their size and wide disparities in human and financial resources. In practice, services in many small and medium-sized cities are regulated under an inadequate framework.

There is disagreement as to the scope of regulation, which can include economic, social (water quality and environment), and contract regulation. It is also not clear at what level of government to locate the regulator and whether there should be one or multiple regulators. In any decentralized system based on municipalities, the issue of regulation becomes especially important to provide some standards of service and protect public health and the environment.

While many countries are grappling with this issue, none has found a formula to successfully address it that could form the basis for a case study. Unlike the previous two themes, no case studies are offered on regulation of municipal services because no country was considered to provide a successful example of regulation with applicability to the less-developed countries in the region. Chapter 4 provides an overview of the regulatory trends, defines the issues that need to be addressed to establish a regulatory structure, and includes a brief summary of eight experiences with regulatory reform in the region including Guatemala, Honduras, El Salvador, Nicaragua, Panama, Dominican Republic, Paraguay, and Bolivia. These countries all have a relatively small population (fewer than 10 million people); all consist of a large number of small and medium-sized cities, the largest of which has a fraction of the population of the capital; and most are at an earlier stage of the sector reform process.

The Chapter concludes with some preliminary observations and recommendations including the delegation of economic regulation to local governments and quality standards or social regulation to the central government. A key observation is that the responsibilities of the central government should include setting and vigorously enforcing realistic drinking water and wastewater discharge quality and service standards, promoting competition and benchmarking¹, and helping local governments discharge their regulatory and service functions in a cost-effective manner.

General Observations about the Case Studies

Several observations about the case studies are important to note.

- It was not easy to find good case studies in these three themes as they represent areas that are not easy to address. While not perfect, the case studies all represent reasonably successful examples. The primary criteria for selecting the case studies were that they have a documented track record and be applicable to the less-developed countries in the region. However, the case studies do not gloss over the weaknesses or problems and try to present the examples in a balanced and objective

¹ Benchmarking is the collection, comparison, and dissemination of information, under uniform and consistent reporting requirements, of operations and investments of WS&S service providers. Examples of indicators include ratio of staff to total connections, water loss, financial ratios, and maintenance data.

way. This is especially important if the case study is to be assessed and potentially used in another country or replicated in other jurisdictions within the same country.

- These case studies should be considered a representative sample. Other successful examples exist and could have been used. The selection of these particular cases should in no way be interpreted to mean that other successful examples do not exist.
- Each case study was written by an individual with first-hand experience in the region and with that specific case. In fact, all of the authors either currently reside or once resided in the case study country. The benefit of that was that each author was able to visit the site and talk to a wide range of people familiar with the example and thereby develop an accurate picture of the case.
- The case studies reinforce many of the lessons learned in the past two decades about improving WS&S services. These lessons include the importance of cost recovery and of community involvement and support, the use of appropriate technology, the existence of dependable structures for operational maintenance, and the centrality of institutional autonomy.

How the Report Is Organized

The remainder of this document is divided into four chapters. Chapter Two includes the three case studies on management models for small towns. Chapter Three presents the three case studies on institutional arrangements for rural communities. Chapter Four addresses regulation. Chapter Five draws conclusions from the case studies and offers an outline for a future agenda.

Acronyms

AHJASA	Honduran Water Board Association
EHP	Environmental Health Project
ENACAL	National Water Supply and Sanitation Company, Nicaragua
IDB	Inter-American Development Bank
KfW	<i>Kredit für Weideraufbau</i> (German development bank)
NGO	nongovernmental organization
O&M	operations and maintenance
PROSAR	Rural Water and Sanitation Project in Honduras
SANAA	National Water Supply and Sewerage Company, Honduras
SDC	Swiss Agency for Development and Cooperation
TOM	Technical Operation and Maintenance, Honduras
USAID	United States Agency for International Development
WS&S	water supply and sanitation