

CONCLUSIONS

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The case studies presented in this document discussed three distinct themes—the role of small municipalities in the provision of water and sanitation services, institutional arrangements for backup support to rural communities, and regulation of services. The case studies reflect experience in five countries: the small municipality examples come from Paraguay, El Salvador, and Colombia; examples of institutional arrangements for backup services are drawn from Honduras and Nicaragua. The chapter on regulation takes a regional perspective.

These case studies provide a rich source of information for some of the most difficult challenges facing the WS&S sector—improving services in rural communities and small municipalities. Each case study looks at strengths and weaknesses of an approach and examines why the particular design has been successful and what is required for sustaining success and for further replication. This chapter steps back and looks across all the case studies to draw some overall conclusions. Keeping to the focus of the case studies, the conclusions are drawn on the policy, institutional arrangements, and management issues described in the case studies rather than the more specific operational or technical details.

The conclusions are presented in five sections:

- Overall observations
- Management models for small municipalities
- Institutional arrangements to provide backup support to rural communities
- Regulation of services in small municipalities
- Summary.

Overall observations

The case studies are a testament to lessons learned in the past 20 years in the water and sanitation (WS&S) sector about the central elements of sustainable projects. Although these lessons will not be discussed in detail here, they include certain key elements:

- The importance of cost recovery
- The need for meaningful community involvement
- The impact of the selection of technology on sustainability
- The need to focus on operations and maintenance
- The key role of institutions.

The case studies described in the preceding chapters reinforce the validity of the current conventional wisdom—the elements above are crucial for sustainability.

In general, the following additional observations can be drawn from the case studies:

- *Autonomy.* The importance of autonomy over all operational matters is seen in each case study. Autonomy includes the independence to make decisions about priorities, staffing, planning and implementation of activities, and budgets. In the rural case studies, the regional entities that provide backup support in both countries have substantial autonomy over operational matters even though they are part of a national structure. In the municipal case studies, the local utilities all have almost total operational autonomy, although Marinilla is subject to tariff approval by a national agency of the Colombian government.
- *Role of legal and regulatory reform for replication.* In the municipal cases, the broad legal and regulatory context is fundamental to scale-up. In Colombia, the legal environment permits private sector involvement and, as a result, the model could be replicated elsewhere in the country. In El Salvador and Paraguay, on the other hand, scale-up of the models is dependent on a change in the legal and regulatory framework. In El Salvador, decentralization of responsibility for WS&S to municipalities would have to become the formal policy of the government. Although this is being discussed, it is not yet the stated policy. In Paraguay, the water board model is intended for communities of less than 4,000 and theoretically could not be used by small municipalities that exceed 4,000 unless the law is changed.

In the rural examples, the legal and regulatory environment does not seem to be as critical for scale-up. In Honduras, the TOM program developed to a national level despite the absence of legal and regulatory reform. In Nicaragua, in reality the reform focused mostly on the urban sector and much less on the rural areas. Despite this, the municipal promoter program has been developed, and there does not appear to be any legal or regulatory impediment preventing its replication.

- *Role of external donor assistance in technical assistance and financing.* In every case, with the exception of Marinilla, donor assistance was needed to provide technical assistance and finance capital investment. Even in Marinilla, funds from the central government were needed for capital improvement. Outside assistance in the early stages is especially important when a new model is being implemented. One of the reasons that service provision in San Julián has been successful is that the municipality received limited but important technical assistance in the early stages and a grant from the Social Investment Fund to rehabilitate its water supply system. If the San Julián experience were to be replicated on a large scale, say in 50 or 75 municipalities, some kind of technical assistance program would have to be organized, probably with donor assistance.
- *Compatibility of decentralization and regulatory objectives.* If municipal decentralization is the stated policy of the government, then the regulatory framework must reflect that intent. A case in point is Paraguay; overall municipal decentralization is the national policy, but the new WS&S law puts most of the power in the hands of a central regulatory body, with little voice for the municipalities

beyond a promised seat at the table. Similarly it is difficult to imagine sector reform based on municipalities' having responsibility for WS&S services without a broader national commitment to municipal decentralization in general. In Nicaragua, legal and regulatory reforms were completely consistent with broader decentralization objectives. A government that is serious about devolving responsibility for WS&S services to municipalities must also reduce central control over tariffs and other operational matters that tie the hands of local government.

- *Sanitation not given equal weight.* Sanitation clearly lags behind water supply. It is unclear if the prevailing model used in water management, as described in the case studies, can deal with sanitation issues. Would they be as effective in dealing with wastewater collection and treatment? In the rural models, the focus is clearly on the management of water supply services. While the importance of sanitation is acknowledged, it does not receive the same attention or investment.

Management models for small municipalities

- *Enlightened local leadership.* The importance of enlightened local leadership cannot be overstated. In all three municipal cases, the mayor and other local officials provided the leadership needed to gain popular support. Such leadership is especially important given the tempting revenues that a successful water utility can generate!
- *Burden of sanitation.* Adding a functioning wastewater collection and treatment system would make the service provision task much more complicated. Of the case studies discussed, only in Marinilla is wastewater collected; it is important to note, however, that Marinilla is a more developed city and has greater access to resources than either Itagua or San Julián. This situation does not minimize the accomplishments of Itagua and San Julián; wastewater services are more costly to provide and more complex to maintain than water provision. It is not clear how well those two municipalities would have fared had wastewater collection service been part of their mandate.
- *Access to external capital financing from the start.* Access to external funding for capital financing is virtually a prerequisite to success. All three cases benefited from external financing, either through a loan or grant. It is highly unlikely that a small municipality could provide the initial financing to improve its water supply system or that customers would be willing to pay for services.
- *Cost recovery.* All three cases clearly demonstrate that full recovery of recurrent costs, including depreciation, is possible in small towns after the initial capital investment. All systems now cover full operating costs and depreciation; they also generate excess revenues for limited capital investment. Both Itagua and Marinilla also pay debt service on loans. San Julián received a grant to rehabilitate its system, so it does not have any debt to service.

- *Accountability and transparency.* All three cases point to the importance of accountability, especially through meaningful local involvement. In Itagua a general assembly meets annually to review operations, assess the performance of the board, and elect new board members. In Marinilla, the elected municipal council approves all major decisions and in San Julián, the board of directors of the company is popularly elected by a general assembly of water users. In all the cases, there is in effect a system of accountability to users that serves as an incentive to maintain and improve services.
- *Role of the private sector.* In two of the cases—San Julián and Itagua—the private sector has no role in the management of services. This is not to say that the private sector cannot play a role in managing services in small towns, but it illustrates the point that private sector management is not required. To date, except for the more developed countries in the region, there is little evidence of private sector involvement in management of services in small towns. Marinilla is a good example of what is possible, but it is, even by Colombian standards, a reasonably well off municipality. The key lesson is that a range of management models is possible, depending on the context.
- *Scale-up.* Unlike the rural cases, scale-up of these municipal models is very much linked to sector reform and support for decentralization. All three examples provide testimony to what can be achieved if local governments are given responsibility for WS&S services. Yet the question remains whether these three are isolated examples, with little chance of being replicated elsewhere. In both Paraguay and El Salvador, scale-up is dependent on the nature of the sector reform including the regulatory structure that is established. No model will be widely replicated without the right enabling environment. That supportive base will include letting the municipalities make decisions regarding how services will be provided—whether they want to establish a municipal company, a water board, or a management contract with a private sector firm—and giving them the necessary technical assistance in the early stages and access to capital financing.

Institutional arrangements to provide backup support to rural communities

- *Cost of programmatic infrastructure.* In all of the rural cases, the programmatic infrastructure for backup services was funded by external donors. Given the general lack of resources in many countries and the inability of most rural communities to pay for backup support, the cost of establishing programmatic infrastructure, such as training of promoters, logistics support, maintenance of an information system, etc., is likely to require external funding. Donor funding is not a reliable source over time, however, and the central or local government must be willing to pick up these costs within a reasonable timeframe. Thus, for example, the key long-term issue in the continuation of the TOM program in Honduras is: What will happen when USAID support ends?

- *Clearly defined system.* A successful backup support system for rural communities must be very well defined. The ratio of promoters to communities, the number of visits made each year, the kind of training that is required, the reporting requirements, and the roles and responsibilities of the promoter are key elements that must be the basis of the program. Both the Honduras and Nicaragua cases address these very well.
- *Monitoring and evaluation.* A simple and understandable monitoring and evaluation system is an essential aspect of providing backup support to rural communities. In both the municipal promoter model in Nicaragua and the TOM program in Honduras, workable information systems have been established that provide the data that allow the promoters to target their efforts. In fact in Honduras, the classification system actually provides an incentive for the promoters to have as many systems under their responsibility classified in the highest category as possible.
- *Competent institutional support.* The presence of a capable institution, probably but not necessarily governmental in nature, with clear responsibility for the provision of WS&S services in rural areas, is an important prerequisite. That institution must have operational responsibility for the program—a backup support program needs a competent institution behind it. The institution could be regional or national in scope.
- *Regulatory reform.* Interestingly, comprehensive regulatory reform does not seem to be a key element of setting up an effective backup system in rural areas. However, regulation in certain key areas such as technical norms and standards and water quality is needed. Regulatory standards are usually within the purview of the responsible government agency and do not require legal changes. Certainly in Honduras, the SANAA TOM system was set up despite the absence of regulatory reform. Most of the legal and regulatory reform efforts in the region have been virtually silent regarding service provision for rural areas. If clear responsibility for providing backup support to rural areas resides within one institution (at least on paper), as is the case in most countries, then it seems that a backup system could be set up without comprehensive legal and regulatory changes.
- *Lack of attention to health.* Health is clearly a secondary concern compared to operations and maintenance of the water supply system. Although sanitation is nominally part of both the TOM program in Honduras and the municipal promoter model in Nicaragua, in reality it is not given much attention. Similarly while hygiene education and behavior change are acknowledged as important, they are not a major concern. Lack of resources may be part of the reason for this shortcoming, but the more central issue may be the greater priority given to technical and management matters by the program. In each of the programs, much more coordination is needed with local health officials.
- *Lack of attention to environment.* Environmental concerns are given even less importance than health. While environmental awareness in such areas as watershed protection and water quality is more apparent than was the case ten years ago, very little attention is actually given.

- *Cost recovery.* Full cost recovery remains an elusive goal in rural communities. The cases indicated that significant progress is being made in recovering recurrent costs, but they did not demonstrate progress in meeting capital costs or depreciation. While the long-term goal of full cost recovery should not be abandoned, these cases indicate it is not a realistic goal in the near- or medium-term in the less developed countries in the region.
- *Role of technology.* In the cases from Honduras and Nicaragua, the technologies used were very simple—gravity-fed systems and rope pumps. It is not clear how well the model would work if the physical conditions required more complex and harder-to-maintain technologies such as motorized deep-well pumps. More complex technologies would certainly be more difficult for communities to maintain.
- *Role of municipality.* It is unlikely in the foreseeable future that municipalities will be able to play the lead role in providing backup support to rural communities. While the Nicaragua case study demonstrates that municipalities can indeed play an important role in providing support, it also shows that without the support of the regional office of ENACAL, the model would not have been successful. This is an important issue since some have argued that the primary responsibility for supporting rural WS&S systems should lie with municipalities.

Regulation of services in small municipalities

- *Effective regulation.* Establishing an effective regulatory framework for small towns is not easy. The sheer number of small municipalities, the lack of resources, the halting or uneven pace of movement toward decentralization in general, and the poor condition of the facilities present formidable challenges. In addition, there are real differences of opinion in some countries on how best to reform the sector and regulate services. Some favor private sector solutions. Others favor municipally-based solutions. No country surveyed provided an adequate example of a regulatory environment to develop a case study. Although Nicaragua has enacted the most comprehensive reform and has established a regulatory framework, the actual effect on improved services has not yet been felt. Clearly regulation is a difficult task and one that will require more experimentation. Countries are grappling with this issue, and in the future there will be more experiences to examine.
- *Proceed slowly.* Perhaps the most important conclusion in the area of regulation is to proceed slowly and with a light touch. Going from a complete absence of regulation to a highly regulated system is unlikely to work, if for no other reason than the cost required to implement it. Regulation requires information systems that provide reliable data; most countries are not yet in a position to collect and analyze a large amount of data. Determining, from the start, what the regulatory priorities are and focusing on them are keys to a good data collection system.

- *Role of municipal regulation.* All regulation does not need to occur at the national level. In the near and medium term, it is not realistic or even desirable to expect national governments to be responsible for all regulation. The information systems required to effectively monitor and enforce regulation do not exist in most countries and even if desired would take time to develop. In San Julián, in the absence of an effective national regulatory framework, regulation is provided through municipal ordinances. Local regulation should be considered an important aspect of a national system of regulation. At a minimum, national governments should be responsible for setting water quality norms, technical norms and standards, and environmental standards. In addition, the national government should regulate the rate of return and provide a structure to prevent monopolistic behavior of private sector firms. The key conclusion is that countries should make use of both local and national government regulation.

Summary

These case studies show what can be achieved when local communities are given increased responsibility. The case studies do not advocate for a particular institutional model; rather they illustrate what several countries and municipalities have done and allow key lessons to be passed on to a wider audience. Many countries are grappling with the three issues discussed in this document—management models for small towns, backup support to rural communities, and regulation of municipal services. The case studies and resulting conclusions offer valuable insights as others work on these same issues. The conclusions drawn in this chapter are not intended to be the last word on the subject but to offer some insights for consideration by others.

Where do we go from here? What do the lessons from these case studies imply for the future? Below are five broad agenda items for those development organizations interested in the decentralization of WS&S services.

- *Continue to track the experimentation in decentralization to see what lessons emerge.* Given the number of countries that are using decentralization as the approach to reform their WS&S sectors, there will continue to be examples from which to draw lessons. Which models work best in which situations? What can we learn about scaling up successful approaches? The experiences can answer these and other questions.
- *Determine the effect on these models of paying more attention to sanitation.* If small municipalities and rural communities increase their emphasis on sanitation, it will be important to assess the effect on different management models. Given the complexity and cost of providing sanitation services, communities may not be able to use these same models in their current form and provide both high quality water supply and sanitation services.

- *Continue to search for solutions to the problem of financing capital investments.* Although this issue is not new and many approaches have been tried, financing remains a major stumbling block to scale up of any successful management model. Current efforts are underway to use private sector capital, but there is little documentation of this approach for small towns and rural areas. National governments and donors continue to provide capital investment to local governments and rural communities primarily through grants. Coming to terms with this reality or finding innovative solutions will be an ongoing issue.
- *Development of regulatory approaches.* Given the poor track record of countries in regulating the sector, finding effective approaches to regulation should be an area of emphasis. In particular, finding the balance between municipal and national level regulation—i.e., spelling out which areas of regulation each level should be responsible for—will be an important subject to study.
- *Addressing health and environmental concerns.* Although there is increased awareness of the importance of health and environmental concerns, in fact not much progress has been made. Ways of better coordinating and integrating efforts of providers of WS&S services and health and environment agencies should be explored. Since WS&S agencies often do not have health or environmental expertise, it may be more productive to create links among those that do, especially at the local level. Developing approaches whereby local utilities and ministries of environment and health can better coordinate and integrate their activities may hold promise for addressing health and environment issues.