Evaluation of USAID Strategy to Increase Potable Water Access and Sanitation in Rural Areas

Dominican Republic

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We are indebted to the institutions that have been part of the Hato Mayor effort for their commitment to the communities and their efforts to promote qualitative and quantitative change in the water and sanitation (WSS) sector in the Dominican Republic. Among them are Catholic Relief Services (CRS), Dominican Women in Development (MUDE), Social Services of Dominican Churches (SSID), Peace Corps, National Water Supply and Sewage Institute's Department of Rural Aqueducts (INAPA/AR), the Santa Domingo Water and Sewer Corporation (CAASD), TAHAL engineering consulting, Sur Futuro, Alianzas, Conecta, Fund for the Promotion of Community Initiatives (PROCOMUNIDAD), and the United States Agency for International Development (USAID).

The evaluation team wants to specifically thank the USAID/DR Mission for trusting us to conduct this evaluation and for allowing us to provide them with feedback to carefully plan future interventions in the WSS sector in the Dominican Republic.

We also want to acknowledge the efforts of Carlos Ureña from Conecta, who served as our field guide in the Hato Mayor communities, the community members who participated in the interviews; David Losk, and Kelva Perez, who served as our USAID control officer and contributed with comments on the study.

The evaluation has tried not only to compile the facts surrounding the state of the WSS sector in Hato Mayor but also to contribute recommendations that will help improve the WSS sector in the rest of the country.

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Abbreviations

Alianza	Red Multisectorial de asociaciones sin fines de Lucro
AMCHAM	American Chamber of Commerce
ARAS	Asociaciones Rurales de Agua y Sanemiento (Rural Water and Sanitation Asociaitions)
ASOCAR	Water Committee (also known as rural water community associations
CAASD	Corporación del Acueducto y Alcantarillado de Santo Domingo (Santo Domingo Water and Sewer Corporation)
CEDECO	Centro Dominicano de Educación Ecológica (Dominical Ecological Education Center)
CIDA	Canadian International Development Agency
CONECTA	USAID Health Project implemented by institutional contractor
CRS	Catholic Relief Services
CSR	Corporate Social Responsibility
EHP	Environmental Health Project
EU	European Union
FEDOMU	Federation of Dominican Republic Municipalities
FIPA	Environmental Investment Fund (Fondo de Inversion Ambiental)
GODR	Government of the Dominican Republic
GTZ	German Cooperating Agency
IDB	Inter-American Development Bank (Banco Inter-Americano de Desarrollo or BID)
INAPA	Instituto Nacional de Aguas Potables y Alcantarillados (National Water Supply and Sewage Institute)
INAPA/AR	Acueductos Rurales (Rural Water Supply, a department within INAPA)
INDRHI	Instituto Dominicano de Recursos Hidráulicos (Dominican Institute of Water Resources)
KFW	German Development Bank
MUDE	Mujeres en Desarrollo Dominicana, Inc. (Dominican Women in Development)
NGO	Nongovernmental organization (organización no gobermental)
O&M	Operation and maintenance
ONAPLAN	Oficina Nacional de Planificación (National Planning Office)
PAHO	Pan-American Health Organization (Organización Pan Americana Para la Salud)
PROCOMUNIDAD	Fondo de Promoción a las Iniciativas Comunitarias (Fund for the Promotion of Community Initiatives)
PVO	Private Volunteer Organization
PWSS	Potable Water and Sanitation Systems
REDAR	Red de Asociaciones Comuitarias de Acueductos Rurales (Network of Rural Community Assocition of Water and Sanitation)
RWSS	Rural water supply and sanitation
SESPAS	Secretaria del Estados de Salud Publica y Asistencia Social (Ministry of Public Health)
SO	Strategic Objectives
SSID	Social Services of Dominican Churches
TAHAL	Isreali engineering consulting firm
TCP	Total community participation

TIP	Trials of improved practices
UARPAC	Unidad de Acuaeductos Rurales y Participacion Comunitaria (RWWS and Citizen Particiaption Unit)
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTM	Unidad Tecnica Muncipal (Municipal Technical Unit)
WSS	Water supply and sanitation
UTM	Municipal Technical Unit

1. Executive Summary

1.1 Background

The Dominican Republic is located on the eastern two-thirds of the Hispaniola Island, on the northern part of the Caribbean. It covers approximately 48,734 square kilometers, and its only land border is with Haiti on the western part of the island. The country contains both mountain chains and plains. Rainfall varies a lot among different areas, from 700 to 2,400 mm per year. In general, the rainy season is between April and December.

The Dominican Republic has a population of more than nine million inhabitants of which 64 percent live in urban areas; more than 35 percent of the population lives in Santo Domingo, the capital city.

In May 1998 USAID/DR and the National Water Supply and Sewage Institute (*Instituto Nacional de Aguas Potables y Alcantarillados* [INAPA]) signed a Memorandum of Understanding (MOU) to implement a pilot rural water and sanitation project in the Hato Mayor Province, using the Community Total Participation model. The implementation of the pilot activity would allow INAPA to develop and test approaches for a decentralization strategy to subsequently scale up to national level. Through the PVO co-financing project, USAID provided technical assistance and INAPA provided the infrastructure.

In the aftermath of Hurricane Georges and as part of USAID-funded reconstruction efforts, ENTRENA, who sub-contracted with two national NGOs, Dominican Women in Development (*Mujeres en Desarrollo Dominicana, Inc.* [MUDE]) and Catholic Relief Services (CRS) identified the opportunity to replicate the TCP model in the rehabilitation of the water systems in nine rural communities. This activity served as a learning laboratory (including rural sanitation) for the staff of INAPA's Rural Water Supply Decentralization Department. At the same time, ENTRENA assisted INAPA directly in learning to supervise NGOs in implementation of the TCP. For more than four years USAID/DR has invested in technical assistance to INAPA to promote the TCP model. The model is intended to help INAPA and others create an environment to support sustainable community-based rural water and sanitation with an additional hygiene component. INAPA authorities in the Mejia administration embraced the TCP and, with the support of other donors, replicated it in other regions of the country.

In 2002, USAID/DR awarded a five-year contract to Family Health International (FHI) for the implementation of activities in support of IR10.1, IR10.2, and IR10.3. This USAID institutional contractor CONECTA is providing technical assistance to INAPA, REDAR and the Hato Mayor communities for the promotion and replication of the Hato Mayor Pilot Project nationwide, as well as direct technical support to the communities there.

1.2 Potable Water and Sanitation Sector and Its Services

Presently, approximately 1,565,000 inhabitants have no access to water services through pipelines and intra-home coverage (water serviced through pipes inside the homes) has decreased (from 45.0 percent in 1993 down to 37.4 percent in 2002) mainly due to the increasing population around major cities.

With regards to sanitation, by 2005 approximately 400,000 Dominicans (4.4 percent of the total population) practiced fecalism and nearly 70.0 percent of the population living in urban areas disposed of their sewage water in the subsoil.[1]

On the other hand, it is important to note existing gaps in the quality of potable water and sanitation services within the country. A high level of resource allocation by the central government to PWSS institutions has had a limited impact on the health and well-being of the population, and these gaps continue to expand as a result of the policies and strategies applied in the development of the PWSS.

In summary , it can be said that the areas of greater poverty have the most deficient potable water and sanitation service coverage.

In summary, all of the sectorial assessments carried out in the last few years confirm that the fundamental causes for the deficiency in the coverage and quality of the potable water and sanitation services include the following:

- The high resource allocation by the central government for the service-rendering institutions has become one of the most important strengths in the past two decades; however, the procedures under which it is supported are deficient in that they do not promote the companies' financial self-sufficiency.
- The resources cited above are almost totally aimed at the construction of new works, causing great weakness with regards to the operation and maintenance of the systems.
- A series of agencies operating in the rural areas, mainly NGOs, work without coordination, adopt different focuses and criteria, and lack an organization to provide the standards and follow-up for the referred actions. The sanitation situation is even more difficult due to the lack of clear policies and due to the lack of a responsible national body to deal with this problem.
- The PWSS's performance is seriously affected by the lack of institutional planning, characterized by a lack of role definition, overlap of compatible roles within the same institution, and overlap of roles in several institutions, among other problems. No entity exists to perform the governing role and, although some institutions have an effective regulatory role, this practically does not exist

[1] Abreu, R.U. Global Assessment of the Potable Water and Sanitation Services, 2000. Panamerican Health Organization Dominican Republic, 1999.

1.3 Purpose

The purpose of this assessment was to conduct an external evaluation of USAID's strategy and approach to increase access to potable water in the rural areas over the past five years. It is expected that this evaluation will help USAID/DR identify lessons learned from the implementation of the Total Community Participation (TCP) model in the rural areas and an assessment of its viability as a national strategy. The evaluation team has identified recommendations based on these findings that will assist USAID's decision on future participation in the sector.

1.4 Objectives

- Provide a situation analysis of the rural water sector including INAPA's strategy and efforts to increase rural access to potable water.
- Evaluate USAID's sector strategy and advances. Assess the viability of the Total Community Model.
- Based on the analysis of the sector and the impact of USAID strategy and other donors support, provide recommendations for USAID's future involvement in the sector.

1.5 Methodological Approach

The evaluation team has reviewed and analyzed the USAID-provided documents, as well as sector documents, and has conducted key actor interviews, field visits, and focus groups in rural communities in the Dominican Republic. Summarized in Table 1. The different methods and institutions are reviewed.

Table 1. Data Collection Techniques Used for Field Situation Analysis

Techniques	Information/Source
Secondary data analysis	Documents, reports, statistics, etc. (see detailed list in Chapter 8, References)
In-depth interviews (with those directly involved in the project)	Key informants: USAID, INAPA, MUDE, CRS, ENTRENA, Alianza, CONECTA, Peace Corps, PROCOMUNIDA, and community organizations in Hato Mayor, Bani, and Guerra
Observations	Site of the four projects communities in Hato Mayor: kilometro 15, Mango Limpio, La Mora and Los Vasquez, 8 homes with and without access to services provided by the project. In El Sombrero, and El Llano, Bani the Team visited the Association Offices and tank sites.
Special interviews (control interviews)	Key informants of the government and Cooperating agencies: CAASD, INDRHI, TAHAL, IDB, World Bank, SUR FUTURO, *Vision Mundial*, AECI, and community leaders (see Annex A and B)

1.6 Hato Mayor

The jointly funded USAID/INAPA–Acueductos Rurales projects were designed to support INAPA in the decentralization of rural water sanitation services in the Dominican Republic in nine poor rural communities of Hato Mayor. To this end, the projects employed the Total Community Participation (TCP) model to initiate and implement these investments. This model focuses on mobilizing community involvement to achieve sustainability for rural water and sanitation programs. A hygiene behavior change intervention was incorporated to maximize the potential health improvements of the investments.

The current evaluation has found mixed results. Important objectives of the projects were met but initial successes have been reversed since the projects formally ended. New water systems and latrines were completed in the nine communities but only three of the nine communities have working water systems today. Community participation has taken hold on water and sanitation issues in all of the communities but has been discouraged by recent system setbacks. Institutional support got the projects off the ground there have been gaps in recent years. The hygiene behavioral change components were effective while they lasted but promoters are no longer officially engaged. The training component of these projects brought extensive learning resources to the communities but interruptions and limited scope have reduced the positive impact of training. Finally, the projects have exhibited limited sustainability. As currently designed and implemented, the systems in Hato Mayor cannot continue without ongoing external funding.

Equipment failures in community water systems were largely responsible for the program's inability to fully realize its potential. Most were caused by (or at least aggravated by) a host of programmatic problems, many of which have been common in other efforts to establish community water systems around the world. The problems

embody critical obstacles that need to be addressed if this type of program is to be replicated in the Dominican Republic. These include the following potential issues:

- Use of inappropriate technology.
- Inadequate technical management.
- Poor equipment quality.
- Failure to build depreciation and contingency funding into the initial investment.
- Gaps in technical oversight by trained professionals.

Our evaluation identifies these issues as ones that should be addressed in the design and implementation of any new program by USAID in the rural water sector. At the same time, if there is to be an effort to remediate the failures and problems that have beset the six communities that currently have no water, a more in-depth and site-specific examination of each community's problems is warranted. Such an examination is necessary in order to identify the most cost-effective solutions for returning water to the communities.

1.7 Behavioral Change Methodology

The Hato Mayor WSS pilot experience was heavily based in the behavioral change methodology. The goal of the pilot experience was to improve community participation, attitudes, and hygiene habits among the beneficiaries. The pilot experience was also intended to build capacity for promotion of these objectives at a national level, using on-the-job training of promoters, trainers (i.e., training-the-trainer), and NGOs. Some of the most important findings are:

- All of the trained participant organizations involved in the project have adopted the methodology as an integral part of their mode of operation and continue to use it in new activities
- Some of the participant organizations believe the model has proven so effective that they are using the methodology in other regions
- CRS has adapted the behavioral change materials and methodologies for other areas, including education, where they created an education integral model
- There are at least 30 people qualified to conduct train-the-trainer sessions. Some of these trainers work full-time as consultants for other organizations, groups, institutions, and communities.
- The NGOs acknowledged that the methodology used to develop the behavior change materials was extremely helpful in empowering the communities
- Based on the findings of this evaluation, the team believes that the USAID/DR Mission should promote the development of similar behavioral change methodologies for PWSS in the Dominican Republic, but should particularly focus on public service payments (culture of payment) and gender equity issues.

1.8 Total Community Participation Model in Other Settings

There are a number of institutions presently developing a program to improve or build aqueducts in rural communities throughout the country, based in the general principles of TCP for example:

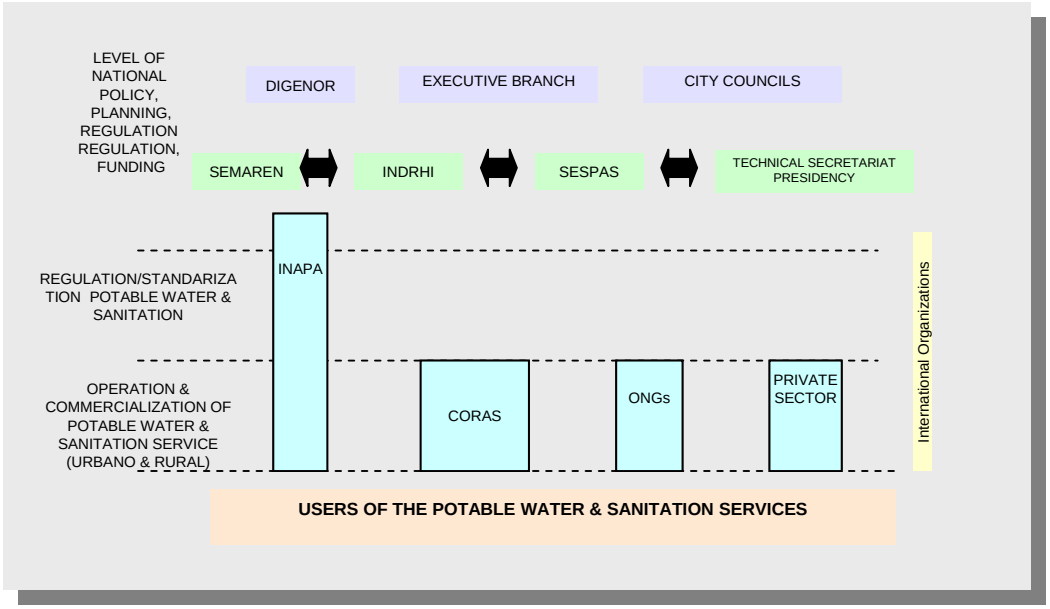
- The CAASD is presently developing a program to improve or build 156 aqueducts in rural communities in the Province of Santo Domingo; this process is to be initiated in the 14 communities of the Guerra Municipality in the Province of Santo Domingo; this process is to be initiated in the 14 communities of the Guerra Municipality
- For the implementation of the AECI-INAPA program (Spanish Cooperation) INAPA is using the total community participation model throughout the process, starting with the identification of the technical options together with the participation of the community, to the support in strengthening the organization.
- Peace Corps' clean water activities falls under its Healthy Environment efforts; they have 10-12 PC Volunteers who are working in this sector. 80% of them have been trained as engineers. The program has three phases:
  - Development of Infrastructure (Construction)
  - Education (Behavioral Change)
  - Community Organization (Strengthening Water Committees)
- PROCOMUNIDA has now adopted the Participatory planning methodology in all the projects they finance; they are working with the municipalities. Under the new program they have decentralized all activities; the municipalities are responsible now for contracting project cycles, infrastructure and TA, and PROCUMINIDA focus on 4 areas: infrastructure financing, Training, Equipment financing and Supervision
- The experience of the Administrative Council of the Villa Sombrero Semi-Rural Aqueduct under INAPA/AR support, of which this system is presently a combined service that serves two neighboring towns: Villa Sombrero and El Llano, which is administered by two associations, CADARVIS and El Llano. The system provides service to 1,291 homes at the Villa El Sombrero and 800 in El Llano.

One of the objectives of the USAID project was to support and promote replication of the TCP model in the Dominican Republic. The examples presented above illustrate that elements of the TCP model that have indeed been adopted and are being replicated in ongoing rural water and sanitation efforts in the country.

1.9 Potable Water and Sanitation Sectors and Their Main Actors

The evaluation team as part of the expected results conducted a mapping activity of the key actors and their different levels of intervention in the current sector. Figure 1 gives a snapshot of the actual situation:

Figure 1. Institutions Presently Intervening in the PWSS Sector



Source: Abreu, R.U. Global Assessment of Potable Water and Sanitation Services 2000. Pan American Health Organization, Dominican Republic, 1999.

1.9.1 Vision of the PWSS Sector

Present Situation of the Reforms and Modernization Process of the PWSS Sector

The formulation of a reforms and modernization process in the PWSS Sector began in 1997; it has had a very slow development, mainly due to the lack of political will at the highest level of the Dominican state. The sector's Reforms Bill has been discussed in Congress ever since 1999; its objective is establishing the regime for the implementation of institutional reforms in the potable water and sanitation sector.

On the 15th of September 1999, the Potable Water and Sanitation Reforms and Modernization Project was approved (IDB Loan 1198/OC-DR), in the amount of US$71 million dollars, with financing from the Inter-American Development Bank (IDB) whose execution was subject to the approval of the Sector's Frame Law on the part of Congress. Because the Sectorial Frame Law was not approved, activities under this loan have not been initiated, even though the country has had to pay more than US$1.0 million in commissions.

It is important to emphasize that despite a broad consensus between the technical staff of the PWSS Sector and its institutions to carry out the reform, there has been a lack of political will.

With regards to the main service-rendering institutions, they are autonomous and decentralized from the State; the present organizational model is of publicly owned organizations under centralized state management, with the same focus for the urban and rural areas.

At this time, it is worth emphasizing that regarding the new focus promoted and developed during the past few years, which incorporates the administration by the community and participation by the private sector, the following must be mentioned:

- Since 1997, decentralization programs of the rural water supply developed by the National Potable Water and Sewage Institute (INAPA) have been transferring systems to rural communities.
- Since 2001, the Aqueducts and Sewerage Corporation of Santo Domingo (CAASD) has allowed commercial management contracts with private companies for the commercial administration of potable water and sewage services..

Future Vision of the PWSS Sector

In general terms, the proposed sectorial organizational model will have the following specific characteristics: creation of a governing entity, transformation of the business administrative model, participation of all involved sectors and communities in the different phases of design and development of the potable water and sanitation plans, favored service decentralization when the municipalities and local communities; and decreasing gaps

Potable Water and Sanitation Services in Rural Areas

In practice to date, the only public institution responsible for providing the potable water services in the rural areas is INAPA.

In view of the new proposed institutional framework, the model for the rural areas in general terms is the same as that developed by INAPA. It consists of decentralizing the services, transferring the operations, commercialization and administration of the systems to the communities, through the Rural Water and Sanitation Associations (ARAS)

1.9.2 Alternative Options for USAID under the Current and Future Strategies

The evaluation team has constructed the following alternatives for consideration under USAID's current strategy and for the design of a water and sanitation component in the strategy that will begin in FY2008. In all cases, it is assumed that any USAID project would incorporate technical assistance to support and strengthen community participation and implement behavior change communication related to hygiene.

Alternative #1: Approach Drawing on USAID's Approach to Rural Water from 1998 to 2002

This approach calls for building on what worked (such as community participation and hygiene behavioral change promotion) under the previous USAID program, while taking steps to correct the shortcomings and lack of sustainability that arose in the nine Hato Mayor communities. As a result, more resources will need to be dedicated

to the design and technical specifications of the new water and sanitation systems and to assuring that there is institutional support for the communities over a longer period of time.

Alternative #2: Public-Private Partnership with USAID Support

The strength of this option will be its capacity to leverage funds from other sectors (i.e., private sector firms, local governments, NGOs, church groups, private foundations, GODR, and other cooperating agencies) and leave a mechanism in place for future WSS financing in the Dominican Republic. The approach could be structured with a revolving fund that would be launched with seed money from the sectors cited above. The initial focus will be in SESPAS Region V. Once the new strategy is in place and the fund has proven its viability, the program could be expanded into other regions. This approach was discussed with all of the key actors interviewed and most of them thought it could be implemented. It is clear that some organization has to provide the initial seed money to get the initiative going but once this happens it seems that the key actors will all bring something to the table. One key element for the success of this approach is USAID's good reputation with the Dominican Republic's private sector. The program could be led by an NGO, such as Alianza, or a combination of NGOs and private foundations.

Alternative #3: Approach Based on the Output-Based Aid Advocated by the World Bank

The World Bank has been a proponent of an output-based approach to subsidizing public services. Under this approach, rather than subsidizing inputs (in particular, physical assets), governments would finance the outputs—the compensation of services provided or results achieved. To minimize government costs, bidders would compete for the right to provide the water services. The organization winning the competitive bid (such as a private firm, a community association, or an NGO)would receive part of its compensation in the form of a subsidy and the remainder through user tariffs. A critical feature is that the government targets the population groups (such as those in extreme poverty) that would be eligible for a subsidy. A unique feature of this approach is that it would allow USAID to build community participation and behavior change communication into a service that could be provided by a small, private operator.

Alternative #4: Approach Based upon a Corporación de Agua, Financed by an External Loan

This approach builds on an initiative of the CAASD, a water corporation for the province of Santo Domingo, which is planning to extend water services to the unserved communities, incorporating elements of community participation, based upon a loan from an external bank. The distinction of this approach is that it works through a provincial water corporation rather than INAPA. Although no water corporation exists in the Hato Mayor region, another province that has unserved rural communities as well as a functioning water corporation could be the target of a similar initiative. USAID's role would be to support technical assistance that

advocates and facilitates rural community participation and that promotes hygiene behavior change communication.

Alternative #5: Approach Based upon Other Donor Funding

This approach is analogous to the previous one, except that the external funding source and implementer would be another international donor. Vision Mundial is currently implementing such a water and sanitation program for the EU in the area that borders Haiti and they have made an informal offer to work with USAID and cofinance activities. USAID could focus its efforts on community participation and behavior change training among the provincial water corporation, consultants, promoters, and others.

Alternative #6: Demand-Driven Technical Assistance from USAID

Under this alternative USAID would finance training programs and materials to create local technical capacity to provide technical assistance to meet existing demand, as revealed in the evaluation team's field visits and interviews with INAPA, CAASD, REDAR (representing a 700 WSS associations) and other NGOs in areas such as administration and finance, operation and maintenance, willingness to pay for services, hygiene and sanitation. This effort will also ensure a well-trained professional base to support the new legal structure when it is approved. The training program can be coordinated by institutions such as Alianza, which has successfully managed the behavioral change training program. The new modules can be developed under the supervision of CONECTA personnel making sure that the contracted organizations have a proven track record in the field of expertise required. The new behavioral change modules to be developed include culture of payment, administration and finance, and operation and maintenance.

1.10 Recommendations for the Current Strategy Period (FY2002–FY2007)

Recommendation #1: Complete Unfinished Work in Hato Mayor Communities

USAID's past support to integrate community participation, behavior change and institutional strengthening has generated measurable positive results in Hato Mayor. Nonetheless USAID's efforts and collaboration with INAPA did not escape the kinds of problems that have beset community water and sanitation management projects in other countries. As a result lasting access to clean water has not been established in most cases. Six of the nine communities in Hato Mayor do not have working systems.

The first step to getting the right pieces in place is to conduct due diligence of any proposed community water and sanitation system with respect to the five fundamental success factors, cited earlier – technical feasibility, financial feasibility, behavior change and education, proper operation and maintenance and participation (democracy and governance).

It is our recommendation that USAID allocate funds for such a due diligence assessment for revised water systems in the six communities in Hato Mayor where the

initial investments have failed. In examining the five factors cited above, this due diligence would determine if and how it is feasible to rehabilitate these systems.

The evaluation team also recommends that a similar assessment be conducted in the other three communities where the system are working now in order to be sure that they are operating in a sustainable basis. It is the recommendation of the evaluation team that USAID also provide the funds to implement remediation in those communities where all of the five principles described above are addressed.

While the evaluation team does not recommend changes in current budget priorities lightly, we believe that budget priorities in CONECTA's water component could be adjusted to make some or all of the proposed program possible.

It is useful to note this recommendation not only advances USAID's aims with regard to child survival ("increased rural community access to potable water"), it is also consistent with the preferences of USAID's Democracy and Governance Office to work with civil society organizations.

Recommendation #2: Build Foundation for Sustainable Community Management of Water and Sanitation in Unserved Communities

Assuming that the first recommendation is adopted by USAID, the evaluation team recommends that USAID start laying the groundwork for the new strategy. As will be discussed below, the recommended mechanism for the new strategy is a fund financed from multiple sources that would provide funding for unserved communities to establish working and sustainable water and sanitation systems for themselves. If time and resources are available before the end of the current strategy, the evaluation team recommends that USAID sponsor a meeting of a group of individuals who have the interest and ability to sponsor the creation of this fund.

Recommendations for the Next Strategy Period (FY2008 and Beyond)

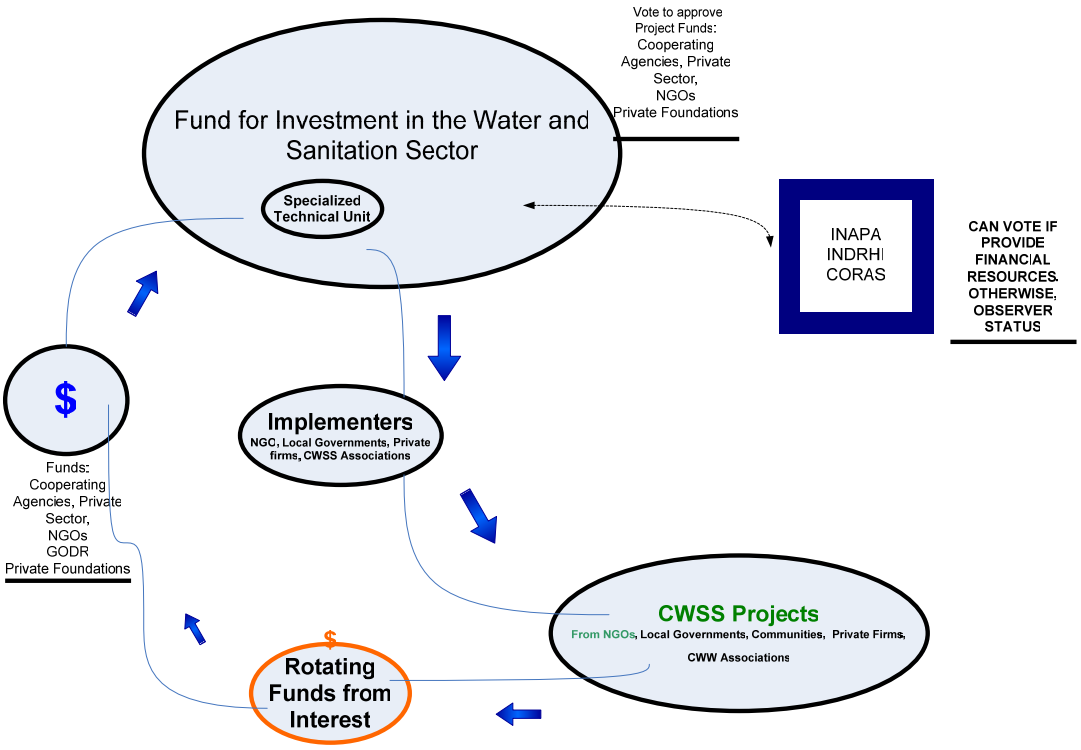
The evaluation team recommends that USAID adopt the option of creating a Public Private Partnership for meeting the needs of communities without access to clean water and proper sanitation (Alternative #2 in the previous section). The Public Private Partnership would entail the creation of a Fund for Investment in the Water and Sanitation Sector (*Fondo de Inversión en el Sector de Agua y Saneamiento* (FISAS) in Spanish) to which a variety of financial sources would contribute, as indicated in Figure 2.

Funding would be made available to applicants on a competitive basis. Awards would be made to those applicants with proposals that represent the best leveraging of the fund's resources to provide water and sanitation in unserved communities.

USAID's role would be to finance the design and creation of this fund, the recruiting of its (unpaid) executive board and the provision of the specialized technical evaluation unit. USAID's role would also include providing support for technical assistance that advocates and facilitates rural community participation and that promotes hygiene behavior change communication. The evaluation team believes that USAID's expected budget limits under its new strategy (said to be on the order of

$250,000 per year) would be sufficient to finance this activity. A local private organization (contractor or NGO) would be hired by USAID to manage this effort.

Figure 2. Fund for Investment in the Water and Sanitation Sector Scheme

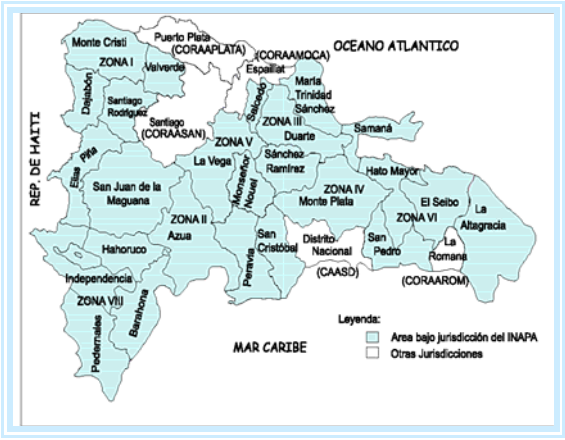


2. Background

2.1 General

The Dominican Republic (see Figure 3) is located on the eastern two-thirds of the Hispaniola Island, on the northern part of the Caribbean. It covers approximately 48,734 square kilometers and its only land border is with Haiti on the western part of the Island. It is a unitary republican state with a democratic government, led by an executive branch, which is run by the President of the Republic. Its Congress is formed by two legislative chambers: the Senate and the Chamber of Deputies. The Dominican Republic is divided politically and administratively into 31 provinces, one national district, and 145 municipalities.[2]

Figure 3. Political Map of the Dominican Republic



Political Division map of Dominican Republic and Areas of Responsibility by Potable Water and Sanitation Service providers

It is the second largest island of the Greater Antilles and is located between latitudes 17 and 20 degrees north and longitudes 68 and 72 degrees west, with the Atlantic Ocean on the north and the Caribbean Ocean on the south. It is separated from Puerto Rico by the Mona Channel and from Cuba by the Wind Channel, also known as Jamaica Channel.

The country contains both mountain chains and plains. Rainfall varies significantly among different areas, from 700 to 2,400 mm per year. In general, the rainy season is between April and December. The terrain also affects the temperature; the annual average varies between 26 degrees Celsius in the lowlands and less than 15 degrees Celsius in the mountains.

The evaluation carried out by the National Hydraulic Resource Institute (Spanish acronym INDRH) as part of the National Water Resource Organization Plan points out that the availability of surface water in the country is approximately 20,000 million cubic meters per year, and availability of underground water is 1,500 million cubic meters per year. However, four of the hydrologic regions of the country experienced a shortfall during the executed balances.

The Dominican Republic has a population of more than nine million inhabitants of which 64 percent live in urban areas; more than 35 percent of the population lives in

[2] Abreu, R.U. Global Assessment of the Potable Water and Sanitation Services 2000. Panamerican Health Organization Dominican Republic 1999.

Santo Domingo, the capital city. Table 2 shows the proportion of the urban and rural population according to the National Population Census for years 1993 and 2002.

Table 2. Population (in thousands)/Percent

Population	1993	2002	2005
Urban	4,094.3/56	5,446.7/64	5,787.7/64
Rural	3,199.1/44	3,115.8/36	3,312.5/36
Total	7,293.4	8,562.5	9,100.2

Source: Census Data: National Statistics office, 1993 and 2002.

2.2 Project

In May 1998 USAID/DR and the National Water Supply and Sewage Institute (*Instituto Nacional de Aguas Potables y Alcantarillados* [INAPA]) signed a Memorandum of Understanding (MOU) to implement a pilot rural water and sanitation project in the Hato Mayor Province, using the Community Total Participation model. The implementation of the pilot activity would allow INAPA to develop and test approaches for a decentralization strategy to subsequently scale up to national level. Through the PVO co-financing project, USAID provided technical assistance and INAPA provided the infrastructure.

This represented an unprecedented step by the government of the Dominican Republic (GODR) to recognize the importance of community participation and understand that such participation enhances local ownership of a public service and reduces the traditional problems of paternalism. At the same time, this alternative represented a challenge to nongovernmental organizations (NGOs) and community organizations to demonstrate that services of potable water traditionally provided by government can be more effectively administrated in a decentralized fashion.

In the aftermath of Hurricane Georges and as part of USAID-funded reconstruction efforts, NGO partners identified the opportunity to replicate the TCP model in the rehabilitation of the water systems in nine rural communities. This served as a learning laboratory (including rural sanitation) for the staff of INAPA's Rural Water Supply Decentralization Department. The management of the reconstruction project was conducted by USAID institutional contractor ENTRENA, who sub-contracted with two national NGOs, Dominican Women in Development (*Mujeres en Desarrollo Dominicana, Inc.* [MUDE]) and Catholic Relief Services (CRS), to carry out the USAID/ENTRENA assistance portion of this project. At the same time, ENTRENA assisted INAPA directly in learning to supervise NGOs in implementation of the TCP. For more than four years USAID/DR has invested in technical assistance to INAPA to promote the TCP model. The model is intended to help INAPA create an environment to support sustainable community-based rural water and sanitation with an additional hygiene component. INAPA authorities in the Mejia administration embraced the TCP and, with the support of other donors, replicated it in other regions of the

country. The current USAID/DR strategic framework has four Intermediate Results (IRs), identified under the strategic objectives (SO) as follows:

- **IR10.1:** Increased Use of Services and the Adoption of Practices to Prevent and Mitigate HIV/AIDS in At-Risk Population
- **IR10.2:** Sustainable, Effective Reproductive Health/Family Planning Services Provided By Public and Private Sectors
- **IR10.3:** Increased Use of Selected Child Survival Services
- **IR10.4:** Increased Efficiency and Equity of Basic Care Services at the Local Level.

In 2002, USAID/DR awarded a five-year contract to Family Health International (FHI) for the implementation of activities in support of IR10.1, IR10.2, and IR10.3. But with government authorities in the new administration, selling the activities has been more difficult in spite of USAID technical assistance to INAPA. Given the difficulties of retraining INAPA staff with personnel changes and the problems of sustainability of this model, it is imperative for USAID to re-evaluate the strategy.

USAID institutional contractor CONECTA is providing technical assistance to INAPA for the replication of the Hato Mayor Pilot Project Nationwide.

The five-year contract awarded to Abt Associates, Inc., to implement the Health Reform and Decentralization Project (REDSALUD) was folded into the current strategy to contribute to Intermediate Result 10.4: Increased Efficiency and Equity of Basic Health Care Services at the Local Level. REDSALUD has been implementing three technical components, which operate in an integrated fashion.

Another factor to take into consideration in the current project scenario is that the geographical area assigned to USAID by the GODR is Region V.

2.3 Potable Water and Sanitation Sector and Its Services

The Potable Water and Sanitation Sector (PWSS), refers to the services that include

- Collection, piping, and purification of non-purified water and the storage, transportation, distribution, and commercialization of potable water
- Collection, treatment, transportation, disposal, and commercialization of household sewage water and industrial waste.

Table 3 summarizes the main characteristics of present potable water and sanitation services in the Dominican Republic, emphasizing on the most important gaps. The following paragraphs include the most important points derived from the data analysis.

Presently, approximately 1,565,000 inhabitants have no access to water services through pipelines and intra-home coverage (water serviced through pipes inside the homes) has decreased (from 45.0 percent in 1993 down to 37.4 percent in 2002) mainly due to the increasing population around major cities.

With regards to sanitation, as of 2005, approximately 400,000 Dominicans (4.4 percent of the total population) disposed of their wastes directly on the soil and nearly

Table 3. Summary of Important Indicators Describing the Present Potable Water and Sanitation Services

Indicator	Total National	Urban Zone	Rural Zone	Variation Between Provinces[1]
1) Annual average potable water investment (1990-1998). Source: Global Service Assessment, PAHO/WHO Dom Rep., Year 2000.	US$87.9 million	83.9 %	16.1 %	-
2) Annual average Potable Water and Sanitation investment (1990-1998). Source: Global Service Assessment, PAHO/WHO Dom Rep., Year 2000	US$ 90.0 millions (only 2.3% for sanitation)	-	-	-
3) Potable water coverage due to easy access (through aqueduct at less than 500 meters from the home). Source: National Population and Housing Census, ONE, Dom Rep., Year 2002.	79.0 %	88.8 %	62.0%	36.0 – 97.0 %
4) Coverage of adequate sewage water disposal (population disposing their waste through filtrates, latrines or sanitary drains) Source: National Population and Housing Census, ONE, Dom Rep., Year 2002	93.2%	96.4%	87.7 %	70.6 – 98.3 %
5) Population served with house connections to the sewer system network. Source: Source: Global Service Assessment, PAHO/WHO Dom Rep., Year 2000.	20.1 %	31.4 %	0.0 %	-
6) Aqueducts with installed chlorination systems. Source: Data INAPA, CAASD, CORAASAN, CORAMOCA, CORAPLATA & COAROM, Year 2004.	61.4 %	87.4 %	47.4 %	16.7 – 97.6 %
7) Aqueducts with water quality control. Source: Data INAPA, CAASD, CORAASAN, CORAMOCA, CORAPLATA & COAROM, Year 2004.	35.6 %	67.9 %	18.2 %	8.0 - 100.0 %
8) Water potability index (2) (percentage of samples negative to the presence of total coliforms/total of planted samples X 100). Source: Data INAPA, CAASD, CORAASAN, COAAROMCORAAMOCA, CORAAPLATA, Year 2002.	73.6 %	-	-	< 40.0 – 96.0 %
9) Urban population receiving continuous water services. Source: Global Service Assessment, PAHO/WHO Dom Rep., Year 2000.	11.0 %	-	-	-
10) Non-accounted water in Urban Systems. Source: Data INAPA, CAASD, CORAASAN, CORAMOCA, CORAPLATA & COAROM, Year 2004.	> 65.0 %	-	-	-
11) Percentage of sewage water collected in treated sewer water systems Source: Global Service Assessment, PAHO/WHO Dom Rep., Year 2000.	48.7 %	-	-	-

[1]Lesser and greater value of the indicator for a province.

[2]The standards establish a 95.0% value for this indicator, in order to consider the water safe for human consumption purposes.

Source: Abreu, R.U. Final Report of Millennium Development Objectives. Objective 7. Potable Water and Sanitation Component, UNDP Millennium Project, Santo Domingo, Dominican Republic, April 2005.

70.0 percent of the population living in urban areas disposed of their sewage water in the subsoil.[3]

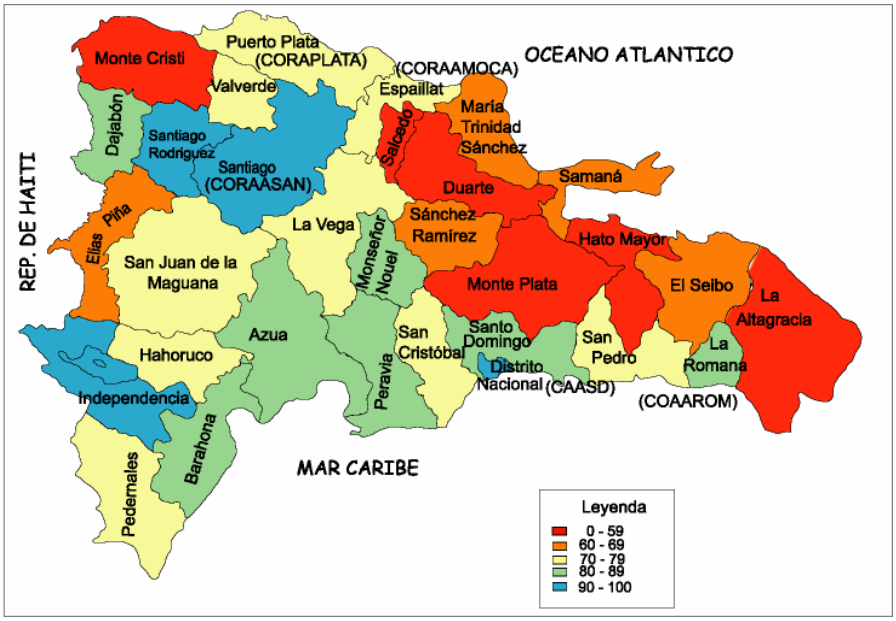
The quality of the services, measured through the traditional sectorial indicators (quality of water for human consumption, continuity of the services and sewage water treatment) was found to be in even more critical condition.

When assessing the behavior of the coverage indicators and quality of services over time, we could see that, in spite of the high level of investment made by the GODR in the PWSS during the past decades, only small coverage increases had been achieved and values corresponding to the quality of the service indicators had progressively deteriorated.

On the other hand, it is important to note existing gaps in the quality of potable water and sanitation services within the country. A high level of resource allocation by the central government to PWSS institutions has had a limited impact on the health and well-being of the population, and these gaps continue to expand as a result of the policies and strategies applied in the development of the PWSS.

In general terms, it can be said that the areas of greater poverty have the greatest deficiency in services. Figure 4 presents the stratification of the country's provinces according to the levels of potable water coverage and Figure 5 presents stratification of provinces according to adequate waste disposal.

Figure 4. Potable Water Coverage by Province, Census ONE 2002



Source: Abreu, R.U. Board Members Meeting Service Rendering Institutions. Paper "Present Situation of the Potable Water and Sanitation Sector and its Services" Santo Domingo, Dom. Rep., December, 2004.

[3] Rosa Urania Abreu, Informe Final Objetivos de Desarrollo del Milenio, Objetivo 7. Componente Agua Potable y Saneamiento. Proyecto del Milenio, PNUD. Santo Domingo, Abril, 2005.

Figure 5. Adequate Waste Water Disposal Coverage by Province, Census ONE, 2002

Source: Abreu, R.U. Board Members Meeting, Service Rendering Institutions. Paper "Present Situation of the Potable Water and Sanitation Sector and its Services" Santo Domingo, Dom. Rep., December.

In summary, all of the sectorial assessments carried out in the last few years confirm that the fundamental causes for the deficiency in the coverage and quality of the potable water and sanitation services include the following:

1. The high resource allocation by the central government for the service-rendering institutions has become one of the most important strengths in the past two decades; however, the procedures under which it is supported are deficient in that they do not promote the companies' financial self-sufficiency—a situation that creates an environment of political dependency, lack of motivation in the use of modern planning techniques, little transparency on their application, and a disorderly classification of the resources.

2. The resources cited above are almost totally aimed towards the construction of new works, causing great weakness with regards to the operation and maintenance of the existing systems.

3. A series of agencies operating in the rural areas, mainly NGOs, work without coordination, adopt different focuses and criteria, and lack an organization to provide the standards and follow-up for the referred actions. The sanitation situation is even more difficult due to the lack of clear policies and due to the lack of a responsible national body to deal with this problem. The Dominican Republic is one of the few countries in Latin America where sanitation is managed by a Public Health State Secretariat (*Secretaria del Estados de Salud Publica y Asistencia Social* [SESPAS]) that is not integrated in a common and unitary action with the rural potable water programs. This, together with the weakness of the General Environmental Health Directorate, causes the latrine and sanitary education programs to be weak or abandoned.

4. The PWSS's performance is seriously affected by the lack of institutional planning, characterized by a lack of role definition, overlap of compatible roles within the same institution, and overlap of roles in several institutions, among other problems. No entity exists to perform the governing role and, although some institutions have an effective regulatory role, this practically does not exist.

The problems that were identified and the challenges that were set out during the assessment are proof of the urgent need to reform and modernize the PWSS, to fulfill the true objectives of the sector: (1) universal service coverage, (2) adequate level of user satisfaction, (3) financial self-sufficiency by the service-providing institutions, and (4) transparent subsidies with significant social impact. These are four principles governing the new proposed PWSS reform law discussed in the Bavaro Workshop on August 18, 2005.

3. Objective of the Evaluation

3.1 Purpose

The purpose of this assessment is to conduct an external evaluation of USAID strategy and approach to increase access to potable water in the rural areas over the past five years. With this evaluation USAID/DR expects to identify lessons learned from the implementation of the Total Community Participation (TCP) model in the rural areas and an assessment of its viability as a national strategy. The evaluation is also intended to provide recommendations based on these findings to assist USAID's decisions regarding future participation in the sector.

3.2 Objectives

2.1 Provide a situational analysis of the rural water sector including INAPA's strategy and efforts to increase rural access to potable water.

2.2 Evaluate USAID sector strategy and advances. Assess the viability of the Total Community Model.

2.3 Based on the analysis of the sector and the impact of USAID strategy and other donors' support, provide recommendations for USAID's future involvement in the sector.

3.3 Key Questions to be Answered by the Evaluation Team

3.1 What are the most significant problems affecting the sector? Which factors impede the provision of potable water to rural communities?

3.2 What is the status of the implementation of the TCP model in Hato Mayor Province?

3.3 What elements are important to be considered in the success/failure in the Hato Mayor Pilot?

3.4 What is the viability of the GODR adoption of TCP as the strategy for the decentralization of rural potable water? What are the main barriers/opportunities?

3.5 What specific recommendations does the assessment team have for USAID's assistance for the remainder the current strategy period? What should be USAID involvement in the sector for the next strategy period?

4. Methodological Approach

4.1 Approach

The evaluation team has focused on a situational assessment at the national, subnational, and community levels; on encouragement of donor involvement; and on coordination of specific projects.

4.1.1 Methodology

The evaluation team has reviewed and analyzed the USAID-provided documents, as well as sector documents, in the Dominican Republic. The main purposes have been to examine background information, to consult with USAID on the evaluation process, obtain input for the field visit and to fulfill the requirements and timeline for preparation of the evaluation report.

We have analyzed the rural water sector (as well as the peri-urban sector of Santo Domingo, in the case of CAASD, with the help of TAHAL Consulting Engineering). We have conducted an assessment of the current situation and of INAPA's strategy and conducted in-depth consultations with relevant stakeholders to inventory strengths, weaknesses, opportunities, and threats in the sector to identify the issues and constraints as well as possible factors for success. The analysis has tried to address the following issues:

- Sector performance during the past five years: service coverage, reliability, water quality, institutional structure, national policies and strategies, financing, political reform, etc.
- Most significant problems/weaknesses affecting the sector: factors that impede the provision of potable water to rural communities
- Impact of the USAID/DR strategy and other donors' support
- Viability of the government's adoption of the TCP model as the strategy for decentralizing rural potable water: the main problems and opportunities
- Comparison of the current situation with findings of the Environmental Health Project (EHP) Strategic Report No. 4, a case study on reforming the rural department of INAPA
- Financial sustainability: review and analysis of studies to recommend key improvements in tariff policies, tariff setting, metering, billing and collection efficiency, willingness and ability to pay, etc.
- Social and political sustainability
- Inventory of various approaches to community-based management (NGOs, private entities, others)

We have reviewed roles, programs, and strategies of multilateral and bilateral donors to ascertain whether there are gaps, duplication of effort, or potential synergy by collaboration among donor programs. This review will help prioritize resources for future interventions, complement activities with other donors, and leverage resources.

To gather information on the sector issues stated above we have conducted—using an interview guide designed after the first week in the country—field visits to the region of the project and other municipalities where the TCP has been replicated. The evaluation team carried out field visits to selected households in four communities that participated in the Hato Mayor project and one community participating in the new projects being replicated. The Hato Mayor communities were selected as representative of different levels of impact. The working hypothesis for this evaluation is that the Hato Mayor project has yielded significant results, as documented through the monitoring and the evaluation process (see Activity Reports 137 and 139, Environmental Health Project). The evaluation team has conducted techniques of rapid rural appraisal through field visits to the following Hato Mayor communities: Km 15, La Mora, Los Vásquez, and Mango Limpio and a focus group session with 21 community members. In addition, other communities applying TCP were visited: El Sombrero and El Llano in Bani, where a meeting with the three members of the Board of Directors of the water association (CADARVIS) was held, and then a focus group was held with eleven directors of the PWSS association of El Cea community in the Santo Domingo rural areas. With these groups we have examined and discussed the following issues:

- Impact on health and behavioral changes (The results of the surveys have suggested sustained improvements in health and positive changes in behavior in the sample population, as a combined effect of improved access to potable water/sanitation facilities and hygiene education.)
- Institutional capacity to implement hygiene behavioral change programs
- Impact on partner organizations
- Commitment of these organizations to make the methodology an integral component of their programs
- Experience and insights on necessary aspects for larger-scale geographic and organizational implementation, given some doubts about its viability as a national strategy
- Coordination of mechanisms and financial support needed to scale up and replicate the methodology at a national level.

The data collection techniques that were used to conduct the field situation analysis are outlined in Table 4.

Consistent with the proposed work schedule, the outline of the final report was presented and discussed with the USAID project officer and approved.

A draft of the final report was presented during the Exit Conference with the Mission Director.

Table 4. Data Collection Techniques Used for Field Situation Analysis

Techniques	Information/Source
Secondary data analysis	Documents, reports, statistics, etc. (see detailed list in Chapter 8, References)
In-depth interviews (with those directly involved in the project)	Key informants: USAID,INAPA, MUDE, CRS, ENTRENA, Alianza, CONECTA, Peace Corps, PROCOMUNIDA, and community organizations in Hato Mayor, Bani, and Guerra
Observations	On-site visits to four projects communities in Hato Mayor: Kilómetro 15, Mango Limpio, La Mora and Los Vasquez, 8 homes with and without access to services provided by the project. In El Sombrero, and El Llano, Bani the Team visited the Association Offices and tank sites.
Special interviews (control interviews)	Key informants of the government and Cooperating agencies: CAASD, INDRHI, TAHAL, IDB, World Bank, SUR FUTURO, *Vision Mundial*, AECI, and community leaders

5. Findings

5.1 Hato Mayor Project

5.1.1 Introduction

Hato Mayor is a province located in the central-eastern section of the Dominican Republic, approximately 2 hours from the capital city of Santo Domingo. According to the 2002 Census, 15% to 32% of the rural households live in conditions of extreme poverty. The nine communities that were the focus of the USAID activities—Libonao, La Mora, Los Vásquez, El Coco, El Mamón, La Jaqueta, Bambú, Mango Limpio, and Kilometro 15—are characterized as rural and poor. Prior to this project, these communities had difficult access to a water supply and, in most circumstances, this water was unfit for consumption. Residents collected water in bottles, buckets, and cans from nearby rivers and surface springs or from the more distant sugar processing plants, hauling these containers by hand, by animal (horse or donkey), or by other means of transport. As is common in circumstances where access to clean water is limited, the households in these communities had little to no access to adequate sanitation.

The jointly funded USAID/INAPA–Acueductos Rurales projects were designed to support INAPA in the decentralization of rural water sanitation services in the Dominican Republic in nine poor rural communities of Hato Mayor. To this end, the projects employed the TCP model to initiate and implement these investments. This model focuses on mobilizing community involvement to achieve sustainability for rural water and sanitation programs. A hygiene behavior change intervention was incorporated to maximize the potential health improvements of the investments.

The current evaluation of these projects has found mixed results. Important objectives of the projects were met, however many of the initial successes have been reversed since the projects formally ended. New water systems and latrines were completed in the nine communities but, for reasons to be outlined below, only three of the nine communities have working water systems today. Community participation, which already existed in some form in these communities prior to the projects, has taken hold on water and sanitation issues in all of the communities. Nonetheless, the water problems that now confront these communities, and a continued tendency to look to higher government for leadership, have discouraged continued community participation in a few communities. Institutional support was essential for getting these projects off the ground, but there have been gaps because of interruptions in USAID funding and because of limited resources dedicated by INAPA on an ongoing basis. The hygiene behavioral change components were effective while they lasted, but promoters are no longer officially engaged on these topics in their communities. The training component of these projects brought extensive learning resources to the communities. Interruptions in these activities and gaps in the topics of the training program have reduced the positive impact of training. Finally, because of the shortcomings listed above, the projects have exhibited limited sustainability of the accomplishments made in water and sanitation improvements.

In addition to its evaluation of the past performance of these projects, the evaluation team has also taken up the question of whether future efforts by USAID along similar lines are justified in Hato Mayor or elsewhere in the country. There is no question that investments in water and sanitation that are facilitated by community participation and strengthened by hygiene behavior change activities can make a tremendous difference in the survival of young children and in the health and well-being of older children and adults. In the case of Hato Mayor, the question is one of "how" rather than "whether" these investments should be made. The current assessment offers findings on what worked and what did not, with an eye toward identifying what could be proposed for USAID in the future.

The following sections present background overviews (i.e., profiles of the communities and the various actors involved in the projects) and current status of the project results in the nine communities. Conclusions follow.

5.1.2 Background

Community Profiles

All of the nine communities rely on agriculture as their principal source of livelihood. Depending on the location and conditions of the community, agricultural activities take the form of subsistence agriculture, sugarcane cultivation and harvesting, fruit production and processing (principally with oranges), or tobacco production. Other labor is dedicated to work in sugarcane processing (at the local processing plant, or *ingenio*), but this employment is threatened by possible bankruptcy of the local processing plant.

Between 30 and 200 families within each of the communities have benefited from the USAID projects (Table 5). Houses range from very modest structures put together with salvaged and other materials in the poorest communities to well-built homes that have limited amenities in other communities. About half of the communities are on or adjacent to paved roads, while the others are accessed by unpaved roads that present difficulties during rainy periods. Low levels of education prevail (with 16% illiteracy reported in some communities) but higher education, including universities, offer opportunities to some young residents.

Actors and Water and Sanitation Activities in Hato Mayo

CRS and Servicio Social de Iglesias Dominicanas (SSID) CRS and SSID began working in the communities of Hato Mayor sometime in late 1998 or early 1999. From that time and until the work ended, they managed investments in water and sanitation that resulted in the following benefits:

Table 5. Beneficiaries by Community

Community	Water System: No. of Beneficiary Households	Latrines: No. of Beneficiary Households
La Mora	54	54
Los Vásquez	60 (75)	74
El Coco	64 (90)	75
Libonao	34 (72)	64
El Mamón	66 (63)	39

Note: All data are from the workshop conducted by the evaluation team in Hato Mayor (March 2006), except for data included in parentheses, which were taken from the CONECTA evaluation report of November 2004. The latter data appear to refer to the total number of families rather than the number of beneficiary families.

At the time that CRS requested to augment its grant by adding the community of El Mamón to the original group of four communities (La Mora, Los Vásquez, El Coco, Libanao), it proposed the following budgets and funding sources for water and sanitation activities in these communities (Table 6).

Table 6. Proposed Funding

Source	Funding (US$)
USAID	33,244
INAPA	97,742
CRS	65,309
Beneficiaries	33,821
TOTAL	230,116

NOTE: USAID funding includes a 27% loading to account for indirect costs.

Based upon these figures, a rough estimate of the average investment in clean water and sanitation per community is US$46,023, and the average investment per beneficiary household US$691. These estimates do not include any USAID expenditures associated with the activities of ENTRENA, the firm that supervised the work of CRS, nor do they include expenditures associated with CDM (the contractor for EHP).

MUDE. MUDE (*Mujeres en Desarrollo Dominicana Inc*.) is an NGO whose mission is to enhance the quality of life of and civic participation of low income groups, particularly women, in the Dominican Republic. MUDE was responsible for the

implementation of water, sanitation, community participation, and hygiene behavior change in four of the nine communities targeted by USAID: Kilómetro 15, Mango Limpio, El Bambú, and La Jaqueta. MUDE's activities in these communities took place from 2000 to 2002 (Table 7).

Table 7. Beneficiaries from MUDE's Activities

Community	Water System: No. of Beneficiary Households	Latrines: No. of Beneficiary Households
Kilómetro 15	200	190 (138)
Mango Limpio	92	60 (59)
La Jaqueta	63	30–33 (33)
El Bambú	64	(37)

Source: All data are from the workshop conducted by the evaluation team in Hato Mayor (March 2006), except for the information on El Bambú, which was taken from the draft evaluation report of MUDE's activities in these communities.

Note: All data are from the workshop conducted by the evaluation team in Hato Mayor (March 2006), except for data included in parentheses, which were taken from the draft evaluation report of MUDE's activities in these communities.

Based upon figures presented in its original proposal to USAID, a rough estimate of the average investment per community in access to clean water is US$35,288, and the average investment per beneficiary household US$337. These estimates do not include any USAID expenditures associated with the activities of ENTRENA, the firm that supervised the work of MUDE, nor those of CDM (the contractor for EHP).

INAPA. The department of Rural Water Systems of INAPA, the national water agency of the Dominican Republic, has been USAID's partner in each of the activities undertaken in the nine communities of Hato Mayor. Although exact figures were unavailable to the evaluation team, it appears that INAPA was responsible for all or most of the out-of-pocket construction costs and materials, which were complemented by in-kind contributions from the communities themselves and the NGOs, as well as USAID's funding. INAPA was also a partner with USAID in efforts to incorporate behavior change communication into water and sanitation programs in these communities; they participated in training activities on these topics.

CONECTA. The CONECTA Project is a 5-year (October 2002–September 2007) health sector project, funded by USAID/DR, providing technical assistance for the Mission's Strategic Objective 10: "Sustained Improvement in the Health of Vulnerable Populations in the Dominican Republic." Family Health International (FHI) is the institutional contractor for the project. The project has four components. The child survival component includes a subcomponent on clean water, which includes activities aimed at supporting community efforts in Hato Mayor to operate and manage potable water systems.

The clean water component of CONECTA works with three principal counterparts—the nine communities in Hato Mayor where USAID has invested in clean water and sanitation, INAPA, and a relatively recently established network of community rural water associations systems (REDAR). CONECTA's work in this sector began in October 2004, approximately 2 years after MUDE and CRS/SSID finished their activities in these communities and after the hygiene promoters stopped their work. CONECTA's work will continue until the end of USAID's Fiscal Year 2007.

With the communities, CONECTA is involved in the following activities:

- Strengthen their administration and management and operation of their water systems.
- Help the communities internalize the lessons learned from MUDE and CRS/SSID's activities.
- Strengthen the continuity of communities' efforts to promote better health through appropriate management of water and sanitation.
- Strengthen the continuity of communities' efforts in the communication strategy for behavior change.

With INAPA, CONECTA's work includes, among others, the following activities:

- Strengthen and disseminate the operation and maintenance standards developed by INAPA with the assistance of EHP.
- Assist in the definition of legal requirements for the establishment of legal status for the rural water associations (ASOCAR) and the transfer of the community water systems to these associations.
- Implement and maintain an information system for the rural water systems.
- Provide technical assistance and other support to strengthen REDAR's role as a coordinating and lobbying organization on behalf of rural water systems.

The current resource allocation in CONECTA's water component gives the most emphasis on working with REDAR, a national Network of Rural Community Association of Water and Sanitation (41% of the budgeted resources). INAPA is an slightly lower priority (36% of the resources). The communities in Hato Mayor receive the least emphasis, receiving 23% of the budgeted resources.

ENTRENA and EHP. In 1998, ENTRENA, a local contractor in the Dominican Republic responsible for the implementation of USAID's cofinancing project for NGOs, served as the financial intermediary for the initiation of MUDE and CRS-SSID's clean water and sanitation activities in Hato Mayor.

After Hurricane Georges in 1999, USAID initiated a program to reconstruct damaged water and sanitation systems and to construct new ones to improve public health, especially for children (RECON). RECON was implemented through NGOs under the aegis of ENTRENA. After a year of project activities, the USAID mission in Santo Domingo asked EHP to add a behavior change component to RECON to maximize the health impact of the effort. EHP technical assistance in support of hygiene behavior change continued through three phases of assistance, ending in June 2004 at the conclusion of EHP.

5.1.3 Current Status of the Nine Hato Mayor Communities

Water and Sanitation: Infrastructure, Operation and Maintenance, Results

- Water systems in six of the nine communities are not working for one or more of the reasons listed below:
  - Solar panels were stolen.
  - Pump has burned out.
  - Inverter has burned out.
- Except in La Jaqueta, most of the benefited population is unaware of the construction costs of the aqueduct. However, the communities do acknowledge that the funds were contributed by some entity, and many of them mentioned MUDE-ENTRENA.
- All of the visited systems had established a fixed tariff payment of between RD$10.00 and RD$20.00 per house, with a cash payment percentage between 50% and 80%.
- Of the nine communities, six have funds in the bank: Kilometro 15 has RD$37,000, La Mora has RD$13,000, Libonao has RD$10,000, Los Vasquez has RD$4,000, El Mamón has RD$3,300, and Mango Limpio has RD$500.
- It is important to note that INAPA pays the electric energy bill of all the rural communities, which is probably the highest of all operational costs.
- Through manual labor, food, and materials, the communities contributed more than 20% of the project's capital costs.
- In La Mora Community, the latrines are clean, in good operating condition, and the community members expressed using them regularly. As some members said: " Before the latrines were built and people trained, no one could walk in the area without getting dirty and withstanding the bad smell." In Los Vasquez , they had latrines built with the help of ADOPLANFAM; they continue to use the latrines now. In Mango Limpio, members of the community association board said they use the latrines regularly, but this statement was not verified by the evaluating team.
- The majority of communities have reported that the latrines flood when it rains. This problem appears to be most prevalent in the communities of La Jaqueta and El Bambú.

Tables 8 and 9 provide a brief overview of key aspects of the potable water systems and sanitation infrastructure built in each community.

Community Participation

The experience of Hato Mayor in nine rural communities, a program sponsored by USAID, was seeking to demonstrate the Total Community Participation model (PCT). This model is focused on the participation of the communities that are involved throughout the whole process the decision phase (to determine the need expressed by the population), establishing the organization, during construction, and at the start-up

Table 8. Operational State of the Potable Water Systems

Community	No. Of Beneficiary Families	Type of System	System Works?	Relevant Data
Los Vásquez	60	Pumping: Electrical. Distribution: Public Taps (7 or 8) Chlorination: Pastilles	Yes	Service times: 2 to 3 hours/day Water Quality Control Community Presently, because the valves are damaged, the basins cannot be filled therefore 3 basins are not working. Total investment: unknown
Libonao	34	Pumping: Solar Panels Distribution: Homes 18 and 3 Basins and 10 wooden tubs (tinacos). Chlorination: Tablets	Yes	Water Quality Control Community
La Jaqueta	63	Pumping: Electrical. Distribution: Homes Chlorination: Tablets	Yes	Water Quality Control Community Total investment: unknown
La Mora	54	Pumping: Solar Panels Distribution: Homes and Public Taps	NO	The inverter of this system had problems from the very beginning. It had to be replaced 3 times and still does not work. Funding needed to repair or replace inverter: $90,000.0.
Mango Limpio	92	Pumping: Solar Panels Distribution: Homes Chlorination: Tablets	NO	Panels were stolen however as a result of the community's rapid response to the theft, these were recovered in full. Pump is burned out and not operating. Otherwise, the well, solar panels and chlorination equipment are in good condition. Pump repairs will cost approximately RD$50,000.00. The community has RD$6,000.00 in the bank and the mayor of the municipality has offered to contribute RD$25,000.00.
Kilómetro 15	200	Pumping: Solar Panels. Distribution: Basins Chlorination: Tablets	NO	Solar panels were stolen and the inverter burned out. Otherwise, the well, pump and basins are in good condition. The community has RD$37,000.00 in the bank. Electric energy is presently being installed in the zone and they estimate that it would cost approximately RD$135,000.00 to convert the system to electric energy.
El Coco	64	Pumping: Solar Panels Distribution: Homes and Basins Chlorination: Tablets	NO	Pump burned out and the inverter was stolen..
El Mamón	66	Collection of rain water through wooden tubs	NO	Home with Tinacos Water Quality Control: families During the dry season there is no water available.
Bambu	64	Pumping: Solar Panels	NO	Solar panels and inverter were stolen.

Table 9. Sanitation

Community	No. of Benefited Families	Type of Latrines	Do They Work	Relevant Data
Los Vásquez	74	Traditional	Yes	Promoters during project 2 presently, 1. Promotional work has not been undertaken in nearly a year. Number of families presently without latrines: 14 When the USAID project began, this community already had latrines that had been built with the support of ADOPLANFAM.
Libonao	64	Traditional: 52 Dry composting: 12	Yes	Promoters during project 2 presently 2. Number of families presently without latrines: 3
La Jaqueta	30 a 33	Dry composts	Yes	Promoters during project 2 presently 1. Number of families presently without latrines: 8
La Mora	54	Traditional and Dry composting	Yes	Promoters during project: 3 presently 1. Number of families presently without latrines: 10 Although they presently have no water, the latrines are clean and in good physical conditions. Residents state they currently use them. Before the installation of the latrines, residents could not walk in their community without getting their feet dirty. Also there was a bad smell. With the project, conditions have improved.
Mango Limpio	60	Traditional Dry composting	Yes	Promoters during project: 3 Presently 1. Number of families presently without latrines: 3 (they are full)
Kilómetro 15	190	Traditional Dry composting	Yes	Promoters during project 3 presently 2. Number of families presently without latrines: 20 Total investment: unknown
El Coco	75	Traditional	Yes	Promoters during project: 4 presently 1. Number of families presently without latrines: 19
El Mamón	39	Traditional	Yes	Promoters during project 1 presently 3. Number of families presently without latrines: 18 (2 full)
Bambu	37			

of operations of the system up to the maintenance of the water and sanitation rural systems. Likewise, within the experience the behavioral change program was incorporated to increase the potential health benefits.

The strategy of community participation has been aimed at the following behavior factors:

- identifying the key behaviors, production and validation of educational materials, the execution of periodic assessments (participatory monitoring);
- training the health promoters, with a focus on communication, agreement, and interpersonal skills issues to achieve agreement between the health/hygiene promoters and the members of the communities – especially women as main home care persons.

From what the evaluation team could observe in the field, USAID's community participation efforts have reaped fruits in terms of improving the sanitation conditions, which was verified through the assessments implemented.

This process however, was not replicated in other areas, such as payment of services, the responsibility of the users and their relationship with the Water Committee (also known as rural water community associations, or ASOCARs). While a few communities have performed well in these terms, generally, most communities have had limited success. While collections range from 50% to 80% of users, tariffs are set very low. Economic constraints and a continued culture of not paying for public services have made it difficult to collect more. Other problems that beset the local water committees include the following:

- Limited or no knowledge of the value of the infrastructure assets that the community was given.
- Water committees having no legal standing.
- Communities often not owning or having clear title to the land where the water system infrastructure is placed.
- Major water system problems plaguing stymieing participation in some cases.

These shortcomings have had a negative impact on the sustainability of the services in most of the communities. As a result there has been a lack of ownership of the program by the community as a whole, a lack of a sense of responsibility for payments, limited participation in consultations on the administration of the system and constraints on the ability to collaborate and improve the system. In the case of one community (La Jaqueta), the Water Committee was disbanded for some time because of the perception that the system was the responsibility of INAPA and not of the community. At the start of CONECTA's work with the communities, there were no records of meetings and formal records of income and expenses had not been maintained. Also at this point in time there was little formal effort to establish and communicate the rules and standards of the community's water system.

- Despite the obstacles that have confronted community participation in Hato Mayor, there are nonetheless good signs that the concept still has life in the majority if not all of the nine communities. CONECTA was able to mobilize

participation by community leaders and health promoters in a participatory evaluation workshop organized by our evaluation team. This event was organized on very short notice yet 8 of the 9 communities each sent from 1-4 representatives. The ninth community was not reachable and therefore unable to participate.

- Through direct interviews, we determined that there had been active community participation through communal assemblies for decision-making issues regarding construction of the systems and training.
- Eight water committees do not have by-laws. Of those committees that do have by-laws, most of the laws are either unknown to the board of directors and the users or they are applied in a very limited way.
- Women have been actively participating in board of director positions in the Water Committees; their contribution has been vital during all of the phases of the process of Total Communal Participation (PCT for its initials in Spanish). 43% of women are participating.
- The users do not feel empowered with regards to the potable water and sanitation systems because in most of the communities we visited, after interviewing the users regarding the system, they answered it belonged to the president or to the members of the Water Committee and not tot he community itself.
- It is important to note that the community had significant participation in the construction of the systems, contributing 20% of the costs of the project in manual labor and food for the workers. However, it has not been the same in the operational and system administration phase.
- The bank accounts are typically in the name of the President and/or Treasurer.
- In the majority of cases, the tariffs were determined through consultations in meetings convoked with water system users. However, these consultations and the resulting rates seldom took into account the costs of operation and maintenance.
- All of the communities visited stated that before the beginning of the project, they were organized in Neighborhood Boards, Parents and Friends of the School Associations, the Evangelical Church and the social and youth pastoral of the Catholic Church, Farmers Associations and groups of women among others, where many of the leaders of these associations, are the same Board Members of the Potable Water and Sanitation Committee.

Institutional Performance

Focusing on the construction and training activities in the sanitation area, this section concentrates on the methodology's impacts, highlighting the new challenges faced by the administration, operation, and maintenance of the systems, as well as the responsibilities and duties of the community.

Hato Mayor's experience with the NGOs that facilitated USAID's investment in water and sanitation is consistent with the experience other rural communities around

the world have had with similar NGOs. Short-term institutional support from project sponsors and conflicts (or at a minimum, the lack of coordination) between NGOs and government authorities have put many rural community water systems in precarious situations.[4] The nine communities of Hato Mayor are no exception to this experience. MUDE's and CRS/SSID's direct involvement in water and sanitation initiatives in the communities ended 4 years ago. While INAPA's Rural Water Systems Department was still in place during that time, staff said that the department has not had sufficient staffing in the eastern part of the country to be able to give much attention to these individual communities. Finally, two years ago, CONECTA brought USAID's support for water and sanitation back to these communities. However, although CONECTA is providing advice and training that can be useful to communities whose systems still function, it does not have the resources to address the system failures that have occurred.

Behavior Change

Community hygiene promoters trained in hygiene behavior change implemented the hygiene intervention. They used didactic materials that were developed as part of the formative research component of the overall project. The community-level hygiene intervention focused on the promotion of six macrobehaviors, encompassing 42 microbehaviors. The macrobehaviors included the following:

- Maintenance of the uncontaminated drinking water supply.
- Latrine use for children over age 3.
- Latrine use by all family members.
- Use of potties for children under 3, followed by the appropriate disposal of feces in the latrine.
- Handwashing at critical moments (i.e., after using the latrine, before eating, after changing diapers, before food preparation, and before serving food).
- Promotion of a permanent place for handwashing.

The behavior change methodology employed in the Hato Mayor pilot projects seems effective within the sample population. The pilot activity was an essential first step in demonstrating the effectiveness of the methodology.

- The work of the promoters has supported sanitation and hygiene education and behavior change at the household level during the execution of the project; however, lately they have not continued doing promotional work.
- INAPA/AR has staff and financial resource limitations for the follow-up and training phase of the ASOCARS.
- Despite these accomplishments, the hygiene behavior change component is no longer operating. Although several of the original promoters still live in their

[4] See, for example, Bolt et al. "Far too often efforts to bring about community management remain ad-hoc and piecemeal, carried out by (I)NGOs and donors on a 'project' basis that often ignores or parallels government structures and policies. Because of their limited time frame projects are incapable of guaranteeing long-term support and thus sustainability of community management institutions and systems. In addition, governments lack the resources, the capacities or the political will to create a support structure for communities left on their own after 'hand over'."

respective communities, they are no longer officially engaged in basic hygiene promotion and their visits to homes are much less frequent than before.

Training

The training component of these projects brought extensive learning resources to the communities. Members of the nine water committees received training in organization, operation, and maintenance throughout the project stages (see Table 10).

Table 10. Training Received, According To Participants in the Evaluation Workshop

Community	Training Received According to Participants in Evaluation Workshop
Los Vásquez	Hygiene, care of the pump, care of the basins, and repairing damages. The hygiene and health topics were aimed at the promoters and at the community. Operations were aimed at the Water Committee.
Libonao	Operations and maintenance.
La Jaqueta	Hygiene and health, care of the water, use and care of the latrines. The hygiene and health aspects were aimed at promoters and the community. The operations aimed at the Water Committee.
La Mora	Use of latrines, operating the system, use of the pump, care of the water and repairing damages. (training: 2 for the community and 4 for the Committee) The hygiene and health aspects were aimed at promoters and community. Operations aimed at the Water Committee.
Mango Limpio	Plumbing (2 persons received a 4-day training), maintenance (half a day), care of the water system and responsibilities of users (2 hours), accounting and administration (half a day).
Kilómetro 15	Hygiene and health topics, water treatment, use and handling of latrines and others. Hygiene and health aspect were aimed at promoters and the community. Operations were aimed at the Water Committee.
El Coco	Care and use of water system.
El Mamón	Maintenance, finance, hygiene, health. The hygiene and health aspect is aimed at the promoters and the community. Operations were aimed at the Water Committee.

Interruptions in these activities and topics that still need to be addressed have reduced the positive impact of training.

- Despite the fact that at the beginning and during the construction of the systems they received training, training slowed during the operations phase. We saw that the communities had some administrative tools, such as minutes of meetings of the board of directors and community assemblies, a book of income and expenditures, and a users' registry, but, for the most part, these were unused.

Sustainability

The problems that have arisen in USAID's efforts to establish better access to safe water and sanitation in the communities of Hato Mayor are a common phenomenon in efforts to-date to establish community water systems.[5] Altogether, these problems have made the systems installed in the nine communities unsustainable in most cases, an outcome common in many of the rural community water systems around the world.

As currently designed and implemented, the systems in Hato Mayor cannot continue without ongoing external funding. Making provisions for depreciation of their water systems seems to be well out of the reach of the nine Hato Mayor communities. For example, taking the average estimated cost of the water systems constructed in the CRS/SSID communities (US$35,288) and applying a straight-line depreciation approach (assuming a life of 20 years for the capital), the communities should be accruing US$1,764 each year to account for depreciation and still have enough funds to replace the system in 20 years. While this amount is not out of reach for many small communities (because it amounts to only about US$2.94 [RD$94] a month per household in a 50-household community), it may be too costly for the Hato Mayor communities. The amount is more than quadruple the amount paid by households each month in some Hato Mayor communities (RD$20) and an almost 10-fold increase for households where the monthly charge is only RD$10.

- Because there is no generalized awareness regarding ownership of the potable water system, the administrations' resources for repairing and maintaining the waters systems are limited.
- Because average cash payment is between 50% and 80%, it can be said that the nonpayment culture of the services limits the useful life of the systems in the medium and long terms. The lack of awareness and preparation results in a lack of adequate maintenance of the systems, reducing their sustainability.

Gender

Embedded in the TCP project is a focus on social and gender equity. Its principles are guided to look for equal opportunities and rights for women and men. The project has promoted the active participation of women, from the decision to stage the project all the way through implementation. TCP serves as a key integrating actor among the family. The project has relied on these principles to change hygiene habits in the community and has achieved positive changes as a result.

From the gender perspective, great emphasis was placed on incorporating and taking into account the different needs, preferences, and behavior of women and men with relation to the use of PWSS practices. For example 100% of the health promoters

[5] See, for example, Bolt et al. "Communities are usually not treated as future managers in the sense of responsible people who can manage their own choices from a range of options. Nor do they get sufficient opportunity to learn the required management skills for the options with which they are provided. This and the lack of backup support for problems arising after 'hand over' are important reasons for the sub-standard performance of many systems. This will continue to be the case, unless governments and agencies start the creation of an effective service structure for community managed water supplies."

were women because they are close to the everyday use of water and have a better chance than men of influencing other women in the community.

Conclusions

Significant advances were made in establishing a better environment for child survival through USAID's investments in better access to water and improved sanitation, community participation, and behavior change communication and training in the nine communities of Hato Mayor. These accomplishments, however, have been eclipsed and, in some cases, overturned by shortcomings and failures in the program. The equipment failures were largely responsible for the program's inability to fully realize its potential. Although equipment failures can arise independently, it appears that most of the equipment failure cases in Hato Mayor were caused by (or at least aggravated by) a host of programmatic problems. Many of these programmatic problems have been seen in other efforts to establish community water systems. The problems embody a number of the critical obstacles that need to be addressed if this type of program is to be continued and replicated elsewhere in the Dominican Republic. These include the following potential issues:

- Use of inappropriate technology.
  - Was a solar approach the right design for these communities? Was it too complicated? Were the constituent components too attractive a target for theft given the lacking security abilities in the communities? Should shut-off mechanisms have been built into the systems to protect pumps from burning up under low-water conditions?
- Inadequate technical management.
  - Did the communities have the right training and followup to ensure that the equipment would be properly operated and maintained?
- Poor equipment quality.
- Failure to build depreciation and contingency funding into the initial investment.
- Gaps in technical oversight by trained professionals.

Our evaluation identifies these issues as ones that should be addressed in the design and implementation of any new program by USAID in the rural water sector. At the same time, if there is to be an effort to remediate the failures and problems that have beset the six communities that currently have no water, a more in-depth and site-specific examination of each community's problems is warranted. Such an examination is necessary in order to identify the most cost-effective solutions for returning water to the communities.

5.2 Behavioral Changes Methodology

The Hato Mayor WSS pilot experience was heavily based on the behavioral changes methodology. The goal of the pilot experience was to improve community participation, attitudes, and hygiene habits among the beneficiaries. The pilot experience also intended to build capacity for promotion of these objectives at a

national level, using on-the-job training of promoters, trainers (i.e., training-the-trainer), and NGOs.

This successful pilot experience of behavioral change developed under the guidance of Marco Polo Torres, a social marketing specialist with The Manoff Group, led EHP to wonder if "implementation of the behavior changes methodology at a larger scale (scale-up) is the next logical step. Successfully implementing the project on a broader scale is dependent on an effective methodology that is feasible, practical, and affordable for NGOs (with less reliance on external technical assistance and funding)" (Environmental Health Project, EHP. Activity Report No. 137, June 2004).

5.2.1 Definition

Experts define behavioral change as follows: "Individuals often develop consistent patterns of behavior in given situations, and cross-situational behavioral consistency is generally a result of strong dispositions and well-developed cognitive scripts; situational behavioral change involves changing the individual's customary pattern of behavior from one pattern or style to another."

Behavioral change may be self-initiated or initiated by another (e.g., a leader). Regardless of the source of initiation, behavioral change is an individual decision. When placed in a new situation, the person takes into account the required specific dimensions of individual performance, the level of work or type of behavior, the methods to perform the job, the changes in work styles or behavior patterns (e.g., leadership style, decision-making style, teaching style), and the performance schema (Behavioral Change. MBA 502. Control Theory).

5.2.2 Current Situation

The pilot experience gave the evaluation team the opportunity to obtain information about the dissemination, implementation, and impact of the Behavioral Change Methodology. This experience can be used to assess the potential effects of the program at a national level. Our findings were corroborated by information obtained from direct interviews with organizations such as MUDE, CRS, *Vision Mundial*, and Alianza; field observations in Hato Mayor; and reviews of other project evaluations, some of which were conducted by the same organizations, while others were conducted by third parties.

5.2.3 General Findings

- All of the trained participant organizations involved in the project have adopted the Methodology as an integral part of their mode of operation and continue to use it in new activities.
- Some of the participant organizations believe the model has proven so effective that they are using the methodology in other regions. These activities are supported by Spanish and European Union (EU) funding.
- The trainers believe that one of the key reasons for the success of the behavioral change methodology was how it was developed; special credit is given to the key consultant in charge. The trainers feel that the development

methodology captured the real needs and feelings of the community when they were producing the training materials. Using the principles of design applied in this case helped to overcome self-imposed barriers of the communities.

- CRS has adapted the behavioral change materials and methodologies with technical support and funding from EHP/USAID/WDC sources, for other areas, including education, where they created an education integral model. Thus, the schools receive WSS, nutrition services, and vaccines. The nearby communities also benefit.
- These programs have been implemented in 20 schools in San Jose de Ocoa for the Nutritional Global Initiative. (See Section 5.2.5, for a detailed evaluation and subsequent program impacts.)
- There are at least 30 people qualified to conduct train-the-trainer sessions. Some of these trainers work full-time as consultants for other organizations, groups, institutions, and communities.
- The NGO acknowledged that the methodology used to develop the behavior change materials was extremely helpful in empowering the communities.
- The original community hygiene promoters ensured a thorough understanding of the health message and content among the communities, and the promoters were able to successfully communicate the message to others. Although the original 23 promoters are no longer active, our team has verified that the messages are still in practice within the Hato Mayor communities.
- It is true that hygiene promotion activities are more likely to succeed in communities where water and sanitation hardware were recently installed. As EHP pointed out in reports #137 and #139, the connection between hygiene promotion and hardware is obvious. Nonetheless, hygiene behavior changes have been adopted and are sustained in Hato Mayor, even in the absence of safe water. In fact, in six of the nine communities that have nonoperating water systems, the hygiene activities are conducted in most of the communities
- In the last few years, demand for the modules and methodology training was waning, but given the new availability of resources, interest is again on the rise.
- Alianza now has new contracts under negotiation for the training modules. Some of the contracts are for INAPA itself, while others are for World Vision (*Vision Mundial*). These new sales will replenish the revolving fund, allowing Alianza to produce more modules.
- Alianza explained to us that they do not sell the modules themselves; they insist that the institutions and technicians that will be using the modules be trained in proper usage first.
- Implementation of the behavior change methodology at a larger scale (scale-up) has shown that it is feasible, practical, and affordable for NGOs to also implement the methodology. Just as Alianza and INAPA's officials declared,

they have not only been following the methodology in their own projects, they have also been promoting it with other organizations, such as *Vision Mundial*.

- The following are some examples of successful methodology implementation: In San Jose de Ocoa, a biologist is training the community associations to follow the methodology. In Nizao River Basin, the SESPAS is also using the methodology and following up using TIP. Some consultants are developing a module to use with foster parents that will focus on violence and HIV/SIDA prevention.
- The team agrees with the previous recommendation made by EHP and PAHO: programs should seek to identify current behaviors that exist because of cultural devaluation or fear of innovation, such as a lack of appropriate technologies.
- *Vision Mundial*, with new EU funding, will start new projects in 63 communities along the Haitian border. The project will cost US$4.4 million and will take 3 years. These new projects will fully apply the TCP and Behavioral Change Methodologies. During the 6 months before the actual program infrastructures are in place, WSS committees will be formed to start working with the committees of water and sanitation to effect behavioral changes and TCP.

5.2.4 CRS Global Food for Education Initiative Program

The following is a summary of the most relevant information about the CRS produce report on the Education Initiative Program (Informe Final de la Investigación de Alcance de Objetivos de los Proyectos Programa de Iniciativa Global de Alimentos para la Educación, CRS, 2004).

The General Objective of the Global Food for Education Initiative Program, sponsored by CRS/DR and executed with the Dominican Ecological Education Center (*Centro Dominicano de Educación Ecológica* [CEDECO]), the Solidarity Center for Women's Development (*Centro de Solidaridad para el Desarrollo de la Mujer* [Ce-Mujer]), and the Community Action Institute, Inc. (*Instituto de Acción Comunitaria, Inc.* [IDAC]), is trying to draw up a set of comprehensive improvement measures of the factors affecting access opportunities for the child population to basic education and development of their potential in 20 rural communities in Guerra, Santo Domingo Este, and San Pedro de Macorís.

This research is directed towards assessing the behavior of the indicators of the logical framework objectives at the school centers that have been benefited through the Global Food for Education Initiative Program projects.

Results

The project interventions have had a favorable impact on education development; these have been oriented towards the promotion and empowerment of health and diet reinforcement of the students attending those benefited schools. This also has had a multiplying effect outside of the school, in the surrounding homes and communities.

- All of the people interviewed (i.e., directors, teachers, directors of parent-teacher associations, and students) acknowledged changes in the physical conditions of the schools, most notably construction of bathrooms and latrines and access to potable water.
- The new hygiene promotion programs and supply of fruit for the students has clearly changed students' behavior in favor of better health and hygiene.
- It is important to note that these changes have had a positive impact on the fundamental educational development of the children, increasing their levels of learning, motivation, and positive attitudes towards the school. Attendance and improved hygiene behaviors are also on the rise.

Conclusions

- Since program implementation, both the program staff and the program beneficiaries have noticed changes in the schools and among the student populations in favor of better personal hygiene and environmental conditions, as well as improved diets among the children.
- It is obvious that these program changes have had favorable and multiplying impacts beyond the school—in students' homes and in the surrounding communities.
- A request has been made to not only continue supplying fruits, but to also improve the selection and increase the number of distribution days. The fruit supply has had a positive impact on the students' diets, has improved school attendance, has stimulated the development of other positive educational activities in the schools, and has generated greater interest in education overall.
- A request has also been made to continue supporting the school projects and increase the economic assistance and collaboration with the NGOs.

5.3 The Total Community Participation Model in Other Settings

5.3.1 Experience of the Aqueduct and Sewerage Corporation of Santo Domingo (CAASD)

The CAASD is presently developing a program to improve or build 156 aqueducts in rural communities in the Province of Santo Domingo; this process is to be initiated in the 14 communities of the Guerra Municipality.

Within this frame work, the team took the opportunity to participate in a CAASD training workshop aimed at the community of El Cea. There are 117 families living in this community. Eleven members of the board of directors and six technical staff from CASSD participated in the workshop.

At this time, the community has no potable water and sanitation service; instead, they purchase water at a cost of RD$500 per month per family. This community has a neighborhood board of directors, a parents association, and church groups; support for the services were provided by the municipality. The organizational structure is made

up by the general assembly and board of directors working together. To reach decisions, a voting methodology is followed by the act of hand raising. This board of directors has requested assistance to solve the water problem; however, they have not found the support needed to solve their water and sanitation problems.

Through this program, CASSD has provided TCP-focused support by backing the process, starting at the organizational phase (i.e., creation of the Rural Water and Sanitation Association [ARAS]). CASSD is providing support on the issues of legalization; by-laws; training in the water, health, and water resources areas and by promoting community participation in these processes (an average of 60% of the families). On the other hand, training is being initiated on technical aspects regarding construction, operations and maintenance, commercial systems, tariff determination, and introduction of micrometers.

5.3.2 Experience of the Spanish Cooperation (AECI-INAPA)

For the implementation of the AECI-INAPA program (Spanish Cooperation), INAPA is using the TCP model throughout the process, starting with identification of the technical options together with the participation of the community, to the support in strengthening the organization. They will also work on the appropriation of the systems on the part of the users, as well as providing them with the necessary tools and skills to successfully assume the administration and maintenance of the systems; it is also important to guarantee the sustainability of the projects through community commitments, to pay the service quotas and their participation in the governing entities' assemblies, as well as participating in community training workshops, promoted by the program.

5.3.3 Peace Corps Experience

The Peace Corps' water works systems falls under the health environment category. The Peace Corps has 10 to 12 volunteers working in this sector. Eighty percent of them have been trained as engineers. The program has three phases:

- Development of infrastructure (construction).
- Education (behavioral change).
- Community organization (strengthening water committees).

The Peace Corps follows the TCP methodology.

During the first three months, volunteers' work is focused on conducting a technical study of

- Water demand.
- Water supply.
- Topography.

They mostly work with "gravity flow" systems; the use of pumps is unusual because they do not believe these are sustainable (either financially or in terms of maintenance). Therefore, their systems will only work in communities that are downhill from a viable source of water.

The following criteria are used to select communities:

- Technical feasibility (gravity flow).
- Existence of a water committee in community.
- Small community (30–150 households).

The volunteers are responsible for obtaining funding, constructing the water system in his/her community, and conducting training. So far, 120 water systems have been constructed by the Peace Corps.

The water systems stay in the hands of the water committees, which administrate, maintain, and operate the systems; the beneficiaries are responsible for 40% of the costs, including labor, equipment, and small, upfront payments in cash. The other 60% of the funding comes from outside sources (e.g., the Catholic Church, Canad, and a small amount from the government). The tariff ranges from 5 to 50 pesos per household per month.

Volunteers remain in the community for 6 to 8 months once the system has been constructed. The Peace Corps also does some follow-up work, such as conducting workshops on operation and maintenances, after their respective volunteers leave the communities.

5.3.4 PROCOMUNIDAD

PROCOMUNIDAD has now adopted the participatory planning methodology in all the projects they finance; they are working with the municipalities. Under the new program they have decentralized all activities; the municipalities are responsible for contracting project cycles, infrastructure, and technical assistance. PROCUMINIDAD focuses on four areas: infrastructure financing, training, equipment financing, and supervision.

The pilot program has started in Constanza, Sebico, and Piedra Blanca (all are in the Central region). The decision to work there was made after an evaluation of the municipalities showed the work there was more advanced.

The funding they have now is being implemented through the Citizen Participation process. Potable water and sanitation projects are high on the list of requests that come out of the participatory planning process. A detailed list of PROCOMUNIDAD investments was requested to estimate the real need based on citizen demands per type of project; however, this information is still pending.

They provided training to beneficiaries and municipalities. In the municipalities, PROCOMUNIDAD is forming municipal technical units (UTM) that will be responsible of engineering work, social promotion, and finances. When the municipalities have these capabilities in place, they will be integrated into the unit; personnel will be hired where such capabilities do not exist. Small municipalities will have a UTM providing support to various municipalities at the same time. Under this new methodology, the municipalities may end up running WSS systems.

5.3.5 Experience of the Administrative Council of the Villa Sombrero Rural Aqueduct (CADARVIS)

Presently this system is a joint service that serves two neighboring towns: Villa Sombreo and El Llano, which is administered by two associations, CADARVIS and El Llano respectively. The team had the opportunity of meeting with three of the members of the Board of Directors and two members of the CADARVIS Water Committee to find out about their experiences.

There is a lot of economic activity (trade and agriculture) in this community, with a well-established organizational culture: work has been done on irrigation, bridge construction, sports infrastructure, donation of land to build the police headquarters, and construction of a school. This community could be described as semi-urban rather than rural.

It is important to emphasize that these characteristics, together with the leaders' initiatives, gave way to the creation of the project. As a result of the lack of service within the population, they organized themselves and increased awareness among the communities to ensure they paid their fees so that they would receive the service. In 1997, they approached INAPA to find out what steps they needed to follow to obtain access to the service (they were willing to finance the system themselves). They did so because there was a similar case in the same region, where the community invested in the system and INAPA expropriated the system from them. INAPA built the system and later gave them access.. The actual cost of building the l Sombrero and El Llano systems was RD$18 in 1997.

The system provides service to 1,291 homes at the Villa El Sombrero and 800 in El Llano (using an electric pump). Both towns share the expenses of the pump operator and of two security guards, the rest of the expenses are assumed by each one of the associations.

They are using a fixed tariff system; however it is differentiated in accordance to the economic conditions of the household, ranging between RD$20 per month up to RD$500 per month. The current delinquent payment is 7%. The tariff covers the administrative, operational, and maintenance expenses, as well as service expansion costs (it does not include depreciation or payment of electric energy bills which are paid by INAPA). They have a mechanized system that issues invoices on a monthly basis.

Monthly average invoicing is RD$82,000 and the monthly average income of this association is RD$79,000, with average expenditures in the amount of RD$65,000. They have a current bank balance of RD$385,000, based on data from January 2006. The association shares their financial statements once a year with the public.

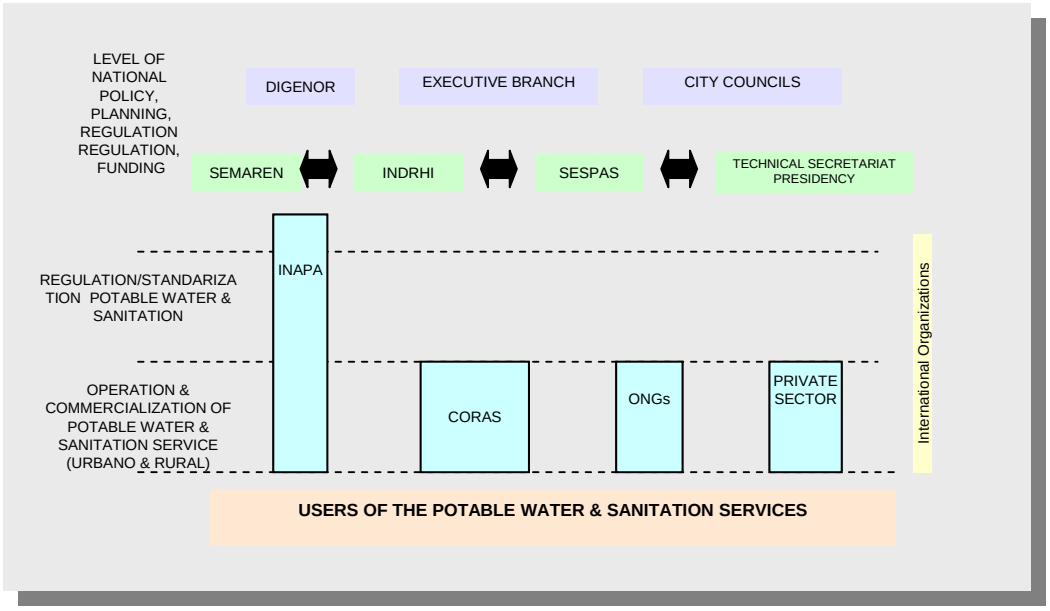
The greatest problem they are presently facing is the power shortage during the pumping hours, which forces them to ration water every other day. The Board of Directors negotiated with the President of the Republic for construction of a new system with a 170,000 gallon tank. (Presently they have a tank capacity of 300,000 gallons, which they fill every 4 hours). The new system will cost RD$40 million

5.4 Potable Water and Sanitation Sectors and Their Main Actors

5.4.1 Main Actors in the PWSS Sector

Centralized and decentralized government institutions coincide in the PWSS sector, as well as state secretariats, NGOs, and international institutions. In one way or another, these institutions impact the sector's policies, objectives, strategies, and goals. Figure 6 lists the main institutions that intervene in the sector, grouping them by their type of function. Following the figure are brief descriptions of the most important institutions.

Figure 6. Institutions Presently Intervening in the PWSS Sector



Source: Abreu, R.U. Global Assessment of Potable Water and Sanitation Services 2000. Pan American Health Organization, Dominican Republic, 1999.

Level of National Policies

Technical Secretariat of the Presidency

- The National Planning Office (ONAPLAN) is a planning and consultancy office of the Technical Secretariat of the Presidency. Its function is to define the national development guidelines that will sustain the sectoral plans prepared by all public administrative offices.
- The National Budget Office (ONAPRESh), which forms part of the Technical Secretariat of the Presidency, establishes the guidelines in the formulation of annual budgets for the public administration's offices, assigns the budgetary quotas, and formulates the consolidated budget presented by the Executive Branch before the Congress of the Republic for its approval.

State Public Health and Social Welfare Secretariat (SESPAS)

SESPAS regulates all of the issues related to the country's public health and hygiene, including environmental sanitation. SESPAS is responsible for establishing sanitary requirements related to basic potable water and sanitation, assessing and controlling the quality of the potable water, and following up on water-originated illnesses.

To date, SESPAS, through the General Environmental Health Secretariat, is officially the national entity responsible for development of the Latrine Education Programs in the rural areas, a task which has only been partially assumed by the Secretariat itself.

State Environmental and Natural Resources Secretariat (SEMAREN)

SEMAREN was established by the General Environmental and Natural Resources Law (Law 64-00, Chapter IV), in August 2000. Its mission is to regulate administration of the environment and natural resources in order to attain sustainable development in the Dominican Republic.

SEMAREN determines the permissible limits of sewage water outflow to a receiving body and controls all activities.

National Hydraulic Resources Institute (INDRHI)

This institute was established under Law No. 6 on September 8, 1965, as assigned by the State Agricultural Secretariat. INDRHI is the maximum national authority on superficial and ground water. Presently, the institute is assigned to SEMAREN.

This institute has legal prowess, internal and external regulatory powers, and inspection authority. Although it has these legal responsibilities, INDRHI has traditionally dedicated itself to the development of hydraulic infrastructure works and to the administration of the country's risk systems (which are presently being transferred to the irrigation boards). It should be noted that INDRHI has almost no ability to intervene in the exploitation, planning, and regulation of the water resources for use in population supplies.

INDRHI regulates water concessions for all types of uses and helps ensure water preservation.

INDRHI believes that within the framework of the sectorial reform, they should regulate the water resources and control water exploitation in household, energy, irrigation, and industrial uses.

They also believe that the present environmental legislation has serious inconsistencies, because it grants maximum authority over the water resources to SEMAREN, while Article 4 of the same law says SEMAREN is responsible for the ground water and INDRHI I responsible for the superficial water. Also, the legislation states that INDHRI is assigned to SEMAREN.

INDRHI invested DR$118.1 million, of which RD$83.1 was direct investment into drilling 1,212 tubular wells and purchasing rope hand pumps, electric pumps, and combustion run motor pumps. All of this took place in the community's agricultural

sector (Memoria de labores 2005, December 2005, Chapter 2, Numeral 2.6 Proyectos de Soluciones Rurales).

The Spanish Government Cooperating Agency will fund 200,000 Euros to pay a firm that has been selected to carry out a comprehensive study to identify priorities and activities and define an action plan and an investment plan. The goal of this project is to solve the current problems related to the quality and quantity of water, and future implications of these problems. This is a very ambitious study to prioritize investment in the sector in order to promote social and economical growth.

General Quality Standards and Systems Directorate (DIGENOR)

DIGENOR approves all of the quality standards and accredits the water quality control laboratories.

City Councils (Municipal Governments)

City councils are the regulating and supervising entities for urban land development. In some localities, they collaborate with the communities to construct small potable water and sanitation works.

Level of Operation. Two main groups of actors can be differentiated at the level of operations in the PWSS Sector: (1) public, autonomous, and decentralized institutions of the State (see Figure 4) and (2) actors at the local levels, such as NGOs and rural water associations.

National Potable Water and Sewerage Institute (INAPA)

Law No. 5994 was enacted on July 30, 1962. This is the maximum authority regarding all of the potable water and sewerage services throughout the urban and rural areas of the Dominican Republic, except in the provinces of Santo Domingo, Distrito Nacional, Santiago, Espaillat, Puerto Plata, and La Romana.

INAPA has a rural aqueduct unit, which is responsible for the potable water services in these areas and for the development of the Decentralization Program of Rural Aqueducts.

INAPA believes that the decentralization model for the rural communities continues to be the ideal strategy for intervention in these types of zones with regard to potable water and sanitation services. They also believe that the methodologies used to involve the communities should be reviewed to ensure the use of validated methods the standardization of training

The rural aqueduct unit's technical staff understands that INAPA has been successful in implementing the strategy and acknowledges that there is a weakness on the part of the institution with regard to monitoring and followup with the communities after they have concluded their projects.

Aqueducts and Sewerage Corporation of Santo Domingo (CAASD)

CAASD, created under Law No. 498 on April 13, 1973, is responsible for presentation of the potable water services and for collection, transportation, treatment,

and final disposal of sewage in the Distrito Nacional area and the Santo Domingo Province.

CAASD is the only institution that has initiated a process of reforms and modernization for the commercial management of services, incorporating private participation in 2001. Within the next few months, CAASD will begin execution of the Consolidation of the Potable Water and Sanitation Reforms and Modernization through funding from the Inter-American Development Bank (IDB), in the amount of US$31 million.

The following components will be funded through this program: (1) demonstrative and emergency works, (2) technical assistance, (3) investments in infrastructure, and (4) support to the potable water and sanitation program in the rural zones.

Within this reform and modernization process (beginning in 2005), the institution decided for the first time to assume responsibility for the water and sanitation services in the rural areas within their jurisdiction. For this purpose and with the support of the CAASD-TAHAL Project, a new program is being started to assist the rural areas. This will initially take place at the pilot level, established according to the legal framework in effect and compatible with the Sectorial Reforms Law Project, presently in the Congress of the Republic. The TAHAL study has very valuable information and a 3,000 household-socioeconomic survey was conducted in the Santo Domingo rural areas. An electronic copy of the study will be delivered with this report.

Aqueduct and Sewerage Corporation of Santiago (CORAASAN)

CORAASAN as created under Law No. 562 on March 21, 1977. CORAASAN is responsible for rendering potable water services and collection, transportation, treatment, and final disposal of sewage waters in the province of Santiago.

Aqueduct and Sewerage Corporation of Moca (CORAAMOCA)

CORAAMOCA was created under Law No. 89–97 on May 16, 1997. This corporation is responsible for rendering potable water services and the collection, transportation, and final disposal of sewage water in the province of Espaillat.

Aqueduct and Sewerage Corporation of Puerto Plata (CORAAPLATA)

CORAAPLATA was created under Law No. 142–97 on July 1, 1997. The corporation is responsible for rendering of potable water services and for collection, transportation, treatment, and final disposal of sewage waters in the province of Puerto Plata.

Aqueduct and Sewerage Corporation of La Romana (COAAROM)

COAAROM was created under Law No. 385–98 on August 18, 1998. COAAROM is responsible for rendering potable water services and for collection, transportation, treatment, and final disposal of sewage waters in the province of La Romana.

PROCOMUNIDAD

This institution, which is part of the executive branch, is a social investment fund. Projects include construction of aqueducts and sanitation works in the communities.

Presently, PROCOMUNIDAD is developing a decentralization process of its activities, aimed at the municipal government; the government will be responsible for the infrastructure and technical assistance of the projects. PROCOMUNIDAD provides technical assistance.

City Councils (Municipal Governments)

City councils are urban land development regulating and supervising entities. In some localities, they collaborate with the communities to build small potable water and sanitation works.

NGOs

There are a series of NGOs that plan, design, execute, and, in some cases, operate potable water and sanitation systems. However, coordination between these NGOs and the institutions responsible for rendering water services is practically nonexistent. The NGOs' contributions are highly acknowledged within the PWSS Sector.

Following is a description of some of the main organizations that work in the PWSS Sector.

Women in Development (MUDE) and Catholic Social Services (CRS)

These are two organizations with active participation in the Hato Mayor Project. Their descriptions can be found in the Findings section of this report.

Sur Futuro

This institution works in the WSS Sector and with the Sabana Yegua Basin communities to protect the dam from sedimentation, but also to help the communities that live there. This project is financed with a trust fund contribution from the banking sector in the Dominican Republic. *Sure Futuro* believes that a broad national campaign informing people of the crisis in the WSS Sector could arouse interest among the general population and in the business sector.

Sur Futuro has expressed the usefulness of creating a community water fund that could be used for urban and rural communities. They think finding a theme to unite the business sector into one CSR activity could be useful.

They also understand that the Dominican government must create an agenda for social investment in the country and that NGOs should participate in this implementation.

Vision Mundial

This organization has executed potable water and sanitation supply projects in El Seybo and in the southwest and northeast regions of the country. In the near future, they will begin 63 new projects along the border with Haiti, using funds from the EU in the amount of approximately US$4.4 million.

Alianza

This is an NGO network that has been operating for 10 years. Alianza's work is centered on information dissemination, institutional training, and promotion of relations between NGOs, the government, and the private sector.

This network has served as a mechanism to transmit the behavioral change methodology to other NGOs.

Rural Water Associations

Rural water associations are communal organizations that are delegated with responsibility of the operation, maintenance, administration, commercialization of potable water services for one or several communities. Presently, there are more than 700 registered rural water associations in REDAR.

According to the proposed legal framework for the PWSS Sector, these associations should have a legal personality and should sign a contract with the governing entity, where duties and responsibilities for both parts are incorporated.

International Organizations

Similar to the NGOs, there are a series of international organizations that cooperate or have cooperated in different ways with the PWSS Sector. These include the EU, Japan International Cooperation Agency (JICA), German Cooperation Agency (GTZ), Pan American Health Organization (PAHO/WHO), USAID, Inter-American Development Bank (IDB), Spanish Cooperation Agency (AECI), World Bank, United Nations Children's Fund (UNICEF), and United Nations Development Program (UNDP).

Below we summarize some of the important projects undertaken by these international organizations in the PWSS Sector..

United States Agency for International Development (USAID)

USAID has worked in the PWSS Sector, on the Hato Mayor Project, since 1997. Through the CONECTA Project, they will continue their work for another 2 years. A detailed description of this intervention can be found in the Findings section.

Inter-American Development Bank (IDB)

This organization has been financing important projects in the PWSS Sector of Dominican Republic for many years.

Presently, IDB is only supporting CAASD in the amount of US$31 million, to develop institutional reforms and modernization processes.

As a condition for disbursement of the funds, CAASD must meet goals that demonstrate a management change towards a more private-enterprise model.

The IDB has not ruled out the possibility of opening another operation in 3 years to support the sectorial reforms and modernization processes, but currently they have desisted on conditional funds from the original water sector loan to the approval of the new water sector legal framework

In addition, the IDB has a Social Responsibility Program (PES) in which they could finance private-public investments in WSS projects in Salcedo through the Technical Provincial Office of Salcedo, for a WSS decentralized system in the amount of US$325,000.

Spanish Cooperation Agency (AECI)

After successfully concluding their first project, AECI is developing the Potable Water and Sanitation Program in the Rural Areas, together with INAPA, in the amount of € 3,320,000, with a contribution by the AECI of € 1,660,000. The project will benefit at least 4,000 families in the rural and urban marginal areas, basically located in the provinces of Pedernales, Barahona, Independencia, and Bahoruco.

Besides constructing aqueducts and latrines, the project intends to ensure the sustainability of the constructed systems. This goal will be met by promoting an equitable democratic communal organization to consolidate maintenance capabilities, and by promoting administration and management of the systems. The project also includes disaster prevention as a transverse strategy.

European Union

The EU is an important cooperating organism, especially in the past few years in the PWSS Sector. Presently, and through *Vision Mundial*, the EU will finance a project for 63 communities in the area bordering Haiti. The EU is providing approximately US$4.4 mission during a 3-year period.

The project will contribute three types of interventions: (1) construction of new systems in places none existed before (2) rehabilitation of deficient systems, and (3) expansion of the systems to other communities.

The program will incorporate the TCP and behavioral changes methodologies.

Pan American Health Organization (PAHO/WHO)

PAHO/WHO has worked in the PWSS Sector for many years, particularly providing technical cooperation, developed at different levels: supporting processes at the national level through the execution of demonstrative projects, institutional strengthening, and development of standards, among others.

During the initiation and design of the PWSS Sector's reforms, this organization played a very important role; their support has established a commitment to promoting development during the next few years.

Furthermore, PAHO will continue to support the communities as they solve their potable water and sanitation needs, by applying TCP and behavioral change methodologies.

World Bank

The Dominican government requested financial assistance from the World Bank for the Water and Sanitation Project in Tourist Centers (PASCT) in five coastal exploitation centers of the country: in the north (Puerto Plata, Sosùa, and Cabarete),

northeast (Samanà and Las Terrenas), south (Boca Chica, Andres, and Juan Dolio), and east (Bàvaro Punta Cana, and Barahona).

Presently, the project is focused on Puerto Plata, Sosua, through the execution of a learning and innovation loan for sanitary sewer systems, based on the PASCT Project framework to develop and introduce innovating pretreatment and final effluent disposal technologies treated in the ocean by means of submarine transmission. The results can then be applied to other parts of the country.

5.4.2 Vision of the PWSS Sector

Present Situation of the Reforms and Modernization Process of the PWSS Sector

The formulation of a reforms and modernization process in the PWSS Sector began in 1997; it has had a very show development, mainly due to the lack of political will at the highest level of the Dominican state.

The sector's Reforms Bill has been discussed in Congress ever since 1999; its objective is establishing the regime for the implementation of institutional reforms in the potable water and sanitation sector. These include the establishment of a new sectorial organizational model and the formulation of policies, plans and strategies for the rendering of public sectorial services to those living in Dominican Republic and for the funding and regulation of the sector.

On September 15,1999, the Potable Water and Sanitation Reforms and Modernization Project was approved (IDB Loan 1198/OC-DR), in the amount of US$71 million dollars, with financing from the Inter-American Development Bank (IDB) whose execution was subject to the approval of the Sector's Frame Law on the part of Congress.

The referred-to Sectorial Frame Law was not approved and after paying into the country more than US$1.0 million dollars in commissions, the IDB proceeded to close the operation. During this process, the Aqueducts and Sewerage Corporation of Santo Domingo (CAASD) introduced a reformulation proposal through which the institution will make approximately US$31.0 million available for its institutional reforms and modernization process.

It is important to emphasize that despite the broad consensus between the technical staff of the PWSS Sector and its institutions, regarding the need to introduce profound reforms in the operations, as well as on the general conceptualization where these have to be produced, the actions have been almost non-existent in the country and specially at the level of the potable water and sewage service rendering institutions.

With regards to the main service rendering institutions, they are autonomous and decentralized from the State; the present organizational model is publicly owned and under centralized state management, with the same focus for the urban and rural areas. On general terms, it can be said that with the exception of the recently established companies (which maintain the existing institutional scheme and do not necessarily represent a step forward towards the sector's reform) no substantial changes have been produced in the institutional structures, as well as on the modality

of administrative, economic and financial management of the systems, during the last two decades.

At this time, it is worth emphasizing that regarding the new focus promoted and developed during the past few years, which incorporate the administration for the community and participation by the private sector, the following must be mentioned:

- Since 1997, decentralization programs of rural aqueducts, developed by the National Potable Water and Sewage Institute (INAPA), through which the water supply systems are built and transferred to the community, using technical and financial contributions, all this through the Rural Water Associations.
- Private commercial management contracts subscribed since year 2001 by the Aqueducts and Sewerage Corporation of Santo Domingo (CAASD) with private companies, for the commercial administration of potable water and sewage services.

On the other hand, the existing legal framework of the country is compatible with the model that has been developed and proposed in the Reforms Bill, for the rendering of services in the rural areas, which consists of transferring the operations, maintenance, administration, and commercialization of the potable water and sanitation services to the Rural Water Associations.

Future Vision of the PWSS Sector

In general terms, the proposed sectorial organizational model is presented under Figure 7, and its implementation is based on the following directives:

- Creation of a governing entity (establishes sectorial policies and planning) and elimination of the rectorship and regulation functions which are presently being developed by the services renders.
- Transformation of the business administrative model so that the existing operators and those established in the future, behave like private enterprises, turning into self-sufficient entities from the economic standpoint.
- Development of an efficient and transparent subsidies policy for the community.
- Participation of all involved sectors and communities in the different phases of design and development of the potable water and sanitation plans, programs and projects as an indispensable condition for the application of the resources and generation of greater benefits in a democratic environment.
- Favoring service decentralization when the municipalities and local communities are in the condition of rendering quality services.
- Decreasing gaps.

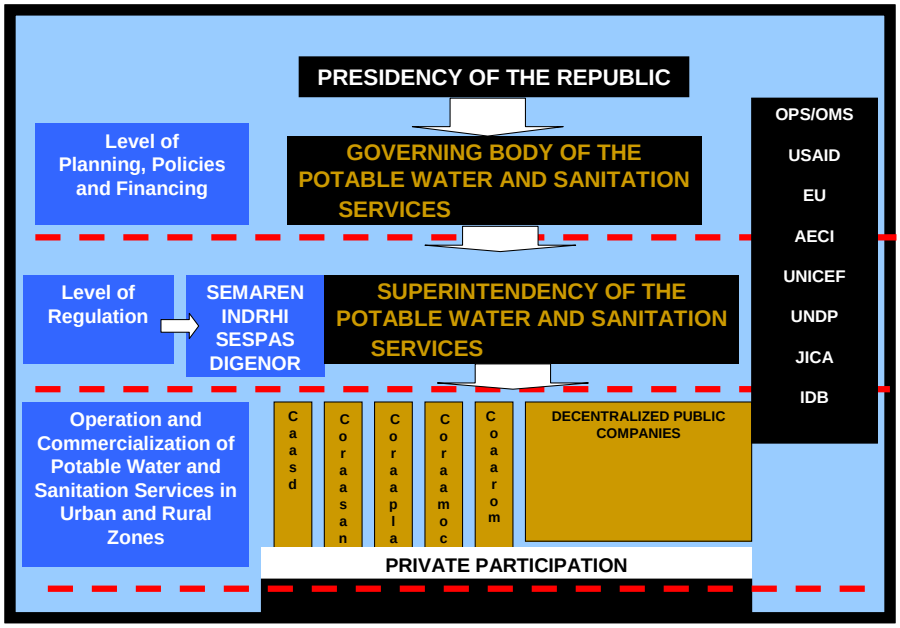
The National Potable Water and Sewer Institute (INAPA) will be transformed into regional public companies (Figure 8) by means of an unconcentrated and decentralized process that needs to be developed within a period of 5 years after the

PWSS Sector's Reform Bill has been approved, which has been in Congress since 7 years.

Private participation is allowed and regulated in the Bill stated in different modalities, but it does not allow the sale of assets at any time. The state will continue to be the owner of the water resources per se.

Each of the existing service renderers, like as the new ones that will be incorporated after the approval of the bill, will sign a contract or service rendering license with the Governing Authorities, under which they commit to the compliance of performance indicators, in exchange for the established subsidies, until financial autonomy is attained.

Figure 7. Organizational Model Proposed for the PWSS



Potable Water and Sanitation Services in Rural Areas. In practice to date, the only public institution responsible for rendering the potable water services in the rural areas is INAPA. By law, waste disposal is assigned to the State Public Health and Social Welfare Secretariat (SESPAS), however, this Institution has never formally assumed the responsibility.

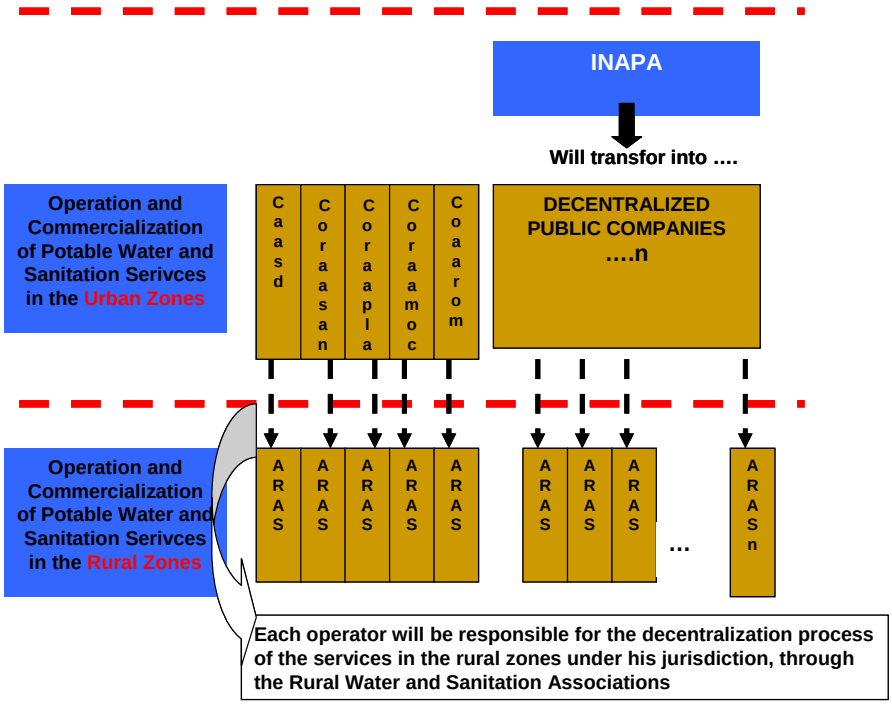
In view of the new proposed institutional framework, the model for the rural areas in general terms is the same one that has been developed by INAPA. It consists of decentralizing the services, transferring the operations, commercialization and administration of the systems to the communities, through the Rural Water and Sanitation Associations (ARAS) (Figure 8)

However, when the new bill for the PWSS comes into effect, every service render must assume the responsibility of the potable water and sanitation services in the rural areas under his area of responsibility and therefore will need to create the pertinent

decentralization process, as well as the necessary technical assistance once the systems have been transferred (Figure 8).

Each Rural Water and Sanitation Association (ARAS) will sign a contract with the Governing Authorities, under which they will commit to performance indicators to be agreed on by both parties.

Figure 8. Decentralization Model of the PWSS Services



This modality is being implemented in the Pilot Project being developed by CAASD, through the CAASD-TAHAL Project, beginning with the assistance in the rural areas in the Santo Domingo Province. Along these lines, presently the water supply systems are being built or refurbished, and these will then be legally transferred to the Rural Water and Sanitation Associations; these associations will sign a contract under which they will commit with CASSD as the governing entity, to comply with determined efficiency indices until they have a new legal framework in place.

All of the existing rural associations, and those that will be established within the new legal framework, operate and will continue to do so under the basic principles of the Total Communal Participation methodology (TCP).

6. Options

6.1 Introduction

In assessing alternative options for USAID to follow in implementing water and sanitation activities in the Dominican Republic, the evaluation team considered the five basic ingredients of such programs. These are

- Technical feasibility.
- Financial feasibility.
- Behavior change and education.
- Operation and maintenance.
- Democracy and governance.

The role of each of these basic elements is captured in Figure 9.

Figure 9. Urban and Rural Water Supply—Problem Cycle and Service Improvement Interventions

Source: RTI. Furthermore, the following criteria, which elaborate on these five basic elements, were considered in the course of examining each possible alternative:

6.2 Criteria

- Water and sanitation activities should be oriented to community interests (i.e., demand driven).
- The TCP approach should be built into the overall approach.
- Hygiene behavior change communication and education should be incorporated.
- Water and sanitation technology should be financially and technically appropriate, taking into account community capabilities and resources.
- Tariff structures should be set to sufficiently cover operation and maintenance at a minimum, which includes making financial provisions for small contingencies.
- Communities should make upfront commitments to in-kind investments (e.g., manual labor and support during construction). Obtaining formal commitments to pay from individual households prior to project implementation should be considered.
- Where community resources are not sufficient to cover depreciation and major contingencies (such as large-scale equipment failure), provisions should be made in the initial donation or subsidy to create a long-term funding source for these costs.
- Technical support and training (i.e., operation and maintenance, financial management, community participation) should continue on an ongoing basis for a minimum of 1 year after the system begins operation.
- Where community resources are not sufficient to cover this technical support, provisions should be made in the initial donation or subsidy to provide funding for this 1-year activity.

6.3 Alternative Options for USAID under the Current Strategy and in the Future

The evaluation team has constructed the following alternatives for consideration under USAID's current Strategy and for the design of a water and sanitation component in the Strategy that will begin in FY2008. These following six options can be differentiated in terms of whether and how different stakeholders, including USAID, are involved in new water and sanitation efforts in rural areas in the Dominican Republic. In all cases, it is assumed that any USAID project would automatically incorporate technical assistance to support and strengthen community participation in building and running rural water systems and improving sanitation conditions, as well as implementing behavior change communication related to hygiene.

6.3.1 Alternative #1: Approach Drawing on USAID's Approach to Rural Water from 1998 to 2002

Under this approach, INAPA would still assume lead responsibility for the design and construction of rural water systems in a small sample of rural communities. This

approach calls for building on what worked under the previous USAID program, while taking steps to correct the shortcomings and problems that arose in the nine Hato Mayor communities. As a result, more resources will need to be dedicated to the design and technical specifications of the new water and sanitation systems and to assuring that there is institutional support for the communities over a longer period of time. If the same level of resources were available that existed in the 1998–2002 period, these higher resource requirements might imply that fewer communities would be involved in this new program. Also, the expectation is that fewer USAID resources will be available for this kind of activity in the future, reinforcing the need to focus on fewer communities in new projects.

6.3.2 Alternative #2: Public-Private Partnership with USAID Support

This option is appropriate where there are limited USAID resources. The strength of this option will be its capacity to leverage funds from other sectors (i.e., private sector firms, local governments, NGOs, church groups, private foundations, GODR, and other cooperating agencies) and leave a mechanism in place for future WSS financing in the Dominican Republic. The approach could be structured with a revolving fund that would be launched with seed money from the sectors cited above. Depending on the structure of the fund (specifically, whether rural communities would be expected to repay any portion of the financing they receive from the fund), replenishments of the fund could occur on an ongoing basis, which would require a permanent development director, or could occur only once the fund triggers a specified minimum level. The initial focus will be in SESPAS Region V because CONECTA and REDSALUD are already there and will remain there for the rest of the current USAID strategy. Once the new strategy is in place and the fund has proven its viability, the program could be expanded into other regions.

In Region V there are a number of large private-sector firms such as Central Romana, cattle enterprises, hotels in Bavaro and Punta Cana, and citrus and other agricultural enterprises and industries. There are some examples of firms supporting water-related activities in the country: The Leon Jimenez Group supported *Sur Futuro* in a national water conservation program. In the Sabana Yegua watershed basin, the banking sector has an ongoing soil and natural resources conservation program, in addition to a community development program for basin inhabitants. In Hato Mayor, the citrus industry has provided authorization and land to build the systems.

This approach was discussed with all of the key actors interviewed and most of them thought it possible to implement. One key element for the success of this approach is USAID's good reputation within the Dominican Republic's private sector. The program could be led by an NGO, such as Alianza, or a combination of NGOs and private foundations.

6.3.3 Alternative #3: Approach Based on the Output-Based Aid Advocated by the World Bank

The World Bank has been a proponent of an output-based approach to subsidizing public services. Under this approach, rather than subsidizing inputs (in particular,

physical assets), governments would finance the outputs—the compensation of services provided or results achieved.[6]

In the water sector, one method of implementing this approach is to make cash payments to a private operator for water connections made or to allocate vouchers to targeted consumers for use as payment to the operator for water services. In both cases, the idea is to use public funds to reimburse the water operator for part of its investment in the water system. To minimize government costs, bidders would compete for the right to provide the water service based upon the minimum subsidy that each would require for a specific number of connections. The private operator winning the competitive bid would receive part of its compensation in the form of this subsidy and the remainder through user tariffs. A critical feature of this approach is that the government must explicitly target the population groups that would eligible for a subsidy. In the case of the Dominican Republic, targeting population groups that live in extreme poverty would be a logical starting point.

The World Bank has conducted a pilot study of this output-based approach to subsidies in the water sector in Paraguay, where small water companies (*aguateros*) serve a sizable portion of the public (approximately 9% of the population). The World Bank experiment in Paraguay involves getting such companies, which have typically operated in urban settings, to do the same in rural areas. The World Bank's initiative "seeks to attract *aguateros* and construction firms active in the water sector to unserved rural areas and small towns by providing an output-based aid subsidy, awarded through competitive bidding."[7]

A unique feature of this approach is that it allows USAID to build community participation and behavior change communication into a service that would be provided by a small, private operator.

6.3.4 Alternative #4: Approach Based upon a Corporación de Agua, Financed by an External Loan

This approach builds on an initiative that is currently underway with the CAASD, a *corporación de agua* for the province of Santo Domingo. CAASD is planning to extend water services to unserved communities within the province, incorporating elements of community participation to design and implement the program, based upon a loan from an external bank. Technical assistance funded by a bank in Israel and implemented by the Tahal Consulting Group has laid the groundwork for this initiative, which will be started in four pilot communities this year.

The distinction of this approach is that it works through a provincial water corporation rather than INAPA. Although no such water corporation exists in the Hato Mayor region, another province that has unserved rural communities, as well as a functioning water corporation, such as Santiago and its CORASAAN or Moca and its CORAAMOCA, could be the target of a similar initiative. USAID's role would be to support technical assistance that advocates and facilitates rural community participation and that promotes hygiene behavior change communication.

[6] See, for example, Smith, n.d.
[7] See Drees et al., 2004.

6.3.5 Alternative #5: Approach Based upon Other Donor Funding

This approach is analogous to the previous one, except that the external funding source and implementer would be another international donor. *Vision Mundial* is currently implementing such a water and sanitation program for the EU in the area that borders Haiti, and they have expressed interest workingwith USAID and cofinancing activities. USAID could focus its efforts on community participation and behavior change training among the provincial *corporación de agua*, consultants, promoters, and others.

6.3.6 Alternative #6: Demand-Driven Technical Assistance from USAID

Under this alternative, USAID would finance training programs and new materials to create enough local technical capacity to provide technical assistance to meet the existing demand. That such a demand exists is based on the evaluation team's findings from field visits and interviews with INAPA, CAASD, REDAR, and other NGOs, totaling 700 WSS associations who are aware of their weakness in areas such as administration and finance, operation and maintenance, willingness to pay for services, hygiene, and sanitation. This effort will also ensure a well-trained professional base to support the new legal structure when it is approved. The training investment will also allow the system to absorb higher levels of investment because of the existence of hands-on capabilities.

The training program can be coordinated by institutions like Alianza who has successfully managed the behavioral change training program. The new modules can be developed under the supervision of CONECTA personnel making sure that the contracted organizations have a proven track record in the field of expertise required. The new behavioral change modules to be developed include culture of payment, administration and finance, and operation and maintenance courses.

Table 11 provides an overview of the six alternatives proposed above.

Table 11. Alternatives for USAID WSS Interventions

Stakeholder/ Activity	Alternative Option Packages					
	USAID Approach (1998-2002)	Public Private Partnership w/ USAID Support	Output-Based Aid Approach	Corporación de Agua/External Loan	Other Donor Funding	Demand-Driven TA
Revolving Fund	-	X	-	-	-	-
NGO	X	X	-	-	X	-
Private Sector	-	X	X	X	-	-
INAPA	X	?	X	-	X	-
Corporación de Agua	-	-	-	X	-	-
Communities without water or sanitation	X	X	-	X	X	-
USAID/Infrastructure Support	X	X	-	-	-	-
USAID/Technical Assistance	X	X	X	X	X	X
Other International Donors	?	?	?	X	X	-
Central Government	-	-	-	X	-	-

Key: Cells highlighted in GREEN indicate a source of funding for water and sanitation infrastructure construction. Cells highlighted in BLUE indicate a source of in-kind resources for such construction. Remaining cells with "X" indicate other types of involvement in project.

7. Recommendations

7.1 Recommendations for the Current Strategy Period (FY2002-FY2007)

7.1.1 Recommendation #1: Complete Unfinished Work in Hato Mayor Communities

USAID's past support to integrate community participation, behavior change and institutional strengthening has generated measurable positive results in Hato Mayor. Nonetheless USAID's efforts and collaboration with INAPA did not escape the kinds of problems that have beset community water and sanitation management projects in other countries. As a result lasting access to clean water has not been established in most cases. Six of the nine communities in Hato Mayor do not have working systems.

From these shortcomings it is possible to derive the keys to success. An integrated approach to community management of water and sanitation can be successful if all of the necessary pieces are put in place going forward. The first step to getting the right pieces in place is to conduct due diligence of any proposed community water and sanitation system with respect to the five fundamental success factors, cited earlier – technical feasibility, financial feasibility, behavior change and education, proper operation and maintenance and participation (democracy and governance).

It is our recommendation that USAID allocate funds for such a due diligence assessment for revised water systems in the six communities in Hato Mayor where the initial investments have failed. In examining the five factors cited above, this due diligence would determine if and how it is feasible to rehabilitate these systems. At a minimum, a remedial effort that is deemed feasible would have the following components:

- Appropriate system design that is feasible in technical, financial and operational terms, recognizing community capabilities and resource limits and recognizing the potential for theft.
- Formal community commitment to pay the tariffs that make the system financially feasible.
- An operational budget for the first three years of operation with provisions for contingencies.
- Plan for resources and personnel to provide technical support and advice and follow-up to the community.

The evaluation team also recommends that a similar assessment be conducted in the other three communities where the system are working now in order to be sure that they are operating in a sustainable basis.

It is the recommendation of the evaluation team that USAID also provide the funds to implement remediation in those communities where all of the above conditions have been met. Realizing this program in Hato Mayor creates the possibility of establishing that this model of integrated community water and sanitation management can succeed and is worthy of replication elsewhere in the Dominican Republic. If

reprogramming of funds is necessary to make this program possible, we believe that it should be done. While the evaluation team does not recommend changes in current budget priorities lightly, we believe that budget priorities in CONECTA's water component could be adjusted to make some or all of the proposed program possible. It is our view that the current resource allocation in CONECTA's water component gives too little emphasis to the communities in Hato Mayor (23%) and too much to INAPA (36%) and probably too much to REDAR (41%).

It is useful to note this recommendation not only advances USAID's aims with regard to child survival ("increased rural community access to potable water"), it is also consistent with the preferences of USAID's Democracy and Governance Office to work with civil society organizations. For example, at the local level, the creation and support of community water supply and sanitation associations advances the idea of local responsibility for public services and through community participation encourages more transparency in the provision of public services. Ultimately, these organizations can become a vehicle through which efforts are made to counteract cultural tendencies to expect the central government to provide public goods and services for free. And at the national level, REDAR is another example of a civil society organization that should be encouraged - as long as this organization sees its role as an advocacy organization on behalf of local community water and sanitation associations (rather than as another NGO seeking government funding to pay for its technical services and advice).

REDAR should continue its role as an advocacy group on behalf of the community associations.

7.1.2 Recommendation #2: Build Foundation for Sustainable Community Management of Water and Sanitation in Unserved Communities

Assuming that the first recommendation is adopted by USAID, the evaluation team recommends that USAID start laying the groundwork for the new strategy. As will be discussed below, the recommended mechanism for the new strategy is a fund financed from multiple sources that would provide funding for unserved communities to establish working and sustainable water and sanitation systems for themselves. If time and resources are available before the end of the current strategy, the evaluation team recommends that USAID convocate a group of individuals who have the interest and ability to sponsor the creation of this fund. The goal would be to work with these individuals to obtain a commitment to move forward with the creation of this fund under the new USAID strategy.

7.1.3 Specific Recommendations for Behavioral Change Methodology

- It will be beneficial to share, at a regional level, the result and impacts from the Nicaragua and Peru experiences in comparison with the methodology adoption in the Dominican Republic. With respect to behavioral change methodology, so far the evaluating team has reviewed the EHP finding of both Nicaragua and Peru behavioral change water and sanitation experiences shown in the Activity Report 143, Promoting Hygiene Behavior Change within C-IMCI: The Peru and Nicaragua Experience by Michael Favin. They

found that the result and impacts are very similar to those found in the Dominican Republic, but the big difference is that the potable water provision in the pilot projects in both countries has been more sustainable than in the case of Hato Mayor. "The Families have a good level of *knowledge* about key project messages, the importance of the hygiene behaviors, consequences of diarrhea, and benefits of the behaviors. Families, promoters, and health staff show *interest and motivation* in their activities to promote hygiene.

"Health promoters effectively manage the *monitoring* instrument to see their families' progress. Through the hygiene fund, most families have acquired *hygiene supplies* to carry out the new behaviors. Most families had made *behavior changes.*"[8]

It can also be noted as mentioned in the Activity Report 143, that very much like in the Domincan Republic, there have been clear signs of behavioral change methodology adoption by other NGOs in areas outside the project or by other institutions not directly involved in the program.

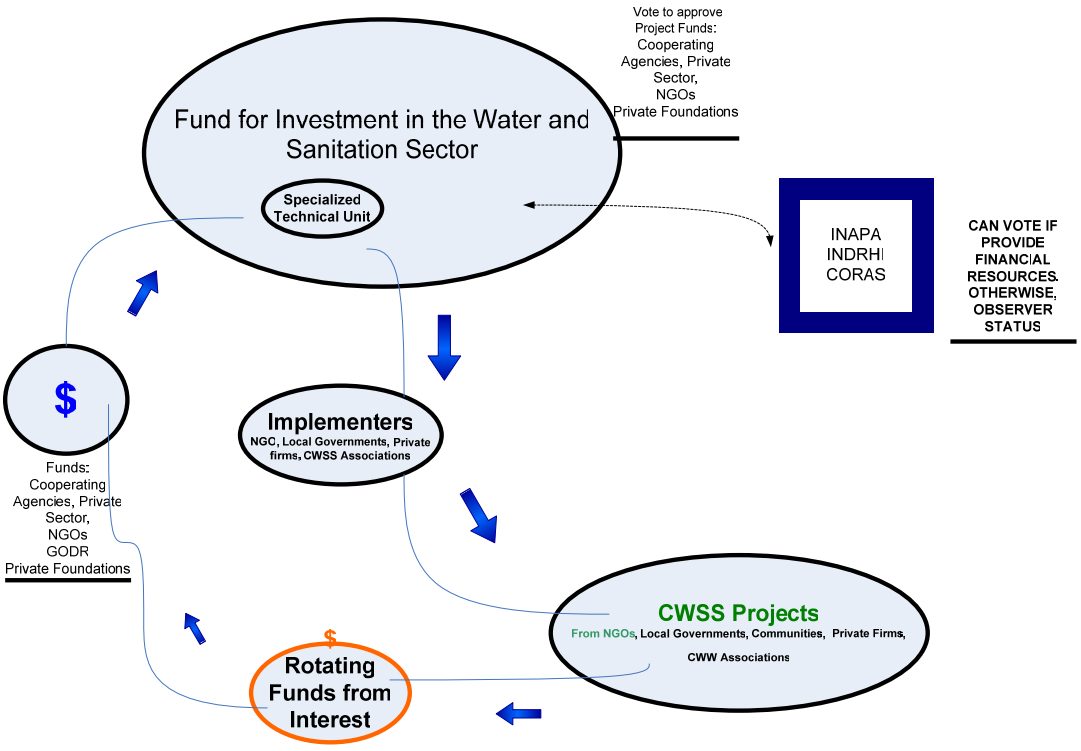
- Based on the findings of this evaluation, the team believes that the USAID/DR Mission should promote the development of similar behavioral change methodologies for PWSS in the Dominican Republic, but should particularly focus on public service payments (i.e., culture of payment) and gender equity issues.
- In both cases, it is highly recommended that the methodology used to develop the hygiene and sanitation module be used with all new training programs for the PWSS. The TIP tool should be used to determine which behaviors are likely to be adopted and which are not.

7.2 Recommendations for the Next Strategy Period (FY2008 and Beyond)

The evaluation team recommends that USAID adopt the option of creating a Public Private Partnership for meeting the needs of communities without access to clean water and proper sanitation (Alternative #2 in the previous chapter). This mechanism offers USAID the opportunity to replicate the model of integrated community water and sanitation management demonstrated during the current strategy period on a sustainable basis. The Public Private Partnership would entail the creation of a Fund for Investment in the Water and Sanitation Sector (*Fondo de Inversión en el Sector de Agua y Saneamiento* (FISAS) in Spanish) to which a variety of financial sources would contribute, as indicated in Figure 10.

[8] Activity Report 143, Promoting Hygiene Behavior Change within C-IMCI: The Peru and Nicaragua Experience by Michael Favin in October 2004 and prepared under EHP Project 6568/CESH.CIMCI.PAHO.Y5.

Figure 10. Fund for Investment in the Water and Sanitation Sector Scheme



Funding would be made available to applicants on a competitive basis. Awards would be made to those applicants with proposals that represent the best leveraging of the fund's resources to provide water and sanitation in unserved communities. As such, it is anticipated that low cost approaches that involve matching contributions or that could be set up as a community loan (with repayments replenishing the revolving fund) would be favored. It is also anticipated that proposals that build on the successful elements of the Hato Mayor experience would be given preference (such as hygiene promotion and community participation).

Furthermore, we believe it is also possible to incorporate some of the appealing elements of other alternatives presented here, such as:

- A provincial *corporación de agua* could apply for financing from the fund to extend its services to unserved communities in its area (Alternative #4).
- An NGO, such as World Vision, could seek funds to complement its own funding for water and sanitation activities (Alternative #5).
- Poor communities who would not be able to afford the necessary investment could be given preference (which is equivalent to a targeting of subsidies, as under Alternative #3).
- Payments could be made only once the "outputs" are in place (e.g., water service connections) (consistent with the concept of output-based aid of Alternative #3).

USAID's role would be to finance the design and creation of this fund, the recruiting of its (unpaid) executive board and the provision of the specialized technical evaluation unit. USAID's role would also include providing support for technical assistance that advocates and facilitates rural community participation and that promotes hygiene behavior change communication. The evaluation team believes that USAID's expected budget limits under its new strategy (said to be on the order of $250,000 per year) would be sufficient to finance this activity. A local private organization (contractor or NGO) would be hired by USAID to manage this effort.

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SYNCOSULT S.L

USAID/Dominican Republic Strategic Plan, FY 2002 through FY 2007

Annex A. Workshop Participants in Hato Mayor

No.	Participant	Community	Position
1	Alejandro Rodríguez	El Mamón	President
2	Juana Maria Vásquez	El Mamón	Hygiene Promoter
3	Amarilis Peña	El Mamón	Hygiene Promoter
4	Evangelista reyes	El Mamón	Hygiene Promoter
5	Maria M. Ortega	La Jaqueta	Hygiene Promoter
6	José Agustín Rodríguez	Mango Limpio	Treasurer
7	Tomas Contreras	El Coco	Advisor to the Water Committee
8	Santa Maria González	El Coco	Secretary
9	Maria Severino	La Mora	Hygiene Promoter
10	Maria Altagracia Severino	La Mora	Hygiene Promoter
11	Julio Reyes	La Mora	President
12	Juan Francisco Sánchez	La Mora	Treasurer
13	Martina Carrasco	Los Vásquez	Treasurer
14	Julio Payano	Los Vásquez	Vice President
15	Eneria Santana	Los Vásquez	Secretary Hygiene Promoter
16	Rafael Rosario	Libonao	Vocal
17	Mary R. Romero	Kilómetro 15	Hygiene Promoter
18	Julia Mata	Kilómetro 15	Hygiene Promoter
19	Cayetano Muñoz	Kilómetro 20	President
20	Ramón Uribe	INAPA	Promoter

Annex B. List of Individuals and Organizations Interviewed in the Dominican Republic

No.	Name	Institution
1	Addys Then Marte	Alianza ONG, Executive Director
2	Amparo Minier	EX-Director of INAPA/AR Department
3	Cándida Gil,	CATHOLIC RELIEF, Program manager
4	Carlos Ureña	CONECTA and REDAR Technician
5	David Losk	USAID, Health and Population Officer
6	Eliseo Gonzales	INDRHI, Planning Manager
7	Evaide Perez,	SurFuturo, Banco Popular RSE, Executive Director
8	Federico Peña	WORLD VISION, Operation Manager and Ex-ENTRENA
9	Javier García	WORLD BANK, PASCT
10	Javier de la Cal	Spain Cooperation Agency, Coordinator
11	Jorge H. Blanco	CONECTA, Director
12	Kelva Perez	USAID, TCP CTO
13	Manuel Ortega	USAID-SO2 D&G
14	Luís Morales	ABT Red Salud, Director
15	Marcos Paniagua	National Water Authority /INAPA, Rural Water Department Director.
16	Mary Dominguez	National Water Authority /INAPA, Rural Water Department Social Promoter
17	Marina Tavares	USAID Program Officer, ex-TCP CTO
18	Miguel León	Peace Corps, Water Project and TCP Manager
19	Odalis Perez	USAID, Previous TCP project work
20	Olga Lidia Capellan	REDAR, President
21	Pablo Peña	BID Infraestructure Sectorial
22	Rafael Marte	PROCUMUNIDAD, Operation Manager
23	Rosa Rita Alvarez	Women in Development ,MUDE, Executive Director
24	Sharon Carter	USAID, Team Leader of Democracy, Governance and Economic Opportunity
25	Fladys Cordero	PLAN INTERNATIONAL, Consultant in Hygiene and Behavior Change
26	Eugenio Azofeifa	TAHAL
27	Ney Araujo	TAHAL
28	Hernan Ramirez	TAHAL
30	Victoria Cruz	IDEM, Social Promoter.

Annex C: REDAR Statutes

Red Dominicana de Acueductos Rurales
REDAR

E-Mail: redar_central@yahoo.es

Estatutos

Capitulo I

Sobre el Nombre, Naturaleza, Duración, Domicilio, Objetivos y Medios

Art. 1.

a. Con el nombre de Red Dominicana de Acueductos Rurales y con las siglas "REDAR", se crea un espacio de coordinación entre las Asociaciones Comunitarias de Acueductos Rurales con carácter y vocación apartidista, no lucrativa, de duración indefinida y regida por las leyes dominicanas y las establecidas en el presente documentos y los reglamentos anexos.

Art. 2.

a. El domicilio principal de REDAR estará situado en la cuidad de Santo Domingo, estableciendo oficinas locales en cualquiera de las Provincias o Municipios del país, operando en todo el territorio nacional.

Art. 3.

a. REDAR se constituye por tiempo indefinido y son sus objetivos:
b. Propiciar la unificación de ideas, propuestas y proyectos que se generan en las Asociaciones Comunitarias de Aguas Rurales.
c. Intercambiar experiencias acumuladas durante la gestión de las Juntas Directivas de las ASOCARs.
d. Definir y difundir propuestas en torno a la conservación de fuentes y cuencas acuíferas.
e. Desplegar iniciativas coordinadas en los espacios municipales, provinciales, regionales y nacionales, tanto frente a las autoridades gubernamentales como antes los demás organismos de la sociedad para que su opiniones sean escuchadas.
f. Promover actividades de formación (talleres, seminarios, etc.) para que la ciudadanía comprenda la importancia del uso adecuado del agua y la conservación de los recursos naturales.
g. Promover la constitución de equipos de formulación, ejecución y monitoreo de políticas publicas relacionadas con el tema agua potable y saneamiento.
h. Contribuir con el fortalecimiento de las ASOCARs miembros que conforman esta coordinación como vía para cumplir el rol asignado por la sociedad de manera eficaz.
i. Fomentar el establecimiento de políticas públicas sobre:
   - la conservación de los recursos naturales,
   - la participación comunitaria con enfoque de equidad,
   - el fortalecimiento de los sistemas de acueductos rurales.

Capitulo II.

De la Misión, Visión y Símbolo de REDAR

Art. 4.

Sobre su Símbolo:

a. El mapa del territorio nacional rodeado por un círculo azul cielo de cuyos laterales surgen dos manos que sostiene una llave significando el esfuerzo por el suministro de agua a toda la población del país.
b. El mapa es de color transparente y sin demarcaciones algunas, las dos manos son de color amarrillo anaranjado.

Art. 5.
Sobre su Misión:

a. Apoyar el desarrollo del sector agua potable y saneamiento en las zonas rurales del país garantizando la sostenibilidad de los sistemas de agua y saneamiento a través una gestión local eficiente y de amplia participación democrática; promoviendo el uso racional y equitativo del recurso, el respecto por el medio ambiente y el cuidado de las fuentes y cuencas hidrográficas.

Art. 6.
Sobre la Visión:

b. Ser la organización líder, representante del sector agua potable y saneamiento a nivel rural y de las Asociaciones Comunitarias de Agua Rurales, con amplia representación nacional y de reconocimiento internacional, que promueve valores de respecto, honestidad, lealtad, compromiso, responsabilidad, tolerancia, solidaridad, justicia, equidad y disciplina.

Capitulo III.-
De las Organizaciones Miembros de REDAR

Art. 7.
Las entidades miembros son las siguientes:

a. ASOCARs Activas: Asociaciones de agua que cumplen con lo dispuesto en el artículo 5 de estos estatutos y se han comprometido a impulsar los objetivos y planes de trabajo de la Red; gozan del derecho a voz y voto, de proponer, elegir y elegirse para los puestos electivos.
b. Organizaciones miembros colaboradoras: Entidades que simpatizan con los objetivos de REDAR. Tienen derecho a voz pero no al voto ni a proponer candidaturas, ni a elegirse o elegir para puestos direccionales.

Art. 8.
Los requisitos para la admisión son:

a. Tener una directiva de miembros reconocidos en la comunidad y electo democráticamente en asamblea comunitaria.
b. Estar de acuerdo con la declaración fundacional.
c. Conocer y aceptar los objetivos y filosofía de REDAR.
d. Elevar una solicitud de admisión escrita en cualquiera de las asambleas que definen los presentes estatutos y en la que se haga constar que cumple con lo literales a, b y c del presente artículos.
e. Las solicitudes de las entidades candidatas a miembro activo deberán ser presentadas una a una en una asamblea municipal provincial o regional.
f. La solicitud deberá residir la aprobación de mas de la mitad de los votos favorables de las delegaciones presentes en dicha asamblea.

Párrafo único:
La calidad de organización miembro colaborador podrá ser adquirida mediante la presentación de una solicitud por escrito a una comisión de enlace, la cual rechaza o aprueba, de acuerdo a la filosofía y principios de la Red.

Art. 9.
Son derechos de las organizaciones miembros activos de la Red:

a. Asistir a las Asambleas.
b. Participar con voz y voto en las asambleas y demás actividades convocadas por la Red.

c. Presentar las propuestas que consideren de lugar y que contribuyen con el cumplimiento de los objetivos de la Red.
d. Promover los objetivos y metas a través de los órganos de difusión a su alcance.
e. Elegir y ser elegido para los organismos de la red.
f. Solicitar y obtener las informaciones que considere de lugar en relación a las ejecutorias de los organismos de la Red.

Art. 10.
Son deberes de las organizaciones activas de la Red:
a. Propiciar el cumplimiento de los objetivos establecidos y cumplir con las actividades definidas en el territorio.
b. Participar en las actividades programadas por la Red y que obedezcan a los fines para lo que esta fue creada.
c. Propiciar la coordinación con las demás entidades miembros de la Red en actividades que persigan objetivos comunes.
d. Agregarse a las decisiones aprobadas por la mayoría de acuerdo a lo establecido en los presentes estatutos.
e. Cumplir con lo establecido en los presentes estatutos.
f. Disponer de todos los medios a su alcance para lograr el cumplimiento de los fines y principio de la Red.
g. Pagar la cuota establecida por la asamblea municipal a la que esta adscrita.

Art. 11.
a. Cualquier organización miembro, asea activa o colaboradora tendrá derecho a presentar renuncia sus condición en el momento que lo considere de lugar, mediante comunicación escrita dirigida a la Comisión Municipal de Enlace, la cual dará a conocer en la sesión siguiente de la asamblea para su información.
b. La asamblea Municipal podrá retira la membresía en los casos siguientes:
   i- Cuando una entidad actué violentando los principios de la Red o los presentes estatutos.
   ii- Cuando una entidad utilice su condición de miembro de la Red en provecho de su institución y detrimento de otras entidades.
   iii- Cuando la entidad se aparte de los principios democráticos que rigen su vida interna.

Capitulo IV
De la Estructura Organizativa

Art. 12.
La dirección de la Red estará a cargo de los organismos que se citan mas abajo en orden decreciente de Jerarquía.
a. Asamblea Nacional General o Congreso.
b. Comisión Nacional de Enlace
c. Asambleas Regionales
d. Comisiones Regionales de Enlace
e. Asambleas Provinciales
f. Comisiones Provinciales de Enlace
g. Asambleas Municipales
h. Comisiones Municipales de Enlace

Párrafo Único:
Las demarcaciones regionales son:

i. **Región (0) Santo Domingo.** Comprendida por las provincias de Santo Domingo y Distrito Nacional y Monte Plata..
ii. **Región (I) Valdesia.** Comprendida por las provincias de San José de Ocoa, Peravia y San Cristóbal.
iii. **Región (II) Norcentral.** Comprendida por las provincias de Puerto Plata, Espaillat y Santiago.
iv. **Región (III) Nordeste.** Comprendida por las provincias de Salcedo, Durarte, Maria Trinidad Sánchez y Samaná.
v. **Región (IV) Enriquillo.** Comprendida por las provincias de Bahoruco, Pedernales, Barahona e Independencia.
vi. **Región (V) Este.** Comprendida por las provincias de Hato Mayor, San Pedro de Macorís, La Romana, La Altagracia y El Seibo.
vii. **Región (VI) El Valle.** Comprendida por las provincias de Azua, San Juan de la Maguana y Elías Piña.
viii. **Región (VII) Noroeste**. Comprendida por las provincias de Dajabón, Montecristi, Santiago Rodriguez y Valverde.
ix. **Región (VIII) Cibao Central.** Comprendida por las provincias de La Vega, Monseñor Noel y Sánchez Ramirez.

Art. 13.

a. La Asamblea General Nacional o Congreso es el máximo órgano deliberativo de la Red y representa la universalidad de sus miembros. Sus resoluciones obligan a su membresía acatar sus mandatos.
b. Las asambleas con ámbitos territoriales subnacionales (regional, provincial o municipal) son los órganos deliberativos máximos en sus demarcaciones y sus resoluciones tienen carácter obligatorio para sus organizaciones miembros, siempre y cuando no contravenga los estatutos y las resoluciones de la asamblea general nacional o congreso.

Art. 14.

a. La Red realizara la Asamblea General Nacional o Congreso cada dos años, en el lugar que establezca la Comisión Nacional de Enlace. Las Asambleas Subnacionales determinaran la frecuencia de sus reuniones ordinarias.

Párrafo Único:

Las Asambleas podrán reunirse extraordinariamente cuando fuese necesario para el buen desenvolvimiento de sus acciones. Estas asambleas extraordinarias podrán ser convocadas por la comisión de Enlace correspondiente o a petición del veinticinco por ciento (25%) de sus organizaciones miembros activas de la demarcación.

Art. 15.

a. Las Asambleas a cualquier nivel tendrán el derecho de revocar el mandato otorgado a una persona miembro de la Comisión de Enlace que corresponda a su demarcación por causa justificada.
b. La persona sustituta durara en el cargo el tiempo que faltare para cumplir el término del mandato.

Art. 16.

a. El quórum en las asambleas se establece con más de la mitad del número de las organizaciones miembros adscritos en una demarcación.

b. Las decisiones deberán ser aprobadas por mas de la mitad del numero que constituyo el quórum. Las modificaciones estatutarias se regirán por lo establecido en el capitulo sobre reforma de los presentes estatutos.

Párrafo Único:

En caso de que llegada la hora de inicio de la asamblea y no se pudiera reunir el quórum requerido, las delegaciones asistentes convocaran para siguiente hora y el quórum se establecerá con las representaciones que estén presentes en ese momento.

Art. 17.

a. Las Asambleas son las máximas instancias deliberativas en sus respectivas demarcaciones territoriales.
b. La Asamblea General tendrá las siguientes funciones:
   i- Trazar las políticas y líneas de acción de la Red.
   ii- Conocer y sancionar los informes de ejecución presentados por la Comisión Nacional de Enlace.
   iii- Aprobar las modificaciones de los Estatutos.

Párrafo Único:

Las Asambleas Subnacionales elegirán las personas que integran las comisiones de enlace respectivas y definirán las demás funciones que a cada una de ellas competen.

Art. 18.

El orden del día en las asambleas de la Red será el siguiente:

a. Comprobación del quórum.
b. Lectura y aprobación del acta de la asamblea anterior.
c. Ingresos y retiros de organizaciones miembros.
d. Presentación y sanción del informe de la Comisión de Enlace de su demarcación sobre las ejecutorias de la Red.
e. Aprobación del Plan de trabajo para la demarcación correspondiente.
f. Elección de la Comisión Electoral cuando se trate de una asamblea pre-electoral.
g. Elección de la Comisión de Enlace de su demarcación, si fuera una asamblea distinta a la Asamblea General.

Capitulo V.

De las Comisiones de Enlace.

Art. 19.

a. La Comisión Nacional de Enlace es el órgano ejecutivo de mayor jerarquía de la Red.

Art. 20.

a. La Comisión Nacional de Enlace se constituirá por nueve personas titulares, una por cada región, cada una de las cuales tendrá una persona suplente, y duraran un año en sus cargos.

Art. 21.

a. Las Asambleas Regionales escogerán las dos personas que representen la región, una como titular otra como suplente.

Art. 22.

a. La Comisión Nacional de Enlace elegirá entre sus miembros/as a una persona responsable de la secretaria de actas, una segunda persona responsable de la tesorería y

una tercera persona responsable de la coordinación. Las demás personas integrantes de la coordinación nacional serán vocales y asumirán responsabilidades de acuerdo al plan de trabajo a ejecutar.

Art. 23.

a. Una misma persona no podrá ocupar el cargo de responsable de la coordinación, o de la tesorería o de la secretaria de la Comisión Nacional de Enlace por dos periodos consecutivos.

Art. 24.

Las Comisiones de Enlace tendrán las siguientes funciones:

a. Elaborar el plan de trabajo con el objeto de garantizar el cumplimiento de metas y lineamientos definidos.
b. Representar y mantener relaciones frente a terceros siempre siguiendo los principios de la Red.
c. Producir informe de las ejecutorias de la Red ante la asamblea y las veces que sea necesario para mantener informada a la membresía sobre la marcha de cualquier proceso.
d. Promover la sostenibilidad económica de la Red mediante la implementación de estrategias de captación de fondos.
e. Velar por el cumplimiento de los estatutos de la Red.
f. Crear las instancias de apoyo necesario para la implementación de las actividades aprobadas por la asamblea.

Capitulo VI.
Disposiciones Generales

Art. 25.

a. La Red solo podrá disolverse por disposición expresa de la Asamblea General Nacional o Congreso en reunión extraordinaria, convocada para tales fines, la cual decidirá también sobre el destino del patrimonio de la Red, el cual deberá ser donado a entidades similares o al Estado Dominicano.

Art. 26.

a. Los presentes estatutos podrán ser modificados por una asamblea general convocada para tales efectos.

Art. 27.

a. Las personas que siendo miembros de una de las comisiones de enlace y al mismo tiempo tengan un contrato de trabajo con la Red, deberán eximirse de participar en la deliberación y votación de todo cuanto concierna a los términos de su contrato de trabajo.

Art. 28.

a. Se asigna la responsabilidad a la Comisión Nacional de Enlace para en la medida que se identifique necesidades de elaborar y presentar a la Asamblea General para su aprobación, reglamentos o normas en lo referido a:
    i- Procedimientos Administrativos y Contables.
    ii- Disciplinarios
    iii- Eleccionarios
    iv- Parlamentarios
    v- Otros

Annex D: Questionnaire Used for the Site Visits to Hato Mayor

COMUNIDAD:_____

PERSONA QUE PROPORCIONA LA INFORMACION: _____

NUMERO DE FAMILIAS O VIVIENDAS: _____

AGUA POTABLE

1. Sistema de Agua Potable Funcionando: SI____ NO___ Por que?

_____

2. Numero de viviendas o familias que reciben el Servicio:_____
3. Numero Total de viviendas o familias de la comunidad_____
4. Cuantas horas al día recibe el servicio:24 Horas( )12 Horas( ) 8 Horas( ) Menos de 8 ( )
5. El servicio es: continuo ( ) con Interrupciones ( ) No hay servicio ( )
6. Tipo de Fuente: Superficial ( ) Subterránea (pozos) ( ) Mixta ( )
7. En cuanto a la infraestructura identificar condiciones de:
    a) Pozos:_____
    b) Bombas:_____
    c) Paneles Solares:_____
    d) Red de Distribución:_____
    e) Chorros Públicos:_____
8. Cuentan con herramientas necesarias para la operación y mantenimiento del sistema: Si ( ) No ( )
9. Tienen personal para la operación y mantenimiento del sistema: Si ( ) No ( )
   Si no quien realiza esa labor:_____

   _____

SANEAMIENTO

10. Que tiempo tiene usted de tener letrina:
11. La construyo usted o recibieron ayuda de alguna organización:_____

_____

12. En que les ayudaron:
    a) Definir el lugar; b) Materiales de la caseta, c) Materiales para la plancha/piso; d)El bacinete; e) Mano de obra; f)Otro

13. Utilizan actualmente la letrina: Si ( ) No ( ) Explicar:

14. Toda la familia la utiliza: Si( ) No ( )

15. Quien no la utiliza:

16. Que hacen cuando tienen necesidad por la noche:

17. Que Utilizan para alumbrarse durante la noche:

18. Con que se limpian luego de hacer la pupu?

19. Donde hacen la pupo los pequeños?

20. Quien os limpia?_____

21. En que momento se lavan las manos:
    a) Después de ir al baño/letrina ( )
    b) Antes de comer ( )
    c) Después de limpiar el niño ( )
    d) Antes de alimentar al niño ( )
    e) Otra ( )

22. Donde se lavan las manos todos los miembros de la familia:
    a) Cocina
    b) Llave de agua de su casa
    c) Llave de agua comunitaria
    d) Lavadero
    e) Lavamanos
    f) Ningún lado
    g) Otro

SOSTENIBILIDAD DE LOS SISTEMAS

23. Su comunidad estaba organizada cuando se inicio con el proyecto de agua potable y saneamiento: Si ( ) No ( )

24. Quien los apoyo en la Organización: y que tipo de apoyo les proporciono:

25. Quien es el dueño del sistema: La Asociación ( ) INAPA ( ) Otro ( ) Especificar:

26. Que documento apara la propiedad de los sistemas: _____

_____

27. La Asociación esta legalizada: Si ( ) No ( ) Explicar:_____

28. Cuentan con estatutos y los aplican: Si ( ) No ( )

29. Conocen los estatutos Si ( ) No ( )

30. Se reúne periódicamente la Junta Directiva: Mensual( ) Trimestral( ) Semestralmente( ) No ( )

31. Se realizan asambleas grales. con la comunidad:Mensual ( ) Trimestral( ) Semestralmente ( ) No ( )

32. Tienen Libros de Actas de reuniones de: Junta Directiva: ( ) Asambleas de Usuarios ( )

33. Que tipo de información comparten en las asambleas:

34. La Junta Directiva ha tenido capacitación en: Administración ( ) Finanzas ( ) Operación y Mantenimiento ( ) Organización ( ) Otros ( )

35. Cada cuanto recibe capacitación y por quien:_____

_____

36. Tienen Libros de Ingresos y Egresos Si ( ) No ( ) A que Fecha:

37. Cuentan con un Registro de Usuarios Si ( ) No ( )

38. Cuantas familias o viviendas tienen registradas:_____

_____

39. Paga el servicio Si ( ) No ( )

40. Cada que tiempo Paga: Quincenal ( ) Mensual ( ) Anual ( ) No Paga ( )

41. Cual es la Tarifa Aplicada y Cuando la actualizaron: _____

_____

42. Tienen una cuenta bancaria a nombre de la Asociación: Si ( ) No ( )

43. Cuantos familias o viviendas pagan periódicamente su servicio:_____

44. Se encuentra contento con el servicio que reciben: Si ( ) No ( )

45. Como usuario del servicio participaron en :
    a) decisión para la construcción del sistema: Si ( ) No ( )
    b) construcción del sistema: Si ( ) No ( )
    c) Operación y Administración del Sistema: Si ( ) No ( )
    d) Recibir información sobre la operación y administración: Si ( ) No( )
    e) En las Asambleas Generales: Si ( ) No ( )
    f) De ninguna manera: ( )

Annex E: INAPA Transfer Regulations for WSS Associations

INSTITUTO NACIONAL DE AGUAS POTABLES Y ALCANTARILLADOS
INAPA
SUBDIRECCIÓN EJECUTIVA
UNIDAD EJECUTORA DE ACUEDUCTOS RURALES
UEAR

REGLAMENTO DE ENTENDIMIENTO CON LAS ASOCIACIONES COMUNITARIAS DE AGUAS RURALES A LAS QUE SE LES TRANSFIEREN LOS SISTEMAS DE AGUA Y SANEAMIENTO EN LAS ZONAS RURALES

Santo Domingo,
Republica Dominicana

CONSIDERACIONES GENERALES

Considerando:

- La facultad y potestad que tiene El Instituto Nacional de Aguas Potables y Alcantarillados (INAPA), amparado en la ley constitutiva, en los reglamentos atributivos y en el presente reglamento de entendimiento con tercero, para el traspaso en administración, operación y mantenimiento sus propiedades.
- Que los sistemas de aguas construidos en las comunidades rurales se encuentran fuera del alcance y de las posibilidades de gestión de las Unidades Administrativas Provinciales del Inapa.
- Que las comunidades cuentan con los / as lideres y capacidades potenciales para administrar, operar y dar el mantenimiento que demandan los sistemas de agua y saneamiento que se construyen en las mismas.
- Que al ceder en administración, operación y mantenimiento los sistemas de agua y saneamiento se promueven en términos generales la descentralización de funciones gubernamentales y valores democráticos, y en particulares las capacidades de autogestión, desarrollo y participación comunitaria.
- Que las Asociaciones Comunitarias de Aguas Rurales (ASOCARs) son Instituciones formalmente creada, sin índole o afiliación partidaria, sin fines de lucro, e incorporada o en proceso de incorporación bajo la ley 520. G.O. #3139 del 26 de julio de 1920.

Visto:

- La ley 5994 (C.O. No. 8680 del 11 de agosto de 1962) que crea el INAPA y el reglamento # 8955 (G.O. # 8746 del 24 de marzo de 1963.) que le da potestad para traspasar los sistemas de agua y saneamiento que construye en las zonas rurales del país.
- Los fines, Naturalezas y funciones de las Asociaciones de Aguas Rurales expresados en sus estatutos constitutivos.
- La estrategia de Participación Total Comunitaria que habla del involucramiento de los beneficiarios y las beneficiarias como sujetos activos en todas las fases de los proyectos de intervención social comunitaria.

SE DICTAN LAS SIGUIENTES REGLAMENTACIONES CON EL PROPOSITO DE ESTABLECER LAS LÍNEAS DE RELACIONAMIENTOS ENTRE INAPA Y LAS ASOCIACIONES COMUNITARIAS DE AGUA RURAL REPRESENTADAS POR SUS JUNTAS DIRECTIVAS

CAPITULO I

Funciones, Deberes y Atribuciones de las Asociaciones Comunitarias de Aguas Rurales

Articulo I:

Administrar: estableciendo las cuotas, encargándose de las recaudaciones, llevando los libros contables, manejando los recursos entregados por la comunidad y otras instituciones (conformes a las disposiciones establecidas), ofreciendo informes periódicos a Inapa y a la comunidad.

Articulo II:

Operar: llevando a cabo las tareas necesarias para el funcionamiento diario del sistema y abastecimiento del servicio (prender bomba, abrir y cerrar llave, etc.)

Articulo III:

Dar mantenimiento: efectuado las reparaciones necesarias con recursos locales, cubriendo todas las actividades rutinarias para preservar el sistema en estado de buen funcionamiento.

Articulo IV:

Lograr, mediante la promoción, que la comunidad practique uso racional del agua, higiene en saneamiento, y la participación efectiva al operar, dar mantenimiento y al administración del acueducto.

Articulo V:

Vigilar por la calidad del agua haciendo las tareas de desinfección requeridas por el sistema.

Articulo VI:

Proteger la fuente de abastecimiento de posibles vías de contaminación y el agotamiento del agua; así como los demás recursos hídricos de la zona de conformidad con las leyes vigentes.

Articulo VII:

Ayudar a explicar y divulgar en la comunidad, las disposiciones y reglamentos del INAPA.

Articulo VIII:

Coordinar con instituciones y organizaciones privadas y públicas que se relacionan con agua y saneamiento todo lo referente a los fines anteriores.

Articulo IX:

Promover comportamientos adecuados en las familias para no contaminar el agua al usarla.

Articulo X:

Suministrar el servicio de agua apta para consumo humano a todos aquellos miembros que así lo solicite, previo cumplimiento de los requisitos establecidos, sin restricciones de la división territorial, siempre y cuando técnicamente sea viable.

Párrafos:

- El servicio únicamente se negará cuando la capacidad del sistema este saturado y el otorgamiento de los nuevos servicios perjudique, evidentemente, a los demás miembros.
- Para lo anterior se requiere dictamen técnico del INAPA.
- El agua suministrada es en 1er lugar para el uso domestico, en cantidades moderadas sin que el uso excesivo de uno o mas usuarios afecte el buen funcionamiento del sistema o vaya en perjuicio de los demás. Cualquier otro uso (comercial, industrial, riego, etc.) no puede perjudicar el derecho fundamental del servicio domestico de agua potable para todas las familias asociadas con el sistema. A demás cualquier otro uso debe contar con dispositivo de control y medición para su despacho, y debe pagar una tarifa de acuerdo a la cantidad usada. La Junta Directiva se reserva el derecho de aprobar o no cualquier solicitud de agua para otro fin que no sea el domestico. En caso de que la Junta Directiva considere la solicitud viable deberá buscar el dictamen técnico de la UEAR/INAPA para luego, finalmente, poder ser instalada.
- Aun así, en cualquier momento, por escasez del agua, la Junta Directiva, podrá revocar la concepción de los servicios que no sean con fines domestico.

Articulo XI:

Buscar la aprobación de la UEAR/INAPA para cualquier mejora, ampliación o modernización que requiera hacerle al sistema.

Articulo XII:

Adquirir y custodiar los equipos, bienes, muebles e inmuebles que sean necesarios en la gestión de sostenibilidad del acueducto.

Articulo XIII:

Participar en los programas y campañas de índole educativo, asesoramiento, supervisión, evaluación y monitoreo que realice el personal de la UEAR del INAPA y otras Instituciones relacionadas.

Articulo XIV:

Encargarse de la organización de la comunidad para los fines de la Participacion durante el proceso de construcción, ampliación, mejoramiento o reparación del sistema: formando brigadas, recolectado aportes en dinero y productos, distribuyendo materiales, llevando registro de los aportes de cada miembro, etc.

Articulo XV:

Participar en la vigilancia y protección de la fuente de abastecimiento del acueducto, evitando la contaminación de la misma.

Articulo XVI:

Contratar los servicios de mano de obra para la operación y mantenimiento, del sistema siempre que sea estrictamente necesario, y por el tiempo que se requiera.

Articulo XVII:

Elaborar un plan y presupuesto anual para la administración, operación y mantenimiento del sistema, según el presente reglamento y las políticas dictadas por el INAPA.

Articulo XVIII:

Abrir una cuenta corriente o de ahorro en el banco comercial mas cercano (se recomienda el banco de Reserva) para depositar, a nombre del Presidente y el Tesorero, las recaudaciones de cada mes. (hasta que se incorpore y pueda abrir cuentas a nombre de la Asociación)

CAPITULO II

Disposiciones de Inapa

Articulo XIX:

Convocar a reunión de miembros para tratar los asuntos que se requieran en la administración del sistema, cuando así la Junta lo determine.

Articulo XX:

La Junta Directiva al terminar su período anual debe entregar en Asamblea General un informe de labore de su periodo lo mas detallado posible, con copia al programa de Acueductos Rurales.

Articulo XXI:

Enviar trimestralmente a INAPA a través de la Unidad Ejecutora de Acueductos Rurales un Informe de su gestión administrativa. (ver formulario modelo de informe trimestral)

Articulo XXII:

El dinero recaudado será de uso exclusivo para el mantenimiento, administración, mejoramiento, ampliación del sistema, capacitación de los miembros de la junta directiva y promoción en los socios en asuntos relacionados con la sostenibilidad del acueducto y el saneamiento.

Articulo XXIII:

Para los contratos con los usuarios, la Junta Directiva de la ASOCAR debe proceder a ejecutar las acciones legales pertinentes, en caso de incumplimiento a lo pactado para lo cual se obliga a garantizar las deudas existentes como documentos idóneos probatorio.

Articulo XXIV:

Para llevar a cabo la administración financiera del sistema de agua potable las Asociaciones de agua deberán llevar un control contable estricto de los abonados. En el caso de los morosos determinar las acciones legarles pertinentes en consulta al INAPA.

Articulo XXV:

El Inapa se reserva el derecho de auditar los libros de control financiero de la Asociación en cualquier momento.

Articulo XXVI:

Se prohibe la contratación de familiares hasta un segundo grado de consanguinidad con respecto a los miembros de la Junta Directiva y Fiscalía.

Articulo XXVII:

Las Asociaciones Comunitarias de Aguas Rurales (ASOCARs) deberán elaborar sus estatutos que reglamente, tanto sus relaciones internas como sus relaciones con el usuario. Dicho estatuto deberá ser aprobado por el 75% de los miembros presente de la ASOCAR, en asamblea convocada para tales fines y ante la presencia de representante de UEAR/INAPA; y también ser remitido al INAPA a través de la UEAR, quien certificara los mismos.

Nota: Desde la UEAR/INAPA se han observados varios modelos de estatutos elaborados por diversas ASOCARs y hemos sintetizado "un ejemplar modelo" que reproducimos en el anexo de este Reglamento para que sea observado como un "**ejemplo**". Las ASOCARs en formación podrán coger y dejar de este modelo presentado. También están en todo derecho de anularlo si lo observan no valido y elaborar uno completamente nuevo.

Annex F: Statute Model for the Constitution of WSS Associations

ASOCIACION COMUNITARIA DE AGUA RURAL DE:_____

ESTATUTOS

TITULO I: Sobre la denominación, naturaleza, asiento social y duración.

Art. 1.- Con el nombre de Asociación de Agua Rural de _____,
Se constituye una entidad jurídica que no persigue fines de lucro y esta regida por las disposiciones; de la Ley No. 122-05, del 3 Mayo del 2005, por las demás leyes dominicanas que les sean aplicables y por los presentes estatutos.

Art. 2.- La asociación tiene su domicilio y asiento social en la comunidad de _____, **sección de** _____, **municipio de**_____ Provincia de _____, Republica Dominicana, pero podrá establecer filiales o designar delegados en otras comunidades o sectores del área de influencia del proyecto de acueducto.

Art. 3.- La Asociación se constituye por tiempo indefinido.

TITULO II: Sobre los objetivos y fines.

Art. 4.- La Asociación tiene los siguientes fines:

a. Laborar por el progreso, desarrollo, administración, operación y mantenimiento del acueducto rural bajo su administración.
b. Constituir una Junta Directiva responsable de llevar la administración de Acueducto Rural bajo su autoridad según lo establecen las disposiciones del Reglamento de Asociaciones para la Administración de Acueductos Rurales emitido por INAPA.
c. Obtener la participación efectiva de la comunidad en la construcción, administración, operación y mantenimiento del acueducto de su localidad bajo su autoridad.
d. Ayudar a explicar y divulgar en la comunidad, las disposiciones y reglamentos del INAPA.
e. Vigilar y proteger el recurso del agua de conformidad con la legislación vigente.
f. Promover en la(s) comunidad(es) beneficiada(s) los comportamientos adecuados alrededor de la salud (Higiene familiar, uso correcto del agua y saneamiento básico rural, entre otros).

TITULO II:

Art. 4.- La Asociación esta integrada por los socios mayores de dieciocho (18) años residentes en la comunidad que soliciten su ingreso a la Asociación (Un representante por familia).

Art. 5.- Tendrán calidad de socios las personas que, cumpliendo con las disposiciones del articulo 4, asistan a la Asamblea General en la que se aprueben los presentes estatutos y quede constituida la Asociación. Las demás personas que desean ingresar a la Asociación deberán solicitar ser aceptadas como socios, presentándose ante los representantes de la Junta Directiva, la cual conocerá de dicha solicitud, en la reunión siguientes.

Art.6.- Son derechos de los socios

a. Obtener Contratos de Servicio de Agua Potable.
b. Abastecerse de agua de calidad y cantidad adecuada y en forma equitativa para su uso domestico (No se contempla el servicio de agua para uso comercial, agrícola, ganadero, etc.).
c. Elegir y ser elegibles para los cargos directivos de la Asociación.
d. Participar en los debates de la Asamblea General, con voz y voto, y con la facultad de hacer proposiciones.
e. Someter sugerencias, recomendaciones y solicitudes de acción a la Junta Directiva, respecto a los asuntos que son de competencia de dicho organismo.

Art.7.- Son deberes de los socios:

a. Cumplir fielmente los presentes estatutos y las decisiones de la Asamblea General, y de la Junta Directiva.
b. Pagar puntualmente las cuotas de agua establecidas por la Junta Directiva.
c. Evitar el mal uso del agua en el consumo familiar.
d. Proteger la fuente de agua que abastece a la comunidad.
e. Concurrir puntualmente a todas las sesiones de la Asamblea General, y a las de la Junta Directiva, cuando forme parte de esta última.
f. Concurrir fielmente y con la mayor diligencia a las comisiones, mandatos o representaciones que les puedan otorgar la Asamblea General o la Junta Directiva.
g. Mantener en perfecto estado de funcionamiento la acometida en el interior de su propiedad.

TITULO III:

Art.8.- La asociación será dirigida y administrada por una Junta Directiva compuesta por un Presidente, un Vicepresidente, un Secretario, un Tesorero, un Vocal y un Fiscal elegidos entre los miembros de la Asociación en Asamblea General. Además de un Asesor: no electo. Este cargo se crea a partir de que el primer Presidente cese en sus funciones y haya concluido su periodo con honorabilidad, automáticamente pasa a ser Asesor de la nueva Junta Directiva y así sucesivamente.

PARRAFO:

Los miembros de la Junta directiva durarán en sus funciones por el término de dos (2) años y podrán ser reelegidos una vez para el mismo cargo, dichos miembros serán elegidos en forma individual para cada función por la Asamblea General Ordinaria que deberá celebrarse cada año. La Directiva será sustituida cada dos años sólo en un 50% de forma alterna, es decir que en la primera elección 50% de los cargos serán escogidos por un (1) un año y 50% por dos (2) años, Cada año en lo adelante se celebrarán elecciones para 50% de los cargos de la Directiva por un reposo de dos (2) años.

Art.9.- La Junta Directiva será elegida en la Asamblea General constitutiva en la que se aprueben los presentes estatutos y tomará posesión de inmediato.

Art.10.- La Junta Directiva celebrará sesiones ordinarias por lo menos una vez cada mes, y en forma extraordinaria, cuantas veces el interés de la Asociación así lo requiera. No podrá celebrar sesiones sin la convocatoria de todos los miembros, con un mínimo de tres (3) días de antelación ni tomar acuerdos con menos de mayoría simple presente.

PARRAFO:

También se reunirá la Junta Directiva, en forma extraordinaria. En virtud de convocatoria suscrita por tres o más de sus miembros, indicando el objeto de la reunión, y día y hora en que se celebrará la misma

Art.11.- Al elegir la Asamblea General a los miembros de la Junta Directiva, deberá especificar el cargo que desempeña cada uno de ellos.

Art.12.- Los miembros de la Junta Directiva ejercerán gratuitamente sus funciones. Excepto las contrataciones que se realicen de acuerdo a las decisiones de la Junta Directiva.

Art.13.- Para su mejor funcionamiento las decisiones de la Junta Directiva serán tomadas por consenso, en primera instancia, si no hay consenso las decisiones se tomaran por simple mayoría de votos de los miembros presentes. En caso de empate en las votaciones, el voto del presidente será decisivo.

Art.14.- La Junta Directiva está investida de los poderes más extensos para obrar en nombre de la Asociación, y para realizar todos los actos y operaciones de administración relativos a su objeto. Tiene especialmente los siguientes poderes sin que esta numeración sea limitada:

a. Administrar los asuntos de la Asociación y velar por el buen funcionamiento de la misma.
b. Asumir las obligaciones legales de la Asociación, y autorizar al Presidente a celebrar contratos.
c. Emplear el personal necesario, y convenir el salario que corresponda a cada caso. Según las disposiciones.
d. Disponer la forma en que se invertirán los fondos y valores de la Asociación, y autorizar las erogaciones necesarias para obtener a los servicios requeridos por la Asociación.
e. Establecer filiales de la Asociación en las poblaciones que se considere conveniente, designando los miembros de la misma y sus respectivas funciones y obligaciones.
f. Designar delegados, representantes y observadores, ante los organismos públicos y privados que se estime utilidad a los fines de la Asociación.
g. Otorgar mandatos o comisiones especiales a cualquier miembro de la Junta, o a cualquier asociado, para fines específicos.
h. Resolver todas las cuestiones no previstas que no hayan sido atribuidas por estos estatutos a la Asamblea General.

TITULO IV:

DE LOS FUNCIONARIOS DE LA JUNTA DIRECTIVA

Art.15.-
El Presidente de la Junta Directiva personifica a la Asociación frente a terceros, estando facultado para representarla en justicia, y para suscribir, a nombre de la Asociación toda clase de contratos y documentos. Son además atribuciones del Presidente:

a. Convocar a sesiones ordinaria y extraordinaria de la asamblea, en forma y tiempo previsto en los presentes estatutos.
b. Presidir las reuniones de la Junta Directiva y las Asambleas Generales y Extraordinarias, suscribir las convocatorias y redactar la agenda de las reuniones.
c. Ejecutar y cumplir las decisiones de la Junta Directiva y de las Asambleas.
d. Designar las diversas comisiones, comités o grupos de trabajo necesarios para dirigir, asesorar o ejecutar los diversos proyectos promovidos por la Asociación.

e. Abrir cuentas en instituciones bancarias para depositar los fondos de la Asociación y suscribir los cheques que se expidan a cargo de dichas cuentas. Tanto para abrir cuentas como para expedir cheques, junto con el Presidente debe firmar el Tesorero de la Asociación.
f. Velar por el debido cumplimiento de los planes y programas.
g. Velar por el adecuado uso de los fondos.
h. Rendir a la Asamblea General Ordinaria Anual un informe sobre el estado y las actividades de la Asociación; y luego pasarlo a la UEAR - INAPA.
i. Desempeñar todos los demás deberes correspondientes a su caro y los que por acuerdo le asigne la Asamblea General y/o Junta Directiva.

Art.16.- Son atribuciones del Vicepresidente:
a. El vicepresidente sustituirá al Presidente en sus funciones, en caso de ausencia, incapacidad o renuncia de éste.
b. Asistir a las reuniones de la Junta Directiva y a las Asambleas.
c. Cumplir con las funciones que le sean puestas a su cargo.

Art.17.- Son atribuciones del Secretario:
a. Redactar las actas de las reuniones de la Junta Directiva y de las Asambleas y firmarlas una vez aprobadas, en conjunto con el presidente:
b. Expedir copias certificaciones de tales actas, las cuales deben ser revisadas por el presidente.
c. Conservar bajo su custodia el sello de la Asociación, y aplicarlo a los documentos que lo requieran.
d. Elaborar la nómina completa de los miembros de la Asociación.
e. Conservar en buen orden los archivos de la Asociación
f. Recibir la correspondencia dirigida a la Junta Directiva, informando a ésta de su contenido.
g. Redactar la correspondencia emanada de la Junta Directiva, informando a ésta de su contenido.
h. Tener a su cargo y custodia los documentos y archivos. Remitir al INAPA la información solicitada en los plazos indicados.
i. Desempeñar todos los demás deberes inherentes a su cargo y los que por mandato de la Junta y/o de la Asamblea así se le designen.

Art.18.- Son atribuciones del Tesorero:
a. Recibir, controlar, administrar y custodiar los dineros recaudados por concepto del cobro de cuotas por el servicio de agua o de cualquier otra actividad desarrollada, con la finalidad de obtener fondos para la de administración, operación y mantenimiento del acueducto.
b. Suscribir, junto con el Presidente, todos los documentos de apertura de cuentas bancarias y todos los cheques librados contra dichas cuentas.
c. Depositar diariamente, o el siguiente día hábil, en una sucursal bancaria, los dineros recogidos siempre y cuando la distancia lo permita, en caso contrario el plazo será de tres (3) días.
d. Velar que los desembolsos se realicen por medio de cheques, excepto los pagos menores de caja chica.
e. Girar conjuntamente con el Presidente contra los fondos de Comité de Agua.
f. Llevar actualizados y custodiar los libros de contabilidad de administración del acueducto y demás documentación similar.
g. Mantener constantemente balanceados los estados de las cuentas de activos y pasivos y de la situación económica de la Asociación.

h. Mantener un inventario al día de todos lo bienes: infraestructuras, equipos maquinarias, muebles, inmuebles, etc. De propiedad que llegue a tener la Asociación.
i. Presentar informes económicos de la Asociación en las reuniones de la Junta Directiva.
j. Rendir un informe económico, con un detalle de ingreso y egresos, a la Asamblea General Ordinaria Anual y a INAPA vía la UEAR.
k. Desempeñar todos los demás deberes inherentes a su cargo y los que por mandatos de la Junta y/o de la Asamblea así se le designen.

Art.19.- Son atribuciones de los Vocales las siguientes:
a. Asistir a todas las reuniones, con derecho a voz y voto.
b. Sustituir en sus cargos a cualquiera de los miembros ausentes, con excepción del Presidente.
c. Desempeñar todos los demás deberes inherentes a su cargo y los que, por acuerdos, sean aprobados.

Art.20.- Son atributos del Fiscal las siguientes:
a. Supervisar las operaciones y movimientos administrativos económicos.
b. Atender quejas de los usuarios y relatar la investigación pertinente conforme al principio del debido proceso.
c. Velar por el fiel cumplimiento de los acuerdos.
d. Solicitar la convocatoria de Asamblea Extraordinaria cuando lo considere necesario.
e. Comunicar al INAPA los asuntos que se discuten o aprueben en la Junta Directiva.
f. Rendir un informe anual a la asamblea con copia al Programa de Acueductos Rurales de Instituto Nacional de Acueductos y Alcantarillados.
g. Supervisar que el servicio de agua se esté suministrando con calidad y equidad.

Art.21.- Son Funciones del Asesor:
a. La figura del Asesor tomará vigencia a partir del mandato de la segunda Junta Directiva; el Presidente saliente podrá desempeñar el papel de Asesor de la nueva Junta Directiva y así sucesivamente con el fin de lograr continuidad de la memoria institucional.
b. El Asesor participará en las reuniones de la Junta Directiva y de las Asambleas con derecho a voz buscando siempre la conciliación y la mediación de las partes para la mejor convivencia de la Asociación.

TITULO V:

DE LA ASAMBLEA GENERAL

Art.22.- La Asamblea General es la reunión de los miembros de la Asociación, en la forma y condiciones establecidas en estos estatutos. Cuando está regularmente constituida representa a la universalidad de los asociados, y sus decisiones obligan a estos.

Art.23.- La Asamblea General puede ser ordinaria o extraordinaria. Se denomina ordinaria la Asamblea General cuyas decisiones conciernen a los actos de gestión o de administración, y a la elección anual de la Junta Directiva. Es extraordinaria la Asamblea General reunida para modificar los estatutos, o para decidir la disolución, liquidación de la Asociación y otros aspectos no contemplados.

Art.24.- Cada año se reunirá la Asamblea General Ordinaria Anual, para conocer de los actos de gestión de la Junta Directiva, en el período anterior y de las cuentas de la Asociación en el año que corresponda para elegir el 50% de los miembros de la Directiva saliente.

Art.25.- Habrá quórum en la Asamblea General Ordinaria cuando en la misma esté presente no menos del 50% mas 1 de los miembros de la Asociación. En caso de no poderse celebrar la Asamblea en la fecha fijada, por falta de quórum, se postergará durante una hora, mientras la directiva se esfuerza para lograr tal requisito, si no se convocará nuevamente para una próxima fecha. La Asamblea podrá deliberar validamente en esta segunda reunión cualquiera fuere el número de miembros que asistan a ella.

Art.26.- Para que haya quórum en la Asamblea General Extraordinaria, se requiere la presencia del 50% más 1 de los miembros de la Asociación. Si no puede celebrarse la asamblea General Extraordinaria por falta de quórum, se hará una nueva convocatoria en la misma forma y con la antelación prevista para este caso por el artículo 24, respecto a la Asamblea General Ordinaria. En esta segunda reunión la Asamblea General Extraordinaria podrá deliberar validamente, cual que fuere el número de miembros que estén presentes.

Art.27.- Las decisiones de la Asamblea General, Ordinaria o Extraordinaria, se tomarán por simple mayoría de votos. En caso de empate el voto del Presidente decidirá.

Art.28.- Tendrán voz y voto en la Asamblea General todos los miembros de la Asociación que se encuentren al día en el pago de sus cuotas del servicio de agua potable.

Art.29.- La Asamblea General deberá ser convocada por el Presidente todas las veces que lo considere necesario la Junta Directiva, o cuando la solicitare un grupo de por lo menos tres miembros de dicha Asociación. En todo caso la convocatoria deberá indicar el objeto de la Asamblea.

Art.30.- La Asamblea General es competente para decidir sobre todas las cuestiones y asuntos no atribuidos por los presentes estatutos a la competencia de la Junta Directiva o a los miembros de dicha Junta.

Art.31.- Se requerirá la autorización formal y expresa de la Asamblea General Ordinaria para poder vender, transferir, hipotecar o consentir cualesquiera gravámenes, servidumbres o privilegios, sobre los inmuebles que lleguen a ser propiedad de la Asociación.

Art.32.- Las deliberaciones de la Asamblea General se comprobarán por actas y deberán estar firmadas por el Presidente y el Secretario, y por lo menos tres de los miembros presentes. Las copias y extractos de dichas actas harán fe cuando estén firmadas por el Presidente y el Secretario de la Junta Directiva, o por quienes hagan sus veces, y lleven el sello de la Asociación.

TITULO VI:

DE LOS RECURSOS DE LA ASOCIACIÓN

Art.33.- Los recursos económicos de la Asociación estarán constituidos por:

a. Las cuotas ordinarias que paguen sus miembros.
b. Los fondos reunidos en colectas especiales.
c. Los donativos y legados que reciba.

d. Cualquier otro tipo de ayuda económica que le extiendan sus miembros o particulares. Sean personas físicas o morales.

TITULO VII:

Art.34.- El año fiscal deberá ser fijado pro la primera Junta Directiva. Empieza en_____ y termina en _____

Art.35.- La asociación tendrá un sello gomígrafo con la siguiente inscripción:

ASOCIACIÓN DE AGUA RURAL DE _____

Este sello se estampará en las actas, en los contratos y en los documentos emánados de la Asociación.

Art.36.- La disolución y liquidación de la Asociación podrá ser acordada por decisión de la Asamblea General Extraordinaria convocada a tal efecto, y los bienes serán donados a una Institución Dominicana que persiga los mismos fines con arreglo a la ley NO.122-05

Art.37.- La Asociación sólo quedará definitivamente constituida mediante el decreto _____ del año _____ cuando el poder Ejecutivo le haya otorgado al beneficio de la incorporación.

Art.38.- TRANSITORIO. El presidente de la Junta Directiva elegido en la Asamblea General Constitutiva, queda facultado para solicitar y obtener la incorporación de esta Asociación, así como para hacer los depósitos y publicaciones exigidos pro la ley. Durante el período de incorporación el Presidente está facultado a celebrar cualquier tipo de contrato en nombre de la misma.

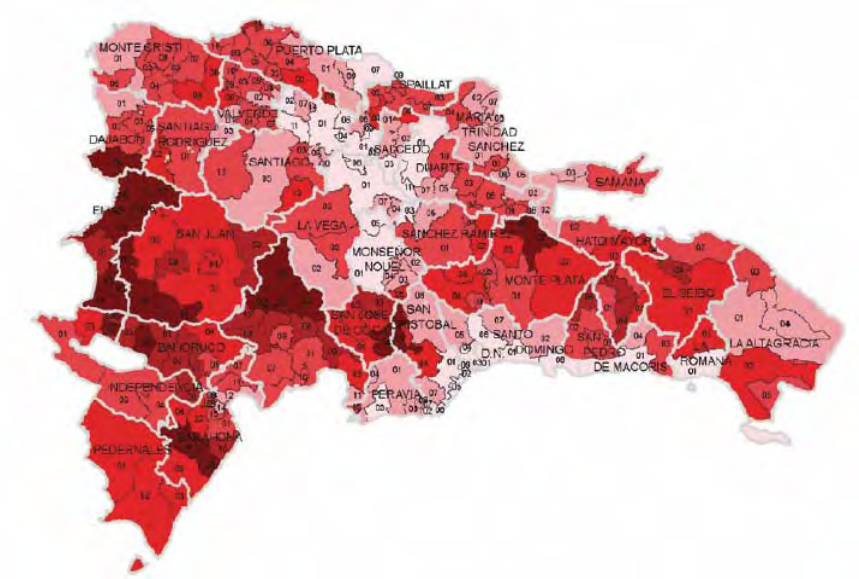
Los presentes estatutos que constan de 38 artículos, han sido redactados y firmados en cada una de dichas páginas por los infrascritos miembros fundadores del Comité Gestor, por la Directiva Electa y por Mí como Secretario actuante, quien certifico y doy fe en el municipio de _____, Provincia de _____, República Dominicana, a los _____ días del mes _____del _____.

NOMBRE	CEDULA	FIRMA
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Secretario Actualmente

Presidente Electo

Annex G: Maps of Extreme Poverty in the Dominican Republic and Hato Mayor



Source: Atlas de la Pobreza en la República Dominicana. 2005. National Planning Office, Technical Secretariat of the Presidency, Government of the Dominican Republic (ONAPLAN). July.

Source: Atlas de la Pobreza en la República Dominicana. 2005. National Planning Office, Technical Secretariat of the Presidency, Government of the Dominican Republic (ONAPLAN). July.

Annex H. Participatory Workshop in Hato Mayor (March 8, 2006) - Agenda and Results

POTABLE WATER

Community	No. of Benefited Families	Type of System	Does It Work	Relevant Data
Los Vásquez	60	Pumping: Electrical. Distribution: Sinks 7 Chlorination: Pastilles	Yes	Service times: 2 to 3 hours/day Water Quality Control Community Presently, because the valves are damaged, the basins cannot be filled therefore 3 basins are not working. Total investment: unknown
Libonao	34	Pumping: Solar Panels Distribution: Homes 18 and 3 Basins and 10 wooden tubs (tinacos). Chlorination: Pastilles	Yes	Service times: Water Quality Control Community Total investment: unknown
La Jaqueta	63	Pumping: Electrical. Distribution: Homes Chlorination: Pastilles	Yes	Service Times: Water Quality Control Community Total investment: unknown
La Mora	54	Pumping: Solar Panels Distribution: Homes and Basins	NO	Total investment: unknown Damage to the Inverter. Before the system was delivered to this community for administration and operation the inverter became damaged 3 times.
Mango Limpio	92	Pumping: Solar Panels Distribution: Homes Chlorination: Pastilles	NO	Total Investment: unknown The Panels were stolen however were recovered; the pump burned out.
Kilómetro 15	200	Pumping: Solar Panels. Distribution: Basins Chlorination: Pastilles	NO	Total Investment: Unknown Damage to the inverter and panels were stolen
El Coco	64	Pumping: Solar Panels Distribution: Homes and Basins Chlorination: Pastilles	NO	Total Investment: unknown Pump burned out and the inverter was stolen..
El Mamón	66	Collection through wooden tubs	NO	Home with Tinacos Water Quality Control: families During the dry season there is water available. Total investment: unknown
Bambu				

LATRINES

Community	No. of Benefited Families	Type of Latrines	Do They Work	Relevant Data
Los Vásquez	74	Traditional	Yes	Promoters during project 2 presently, 1. Number of families presently without latrines: 14 Total investment: unknown
Libonao	64	Traditional: 52 Dry composting: 12	Yes	Promoters during project 2 presently 2. Number of families presently without latrines: 3 Total investment: unknown
La Jaqueta	30 a 33	Dry composts	Yes	Promoters during project 2 presently 1. Number of families presently without latrines: 8 Total investment: unknown
La Mora	54	Traditional and Dry composting	Yes	Promoters during project: 3 presently 1. Number of families presently without latrines: 10 Total investment: unknown
Mango Limpio	60	Traditional Dry composting	Yes	Promoters during project: 3 Presently 1. Number of families presently without latrines: 3 (they are full) Total investment: unknown
Kilómetro 15	190	Traditional Dry composting	Yes	Promoters during project 3 presently 2. Number of families presently without latrines: 20 Total investment: unknown
El Coco	75	Traditional	Yes	Promoters during project: 4 presently 1. Number of families presently without latrines: 19 Total investment: unknown
El Mamón	39	Traditional	Yes	Promoters during project 1 presently 3. Number of families presently without latrines: 18 (2 full) Total investment: unknown
Bambu				

DETERMINATION OF RATES

Community	Rate Month/ Family	Number Of Families That Pay / % Of Families That Pay	How Was The Value Of The Rate Obtained	How Much Is Saved Up In The Bank
Los Vásquez	Initially: RD$20.00 Presently: RD$10.00	Initially the 60 presently 30 families because 3 basins are not operating	They met with the community and established several values; due to resource limitation, that's the tariff that was set.	RD$4,000.00
Libonao	RD$20.00	Initially all 34 presently there are no delinquent payments.	By Community convenience.	RD$10,000.00
La Jaqueta	RD$25.00	Initially no one paid; starting in 2005 32 families because some people stated that this was a donation and that no one should pay.	Meeting with the community and they voted by raising their hand to approve the rates.	RD$0.00
La Mora	Initially: RD$20.00 Presently:: RD$0.00	Initially all 40. Presently no one because they are inoperable	They met with the community and established several values; due to resource limitation that's the tariff that was set.	RD$12,000.00
Mango Limpio	Initially: RD$20.00 Presently: RD$0.00	Initially all 75 Presently no one as they are inoperable.	They met with the community and the tariffs were calculated according to the needs of the aqueduct..	Presently they only have RD$500.00 as they spent RD$9,000.00 for the recovery of the panels.
Kilómetro 15	Initially:: RD$20.00 Presently: RD$0.00	Initially all 120 Presently no one as they are inoperable.	We took the monthly chlorine expenses into account as pastilles were purchased every 15 days	RD$37,000.00
El Coco	Initially: RD$20.00 Presently: RD$0.00	Initially all 12 Presently no one as they are inoperable.	They met with the community to agree on the price	RD$0.00
El Mamón	RD$10.00	Initially all 66; Presently: 50.	They met with the community and established several values; due to resource limitations that is the tariff that was set.	RD$3,300.00
Bambu				

COMMUNITY PARTICIPATION DURING THE PROJECT PHASES

Community	Decision Taking Project Initiation	Construction	Training	Entry Into Operations
Los Vásquez	Participating Families:60 Participated in project presentation meetings and it was approved.	Participating Families:60 Participated with hand labor and with stones.	They have received training on hygiene, care of the pump, care of the basins, and repairing damages. The hygiene and health topics were aimed at the promoters and at the community. Operations were aimed at the Water Committee	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures. The community is the proprietor of the system. Infrastructure is located on private donated property, however there is no legal document as proof. The Board of Directors is active. Made up of members: 3 men and 3 women. They have been operating for 4 years, since the conclusion of the construction in 2002.
Libonao	Participating Families:17 Participated in project presentation workshop and it was approved.	Participating Families:34 Participated with hand labor and on the ditch.	They have received training in operations and maintenance..	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures. The community is the proprietor of the system. Infrastructure is located on donated property however there is no legal document as proof. Active Board of Directors, made up of 5 members, 4 men and 1 woman. They have been operating for 5 years, since the conclusion of the construction in 2002
La Jaqueta	Participating Families:63 Participated in project presentation meetings and work division	Participating Families:63 Carrying materials, working on the ditches.	They have received training on hygiene and health, care of the water, use and care of the latrines. The hygiene and health aspects were aimed at promoters and the community. The operations aimed at the Water Committee	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures. System is owned by INAPA and community infrastructure is on INAPA property They have no legal document as proof.. Active Board of Directors formed with a total of 5 members: 2 men and 3 women. They have been operating for 5 years, since the conclusion of the construction in 2001.

Community	Decision Taking Project Initiation	Construction	Training	Entry Into Operations
La Mora	Participating Families:54 Participated in project presentation workshop and it was approved.	Participating Families:40 Participated with hand labor and with stones	Received training on use of latrines, operating the system, use of the pump, care of the water and repairing damages. (training: 2 for the community and 4 for the Committee) The hygiene and health aspects were aimed at promoters and community. Operations aimed at the Water Committee.	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures. The community is the proprietor of the system Infrastructure is located on land donated by the Severino succession; however they have no legal document as proof. Active Board of Directors, formed by a total of 5 members: 3 men and 2 women.. 6 months' operation since the conclusion of the construction in 2002.
Mango Limpio	Participating Families:30 Participated in project presentation workshops and it was approved	Participating Familias:45 Participated with hand labor, carrying stones, cooking and contributed with Money.	2 persons received a 4-day plumbing training Maintenance: half a day. Care of the aqueducts and responsibility by users: 2 hours Accounting and Administration: half a day.	They do have by-laws. They do have a Meetings Record and Book of Income and Expenditures. The property of the system belongs to the community. Infrastructure is located on private property however INAPA is supporting the legalization. Active Board of Directors. It is formed by a total of 5 members: 3 men and 2 women. They have been operating for 2 years, since the conclusion of the construction in 2003.
Kilometro 15	Participating Families:100 They participated in meeting such as Neighborhood Boards, they presented the project and it was approved	Participating familias.:100 They participated with hand labor, and carrying stones..	They received training on Hygiene and Health topics. Water Treatment, Use and Handling of Latrines and others. Hygiene and health aspect were aimed at promoters and the community. Operations were aimed at the Water Committee.	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures The property of the system belongs to the community. It is located on land belonging to the Citricola del Este Consortium and CEA GANA; they do not hold legal documents over the land. Active Board of Directors. Formed 10 members: 7 men and 3 women. They have been operating for 2 years, since the conclusion of the construction in 2002.

Community	Decision Taking Project Initiation	Construction	Training	Entry Into Operations
El Coco	Participating Families:64 Participated in meetings to decided if they would participate	Participating Families:164 They participated with hand labor, materials and food.	They have been receiving training on how to take care of water and the use of the system..	They do have by-laws, someone from outside of the community delivered them and the community knows about it.. Record and Book of Income and Expenditures. The community is the owner of the system. Infrastructure is on the private property and they do have the document to prove it. Inactive Board of Directors. Formed by 5 members: 2 men and 3 women. They have been operating for X years, since the conclusion of the construction in X.
El Mamón	Participating Families:15 Participated in presentation meetings of the project and it was approved.	Participating Families:15 The participated with hand labor.	They have received training on maintenance, finance and others. The hygiene and health aspect is aimed at the promoters and the community. Operations were aimed at the Water Committee.	They have no by-laws. They do have a Meetings Record and Book of Income and Expenditures. The system is owned by the community. Infrastructure is found in the houses of each beneficiary. Active Board of Directors. Formed by a total of 5 members: 2 men and 3 women.. They have been operating for 5 years, since the conclusion of the construction in 2001..
Bambu				

ROLE OF THE DIFFERENT ACTORS

Community	Role of INAPA	Role of the Women Social Services of Church/CRs	Role of the Community	Role of the Water Community	Role of the Municipalities
Los Vásquez	Pays for electric energy	Study for the well. Construction of the system	Hand Labor Food.	Hand labor Food	Hand labor and donated $5000.00 for ditching.
Libonao	Construction. Accompaniment	Materials. Technical Assistance Trained the promoters	Decided to take on the project Hand Labor Receive Training	In charge of good operation of the aqueduct. Collecting the quotas.	None
La Jaqueta	Allowed connection with the Valley's system	Technical staff at MUDE offered the project	Work on construction. Pay their water Maintenances	Work on everything related to water.	Backed with equipment to open ditches: 2 days.
La Mora	Construction of well	Took the project before the community. Trained the community	Hand labor Food.	Hand Labor Food	No None
Mango Limpio	None	Took the project before the community. Trained the community	Hand labor Food.	Hand labor Food.	No None
Kilómetro 15	Construction of the aqueduct, quality of water, training on administration and operation of the system	Construction of the aqueduct. Trained the community	Hand Labor. Food Take care and maintenance to aqueduct. A smallholder donated the land where the tank is located..	Organizing their work. Collect money – contribution from the community.	. None
El Coco	Construction of the well	Materials. Paid part of the system	Hand Labor.	There was none, it wasn't working	Cooperated with the ditching
El Mamón	Consultancy	Materials. Technical Assistance Trained the promoters	Hand Labor Food Participation in workshops.	Active support Operations Collection of quotas.	None
Bambu					

STRENGTHS OF THE EXPERIENCE

- They have learned through the training workshops
- Receive the water system
- United the community
- Receive ideas on how to repair their aqueducts, with the advice of the CONECTA.
- Greater access to water, improving on people's health.
- There are no more insalubrities
- Advice from the NGOs has strengthened the community.
- INAPA has given support

LIMITATIONS OF THE EXPERIENCE

- They have no aqueduct
- Collection problems.
- Technical problems with the equipment.
- Illnesses have increased due to poor quality of water for consumption purposes.
- Damaged equipment.
- Lack of awareness by the community regarding the services.
- Sometimes wasting the water.
- External persons to the community stating that this is a donation and that the community does not have to pay.
- Lack of By-laws or operation standards.
- Lack of service continuity has disappointed the community from paying.
- Damage in latrine houses as a result of landslides or floods.
- Some do not have a latrine.
- Little community participation.

POTENTIAL SOLUTIONS

Regarding the non-operating aqueducts;

- Change the solar panels to electrical systems:
  - Needs to have energy.
  - Money to buy electrical pump (negotiating funds with others and contributions from the community)
  - Install electric energy posts transformers

- Continue with Solar Panels:
  - Purchase the Inverter and/or pump (negotiating funds with others and contributions from the community)
  - Technical evaluation from the teams.

- Repair winch and wind mill for the community El Mamón (negotiating funds with others and contributions from the community)

Regarding all of the systems:

- The Water Committee needs to work more closely with the community to motivate payment, share responsibilities with the community so that everyone is involved, not only one person or the Committee. (Everyone should participate in the solution)
- Define clear rules (by-laws) with the community.

REUNION CON LOS COMITES DE AGUA DE HATO MAYOR
RETOS Y LECCIONES APRENDIDAS
AGENDA
8 de Marzo de 2006

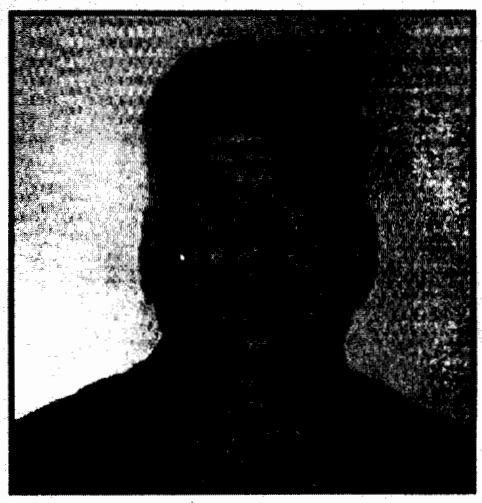
1. Palabras de Bienvenida. 5 minutos
2. Presentación de los asistentes. 15 minutos
3. Objetivo de la reunión. 5 minutos
4. Revisión de la Tarea.10 minutos
5. Trabajo en Grupo por Comunidad. 30 minutos
6. Refrigerio. 10 minutos
7. Presentación de los Resultados por Grupo. 30 minutos
8. Fortalezas y Limitantes de la experiencia. 40 minutos
9. Soluciones Potenciales. 20 minutos

Annex I: CADARVIS 2003–2005 Annual Report

BOLETIN INFORMATIVO

Consejo de Administración de acueducto
Distrito Municipal Villa Sombrero, Baní, R. D.

Año I, Edición No. 1



Juan Emilio Melo, Presidente de **CADARVIS**

"CADARVIS" Exhibe Logros Tangibles En Gestión De Juan Melo

La eficiencia y la confianza fueron los factores principales que incidieron en los ususarios del acueducto que administra CADARBVIS para el incremento de mas de 80% en las recaudaciones durante el periodo 2003- 2005 que le toco dirigir esa institución el señor Juan Emilio Melo.

ENTIDADES COMUNITARIAS Y DESARROLLISTAS DE VILLA SOMBRERO CALIFICAN DE EXCELENTE GESTIÓN DE JUAN MELO EN CADARVIS

En los logros de este periodo de dos años también se destaca la recuperación del crédito con instituciones comerciales y empresariales que no escatiman esfuerzos para darle creditos para la adquisición de equipos para el mantenimiento de las bombas del acueducto asi como en el mejoramiento de las condiciones ambientales de nuestros empleados.

En la gestión de Juan Melo se mejoraron los sueldos de los empleados produciéndose aumentos hasta de un 100% en algunos empleados.

En cuanto a los usuarios, utilizamos una politica de cobro persuasivo y logrando que clientes que tenían hasta 40 meses de atrazos se pusieron al día en su pago.

El trabajo de concientización en la familia que hacen uso del acueducto de Villa Sombrero se logro gracias al apoyo del directorio de CADARVIS que esta integrada por hombres honestos y serios como son JUAN PEÑA MEJIA, DRA. NURIS HERNANDEZ, DR. LUIS TEJEDA y JULIO SOTO.

CONSEJO ADMINISTRATIVO ACUEDUCTO DISTRITO MUNICIPAL VILLA SOMBRERO, INC.
(CADARVIS)

Calle Duarte No. 17 D. M. Villa Sombrero, Baní, Prov.
Peravia, República Dominicana, • Tel.:809-522-9359

MEMORIAS DEL PRESIDENTE SALIENTE
JUAN MELO

Hoy este consejo cumple 2 años de grandes logros y realizaciones.

1. Lo primero que asumimos fue con el personal cumplimiento del horario y respecto a los del consejo que son empleados pero al mismo tiempo mejora de los sueldos en una escala del 100% y a veces más.

2. Con respecto a los usuarios que son la esencia del consejo tuvimos grandes luchas en lo que concierne al cobro del agua ya que habian algunos que debian hasta 40 meses, personas estas que tenian buena posición social inclusive casa de 2 niveles y algunos de ellos creian que no se podía cortar el agua dizque porque no se podia romper la acera.

3. Pero iniciamos desde nuestra llegada los trámites de nuestra incorporación jugando en este caso un papel preponderante la Dra. Noris Hernandez y nuestro fiel y leal amigo compañero y hermano Victor Calderón Fiscal de este consejo quienes el día 26 de Noviembre del año 2003 de acuerdo a la ley No. 520 del 20 de Julio del 1920 que rige las asociaciones sin fines de lucro de fecha 10 de diciembre del 2003 Decreto 1090 hicieron posible que nuestro acuerdo fuera incorporado.

4. Cuando asumimos el cargo el 24 de Agosto del 2003 encontramos unos RD$ 265,000 mil pesos pero no se habia liquidado el personal que cada año se hacia y algunas cuentas pendientes que tuvimos que recoger como son la ferretería Vaquita , los gastos incurridos en la asamblea, la cuenta del banco estaba a nombre de una sola persona Leonidas Radhames Peña Tejeda cosa que me llamo la atencion ya que anteriormente estaba a nombre de 3 personas Ruben Perez Andujar, Severino Pimentel y Odalis Pimentel. Desde nuestros inicios luchamos porque esta cuenta estuviera a nombre de CADARVIS y lo conseguimos gracias a Dios y a la buena voluntad del consejo.

5. LOGROS OBTENIDOS: La confianza de las del 80% de los usuarios demostrada en el cobro del agua ya que cuando recibimos las entradas oscilaban de los 40,000 hasta 60,000 ahora las entradas son de 60,000 en adelante llegando en el pasado, o sea Julio a la sorprendente suma de RD$ 154,040.00 Eso demuestra la eficacia del personal que compone este consejo que hoy felizmente concluye su mandato.

6. Cuando teniamos una averia de tubos explotados, motores o transformadores, teniamos que andar en motores y motocicletas, y pagar los servicios de una camioneta, cuando habia que ir a Santo Domingo o Azua a veces conseguiamos la camioneta del señor Julio César Soto o el Camión del ayuntamiento, teniamos en todos los presupuestos que se elabora cada año la compra de una camioneta en el último año de la gestion pasada, fue de RD$ 70,000 pesos cumpliendo con el presupuesto de RD$ 70,000.00 Equipamos y modernizamos la oficina comprando 2 computadoras de las mejores y equipamiento ascendian a RD$ 70,000 1 inversor con 4 baterias RD$ 30,000.00, protectores para la oficina a un costo de unos RD$ 10,000.00 estos reembosable o sea que cada mes descontamos RD$ 500 pesos del alquiler . En la oficina del presidente no teniamos donde recibir visitas y a los funcionarios que nos visitaban y fue por eso que habilitamos la oficina para el presidente equipada con todo lo necesario 1 escritorio, silla giratoria, telefono, etc. Hemos tenido que reajustar tarifas del agua en 2 ocacionespara de esa manera poder ponernos cerca de lo que se ha sido el alto costo de la vida y de los materiales que utilizamos cuando recibimos 1 tubo PVC de 1/2 que costaba entre 15 a 20 pesos en la actualidad ronda por los 100 y 150 pesos, 1 1/4 PVC costaba 15 pesos y ahora ronda por los 40 y hasta 75 pesos, dos ejemplos solamente pero a pesar de todo todavia conservamos el criterio comunitario y no comercial ya que tenemos la tarifa de personas muy pobrecitas del 20,30,40,50,60,70,80,90,100,110,120 esta última para grandes residencias incluyendo de 2 niveles donde la realidad debia ser partiendo desde 100 pesos en adelante y que todos paguen su servicio.

Gracias del alma al concejo directivo que estuvo en todo momento cooperando para que llegaramos a feliz termino, al persona que trabaja con renumeración, a mis hermanos amigos y compañeros de miles batallas que confiaron en mi persona con ellos:

Juan Peña Mejía	Enc. Junta Municipal
Dra. Noris Hernandez	Asesora CADARVIS
Dr. Luis Tejeda	Distinguido Municipal
Julio César Soto	Pdte. Sala Capitular

Gracias a SOPROVIS Santo Domingo en la persona del Señor Ruben Pimentel y a Luisin Mejía dos banilejos a carta cabal que aunque vivan en Santo Domingo llevan los problemas que recibimos el 28 de Julio al Ing. Carlos Francisco y una comisión del INAPA para dar inicio a los trabajos de nuestro propio acueducto, el Señor Francisco quien estará al frente de esta obra la cual está pautada ser entregada en el mes de marzo del próximo año.

Esto es gracias a las múltiples diligencias de este consejo acompañado del Señor Wilton Guerrero, Doña Nelly Melo, Ruben Pimentel presidente del SOPROVIS Santo Domingo y el Señor Luisin Mejía quien dirige la palabra, se siente altamente complacido por el apoyo que me han brindado esta pleyas de hombres y mujeres que cumpliendo con una frase muy linda de mi tocayo Juan Emilio Bosch que dice así: ¡El que no vive para servir, no sirve para vivir!

Gracias!!

Hermanos en su mente y en cada escenario lo presentan a nombr e de cada uno de nosotros sin andar cacareando como las gallinas cuando ponen huevo.

Este reconocimiento a Ruben Pimentel por hacer que las autoridades de INAPA reinicien los trabajos del acueducto unilateral de Villa sombrero los cuales cada pozo estará dotado de un generador para suplir en momentos de apagones . Gracias Ruben, siga trabajando que los buenos munícipes se lo agradecerían eternamente.

Gracias a la familia soto Elaine por la donación de 4 radios de comunicacion lo cual ha venido a ser de gran ayuda, esta familia recide en Boston Masachussets. Por último a mi linda familia que soporto todos los insultos habido y por haber en contra de mi persona cuando los grandes apagones nos atacaban y nos siguen atacando en estos precisos momentos de apagones en general fruto del alto costo del barril del petróleo sea disparado por las nubes. Como sabrán ustedes sensatas que nosotros siempre buscamos un culpable y en este caso por negligencia de EDESUR con sus largos apagones al circuito per. el mar sobrecargo y el que menos paga la luz.

Decian que en la casa del presidente siempre habia agua y que por ahi vienen el sindico o sea los jefes pero que Dios lo perdone porque yo ya los perdoné a todos los que sembraron la cizaña en la mente de la gente buena. Ustedes saben que mi sector tuvo que recoger dinero y poner una tuberia de 3 pulgadas desde el llano.

Muchisimas gracias a todos y que Dios con su gran misericordia ayude a ser cada día mejor personas en bien de nuestra comunidad.

Directivos y miembros del consejo de CADARVIS

Apoyemos nuestro consejo de Administración de acueducto de villa Sombrero, para que sigamos instruyendo al mejoramiento de este vital servicio!!

Consejo Administrativo Acueducto Distrito Municipal, Villa Sombrero, Inc. (CADARVIS)

Calle Duarte No. 17, D. M. Villa Sombrero, Baní, Prov.
Peravia, Republica Dominicana • Tel.: 809-522-9359

INFORME DEL SEGUNDO AÑO DE ESTA DIRECTIVA ENCABEZADA POR ESTA DIRECTIVA, PRESIDIDA POR SU PRESENTE, JUAN EMILIO MELO T.

ENTRADAS:		SALIDAS:	
1-08-2004	RD$ 50,100.00	08-2004	RD$ 56,023.00
2-09-2004	RD$ 78,500.00	09-2004	RD$ 36,978.65
3-10-2004	RD$ 66,070.00	10-2004	RD$ 63,113.28
4-11-2004	RD$ 66,300.00	11-2004	RD$ 43,864.52
5-12-2004	RD$ 82,400.00	12-2004	RD$ 94,409.39
6-01-2005	RD$ 70,440.00	01-2005	RD$ 133,395.77
7-02-2005	RD$ 48,630.00	02-2005	RD$ 88,949.60
8-03-2005	RD$ 72,020.00	03-2005	RD$ 61,019.81
9-04-2005	RD$ 96,280.00	04-2005	RD$ 65,191.70
10-05-2005	RD$ 64,250.00	05-2005	RD$ 84,909.25
11-06-2005	RD$ 65,880.00	06-2005	RD$ 60,952.31
12-07-2005	RD$ 154,040.00	07-2005	RD$ 60,041.88

TOTAL DE ENTRADAS RD$ 915,070.00
TOTAL DE SALIDA RD$ 848,849.82
CUENTA CORRIENTE RD$ 355,000.00
DIFERENCIA ENTRE INGRESOS Y EGRESOS RD$ 66,220.18
INFORME FINANCIERO DEL AÑO 2004-2005

Consejo Administrativo del Acueducto Rural
CADARVIS
Fundado el 24 de Agosto del 1997 Inc.
Villa Sombrero, Baní, R. D.

Consejo Administrativo Acueducto Distrito Municipal, Villa Sombrero, Inc. (CADARVIS)

Calle Duarte No. 17, D. M. Villa Sombrero, Baní, Prov.
Peravia, Republica Dominicana • Tel.: 809-522-9359

NOMINA DE LOS EMPLEADOS AÑO 2005
(CADARVIS)

NOMBRES	CARGOS	SUELDOS
1. Amaris De Los Santos	Cajera	RD$ 4,000.00
2. Milvia Yudelis Baez Arias	Secretaria	3,500.00
3. Rafael Mariñez	Plomero	3,500.00
4. Pedro E. Diaz	Mensajero	3,400.00
5. Rafael S. Pimentel	Supervisor	3,100.00
6. Rafael Lara C.	Operador de Bombas	3,200.00
7. Wilson Marino Soto	Aydte. Plomero	4,100.00
8. Juan Bta. Calderón	Aydte. Contabilidad	3,100.00
9. Amarfis Estepan	Conserje	2,300.00
10. José Mercedes Lara	Aydte. Op. Bombas	2,000.00
		RD$ 32,200.00

Atentamente,

Consejo Administrativo del Acueducto Rural Villa Sombrero Inc.
CADARVIS

Consejo Administrativo Acueducto Distrito Municipal, Villa Sombrero, Inc. (CADARVIS)

Calle Duarte No. 17, D. M. Villa Sombrero, Baní, Prov.
Peravia, Republica Dominicana • Tel.: 809-522-9359

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INFORME DEL PRIMER AÑO DE ESTA DIRECTIVA ENCABEZADA POR ESTA DIRECTIVA, PRESIDIDA POR SU PRESIDENTE JUAN EMILIO MELO T.

ENTRADAS:	**SALIDAS**
1-08-2003 RD$ 55,590.00	08-2003 RD$ 51,553.72
2-09-2003 RD$ 64,200.00	09-2003 RD$ 50,108.55
3-10-2003 RD$ 55,800.00	10-2003 RD$ 57,339.38
4-11-2003 RD$ 55,660.00	11-2003 RD$ 38,452.89
5-12-2003 RD$ 69,700.00	12-2003 RD$ 93,523.76
6-01-2004 RD$ 77,740.00	01-2004 RD$ 55,046.93
7-02-2004 RD$ 68,710.00	02-2004 RD$ 133,745.85
8-03-2004 RD$ 78,780.00	03-2004 RD$ 73,276.28
9-04-2004 RD$ 71,970.00	04-2004 RD$ 46,990.00
10-05-2004 RD$63,580.00	05-2004 RD$ 66,102.03
11-06-2004 RD$58,090.00	06-2004 RD$ 47,489.23
12-07-2004 RD$63,120.00	07-2004 RD$ 41,693.48

Total de entradas RD$ 782,940.00 / Total de Salidas RD$ 754,322.10
Recibo en cuenta corriente RD$ 265,951.82 Pesos
Diferencia entre ingresos y egresos RD$ 28,617.90 pesos
Informe financiero del año 2003-2004

Consejo Administrativo Acueducto Distrito Municipal, Villa Sombrero, Inc. (CADARVIS)

Calle Duarte No. 17, D. M. Villa Sombrero, Baní, Prov.
Peravia, Republica Dominicana • Tel.: 809-522-9359

Presupuesto del año 2005 de CADARVIS

INFORME FINANCIERO

Partiendo de un promedio de 70,000 pesos mensuales por 12 = 840,000

1. Trabajos a realizar en el año	72,000.00
2. Pago publicidad	13,000.00
3. Combustible	25,000.00
4. Materiales Gastables oficina	15,000.00
5. Gastos reuniones y representación	25,000.00
6. Piezas camioneta y motores	25,000.00
7. Materiales Plomería	25,000.00
8. Nómina Empleados	405,600.00
9. Asistencia Social	25,000.00
10. Teléfono y Local	49,000.00
11. Vacaciones	15,600.00
12. Liquidación	80,000.00
13. Presente Navideño CADARVIS	30,000.00
14. Imprevistos	34,800.00
TOTAL	**840,000.00**

Este presupuesto fue elaborado por la comisión designada por el Consejo Directivo integrada por:

Juan E. Melo
Severino Pimentel
Juan E. Pimentel
Orlando Villalona

Consejo Administrativo del Acueducto Rural
CADARVIS
Fundado el 24 de Agosto del 1997 Inc.
Villa Sombrero, Baní, R. D.

BOLETIN INFORMATIVO

Consejo de Administración de acueducto

Distrito Municipal Villa Sombrero, Baní, R. D.

Año I, Edición No. 1

JUAN MELO, tambien se destacó el apoyo que recibió CADARVIS de SOPROVIS, asi como tambien de INAPA la gobernadora provincia, Nelly Melo de Guerrero; agradece el señor Juan Melo al pueblo de Villa Sombrero por su apoyo a la gestión de dos años que estuvo al frente de CADARVIS que sin ese apoyo no se hubiese obtenido los logros que orgullosamente nos exibe con orgullo CADARVIS.

Directiva y miembros del consejo de CADARVIS • Villa Sombrero.

Por una sociedad eficiente
en el servicio del agua potable,
paga tu recibo a tiempo.

21 de Abril del 2005,
Boston, Masachusetts

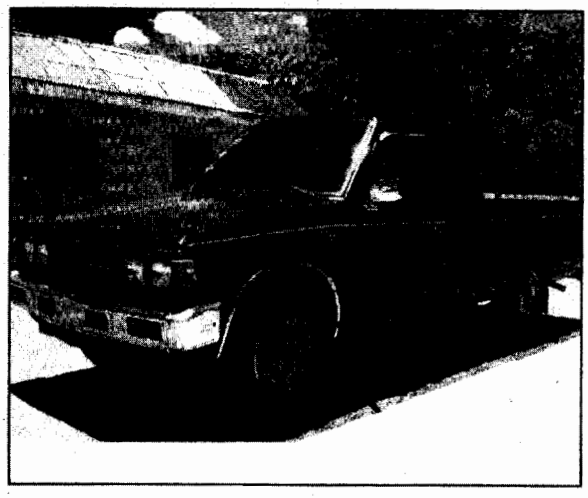
Residente en Boston, donan Radio de Comunicación ACADARVIS.

La familia Soto Layne desea hacer un pequeñito presente, pero de corazón. ACADARVIS por ser esta una institución que sus miembros provienen de diferentes organizaciones de nuestra comunidad y por ser CADARVIS las primeras institición de servicios y manejarse tan eficiente dentro de sus precariedades y administrar la primera fuente de vida en el planeta tierra; como lo es el agua todos precisamos de ella, los seres humanos, las plantas y animales sin agua no hay vida cuidar de ellas y sus fuentes.

Les hacemos entrega de estos 4 radios de 10 millas cada uno para que haiga mayor fluidez en la relación y comunicación entre gerencia, empleados, clientes y todo el pueblo consumidor, suerte a CADARVIS y su Gerencia.

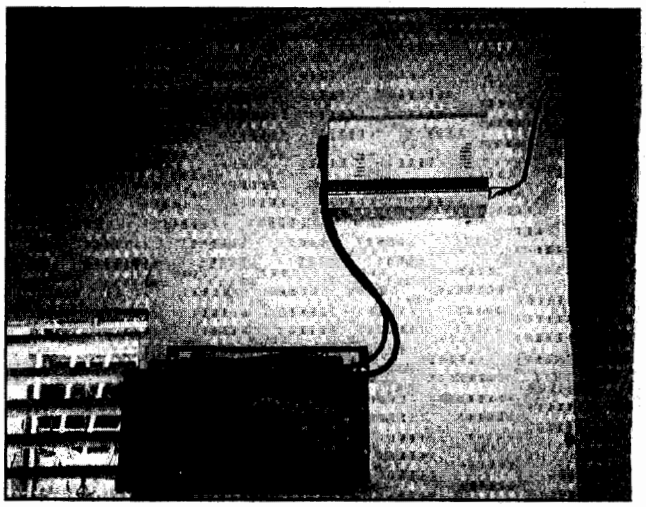
Atentamente,

Familia Soto Layne



Compra de camioneta para las operaciones de CADARVIS

Modernizacion del sistema de cobros con la compra de Computadoras RD$ 70.000.00



Inversor de 4 Baterias a un costo de RD$ 30.000.00

DIRECTIVOS CADARVIS 2003-2005

Juan Emilio Melo T. *Pte.*	*Mayra Cordero* *Sec. De Actas*
'everino O. Pimentel E. *Tesorero*	*Rafael Mateo* *Vicepresidente*
Victor Calderón *Fiscal*	*Nilva Rivera* *Vocal*
Antonio Tejeda *Vocal*	*Frank Melo* *Vocal*

DELEGADOS ANTE CADARVIS

Efraín Alt. Pimentel *Miembro*	*Orlando Villalona* *Miembro*
Juan E. Pimentel *Miembro*	*Yolanda Peña* *Miembro*
Bienvenido Mejía *Miembro*	*Juan Martín Peña* *Miembro*
Modesto Pimentel *Miembro*	*Jesús A. Rodríguez* *Miembro*

BOLETIN INFORMATIVO

Consejo de Administración de acueducto
Distrito Municipal Villa Sombrero, Baní, R. D.

INSTITUCIONES COMUNITARIAS Y DESARROLLISTAS DE VILLA SOMBRERO CALIFICAN EXCELENTE GESTION DE MELO

Distrito Municipal Villa Sombrero.
Provincia Peravia, R. D.
26 de Septiembre de 2003

Sr. JUAN EMILIO MELO
Pdte. Consejo Administrativo Del Acueducto Rural
De Villa Sombrero "CADARVIS"

Distinguidos y Honorables Miembros y Directivos
CADARVIS, R. D.

Queridos Hermanos:

Por este medio queremos manifestarle que el personal docente y administrativo quiere felicitarles a usted SR. Melo y a la Directiva a sentido general; hemos demostrado que nuestra comunidad es progresista, pues al elegirlo a usted escogió un líder comunitario de mucha experiencia y honradez que siempre lo ha caracterizado en su vida cotidiana.

Señores CADARVIS, nuestra humilde Institución Educativa con su personal esta a su Disposición incondicionalmente para cualquier trabajo en conjunto. Sin más nada nos despedimos de ustedes pidiéndole al Señor Poderoso que siempre lo ilumine para que puedan seguir realizando sus labores tan excelentes, como lo han hecho siempre.

¡Gracias!...

Prof. Manuel Eduardo Díaz
Director Escuela Inicial-Básica
Villa Sombrero
Distrito Municipal Villa Sombrero
Provincia Peravia, Baní, R. D.

Vidal Ofelia Díaz
Representante de los Maestros (as) de la
Escuela Inicial-Básica Villa Sombrero.

ASOCIACION DE PADRES, TUTORES MAESTROS Y AMIGOS D. LA ESCUELA VILLA SOMBRERO Sombrero - Baní, R. D.

Sr. Efraín Pimentel
Pdte. Sociedad de Padres y Amigos de la
Escuela Inicial-Básica Villa Sombrero.

María Canario
Sra. Maria Elena Canario
Secretaria
Escuela Inicial-Básica Villa Sombrero, R. D.

Directivos y miembros del consejo de cadarvis