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WATER AND SANITATION  
FOR HEALTH PROJECT

WATER SUPPLY AND  
SANITATION PROGRAM DESIGN  
FOR NGOs IN HAITI

Operated by  
CDM and Associates

Sponsored by the U.S. Agency  
for International Development

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**WATER SUPPLY AND SANITATION PROGRAM DESIGN FOR  
NGOs IN HAITI**

Prepared for the USAID Mission to Haiti,  
U.S. Agency for International Development  
under WASH Task No. 133

by

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and  
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## RELATED WASH REPORTS

Seminar on Rural Water Supply and Sanitation for Private and Voluntary Agencies in Haiti, by David I. Yohalem. March 1983. Field Report No. 77.

Plan for Evaluating Some Health Impacts of the USAID/CARE Community Water System Project in the Republic of Haiti, by Robert J. Struba. September 1985. Field Report No. 154.

Mid-Term Evaluation of the USAID/CARE Community Water System Project in the Republic of Haiti, by Philip Roark and Jacqueline Smucker. February 1987. Field Report No. 205.

Survey of Non-Government Organizations Located in the Central Plateau Region of Haiti, by Craig Hafner and Sumana Brahman. October 1989. Trip Report.

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Finally, we congratulate the participants from the various NGOs who worked hard in the spirit of collaboration to make the workshop successful. We wish them a successful program in integrating water supply and sanitation with child survival activities on the Central Plateau.

## ABOUT THE AUTHORS

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## ACRONYMS

CDB	Comité de Bienfaissane
CRWRC	Christian Reform World Relief Committee
HAVA	Haitian Association of Voluntary Agencies
HIM	Hosean International Ministries
HMI	Haiti Missions, Inc.
MCA	Missionary Church Association
MCC	Mennonite Central Committee/World Neighbors
NGO	Non-governmental Organizations
O&M	Operation and Maintenance
ODEKKA	Local group created by CRWRC
ORT	Oral Rehydration Therapy
SNEP	Société Nationale d'Eau Potable
SOLARECH	A private firm representing solar-powered water pumps
URC	University Research Corporation
USAID	U.S. Agency for International Development
VACS	Voluntary Agencies for Child Survival
WCRF	World Christian Relief Fund
WASH	Water and Sanitation for Health Project

## EXECUTIVE SUMMARY

In the Central Plateau area of Haiti several non-governmental organizations (NGOs) are working in a variety of child survival and other health-related activities. In an effort to integrate water development into their ongoing activities, USAID amended the Voluntary Agencies for Child Survival (VACS) project to include water development, and solicited proposals from the NGOs. The WASH Project was subsequently requested by USAID to conduct a survey of NGO capabilities in the Central Plateau, which was completed in October 1989.

As an outcome of the October 1989 consultancy, WASH was asked to conduct a workshop on planning how water development and child survival activities could be integrated among the various NGOs. On January 11-12, 1990, a planning workshop was completed for 38 participants representing 12 NGOs and several other government-related organizations in La Jeune on the Central Plateau near Pignon. The workshop participants provided insights on how to approach an integrated program. The WASH consultants later synthesized these insights into a program proposal with the following recommendations:

- A ten-person Coordinating Committee would be elected to represent the five subregions of the Central Plateau, which are identified as the towns of Dondon, La Victoire, Pignon, Ranquitte, and St. Raphael.
- USAID should enter into a cooperative agreement with the Haitian Association of Voluntary Agencies (HAVA), to provide administrative support. HAVA would then subcontract with various NGOs to undertake specific program components.
- HAVA would hire, with the concurrence of the Coordinating Committee, a program coordinator to be based in the region. The coordinator would have direct responsibility, in conjunction with the Coordinating Committee, for assuring that program objectives are achieved and implemented as planned.
- Program components would include:
  - Community Participation
  - Health Education
  - Construction of water supply and sanitation facilities
  - Continuation of ongoing activities including immunizations, nutrition, and well-mother campaigns
- Emphasis would be placed on achieving sustainability through community management of the water systems.

- WASH would be contracted by USAID to provide technical assistance, as needed, in areas such as the program start-up workshop, evaluations, development of educational materials, and training in operations and maintenance.

The proposed two and one-half year program is estimated to cost \$499,000, covering a population of 18,500 beneficiaries in the five towns located in the Central Plateau.

Following the implementation of the two-day participatory planning workshop, a number of important lessons emerged that should be of interest to those who wish to use a similar program model for designing joint water supply and sanitation and child survival programs. These include designing the workshop for three instead of two days, to allow more time for in-depth discussion among participants; using water development as a focal point for promoting the integration of child survival and water supply and sanitation efforts; whenever possible, providing workshop facilitators who are fluent in the dominant language of the country in question; and gathering as much background information as possible on the situation under review, to minimize potential areas of conflict in order to achieve workshop objectives and arrive at a group consensus.



## Chapter 1

### INTRODUCTION

#### 1.1 Background on Haiti

Haiti is located in the western third of the island of Hispaniola in the Caribbean. There are several long mountain systems throughout the region, which significantly affect rainfall patterns and agricultural practices in Haiti. Tremendous erosion of topsoil occurs due to uncontrolled deforestation activities throughout the country. Haiti also has the dubious honor of being noted as the poorest country in the western hemisphere.

The population of Haiti is approximately 6 million, of which nearly 80 percent live in rural areas. The remaining 20 percent are located in and around the capital city of Port-au-Prince. Over 90 percent of the population is black, of African descent, the remaining 5-7 percent are mulatto, with a small number of recent European and Middle Eastern immigrants. The majority of the population is poverty stricken, lives in rural areas, and is illiterate. Though French is considered the official language, most Haitians speak Creole, a dialect of French which developed from the French West African trade language.

Diarrheal diseases and nutritional deficiencies contribute greatly to the high morbidity and mortality rates in Haiti. Pneumonia, tetanus, and tuberculosis are prevalent. Malaria is also endemic at elevations below 500 meters. Malnutrition is widespread and contributes to reduced resistance to infection, growth stunting, and brain damage. Intestinal diseases aggravate caloric and protein deficiencies, with diarrhea responsible for many infant deaths nationwide.

Given the fact that Haiti has the lowest per capita income in the hemisphere, many charitable organizations undertake numerous activities, including much of the country's social and medical services.

#### 1.2 Background on Assignment

USAID currently funds a \$22 million grant for the Voluntary Agencies for Child Survival (VACS) Project. This grant was amended last year to include a water component with ongoing child survival activities.

In the Central Plateau area of Haiti several NGOs are working in a variety of health-related activities including public health, child survival, water and sanitation, and education. (The term "child survival" refers to program components targeted to reduce morbidity and mortality rates among children under age five, by promoting activities such as immunizations, oral rehydration therapy, breastfeeding, and growth monitoring.) These organizations each provide a service which varies in its purpose, audience, and effectiveness. The USAID Mission in Port-au-Prince requested these NGOs to submit proposals for child survival projects, and received proposals to undertake water projects from

three organizations—the Haitian Association for Voluntary Agencies (HAVA), World Christian Relief Fund (WCRF), and Comité de Bienfaisance. However, these proposals did not integrate water supply and sanitation with child survival activities. The Mission wanted to integrate water development into ongoing child survival activities in the Central Plateau region and to utilize a broader range of capabilities from the existing NGOs.

In late August 1989, the Health Office of USAID/Haiti requested assistance from the Water and Sanitation for Health (WASH) Project to conduct a survey in the Central Plateau of existing development organizations engaged in child survival activities. The survey would provide USAID with up-to-date information on the various programs and activities conducted by these organizations. USAID also requested that preliminary recommendations be made about using these organizations' capabilities in a comprehensive program joining child survival with water supply and sanitation.

In response to this request, the WASH Project provided a two-person team October 1-8, 1989, to carry out the survey. The team found that many of the towns in the area experience seasonal outbreaks of typhoid fever due to polluted water sources and the rains themselves. Diarrheal diseases, malaria, and tuberculosis were also identified as major problems in the area. The situation was particularly difficult in towns lacking adequate health care facilities, often forcing patients to travel many miles to the nearest health clinic.

During the October visit, the WASH team conducted interviews with nine organizations working on the Central Plateau. The organizations are located in the following towns: Pignon, Ranquitte, La Victoire, St. Raphael, Dondon, La Jeune, Maissade, and Mirebalais. (A map of the region is provided on page ix.) Though these towns are relatively close to one another, travel between them is often long and difficult due to extremely poor interconnecting roads. In addition, the team observed that even though many of these NGOs engage in similar community development endeavors, they often work separately and do not collaborate, even within the same towns. This has resulted in duplication of effort and fragmented impact of various program initiatives. A report on this survey of organizations was delivered to USAID. A section summarizing the recommendations follows.

1.3 Recommendations of First WASH Consulting Assignment, October 1-8, 1989

The major recommendations of the team were as follows:

1. An initial integrated water supply and sanitation and child survival program should take place in the towns and areas of Dondon, La Victoire, Pignon, Ranquitte, and St. Raphael. It is estimated that 100,000 to 125,000 people live in this area. Once activities are well organized, the project could later expand to include other towns, such as Maissade and Mirebalais.

2. USAID should host a two-day program planning workshop in Pignon during the second week of January 1990. The purpose of the meeting would be to discuss how an integrated water supply and sanitation and child survival program could be designed, managed, and implemented by cooperating NGOs. Meeting participants should include representatives from all interested parties working in water and sanitation, health, community development, and education activities in the five towns noted in item 1 above.
3. Goals of the planning meeting would be as follows:
  - Share information among organizations on their specific health and child survival activities in the five towns and surrounding areas.
  - Identify areas of potential collaboration.
  - Determine whether a collaborative program under one mandate is practical and possible, given all the various organizations involved.
  - If the consensus indicates that a collaborative program is possible, develop a program outline defining specific roles and responsibilities of each organization.
  - Gather preliminary information on which organization/individual would assume the responsibility as overall manager and coordinator for the child survival project.
4. Following the meeting, USAID should make the decision and inform all participants whether one of the existing organizations would take the lead as main program coordinator and manager to control the funds and oversee collaborative activities, or if an outside individual or agency would be more appropriate to assume this role.
5. USAID should implement a comprehensive health education campaign and outreach program and develop a coordinated health education campaign which would include the design of health education materials in Creole for schools, health extension agents, and mothers' groups.
6. The WASH Project could provide USAID with technical assistance to ensure that program goals are being met. These interventions could include assisting in the planning and facilitation of the January 1990 meeting, development of the final program proposal, facilitating the project start-up workshop, and providing technical backstopping as needed.

Following review of the above recommendations, USAID requested WASH assistance in November 1989 to design, coordinate, and conduct a two-day program planning meeting in Pignon, Haiti. In response to this request, WASH provided another two-person team to USAID January 8-19, 1990. As noted in recommendation no. 2 above, the purpose of the meeting was to bring together NGOs on the Central

Plateau, to discuss how these organizations could cooperate to design, manage, and implement an integrated water supply and sanitation, and child survival project. The meeting did not specifically address the issue stated in recommendation no. 5 above, though WASH strongly recommends that this be part of the program.

#### 1.4 Program Planning Meeting in La Jeune, Haiti, January 11-12, 1990

The two-day program planning meeting took place at the conference center facilities at La Jeune, Haiti. Forty individuals attended the meeting, including expatriate and local representatives from the NGOs (see Appendix A). Other meeting participants included several representatives from the Societe Nationale d'Eau Potable (SNEP), Haitian Association of Voluntary Agencies (HAVA), and SOLARECH, a private firm representing solar-powered water pumps. Usually the NGOs on the Central Plateau work very independently of one another, and this was the first time a meeting was held to bring them all together to share information and discuss how to collaborate on an integrated program. It is encouraging to note that most participants repeatedly expressed strong interest in working with one another and were very pleased at the opportunity to do so. During the meeting, it was clear that participants shared a common interest in having water as a component in their programs. In effect, water became the focal point of collaboration between these various organizations and served as a catalyst for planning an integrated program.

In preparation for the meeting, WASH staff designed a model of a joint water supply and sanitation/child survival project (see Appendix B) with components such as water supply, sanitation, community participation, health education, and administration. WASH also developed an agenda for the two-day meeting (see Appendix C) specifically designed to promote discussion among the various NGOs, both in small groups and in plenary sessions, on issues such as the actual program design and possible areas of collaboration (see Appendix K). This approach proved to be particularly useful, since many of the NGOs were unfamiliar with the work conducted by other organizations in the region. USAID and University Research Corporation (URC) invited the meeting participants and made all the necessary logistical arrangements. The meeting was conducted in French, with translations into Creole and English.

This report summarizes the results of the workshop and presents a recommended program design for USAID on how an integrated program could be managed and implemented by cooperating NGOs in the towns of Dondon, La Victoire, Pignon, Ranquitte, and St. Raphael, situated on the Central Plateau of Haiti.

The recommended program design calls for funding from USAID of \$499,000, as shown in Table 1. Additional resources will be provided by cooperating NGOs.

## Chapter 2

### PROPOSED PROGRAM ORGANIZATION

There are currently 12 NGOs undertaking child survival and/or water development activities on the Central Plateau. Appendix D provides a brief overview of these organizations and their capabilities. Figure 1 below presents a model of how an integrated program for water supply and sanitation and child survival could be collaboratively coordinated, managed, and implemented by NGOs on the Central Plateau region of Haiti. The proposed program area, as agreed to by the workshop participants, consists of the towns and surrounding areas of Dondon, La Victoire, Pignon, Ranquitte, and St. Raphael.

It is suggested that USAID issue a grant to HAVA for the proposed program area. Consideration was given to having one of the local NGOs on the Central Plateau manage the grant, but complications in USAID contracting arrangements and lack of agreement among NGOs in choosing one organization dictated that HAVA be the choice. HAVA, an umbrella organization committed to assisting NGOs in Haiti, had previously submitted a proposal for water development to USAID. Channelling the funds to HAVA could build upon HAVA's existing institutional capabilities. In addition, it would respond to the earlier water and sanitation proposal submitted by HAVA to USAID. HAVA would have overall responsibility for program implementation and hire through the Program Coordinator. The Program Coordinator, in close collaboration with the Coordinating Committee, would be responsible for achieving program goals and objectives. The Coordinating Committee would assist in preparing program plans and assure the collaboration of individual NGOs in each of the five towns.

Representatives from the NGOs in each of the five towns mentioned above, would elect two individuals per town to serve on the central Coordinating Committee for Child Survival on the Central Plateau. Thus, the Coordinating Committee would consist of 10 persons and collaborate with the Program Coordinator.

The Logical Framework in Appendix E provides an outline of program goals and objectives. The WASH Project could conduct the program start-up workshop and provide ongoing technical assistance to USAID for periodic evaluations of the program.

Participants at the meeting decided to elect an interim "provisional committee" of two individuals from each town, to coordinate the selection of the two persons who would serve as the actual representatives from their towns on the final Coordinating Committee. Prior to closure of the meeting, participants selected the provisional committee and scheduled another meeting to be held at La Jeune on February 12, 1990, at 8:00 a.m., for both provisional and final committee members. The purpose of this meeting will be to make recommendations on selection of the Program Coordinator and to do further planning for program activities, with preliminary decisions on the roles and responsibilities of the various organizations. It is expected the Program Coordinator, who will be stationed in the Central Plateau, will be familiar with the region, fluent in

Creole, have experience in child survival/water development programs, and have good leadership and management capabilities.

The provisional committee members are as follows:

NAME	TOWN
Jacques Mary Charles	Dondon
Etienne Léclair	Dondon
Fortuné Joseph	La Victoire
Elucier Bernard	La Victoire
Daniel Charles	Pignon
J. Seth Louis	Pignon
Laura Quass	Ranquitte
Diomède Théodore	Ranquitte
Brillant Fernande	St. Raphaël
Dr. E. Guirand	St. Raphaël

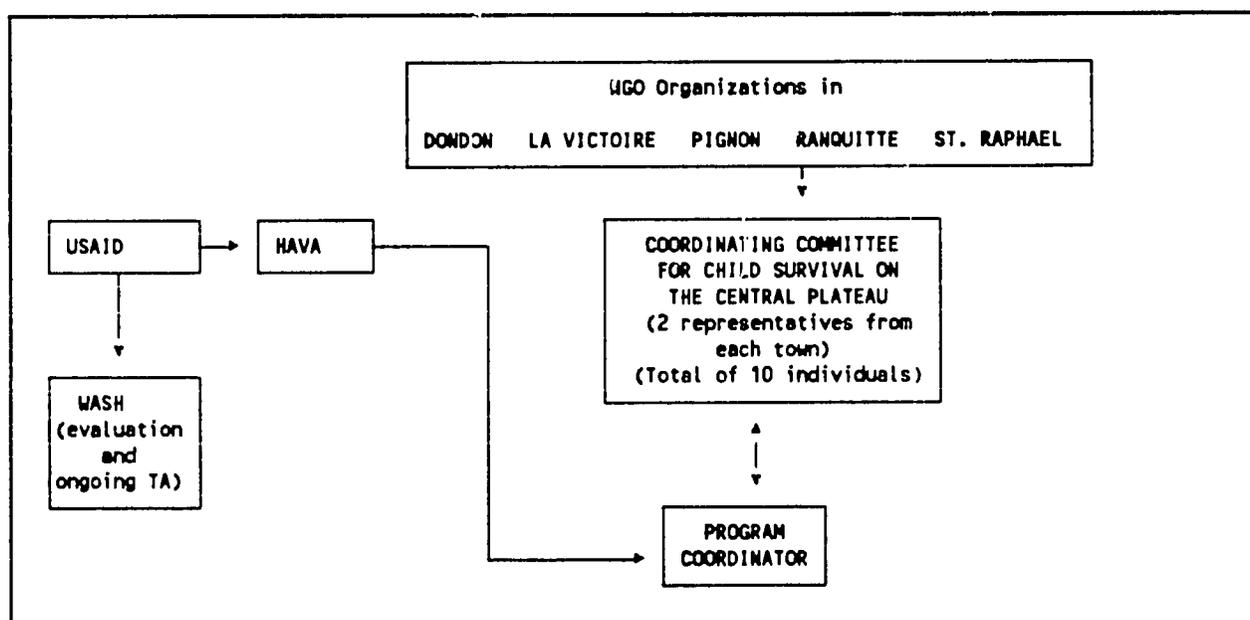


Figure 1

Proposed Organizational Structure

## Chapter 3

### RECOMMENDED PROGRAM COMPONENTS

Many of the NGO organizations represented in the proposed program area are currently undertaking most of the traditional child survival activities including immunizations, oral rehydration therapy, nutrition education, promotion of breastfeeding, and maternal/child health. As mentioned earlier in this report, inclusion of a water component was a key factor in providing an integrated approach to child survival in the Central Plateau. Under the proposed joint program of child survival and water supply and sanitation (hereafter referred to as "the program"), the specific NGOs in each zone will continue their current activities, with some expansion as needed, to cover communities which had not previously been served.

The implementation details of the program components were not decided upon during the planning workshop. It is proposed that a program start-up workshop be held to plan activities over the life of the program. This workshop is expected to last at least one week.

The following sections are provided as preliminary recommendations for the program components within the subject areas of community participation, health education, construction, and administration. Each of these components is needed—in the proper balance—to achieve sustainability. The program approach presented here represents the consensus of views at the planning workshop plus supplementary details provided by the WASH consultants.

#### 3.1 Community Participation

It is essential that the issue of community participation be addressed at the onset of program activities. In some cases, the development community may already exist, where in other cases it will need to be formed. Community participation is defined as the involvement of community members in the design, implementation, management, and evaluation of program components. This is usually done through a development committee which leads and coordinates these activities. The objective is to provide training to the communities which allows them to take control and accept responsibility for achieving and sustaining program benefits. This will be approached in a step-by-step fashion allowing for the option of whether or not to continue to the next step. It is important to note that these steps may take considerable time, six to twelve months. Prior to construction activities taking place, the following activities will be completed.

### Step 1

Step 1 is to determine the community's perceived needs regarding improved water supply. A meeting will be scheduled with the entire community to discuss general health needs and water in particular. If water is identified as a need then a second meeting will be scheduled.

### Step 2

Step 2 calls for exploring the alternatives to determine which water technology best fits the community's needs. If spring development is possible, this is usually the best alternative. If a borehole is needed, then the management and cost implications must be described in detail to the community. The location of the spring or borehole which will provide the needed convenience and accessibility must be agreed upon by both the community and NGO which will provide the well or borehole.

### Step 3

Health education, with specific emphasis on hygiene activities, is then scheduled in accordance with the community's prior knowledge. It is assumed that the level of knowledge will vary greatly among communities based on their prior participation in NGO health education activities. The importance of sanitation and the role of latrines and garbage disposal will be discussed at this stage. This step can be conducted concurrently with step 2.

Many communities have already completed the first three steps as a result of ongoing NGO activities. The degree to which this is true must be ascertained at the beginning of the program.

### Step 4

Management responsibilities of the community must be clearly conveyed to community members. Their financial contributions for construction and ongoing operation and maintenance (O&M) must be delineated and the means to collect and hold these funds determined.

### Step 5

A contract between the community and the program should be signed which states the agreed-upon responsibilities of both the program and the community for building and maintaining the systems. If government institutions are to be involved, such as SNEP, then they should be a party to the contract as well.

### Step 6

As a contractual precondition, a maintenance fund should be established, which will cover the average costs of maintaining an India Mark II pump. This fund will be managed by a health/water committee which may be a subcommittee of an already existing development committee. At present \$60 is collected from each community to partially defray construction costs, but experience in other similar projects indicates that about \$300 is needed for O&M in a revolving fund. The

time required to collect these funds will vary among communities, but considerable time—six months or more—may be needed. After the funds are collected, the construction phase can be scheduled.

### 3.2 Health Education

Health education should continue until there is a solid understanding among the school-aged and adult population of the basic principles of hygiene and disease prevention measures. These messages should include the causes of diarrhea, the use of oral rehydration therapy, the value of vaccinations, correct storage and usage of water, hygienic food preparation, vector-disease control and prevention, and the importance of a clean environment. Each of these messages will be presented in a series of training sessions which will be scheduled both before and after the construction phase.

Reliance upon radio broadcasts through Radio Lumière, operated by Missionary Church Association (MCA), should be an integral part of the health education component. Periodic health messages reinforcing the messages provided in community training sessions will be broadcast. Periodic announcements pertaining to the conditions and progress of the overall program will also be broadcast.

Emphasis should also be placed on health education through the local schools. School-aged children should be targeted to receive appropriate lessons in health. Consideration should be given to providing water systems and latrines to the schools as a part of the construction component.

### 3.3 Construction

After a survey has ascertained those villages which have identified water development as a priority need, the first step is to determine if potable springs offer a solution. Springs are particularly valuable if clean water can be piped by gravity to standpipes in the village or along a corridor of settlements. Springs are preferred because of their lower long-term maintenance costs, although the construction cost of spring capping will vary widely depending on the site.

Boreholes generally have the advantage of being located close to the recipients, having good reliability during periods of drought, and providing water of good quality when properly constructed. The construction cost of boreholes equipped with handpumps is about \$2,200 each. The WCRF has been constructing boreholes in the region with proper design and construction methods and will continue to do so under this program. WCRF has been equipping the boreholes with India Mark II handpumps, procured either through UNICEF or manufactured by WCRF in Arkansas. WCRF plans to test the feasibility of manufacturing the pumps in Haiti. The use of solar pumps will also be explored for selected sites.

The siting of boreholes will be mutually agreed to by the communities (as indicated in step 2 above) and WCRF by taking into account the hydrogeological limitations of the locality and the accessibility and convenience needs of the community. There is a direct correlation between the health impact of water and

distance to the beneficiaries; therefore, the borehole must be located as close as possible to the highest concentration of beneficiaries. If groundwater is not available (borehole yield is too low), then rainwater catchments will be considered. This will be the last resort, however, as the unit costs of providing water can be expected to be quite high.

In order to provide maintenance for handpumps a regional repairperson could be trained for each region by CRWRC, since that organization currently provides operations and maintenance for about 80 pumps in the region. Under this privatization approach, each repairperson would be responsible for about 10 handpumps and would be paid for his or her services from the village maintenance fund. Both regularly scheduled preventive maintenance as well as emergency repairs would be the responsibility of these repairmen. The program would establish a fixed fee structure for both spare parts and services and make these fees known to each health/water committee. This would avoid problems of negotiating such fees and provide a stable environment under which both the villages and repairpersons could operate.

As a possible alternative to the regional repairperson approach, each village could provide a repairperson who would be trained and be responsible only for the pump(s) in that village. However, it is probable that the regional approach will prove more cost effective. The possibility of employing women as repairpersons should be explored.

Spare parts would be available on a cost basis from the regional offices of SNEP. Should SNEP be unable to guarantee stocking spare parts at its regional offices, the commercial sector would necessarily be contacted.

A latrine construction program is often more enthusiastically accepted when it follows the construction of the water system, although the groundwork to establish the relationship of latrines and health must be laid as a part of the health education component. A critical factor appears to be the extent to which the program subsidizes the cost of constructing latrines, as few households will choose to bear the full costs of construction. A generally successful formula is for the program to provide the cement, reinforcing bar, and the supervisory labor to complete the platform and toilet seat. Each household would then be responsible for digging the pit, supporting the pit with masonry if needed, and building the latrine house.

The NGO organization(s) to be responsible for latrine construction remains to be decided. If outside assistance is needed, Basic Services, Inc., an NGO that has recently begun work in Haiti, could be contacted. Basic Services has had considerable success with a Vietnamese composting latrine model in Mexico.

### 3.4 Reforestation

Participants at the planning workshop emphasized the need to include reforestation in program plans. The work undertaken within community participation will allow mobilization for reforestation (and any other development activities as well). It is expected, however, that funds for reforestation will come from sources outside of the program.

### 3.5 Administration

Figure 1 (in Chapter 2) illustrates a suggested organization structure for management and implementation by NGOs in the proposed program area. This is also described in Chapter 2, Proposed Program Organization.

To summarize, USAID should enter into a cooperative agreement with HAVA for overall management of the program. Through the Program Coordinator, HAVA could ensure that the necessary program components such as operations and maintenance, community participation, and health education are being implemented by the various NGOs. HAVA could then subcontract to WCRF to carry out well drilling and spring capping activities in the area. HAVA could also provide technical assistance on an as-needed basis to the NGOs on pump maintenance, assessment of existing materials on health education and community participation, and facilitation and liaison between the NGOs and SNEP.

HAVA is interested in further exploring these ideas. The specific delegation of roles and responsibilities of the various organizations and individuals involved will be clarified following review of this document by USAID, HAVA, and the NGOs in the Central Plateau, and at the program start-up workshop.

### 3.6 Sustainability

The sustainability of this program, that is, the extent to which program benefits continue to accrue to the intended beneficiaries after the program is terminated, depends upon several key factors. Perhaps the most important of these is the approach to operation and maintenance of handpumps. This approach must be firmly institutionalized and fine-tuned well before the program termination date.

The success of the O&M approach is dependent on the management capabilities of the communities and their ability and willingness to pay for these services. Their willingness to pay is largely dependent on their perception of benefits accruing from the water supplies. These benefits include health, social, and economic benefits, the scale of which will vary from site to site. The community perception of benefits is, in turn, influenced by the effectiveness of the health education component of the program.

An added benefit of the community participation approach is its role in promoting democratization, which may also be considered an important element of sustainability. The water/health committees will necessarily foster a sense of collaboration and encourage the ideals of community self-determination.

In summary, sustainability depends upon an integrated approach to development involving community participation in management decisions, effective health education, and reliable O&M services and capability. The NGOs involved in the program must accept responsibility for combining their respective experience and capabilities into a coordinated program. It is critical to the success of the program that each component be balanced to achieve the expected outcomes and

resulting benefits in terms of the goal of improving child survival in the region.

### 3.7 Implementation Schedule

The implementation Schedule is included in Table 1 on the following page.

TABLE 1

PROPOSED IMPLEMENTATION SCHEDULE

<u>ACTIVITY</u>	<u>COMPLETION DATE</u>
Planning Workshop	11-12 January 1990
NGO Coordination Meeting	12 February 1990
USAID Program Approval (start date)	01 July 1990
Subcontract with HAVA	01 August 1990
Hire Program Coordinator	01 September 1990
Program Start-up Workshop	01-05 October 1990
HAVA Subcontract with NGOs for:	
Community Participation	Variable over 30 months
Health Education	Variable over 30 months
Water & Latrine Construction	Variable over 30 months
WASH Technical Assistance/Evaluation	Variable over 30 months
Program Closure (30 months duration)	31 December 1992

## Chapter 4

### LESSONS LEARNED

Drawing upon the lessons learned from project experiences is crucial to the successful planning and administration of future activities. The design and implementation of the planning workshop for an integrated water supply and sanitation program for NGOs in the Central Plateau, provided some important lessons that should be of interest not only to Haiti, but to other countries who wish to use a similar participatory program design for designing joint water supply and sanitation and child survival programs.

1. **Participatory Program Design:** As noted earlier in this report, there are a large number of different NGOs operating in the proposed program area. Each NGO has its own mandate and development approach, and they often work quite separately from one another even within the same town. The program planning workshop afforded NGO representatives the opportunity to exchange information on their various activities, explore the possibility of working together, and collaborate on a preliminary design of an integrated water supply and sanitation program. The Haiti workshop revealed that despite the large number of different organizations and personalities involved, it is possible to design a program in a participatory manner, which is important for ensuring a sustainable strategy since it directly includes community-level input in the planning phase of the design.
2. **Length of Workshop:** The workshop lasted two full days. However, this was not enough time for participants to fully discuss some of the issues raised during the meeting, or to provide a detailed plan for the actual implementation of the joint child survival and water supply and sanitation program. Ideally, the workshop should have included an extra day to allow further debate among the NGOs on how they could cooperate on the various program components. It is expected that the program start-up workshop which lasts for five days (proposed for October 1990), will necessarily address the details of the various program components and determine the means of cooperation and sharing among the NGOs.
3. **Integrated Water Supply and Sanitation and Child Survival Program:** The NGOs represented at the workshop are already promoting a number of child survival and other health activities on the Central Plateau. It is interesting to note that a shared desire to integrate water supply and sanitation into their ongoing activities, served as a catalyst for bringing the NGOs together to discuss the issue of an integrated programmatic approach. In fact, several participants mentioned that this workshop marked the first convention of NGO representatives on the Central Plateau. During the meeting, it was clear that participants viewed the provision of adequate safe water and sanitation services as addressing needs expressed at the community level and a necessary element of health initiatives.

4. **Facilitator Language Capabilities:** The workshop was conducted in French, with translations into English and Creole. Though French is recognized as the official language of Haiti, most Haitians communicate only in Creole. The majority of the workshop participants understood French, about one-third of them spoke only Creole, and several only English. During the workshop, most discussions among participants took place in Creole in both the plenary and small-group sessions. Since the facilitators of the workshop did not understand Creole, this made it difficult at times for them to follow the actual dialogue, even though a Creole translator was available. This multi-language situation is not unique to Haiti, and is present in many developing countries. Whenever possible in such cases, it may be more appropriate to provide facilitators who are fluent in the dominant language. USAID should explore ways of identifying qualified Haitian facilitators.
  
5. **Pre-Planning to Avoid Pitfalls:** As noted earlier, there are many diverse groups currently working in a variety of development initiatives on the Central Plateau. These NGOs usually do not engage in collaborative work with one another, and often prefer to be autonomous. Given the short time frame, one of the key concerns in planning a meeting for these NGOs, is how to minimize and/or avoid conflict among these groups, while achieving workshop objectives. In this case, it greatly helped the workshop planning process to have prior insight into the particular situation on the Central Plateau. This was provided by the October 1989 survey of NGOs conducted by WASH for USAID. This survey provided information on controversial subject areas between NGOs (e.g., promotion of family planning methods), allowing the meeting facilitators to divert potential confrontations in order to arrive at a group consensus.

**APPENDIX A**

**List of Participants at Program Planning Meeting**

APPENDIX A

List of Participants at Program Planning Meeting

<u>Name</u>	<u>Organization</u>	<u>Town</u>
Laura Quass	Mennonite Central Committee	Ranquitte
Dr. E. Guirand	Comité de Bienfaisance	St-Raphael
Abel Joseph	Comité de Bienfaisance	Pignon
Acène Jean Pierre	Hôpital de Bienfaisance	Pignon
Diomède Théodore	Centre des Eglises Baptistes Jéhova Juré	Ranquitte
Genet Calixte	Président Fédération C.A.C.	Pignon
Serge Seraphin	Solarech	Pétion-Ville
Elucier Bernard	Mayor	La Victoire
Claudius St-Louis	Mayor	Pignon
Badio Joseph Felix	Engineer	Port-au-Prince
Calixte Diodat	Ministère Planification et Coop. Externe	Pignon
Francio Chanel	SNEP	Pignon
Davilus D. Pierre	Comité de Bienfaisance	Pignon
Rev. Fortuné N. Joseph	Haiti Missions INC	La Victoire
Mme Paulette Antoine	CRWRC (ODEKKA)	Pignon
Zelda Pearson	Missionary Church Association	Gens de Nantes
John Baker	WCRF	Pignon
Laurie Baker	WCRF	Pignon
Daniel E. Charles	CRWRC (ODEKKA)	Pignon
P. Jacques Mary Charles	Catholic Church	Dondon
Ray Vander Zaag	CRWRC	Pignon
Bill Gregcry	WCRF	Pignon
Jay Lawhon	WCRF	Pignon
Lynn Marshal	University Research Corporation	Port-au-Prince
Monique Giasson	Catholic Church	Dondon
Levy Bien-Aimé	HAVA	Port-au-Prince
Etienne Léclair	Catholic Church	Dondon
Brillant Fernande SSJ	Catholic Church	St-Raphael
Matthew Huber	WCRF	Pignon
Sam Birkey	Missionary Church Association	La Jeune
Heidi V. Gingerich	Mennonite Central Committee/ World Neighbors	Pignon
Dr. Guy D. Théodore	Comité de Bienfaisance	Pignon
David Eckerson	USAID	Port-au-Prince
Sumana Brahmam	WASH	
Phil Roark	WASH	
Idonel Jean Jacques	SNEP	Port-au-Prince
Pierre Sajous	SNEP	Port-au-Prince
Rev. Kaleb Lucien	HIM	Pignon
Joseph Seth P. Louis	CRWRC (ODEKKA)	Pignon
Père Ideven Laga	Curé Paroisse	Pignon
Dr. Serge Cabrol	MSPP/Comité de Bienfaisance	Pignon
Miss Nelta J. Desravines	MSPP District Grande-Rivière du Nord	Grande-Rivière du Nord

**APPENDIX B**

**Concept of  
Integrated Child Survival Program  
in the Central Plateau**

## APPENDIX B

### Concept of Integrated Child Survival Program in the Central Plateau

GOAL: To ensure the survival of children in the Central Plateau Region

#### OBJECTIVES:

- Construct water supply and sanitation facilities
- Create and/or enhance local committees to manage health interactions
- Provide health and hygiene education
- Improve behaviors related to health

#### PROGRAM COMPONENTS:

1. Construction
  - Boreholes or Spring Capping
  - Rooftop Catchment
  - Latrines
2. Community Participation
  - Create and/or enhance health, water, and development committees
  - Set up operations and maintenance systems
  - Set up financial management
  - Assure women's role
  - Establish self-evaluation system
3. Health Interventions
  - Provide immunizations
  - Teach ORT
  - Provide medicine for deworming
  - Teach maternal care
  - Teach nutrition
  - Prepare mass media presentations (radio, workshops, written materials)
  - Prepare school presentations
4. Administration
  - Oversight and monitoring
  - Technical assistance

**APPENDIX C**

**Agenda of Planning Workshop, 11-12 January 1990**

APPENDIX C

Agenda of Planning Workshop, 11-12 January 1990

11 JAN 1990

MEETING ITEMS

9:00-9:15	WELCOMING SESSION
9:15-10:00	ICE BREAKER
10:00-10:15	GOALS OF WORKSHOP/SCHEDULE
10:15-10:30	BREAK
10:30-11:30	PRESENT CONCEPT OF INTEGRATED PROGRAM OF CS MODEL/COST LIMITS SPECIFIC TO PIGNON AREA
11:30-12:00	BEGIN SMALL GROUP DISCUSSION ON PROGRAM CONCEPT
12:00-1:00	LUNCH
1:00-1:30	CONTINUE SMALL GROUP DISCUSSION ON CONCEPT
1:30-2:30	REPORT OUT FROM GROUPS
2:30-3:00	ISSUES RELATED TO DEVELOPMENT OF A JOINT WATER SUPPLY AND SANITATION AND CHILD SURVIVAL PROGRAM
3:00-3:15	BREAK
3:15-4:15	SMALL GROUP DISCUSSION ON ISSUES
4:15-4:30	WRAP-UP OF FIRST DAY

12 JAN 1990

8:00-8:15	RECAP PREVIOUS DAY'S ACTIVITIES
8:15-10:00	REPORT OUT SMALL GROUP SESSIONS ON ISSUES
10:00-10:15	BREAK
10:15-11:00	GROUP DISCUSSION BY NGOs
11:00-12:00	PRESENTATION BY NGOs ON POSSIBLE COMMITMENTS TO INTEGRATED PROGRAM
12:00-1:00	LUNCH
1:00-2:30:	FINALIZE CONCEPT OF INTEGRATED PROGRAM AND RESOURCES REQUIRED
2:30-3:00	NEXT STEPS - SUMMARY AND CLOSURE

**APPENDIX D**

**NGOs Located in the Central Plateau Region**

## APPENDIX D

### NGOs Located in the Central Plateau Region

This section provides a brief overview of the various activities conducted by the NGOs located in the five towns of the proposed program area.

#### COMITE DE BIENFAISANCE

The main activities of this organization are in the areas of health care, agriculture, community development, water supply, and evangelical outreach. Most of the work is conducted through community groups which make referrals to the Hôpital de Bienfaisance for general health care and organize communities to raise money for well drilling activities. The Hôpital de Bienfaisance is one of only two medical facilities in the Central Plateau. It is a 25-bed hospital which serves people from Pignon and surrounding towns, providing both curative and preventive care. This organization is based in Pignon, with outreach activities in San Raphael and Dondon, with plans to expand to La Victoire and Ranquitte.

#### MENNONITE CENTRAL COMMITTEE/WORLD NEIGHBORS

This organization conducts activities in the areas of agriculture, water supply, preventive health, nutrition, and community development. Community groups promote outreach programs, and communities have been organized to provide some money for spring cappings. They have also conducted hygiene education related to clean drinking water and latrine use. MCC representatives are located in Pignon and Ranquitte.

#### CENTRE DES EGLISES BAPTISTES JEHOVA JURE

The main mandate of this organization is evangelical outreach, with construction of churches, orphanages, schools, and health clinics. It encourages community participation in construction activities and works with CARE to promote nutrition education. This organization is based in Ranquitte.

#### SOCIETE NATIONALE D'EAU POTABLE

This is a Haitian government-related water agency designed to promote water supply activities nationwide, through construction, provision of supplies, and general technical assistance. In the proposed program area, SNEP has constructed about a dozen water systems to serve 30,000 people. This organization is based in Port-au-Prince, but has a local representative for the Central Plateau region.

#### HAITI MISSIONS INC.

This organization is involved in evangelical outreach, education, water supply, nutrition, and community development activities. It operates ten schools with a total of 1,250 students. It is also currently involved in some collaborative community development activities with CRWRC and the Comite de Bienfaisance and has worked with SNEP in promoting water supply endeavors. This organization is based in La Victoire.

#### CHRISTIAN REFORM WORLD RELIEF COMMITTEE

This organization is currently working in the areas of community development, agriculture, health, literacy, administration, and evangelism. It currently operates 60 health groups in 31 communities and promotes preventive health such as prenatal care. It has created a local group (ODEKKA) to work independently of CRWRC. It also engages in some collaborative work with WCRF to carry out the operations and maintenance of handpumps. This organization is based in Pignon.

#### WORLD CHRISTIAN RELIEF FUND, INC

This organization promotes water supply programs, food production, evangelical outreach, and agricultural training programs. It currently conducts well drilling and training in the operation of drilling rigs in Pignon and several surrounding towns. It operates three drilling rigs—2 hammer drills and one rotary rig. WCRF also runs a 70-acre demonstration farm to carry out agricultural training activities for local farmers. This group works with CRWRC in the area of operation and maintenance of the handpumps. It is based in Pignon.

#### CATHOLIC CHURCH

The Catholic Church has representatives involved in a variety of community development, preventive health care, evangelical outreach, and education endeavors in the five towns of the proposed program area. It has collaborated with CARITAS to promote nutrition education activities, and with WCRF to provide capped springs and wells to the towns.

#### MISSIONARY CHURCH ASSOCIATION

This group currently operates 56 churches in the region and 34 primary schools serving 4,000 students. It is responsible for bringing other NGOs into the region, including CRWRC and MCC. It also operates two health clinics focussing on maternal/child health, nutrition, immunization, prenatal care, midwifery, and treatment of tuberculosis. The health clinics are run by two nurses, who make referrals of patients to the Hôpital de Bienfaisance. In addition, MCA broadcasts health messages on its own station, Radio Lumière. This organization is based in La Jeune, just outside of Pignon.

#### HOSEAN INTERNATIONAL MINISTRIES INC

The main mandate of this group is the promotion of **camping ministries**, leadership training, preaching, and evangelical outreach. This group currently operates an orphanage for 17 children in Pignon, and is constructing a youth center just outside of Pignon, with plans for a vocational technical school to teach carpentry, mechanics, home economics, etc., for local children. This organization is based in Pignon.

#### HAITIAN ASSOCIATION OF VOLUNTARY AGENCIES

The main purpose of this group is to serve as an umbrella organization for voluntary agencies operating in Haiti and is officially recognized by the Government of Haiti. HAVA provides technical support and management assistance to voluntary agencies and is based in Port-au-Prince.

**APPENDIX E**

**Logical Framework**

**APPENDIX E**

**Logical Framework**

**GOAL**

To improve child survival in the Central Plateau region of Haiti, through the integration of ongoing child survival activities (VACS Project) with construction of potable water and sanitation facilities and health education within a community-based management system.

OBJECTIVES	OUTCOMES	ASSUMPTIONS
<p>1. To construct:</p> <p>(a) boreholes with handpumps</p> <p>(b) household sanitation</p> <p>(c) alternative water systems</p>	<p>80 boreholes with handpumps</p> <p>300 latrines</p> <p>springs and rainwater catchments as needed (about 10 springs.)</p>	<p>Hydrogeology of zone permits high success ratio (90 percent productive boreholes).</p> <p>Households are willing systems to pay about half of construction costs.</p> <p>Springs will be capped catchments as first alternative whenever possible. If neither boreholes or springs are feasible, then rainwater catchments will be considered.</p>
<p>2. To expand training of water/health groups (committees)</p> <p>(a) groups for each water system to be formed</p> <p>(b) emphasis placed on role of women</p> <p>(c) pump repairmen will be trained (2 per 10 water systems)</p>	<p>80 groups (committees)</p> <p>210 women (3 per group)</p> <p>160 repairmen trained in pump</p>	<p>Committees will elect a water/health group for each water system (borehole or spring) to serve as a focal point for all program activities.</p> <p>Each group will contain a representative number of women to assure their participation.</p> <p>Repairmen will be assigned to zones as regional repairmen and accept responsibility for servicing about 10 water systems each.</p>
<p>3. To educate in health and hygiene</p> <p>(a) To reach all beneficiaries (18,500) of water and sanitation program</p> <p>(b) two people in each group will be trained as trainers in health education.</p>	<p>10,000 people to receive training (school age children and adults)</p> <p>160 trainees</p>	<p>An estimated 250 people per borehole will benefit from water systems. Springs may allow higher number.</p> <p>At least 2 people from each group will volunteer to be trained to serve as focal points for health education activities.</p>

**APPENDIX F**

**Environmental Impact**

## APPENDIX F

### Environmental Impact

The proposed program will not produce negative impacts to the environment. Indeed, the program is expected to have a significantly favorable effect on improving the environment within targeted communities. Areas of concern in water, sanitation, and health projects include the following: lowering the water table, polluting the water table, concentrating human and animal populations which contributes to deforestation, providing habitats for undesirable disease vectors, and construction activities which negatively impact the environment.

The use of boreholes with handpumps (and springs) will yield minor amounts of water compared to natural recharge from precipitation. The distance between boreholes will be at least several hundred meters, at a minimum, and therefore the depletion of the water table will be minimal.

Properly constructed boreholes with well screen cemented in place, an apron for mounting the handpump, and adequate drainage around the borehole will minimize the possibility of pollution from surface runoff. In any case, the use of groundwater will almost always be of higher quality than surface water. Latrines will be located at least 50 meters from boreholes to avoid contamination of groundwater.

The provision of potable water within established communities is unlikely to produce significant changes in population although some increase is expected. Since the quantity of water made available will be sufficient only for the existing inhabitants and their small livestock, no additional strain on the vegetative resources will occur.

Providing potable water with convenient access will reduce the need of community members to venture into areas, such as streams and marshes, which produce many disease vectors. Proper drainage around the borehole will be stressed to avoid creating breeding sites for mosquitos.

Construction activities will utilize drill rigs and heavy trucks which will necessitate the clearing of trails, in some cases, to drilling sites. These impacts will be minor but will require some care to avoid creating conditions where erosion may occur.

**APPENDIX G**

**Women in Development**

## APPENDIX G

### Women in Development

Several program components provide opportunities for women participants and, in some cases, require their active participation. Women are currently being employed by the NGO organizations in several activities including community participation and health education. In this capacity they act as facilitators and play a key role, particularly in relating to the needs of female community members. Increasing the opportunities for employment of women will be encouraged among the NGOs.

The program will require that each community water/health committee have at least three female members. Opportunities will also be explored to use women in the role of pump repair persons whenever possible.

**APPENDIX H**

**Workshop Purpose Statement**

## APPENDIX H

### WORKSHOP PURPOSE STATEMENT

To discuss how an integrated water supply and sanitation and child survival program could be designed, managed, and implemented by cooperating NGOs on the Central Plateau region of Haiti.

### DEFINITIONS

#### **Child Survival**

Child survival is a relatively new term describing a programmatic emphasis in the primary health care sector on reducing morbidity and mortality among young children. It is generally defined as a package of specific interventions for children under five years of age. According to United Nations Children's Fund (UNICEF), child survival programs include growth monitoring, oral rehydration therapy (ORT), breastfeeding promotion, and immunization. In some cases, it may also incorporate family planning, nutritional support, and the treatment of acute respiratory infections. Water and sanitation, particularly safe waste disposal and personal hygiene, may also be part of the package.

#### **Sustainability**

Characteristic of sound projects, under which conditions are established that produce outputs and benefits after project implementation is completed. Sustainability may be defined in terms of immediate outputs, those that were put in place during the life of the project and began to provide immediate benefits to the population; and replicative outputs, those designed to replicate the immediate outputs. For example, the construction of a water well produces immediate benefits while the training of a health committee which manages the water well is a replicative benefit.

#### **Community Participation**

To involve community members in the design, implementation, management, and evaluation of program components. This is usually done through a development committee which leads and coordinates these activities. The objective is to provide training to the communities which allows them to take control and accept responsibility for achieving and sustaining project benefits.

#### **Operations and Maintenance (O&M)**

A key part of sustainability which addresses the responsibility for operating and maintaining the water and sanitation systems. It includes preventive maintenance to keep the systems in good operating condition and repairs to broken or damaged systems. It also includes the responsibility of managing funds which are collected to pay for the O&M services.

**APPENDIX I**

**Issues Related to Development of  
a Joint Water Supply and Sanitation and Child Survival Program**

## APPENDIX I

### ISSUES RELATED TO DEVELOPMENT OF A JOINT WATER SUPPLY AND SANITATION AND CHILD SURVIVAL PROGRAM

1. What should the size/outputs of program be?

Program Components:

- Water systems
- Latrines
- ORT
- Immunizations
- Deworming program
- Nutrition
- Other?

2. What is the coordinating mechanism? Should there be an overall program coordinator for such a program? Develop a job description for the program coordinator.

3. What should be the selection criteria of villages? What then are the appropriate villages?

4. How does one measure long-term sustainability? What must be included in the program to assure sustainability?

5. What is the best approach for community participation? Build upon existing development committees or create new committees?

**APPENDIX J**

**Itinerary of WASH Team**

## APPENDIX J

### Itinerary of WASH Team

Monday, 8 January, 1990	Travel to Haiti/Port-Au-Prince
Tuesday, 9 January, 1990	Meet with USAID/Port-Au-Prince. Finalize arrangements for meeting.
Wednesday, 10 January, 1990	Travel to Pignon
Thursday, 11 January, 1990	Workshop
Friday, 12 January, 1990	Travel to Cap-Haitien
Monday, 15 January, 1990	Draft program document
Tuesday, 16 January, 1990	Return to Port-Au-Prince. Draft program document.
Wednesday, 17 January, 1990	Draft program document. Meet with representatives from HAVA.
Thursday, 18 January, 1990	Incorporate changes in program document. Submit document to USAID.
Friday, 19 January, 1990	Return to U.S.

**APPENDIX K**

**Outputs of Small Group Discussions on Key Issues**

APPENDIX K

Outputs of Small Group Discussions on Key Issues

1. What should the size/outputs of program components?

Water systems	60 %	80 wells + pumps @ \$2,200.
Latrines	25 %	300 latrines @ \$250.
Education	15 %	Local committees trained by central committee
Administration	15 %	of each of other components

Water systems	\$ 176,000
Latrines	75,000
Education	50,000
Two year total	<u>\$ 301,000</u>

Other components including ORT, vaccinations, nutrition, and others are considered to be ongoing and not in need of funding.

2. What is the coordinating mechanism? Should there be an overall program coordinator for such a program? What should be the job description for the program coordinator?

The coordinating mechanism should be through an elected coordination committee made up of 10 members, two from each of the five subregions. A program coordinator should ideally come from one of the NGO organizations but absence of consensus and problems of contracting with USAID preclude this approach. The program coordinator should be an individual who is familiar with the region and the NGO organizations involved. The most practical approach is to contract with HAVA who would hire a program coordinator with the approval of the coordination committee.

3. What should be the selection criteria of villages? What then are the appropriate villages?

- a) Must have completed health education activities.
- b) A survey must have been completed which indicates an urgent need for potable water which will contribute to the improvement of health among the inhabitants.

- c) Once a and b are realized, the community must manifest a desire, motivation and acceptance to having potable water. A reforestation program is also recommended to be a part of the activities.

Specific villages include Ranquitte, Monbin, Crochu, Dondon, La Victoire, and Pignon.

4. How does one measure long-term sustainability? What must be included in the program to assure sustainability?

- a) Active participation by the community in the planning of the program activities.
- b) Existence of a motivated management committee.
- c) A level of health education among the beneficiary population.
- d) Existence of local trained technicians.
- e) Existence of a mechanism for collecting funds.
- f) Existence of a program of regional training.
- g) Existence of a procedure for stocking spare parts.

The program should include training, motivation, health education, community participation, appropriate technologies, and reforestation.

5. What is the best approach for community participation, build upon existing development committees or create new ones?

Community participation should include the following

- participation
- education through radio
- schools: health curriculum
- church groups
- completion of building activities
- build on existing groups
- central coordinating committee