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# **Hermandad, Inc.**

**Primary Attention in Health, Water, and Sanitation  
Post-Hurricane Georges Reconstruction Project  
USAID - ENTRENA, S.A. - NGO's**

**Sub-project PROSANA  
Project No. 517-G-00-00-00101-00**

## **FINAL REPORT**

**Covers grant period:**

**October 14, 1999 through May 1, 2001**

**December 14, 2001**

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# **Protección de Salud de Niños Afectados por el Huracán Georges PROSANA**

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# **Protección de Salud de Niños Afectados por el Huracán Georges PROSANA**

## **1. General Project Information**

### **Hermandad, Inc.**

USAID Project – Primary Attention in Health, Water, and Sanitation

Sub-project – Health Protection for Children Affected by Hurricane Georges  
"PROSANA"

Grant Agreement signing date      October 15, 1999

Provinces included                      Peravia, Azua, San José de Ocoa

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This report details the results of the subproject "PROSANA", carried out between October 15, 1999 and May 1, 2001. The ending date of February 1, 2001 as specified in the Grant Agreement was modified to include one three month extension from February 1 2001 until May 1, 2001.

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## **2. Executive Summary**

Hermandad's PROSANA Project was instrumental in reestablishing vital health, water, and sanitation services for the population of 16 rural and semi-urban communities in the southwest of the Dominican Republic after Hurricane Georges unleashed its destructive force upon the island in September, 1998. Hermandad has a history of collaborating in the development of these impoverished, isolated communities, working together on the community level in order to improve basic health conditions and living standards. The devastation experienced after the hurricane was a huge step backwards in this long, involved process. Obviously, the areas hardest hit were related to infrastructure – roads, houses, potable water systems, and sanitary facilities – which made for a precarious situation in relation to the health and well-being of the population. The spirit of the victims however, was merely bruised and not broken, paving the way for the rapid recovery and personal development made possible by the timely initiation of the USAID Reconstruction Program.

The PROSANA subproject's general objective was to protect the health of the rural and marginal urban population, focusing on the health of women and children under five years of age, in the communities involved in the subproject, in both normal and post-natural disaster conditions. The specific objective was to reduce the cases of diarrhea (EDA) and severe respiratory infections (IRA) in the population under 5 years of age through the improvement of potable water infrastructure, environmental sanitation, and primary health care. In order to achieve these overall objectives, PROSANA was divided into three specific component areas related to overall community health, and one more non-formal component to assure community integration into and sustainability of the intervention. The activities carried out in each community served to: 1) Establish a system of primary

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health attention using the AIEPI<sup>1</sup> strategy, 2) Reestablish access to potable water, 3) Increase access to hygienic excreta disposal systems (VIP latrines)<sup>2</sup>, and finally 4) Organize and strengthen community water and health committees. The beneficiary population was distributed in 15 rural and 2 semi urban communities in the provinces of Azua, Peravia, and San José de Ocoa.<sup>3</sup>

In order to be able to accurately measure the results, or indicators, Hermandad commissioned a Baseline Study upon initiating the project. Quantitatively, the baseline study contains information on the total population of the beneficiary communities, number of children under 5, number of women, number of families with access to potable water, and number of families with access to hygienic sanitary facilities. Qualitatively, the study contains information gathered through interviews with the potential beneficiaries about their perceptions of the quality of the potable water systems, access to latrines, and general health and well-being of the childhood population. We used some qualitative means to determine the latter indicator, but by and large, the results are presented rather qualitatively because the incidence of childhood illness was difficult to measure due to lack of statistical information. Some comparisons between baseline and post-project conditions are contained in Section 4, Discussion of Results by Component.

The table on the following page contains a summary of the actual results of three of the major components (water, sanitation, and health) as compared with the indicators specified in the Grant Agreement (Goal column). The results presented here summarize the total number of direct beneficiaries per component. Appendix

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<sup>1</sup> Atención Integrada a Enfermedades Prevalentes de la Infancia, or Integrated Attention to Prevalent Childhood Illnesses

<sup>2</sup> Ventilated Improved Pit

<sup>3</sup> The two semi urban communities, La Saona and El Maní, are generally considered one large community due to the fact that they have grown together over the years and there is little actual distinction. For this reason, the project is said to have been completed in 16 and not 17 communities.

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5 shows the number of direct beneficiaries per component, per community, divided into men, women, and children.

**Table 1**  
**Summary of Indicators per Component**

Indicators	Goal at end of project	Actual results 5/1/01	% Achieved (final)
<b>Mitigation of Health Risks</b>			
Total number of persons in affected communities with access to reconstructed potable water systems.	6,235	6,659	106.80%
Total number of persons in affected communities with improved access to sanitary latrines.	1,325	1,218	91.92%
Total number of persons in affected communities receiving Primary Health Care attention.	8,119	7,384	90.95%

Overall, the project has shown to have significantly improved the general health of the childhood (<5 years) population, as measured by the reduction in incidences of diarrhea (EDA) and serious respiratory infections (IRA). Moreover, through the establishment of 11 Community Oral Rehydration Stations (hereafter referred to as "CORS"), most of the cases encountered are effectively treated within the communities, at the "primary" level, hence vastly reducing the number of unnecessary hospital visits made by the beneficiary population. The combination of the objectives of improving access to potable water, sanitary excreta disposal systems, and primary health care within the beneficiary communities was a successful strategy to guarantee that the conditions post-Hurricane Georges are as good as or better than they were before September 1998.

### **3. Description of Objectives and Activities by Component**

During the course of the project, the changing conditions in the target communities necessitated a certain degree of flexibility with respect to the interventions carried

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out in each community. Overall, the basic objectives contained in the Grant Agreement, as described below, were quantitatively and qualitatively met within the context of the conditions of each community. The planned and actual project interventions in Health, Water, and Sanitation are tabulated in the first 4 appendixes: Appendix 1 gives an overview of what was planned and carried out within each community with respect to each specific project component area; Appendix 2 contains the planned and actual products of the activities by component; Appendix 3 is a summary of indicators (beneficiaries) of educational activities; Appendix 4 tracks the chronological progress of major activities throughout the subproject. The following paragraphs offer a brief explanation of these interventions by component and, where appropriate, by community as well.

### **3.1 Health**

The central objective of the Health Component was to establish systems of primary health care in the beneficiary communities. The activities in this component focused on improving access to primary health care through education, health and hygiene promotion, and identification and/or referral of children with prevalent childhood illnesses. The *AIEPI* strategy of preventative health would be instrumental in guaranteeing the effectiveness and sustainability of the intervention, allowing the project to be closely integrated with health promotional efforts being carried out concurrently by OPS, SESPAS<sup>4</sup>, and UNICEF.

The definition of Primary Health Care relates to the ability of a community to deal with common health problems which can be effectively dealt with at the community level, without depending upon resources from SESPAS. Additionally, more serious health problems which cannot be treated within the community must be identified and referred to SESPAS or other qualified facilities. The subproject sought to improve the functionality of this system within the communities through educating the public at large (specifically women of child-bearing age), training Voluntary

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<sup>4</sup> Secretaria de Salud Pública y Asistencia Social (Secretary of Public Health)

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Health Promoters in the "AIEPI Strategy", "Community Nutrition", and "Pregnancy, Birthing and Postpartum", training CORS attendants in the treatment and referral of children with diarrhea, and establishing an adequate number of CORS with the necessary materials.

Upon initiating the subproject, Hermandad personnel planned to identify potential voluntary personnel who would later serve as local voluntary health promoters and CORS personnel. After being trained, the volunteer promoters would be supervised and assisted in establishing a schedule of regular home visits (monthly or biweekly) to families with children under 5 years of age. These visits would serve both as non-formal educational opportunities for mothers as well as to monitor childhood development and offer follow-up to address any previously identified health risks. The CORS personnel would provide back-up to the promoters, maintaining the CORS facilities in case a promoter had to refer a child for rehydration therapy. Additionally, both promoters and CORS personnel would be trained to identify and refer more serious cases to the nearest SESPAS facilities.

### **3.2 Water**

The specific goal of the Water component was to guarantee the provision of potable water to 100% of community members (beneficiaries) under normal and post-natural disaster conditions. The creed of the water component was to "build back better", or to assure that the repaired water systems would be more resistant to future hurricanes. Providing constant access to high quality, potable water is elemental in any preventative health strategy, as waterborne diseases are a constant threat to the childhood population in many rural and semi-urban areas of the Dominican Republic. Moreover, a reliable potable water source is essential following any natural disaster, when access to outside health services is severely limited.

The planned degree of reparation, reconstruction, and new construction depended upon the conditions of each individual community, all of which had some source of

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potable water before the disaster. The following describes the conditions found in each community following the hurricane, and the planned interventions included in the Grant Agreement:

### ***La Mesa Domingo, Sabana Abajo, Palo Sabina***

La Mesa Domingo had a potable water system. The heavy rains from the hurricane damaged most of the family tapstands. Both Sabána Abajo and Palo Sabina, connecting communities to La Mesa Domingo, used springs or water from nearby arroyos to meet their potable water needs; the heavy rains rendered these sources useless for weeks after the hurricane. The intervention planned for Sabána Abajo was to extend the Mesa Domingo system to benefit this nearby community. Later during the execution of the subproject, we included the extension of the system to Palo Sabina as well. La Mesa Domingo was to benefit from the reconstruction of approximately 35 tapstands, plus 15 additional between the other two annexed communities.

### ***Los Tramojos***

The existing 50,000 gallon potable water storage tank had a wood and corrugated metal roof, which was significantly weakened by the hurricane and was determined to have little resistance to a similar future event. The activity planned for this water system was the fortification of the existing structure to accommodate a new reinforced concrete slab, benefiting approximately 105 families.

### ***El Caimital, Los Corozos, Los Palmaritos***

This multiple water system was damaged by the heavy rains from the hurricane, but was more or less repaired in the following few months. The more pressing issue was the diminishing spring flow due to years of deforestation and the more recent drought. The plan for this water system was to exploit a new spring in a more secure watershed and connect this new tube-line to the existing system.

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Additionally, minor repairs were planned for various sections of the central tube-line.

### ***La Vereda***

This isolated community in the mountains above Peralta (Azua) was essentially cut off from civilization after the storm runoff completely washed out all of the connecting roads. Their source of potable water had been a shabbily constructed private irrigation system, which suffered heavy damages after the hurricane. Of the 40 families initially accounted for, the number dwindled down to 23 by the start of the subproject due to heavy migration. The intervention here was the construction of a new potable water system, using the same spring (undamaged) and following more or less the same tube-line as the irrigation system. The design and construction were to minimize vulnerability during flood conditions.

### ***La Saona/El Maní***

These neighboring, semi-urban communities to the north of Baní became victims of both damaged infrastructure and racketeering after the passing of Hurricane Georges. The irrigation canal where they previously obtained water for household use became polluted by contaminants such as sewage and drowned animals. The private water vendors monopolized the commodity of water in response to the huge demand caused by the wash-out of the Baní municipal water system. Hermandad had begun the construction of a community water system exclusively for the barrios of Saona and Maní previous to the hurricane. The tank and tube-lines remained intact afterwards, but the existing well was out of commission for weeks. The intervention here was to include the construction of the majority of the distribution network and 750 private tapstands.

### ***Rancho Francisco/La Ciénaga (Project Extension)***

All of the family tapstands in these communities suffered extreme erosion due to the hurricane runoff, but the systems were put back into service shortly afterwards. For this reason, they were not included in the Grant Agreement. Later, funds were

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deemed sufficient to include the reconstruction of 42 tapstands and minor repairs to the existing spring catchment and tube-line in Rancho Francisco, and 85 tapstands and minor repairs to the tank in La Ciénaga.

### **3.3 Sanitation**

Access to hygienic excreta disposal facilities is one of the interventions which most incrementally reduces incidences of diarrhea among the childhood population. The objective of this component was to provide beneficiary communities with environmentally secure systems for the disposal of sewerage. Specifically, all but two communities (La Saona/El Maní), were to enjoy 80% coverage by the end of the subproject. Hermandad has years of experience in latrine construction and education in all of the twelve ALCAMPO communities<sup>5</sup>, where the Grant Agreement included the construction of 50 VIP (zinc-walled) latrines. In Hatillo and Boquerón, we determined that 50 VIP (zinc-walled) latrines in each community would raise the coverage to an adequate level (~80%), as well as encourage future construction in those households which were not included. In La Vereda, the intervention included 25 VIP (zinc) latrines, but due to heavy migration, was later modified to construct these 25 latrines in the ALCAMPO communities instead. In Saona/Maní, Hermandad did not have the ability to even begin to meet the demand (several hundreds of households without latrines), so we decided that 50 VIP (poured concrete) latrines would possibly serve as a model project for future interventions, as well as provide incentive to community leaders to solicit future assistance from other governmental and non-governmental institutions.

In addition to latrine construction, the project contemplated education in proper use and maintenance for each beneficiary family. Initially, the latrine technicians were to have imparted this education, but as the volunteer health promoters began assuming their roles in the communities, they also assumed the responsibility of promoting adequate latrine maintenance.

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### **3.4 Community Organization**

With the exception of La Vereda and to some extent La Saona/El Maní, all of the communities had existing water and/or health committees. The objective of the subproject, then, was to create the human resource structure needed to carry out and sustain the different subproject components through the formation and/or strengthening of 16 community organizations. In communities with somewhat weak organizations, community involvement during the project and, where necessary, some training in areas determined to be lacking would revitalize these organizations. Some of these problem areas included basic accounting and democratization. Naturally, it was hoped that through strengthening and involving existing community organizations, the project would have a better chance of being sustained in the long term.

The communities of Saona/Maní had very little formal organizational experience on the level needed to undertake such a large, involved program. During the subproject, we expected that leaders would be identified and could then be organized into a water/health committee with some formal training and much more practice. In the design of the project, Hermandad set the lofty goal of initiating the process of incorporation (law 520) for the water/health committee, which would have helped formalize the institution and pave the road for future self-initiatives.

### **4. Discussion of Results by Component**

The baseline census conducted during the first months of the project showed that in preparing the project proposal, we had originally overestimated the target population in all of the communities except Boquerón, La Saona and El Maní. During and after the project, we noticed migration out of all of the mountainous communities and into other communities, especially Saona and Maní. The

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<sup>5</sup> Alianza Campesina Ocoëña, Inc., an association of 12 organized communities in the mountains outside of San José de Ocoa, in the province of the same name.

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population of these latter semi-urban communities actually grew from approximately 1,282 households (data from 1998) to over 1,400 households after the project (June 2001). Of the communities losing population due to migration, La Vereda was hit the hardest, dropping from 40 households during the conceptual phase of the project to less than 10 families interviewed during the Final Evaluation. This migration was due to the almost complete destruction of the coffee plantations by both the hurricane and subsequent pest invasion; there is practically no economic activity in La Vereda today.

The actual number of project beneficiaries is skewed due not only to migration of whole households, but also to the migration of various members from individual households which still remain in the communities. For example, the initial numbers for the ALCAMPO communities were based on a previously established (1997), per-household average of 5.5 persons. This average was used to expedite the project proposal process, during which there was not sufficient time to conduct a more recent census. During the baseline study, it was found that the current, per-household average has dropped significantly to around 3.5. This drop had an effect on the overall population benefited, but not on the number of households benefited, nor on the percent of the existing population benefiting from project-related services.

The number of beneficiaries reached by the subproject is shown by component, by community, in Appendix 5. The following sections elaborate on the overall results of the project by component, as well as the more specific reasons for the differences in the projected and actual numbers of beneficiaries.

### **4.1 Water Component**

The Summary of Indicators per Component (Table 1, Executive Summary) shows that the number of beneficiaries actually reached by the project surpassed the original indicators for this component. This is due to the inclusion of three additional communities during the project: Palo Sabina, which benefits from the

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extension of the Mesa Domingo water system, and La Ciénaga and Rancho Francisco, benefiting from the reconstruction of 127 family tapstands in these two independent water systems.

In Saona and Maní, 864 families have access to newly constructed, private tapstands rather than the planned 750. In addition to the increased number of houses with direct access, it can be reasonably assumed the entire population is benefiting either directly or indirectly from the reconstruction. Everyone has increased access to water either from their own tapstand, a neighbors' tapstand, or from one of the many trucks which still sell water door to door and who can now increase their coverage due to lower sales volume. If we count these indirect beneficiaries in the final table of indicators, the water component would have approximately 9,919 overall beneficiaries. Page 23 of the independent "PROSANA Final Evaluation, October, 2001", commissioned by Hermandad after the close of the subproject, contains a table detailing the beneficiaries of the Water component, which is reproduced below as Table 2:

**Table 2**  
**Coverage of potable water service (from PROSANA Final Evaluation)**

<b>Community</b>	<b>No. Households</b>	<b>No. Households with Tapstands</b>	<b>% Coverage by Community</b>
Saona/Maní	1,382	864 + 173 = 1,037 <sup>6</sup>	75%
Los Tramojos	105	105	100%
Mesa de Domingo <sup>7</sup>	72	72	100%
Corozos	55	55	100%
Caimital	10	10	100%
Palmaritos	55	55	100%
La Vereda	25	25	100%
Rancho Francisco	42	42	100%
La Ciénaga	97	97	100%
<b>TOTAL</b>	<b>1,841</b>		

<sup>6</sup> Sum of actual number of tapstands constructed (864) plus estimated number of households using any tapstand.

<sup>7</sup> Includes households of Sabána Abajo and Palo Sabina.

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The water system repairs in all of the other communities mentioned in the Section 3.2 were carried out as planned, and supply potable water to 100% of the residents. Additionally, we expect that they will suffer less damage from future events of the same magnitude as Hurricane Georges.

Several of the planned educational activities of the water component, specifically for purposes of organizing new water committees, were either not fully completed during the project or benefited fewer people than expected. The activities planned for La Vereda – plumbing, accounting, and democracy workshops – were delivered to the few remaining project beneficiaries. Most of the educational activities for Saona were carried out to some degree in the months following the conclusion of the project due to several unforeseen and serious delays in the construction of the aqueduct. Hermandad is committed to continuing to work in these latter barrios until a functioning, democratic, and possibly incorporated, Water/Health Committee exists. At the writing of this report, a new twelve member committee has been sworn in (July 2001), has taken responsibilities for the operation of the aqueduct, and has initiated the collection of the water quota of RD\$20 per beneficiary household (July/August 2001). Hermandad is scheduling the inauguration for early 2002, by which time we estimate that the committee will be trained and functioning in order to independently maintain their water system.

### **4.2 Latrine Component**

As mentioned in the introductory paragraph above, the average number of residents per household in the ALCAMPO communities is closer to 3.5 instead of 5.5; that represents a 36% overestimation between indicators as planned and as reached at the end of the project in these 12 communities. Additionally, the number of beneficiaries in Hatillo Arriba was overestimated by approximately 32%. In order to benefit more individuals, it became necessary to construct more latrines. This modification (without budget increase) was approved by Entrena/USAID as a part of the three-month project extension. By increasing the number of latrines by ~25% (51 additional latrines in the ALCAMPO communities),

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it was possible to benefit about 90% of the original estimated population with 251 instead of 200 latrines.

The information contained in the following table is taken in part from the aforementioned "PROSANA Baseline Study" and in part from the Hermandad subproject files. It details the pre- and post-subproject latrine coverage, as a % of total households, in the beneficiary communities.

**Table 3**  
**Coverage of Sanitary Excreta Disposal Facilities**

Community	# Households	# Latrines before	# Latrines constructed	# Latrines after	% Coverage before	% Coverage after	Increase in % coverage
Saona/Maní	1,282	112	50	162	8.7%	12.6%	3.9%
La Mesa Domingo	44	10	30	40	22.7%	90.9%	78.3%
Los Limones	23	3	--	4	13.0%	17.4%	4.4%
Los Negros	30	24	--	24	80.0%	80.0%	0.0%
Los Tramojos	102	50	17	67	49.0%	65.7%	26.7%
La Ciénaga	79	53	23	76	67.1%	96.2%	29.1%
El Caimital	10	10	--	10	100%	100%	0.0%
Los Corozos	66	42	7	49	63.6%	74.2%	10.6%
Los Palmaritos	64	47	5	52	73.4%	81.3%	7.9%
El Montazo	26	10	--	10	38.5%	38.5%	0.0%
La Cruz	25	15	7	22	60.0%	88.0%	28.0%
La Demajagua	47	14	4	18	29.8%	38.3%	8.5%
Rancho Francisco	46	26	8	34	56.5%	73.9%	17.4%
Boquerón	73	10	50	60	13.7%	82.2%	68.5%
Hatillo Arriba	55	0	50	50	0.0%	90.9%	90.9%
<b>TOTAL<sup>8</sup></b>	<b>690</b>	<b>314</b>	<b>201</b>	<b>516</b>	<b>45.5%</b>	<b>74.8%</b>	<b>29.3%</b>

The indicator in the Grant Agreement states that by the end of the project, 80% of the beneficiary population in 14 of 16 communities (excluding Saona/Maní), will have access to sanitary excreta disposal systems. For various reasons, some of the communities included in the agreement did not benefit from latrine construction,

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while others received more latrines than planned. The barrios of Saona/Maní were not to be included in this indicator for the reasons described above. From the table, it is evident that, with this exclusion, ten of the other 14 communities where latrines were constructed benefit from an overall coverage of approximately 75% of households. If we make the reasonable assumption that many of the latrines are shared by more than one household, the overall coverage is most likely somewhere above 80% in the communities listed above. As is, the table shows a 29.3% increase in access to sanitary sewage disposal facilities for the beneficiary population, ranging from 7.9% in Los Palmaritos to 90.9% in Hatillo Arriba.

### **4.3 Health Component**

The objective of the subproject, to establish primary health care systems at the local level, was satisfactorily met in all of the beneficiary communities. The different products of the health component complement each other to provide various levels of support to mothers and children under 5 years of age, as well as to some older children. The health promoters, through regular household visits, continue offering support and follow-up to sick children as well as educating mothers in general health and hygiene issues. The CORS offer effective, local treatments to any patient referred by a health promoter, and both the promoters and CORS attendants are trained to recognize more serious cases and refer them to qualified external health providers – SESPAS for example. The table on the following page presents the products of the health component activities as compared with those delineated in the Grant Agreement. Appendix 3 contains more details as to the specific educational activities and other products.

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<sup>8</sup> The TOTAL column does not include La Saona/El Maní due to its large statistical weight, which would not accurately reflect the % coverage overall in the other communities. The total # of latrines constructed is 251.

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**Table 4  
Products of the Health Component**

<b>Indicator</b>	<b># Planned</b>	<b>Actual #</b>
Volunteer Health Promoters trained in AIEPI	16	18
Volunteer Health Promoters trained in Community Nutrition	16	13
Volunteer Health promoters trained in Pregnancy, Birthing, and Postpartum	16	17
Home visits by health promoters	640	2,560 <sup>9</sup>
CORS attendants trained in preparation and administration of ORS <sup>10</sup>	26	31
CORS established	8	11
CORS rehabilitated	2	3
Community members attending motivational health courses	600	779

The number of children under 5 benefited by the project surpassed expectations; we estimate that 1,050 children were benefited by the project as opposed to 1,027 estimated for the Grant Proposal. This is due to two factors: first, the data gathered during the planning of the project was more accurate for children than for other potential beneficiaries. Secondly, during the project, Hermandad maintained closer relations with SESPAS than anticipated, and was able to participate and coordinate more vaccination and anti-parasite campaigns than originally planned. This increased the number of children receiving some sort of primary health care benefit from the project, not being limited to those serviced only by a voluntary health promoter or local CORS.

Quantitatively, the PROSANA Final Report demonstrates, through interviews with project beneficiaries, that the intervention continues to provide benefits to the communities. Of families interviewed during a three month period following the closure of the subproject, 81.5% report that they receive regular visits by the

<sup>9</sup> Estimated based on information from PROSANA Final Evaluation

<sup>10</sup> Oral Rehydration Salts

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health promoters; 60.3% of these report monthly visits, 22.7% biweekly, and 17% weekly. During these visits, the promoters give advice to the families, educating them in basic health and hygiene issues, water chlorination, food handling, and latrine maintenance, among other themes.

Qualitatively, the beneficiaries indicate that the program has had a positive impact on reducing cases of diarrhea among the infant and childhood population. 81.4% of persons interviewed during the Final Evaluation believe that there are fewer cases of diarrhea today than one year ago (*spring 2001 vs. spring 2000*). Additionally, the health promoters report that the few cases of diarrhea seen today are effectively treated in the CORS, reducing the number of unnecessary hospital visits. Acute respiratory infections (ARI) continue to be relatively prominent, with about 30% of families reporting that their children suffered from some sort of respiratory affliction during the week previous to the interview. This number, however, is not much different from ENDESA-96, the national demographic health study, which reports that the national average is about 30%. The beneficiaries report that only about 18% of these cases required treatment in SESPAS facilities; 12% were attended by the health promoters, and 80% received home remedies. Again, this indicates that the subproject has reduced the number of overall hospital visits made to treat ARI as well.

Another product of the intervention is the almost complete vaccination schemes seen in the majority of children under 5 years of age. Through frequent coordination with SESPAS authorities, the health promoters participated in 3 vaccination campaigns during the subproject: one for measles and two for poliomyelitis. The Final Evaluation reports that 91.1% of children, according to their parents, have received the complete cycle of vaccinations recommended for their age; in the ALCAMPO communities, about 95% of children are covered.

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Finally, the health component activities brought about an unexpected benefit which is important in validating the effectiveness of the training: the creation of marketable skills. SESPAS has incorporated several of the health promoters trained under the subproject into its latest national healthcare strategy as paid health promoters, thus offering a few more employment opportunities within the beneficiary communities. The ex-Coordinator of the health component was also named to the prestigious position of Provincial Health Director for the Azua Province. This incorporation of the project personnel into the larger national strategy bodes well for the long-term sustainability of the primary health care structure set up during the subproject.

### **5. Budget Execution**

The amount approved in the Grant Agreement is very close to the amount actually spent during the execution of the subproject, as shown in the following comparison:

**Table 4**  
**Summary of budget execution (in US\$)**

<b>US\$</b>	<b>USAID</b>	<b>Hermandad, Inc.</b>	<b>Beneficiaries</b>	<b>Total</b>
<b>Approved</b>	159,093	57,695	26,703	243,491
<b>Spent</b>	159,181	58,886	29,238	247,305
<b>Surplus (Deficit)</b>	(88)	(1,191)	(2,535)	(3,814)
<b>% by funding source</b>	64.37%	23.81%	11.82%	100.00%

The allowable expenses charged to USAID slightly exceeded the approved budget amount; the deficit shown here was covered by Hermandad, Inc. funds. Note that 51 more latrines and repairs to 3 additional water systems were included in the subproject with no budget increase. See Appendix 6 for the detailed final financial report. The "Amount Spent in Period" column of this appendix corresponds to the final month, which only includes the amount spent and/or obligated on May 1, 2001.

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### **6. Administrative Actions (Modifications)**

- 6.1 Another institution (Dioceses of San Juan), had included the construction of 25 latrines in La Vereda. Therefore, Hermandad asked permission to construct the same 25 latrines within the 12 ALCAMPO communities. Note that the lack of economic opportunities has caused a general flight from La Vereda to other surrounding communities and to nearby Peralta. Permission for this change was granted through written correspondence in June of 2000.
- 6.2 Due to problems with the water source in Saona/Maní (the well went dry), the road to La Vereda (washed out), the difficulty in coordinating the "Motivating Courses" (health), and other factors, Hermandad solicited an extension of the project on November 30, 2000 which was granted by written correspondence on December 30, 2000.
- 6.3 The difficulty in coordinating the "Motivating Courses" prompted Hermandad to change the format of the trainings. Instead of delivering the courses twice to a large audience each time, we decided to put them in the hands of the Health Promoters, who would deliver them individually to a smaller group from their own communities. Utilizing this methodology, the actual training cost was *much less than budgeted*, and the funds from the "Training" line item became available in order to finish part of the 51 additional latrines and the two additional water system repairs not contemplated in the Grant Agreement. These changes were communicated through written correspondence, and received approval in March, 2001.

### **7. Problems Encountered, Solutions Applied**

- 7.1 **Problem #1:** The auxiliary well drilled for the Saona/Maní water system went dry in mid-2000 after three months of service, delaying both the construction and community organization processes. Without having access to a sufficient water supply, it proved impossible to form the water

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committee with sufficient time to be able to adequately train the leaders and educate the beneficiaries; no one wanted the responsibility of managing a dry water system. This, among other problems, prompted Hermandad to solicit the aforementioned three month project extension.

- 7.2 **Solution:** In November of 2000, Hermandad located and drilled another well, financed in part by the funds collected within the beneficiary communities and in part with a donation from an outside funding source. In March of 2001, after a three month wait, INAPA conducted a pumping test and we determined that the well had sufficient capacity to alleviate the situation (~150 gallons per minute). After installing the electrical connection, again with outside funding, the project was delayed for another three months while EDESUR<sup>11</sup> processed the permits and contract for the new installation. (Meanwhile, the project came to an end on May 1, 2001 without a functioning water source and without a functioning water committee). Finally, after pressure from local Neighbors' Associations and the press, EDESUR connected the electric lines at the beginning of June, and we placed the pump into service and began to normalize water service to the communities.
- 7.3 **Problem #2:** With water in the water system, *everyone* wanted to take responsibility for the project; a battle soon ensued for control of the water system. Any community meeting to form the water/health committee eventually erupted into a melee of personal insults with the eminent threat of violence.
- 7.4 **Solution:** Hermandad personal formed a cabal of interested beneficiaries, including selected brigade leaders, selected members of Neighbors Associations, and other interested individuals, and began a schedule of low-profile weekly and intra-weekly meetings. Each week, we publicized the meeting to a larger group of community members, who began attending slowly on their own terms. After a month of expanding meetings, the

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<sup>11</sup> Empresa Distribuidora de Electricidad del Sur, the regional electricity distributor

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process culminated on July 27 with the election and swearing in of the 12 member "La Saona/El Maní Water and Health Committee". The committee began collecting the water use/maintenance quota on the following Sunday, and will finish this first collection by the end of the second week of August. Meanwhile, the water system is delivering approximately three hours of water every other day to about 80% of each of the four sectors of the system. The committee maintains a case-by-case policy of "no water, no quota" until they can resolve the remaining small low-pressure problems in the distribution network.

- 7.5 **Problem #3:** The health volunteers from Boquerón did not make any effort during the early stages of the project to facilitate the rehabilitation of their CORS, nor to send anyone to the assorted health trainings and courses. *Hermandad* decided to abandon the health intervention in this community and expand the intervention in other communities. The CORS materials went to El Montazo, one of the more isolated ALCAMPO communities, where the trained health promoter is managing the station.
- 7.6 **Solution:** Eventually, due to the diligence of *Hermandad's* Health Coordinator, the potential beneficiaries in Boquerón became convinced that it would be in their best interest to have a CORS in their community. Through coordination with UNICEF (Santo Domingo), *Hermandad* procured the necessary materials to completely rehabilitate the CORS in Boquerón. This is one of the reasons for the increased number of CORS established during the project time period.
- 7.7 **Problem #4:** The intended methodology for the Motivating Courses (health) was to coordinate two separate courses for each theme, one in each geographic zone, in order to deliver them to members of several communities each time. This was found to be much too difficult and time consuming due to the large geographical separation of the 16 communities and the difficulty in transporting large groups of beneficiaries.

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- 7.8 **Solution:** The Health Coordinator decided that the best way to meet the training goals was to delegate the responsibility of delivering the courses to the Voluntary Health Promoters of each community. After having been trained in AIEPI and other areas, the promoters had cultivated the necessary skills in order to impart these simple courses on their own, with minimal logistical and thematic support from the Health Coordinator. Hermandad provided them with the necessary educational materials to adequately deliver the charlas on the two remaining themes: proper latrine use and maintenance, and appropriate trash management. The Volunteers delivered a total of 12 charlas to approximately 316 beneficiaries during the last two months of the project.
- 7.9 **Problem #5:** The CORS attendants had problems adequately treating the water for use in preparing the rehydration salts due to two factors: the high cost of boiling water on a daily basis, and the lack of motivation to consistently chlorinate the water in their homes.
- 7.10 **Solution:** With project funds, Hermandad purchased simple water filters from the Dioceses of San Juan, and distributed them to each CORS household. These filters had been previously introduced into the impacted communities, so it was simple enough to instruct the attendants on their proper use and maintenance. Today, many of the attendants chlorinate the water in the filters as well.
- 7.11 **Problem #6:** Through monitoring of the latrine component, we found that the actual number of beneficiaries was considerably smaller than expected. This was due to the shortcomings of our rapid diagnostic tools when initially estimating the number of persons per household before selecting the actual beneficiaries of latrines.
- 7.12 **Solution:** During construction of the originally planned 200 latrines, Hermandad encountered a consistent source of very good quality, inexpensive wood for use in constructing the superstructure (from the FORESTA Sabána San Juan sawmill). Therefore, the excess funds in the

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"Latrine" line item were almost sufficient to construct an additional 51 latrines. This information was provided in the request for the project extension, which was approved without any necessary budget modification.

7.13 **Problem #7:** Approximately 100% of the beneficiaries of latrines bath in them. Historically, most of the residents of in these communities bathed in the nearby arroyos, but due to the lack of precipitation during the last several years, the large majority of these water sources have gone dry. This, combined with the easy access to water from the water systems, has prompted most beneficiaries to bath in their homes. Without another nearby bathing area, they opt to utilize their latrines for this purpose rather than construct a dedicated bathing area. This problem has been manifest in these communities for many years now, and is not considered a result of the current intervention.

7.14 **Solution:** Rather than trying to initiate the massive, difficult process of "Behavioral Change" at a late stage in the project, Hermandad proposed to Entrena that we construct a physical alternative to minimize the potential damage caused by exposing the latrines and surrounding areas to the constant runoff of bathing water. The solution entails covering the gap between the floor and the zinc with a small skirt of concrete and installing a 2" PVC drainage tube at the point to where the water naturally tends to flow. The tube leads into a small seepage pit filled with rocks and gravel a minimum of 5 feet away from the latrine. This pit is covered with sacks and palm leaves to prevent the dirt cover from clogging it. This solution was implemented in approximately 75 latrines towards the end of the project, and has proven to be effective. Together with the slow process of Behavioral Change, Hermandad hopes to promote this technique as a viable alternative both in previously constructed latrines and into the future in areas where this practice presides.

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### **8. Lessons Learned**

- 8.1 The communities where Hermandad has been more deeply involved in the past (the 12 ALCAMPO communities) appear to have received more benefit from the project than the other communities. The existing NGO/community relationship made for an extremely rapid, effective and efficient intervention.
- 8.2 Although SESPAS did not contribute personnel or resources directly to the subproject, the coordination maintained between Hermandad and SESPAS was mutually beneficial and widened the reach of the subproject benefits, both in the short and long term. Any future intervention in health would most likely benefit from similarly planned strategic coordination.
- 8.3 When dealing with EDESUR, it is important to involve local community organizations as much as possible. The Saona/Maní water system was seriously delayed because of EDESUR's painfully slow permitting process, but when the local neighbors' associations became involved in the process, the issue was rapidly resolved.
- 8.4 After participating in the high-quality training, the voluntary health promoters were very self-confident and motivated in their ability to do their jobs. The later educational activities, originally planned to be run by external personnel, were then delegated to the health promoters, who did an excellent job. In the future, we could depend on local health promoters to component of a variety of health-related projects.
- 8.5 The community members appear to have a good degree of faith in the health promoters as well as the CORS personnel. In seeking help to resolve local health problems, they seek the health promoters first, and appear to heed their advice with respect to local treatment alternatives or referrals to clinics or hospitals. This is probably due to the involvement of SESPAS personnel in training the health promoters, and the fact that the beneficiary population believes in the authority of the promoters.

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- 8.6 Public tapstands are a desirable design option in community water systems, especially with respect to increasing the participation of the potential beneficiaries during construction, but they are not always appropriate. The Saona/Maní system would have been more effective with a semi-private system so that the consumption per tapstand could be better controlled. Alternative strategies to increase beneficiary participation during construction would have to be developed for similar cases in the future.
- 8.7 It would be beneficial to conduct a regular (yearly would suffice) census in well-organized communities in order to facilitate the project development process and improve our response capabilities in cases of emergency. The census information available at the beginning of the PROSANA project for the ALCAMPO communities, for example, was out of date.

### **9. Conclusion**

The 16 communities participating in the PROSANA subproject have experienced a rapid recovery from the damages inflicted by Hurricane Georges, thanks largely to the timely intervention of the USAID Reconstruction Project. Not only have they recovered, but the groundwork laid down by the intervention has improved many aspects influencing the quality of life and the overall health of the community members. The non-formal primary health care system established by the subproject has proven effective in combating the high incidence of diarrheal related diseases and lessening the degree of severity of respiratory infections among the infant and childhood population. The health promoters and community oral rehydration stations form a new safety net for this vulnerable population. The reconstructed potable water systems guarantee a consistent, high quality service, and through the application of the lessons learned by the passing of Georges, will be more resistant in the wake of the next such disaster. The number of sanitary latrines today reflects a 29.3% increase in the number existing before the project. The combination of interventions in primary health care, reliable potable water

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services, and sanitary latrines demonstrates the magnification of benefits experienced through an integrated approach to community development.

The accomplishment of so many goals in just 18 short months is a tribute to the mettle and organizational capability of the participating community members; without their total cooperation, such a task would not have been possible. The relationships formed with related institutions of the state were also instrumental, serving to broaden the benefits of the subproject both during the implementation phase and into the future. The strengthening of both local organizations and links to external support services will assure the overall sustainability of the important services developed during the subproject.

Overall, close to 10,000 underprivileged persons in 16 rural and semi-urban communities benefited directly from the subproject, and many more benefited indirectly in some form or another. In the wake of the next natural disaster, we hope that the experience of participating in this program, the quality of the current infrastructure, and the fortified social structure will serve to reduce damages, accelerate the recovery process, and generally protect the fragile health of this vulnerable population.

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## Appendix 1 Actual Products per Component

Community	Component			
	Water	Health	Sanitation	Comm. Org.
La Mesa de Domingo	water system repair	AIEPI 1 CORS <sup>12</sup>	101 latrines <sup>13</sup>	Reactivate water/health committees in each of 12 communities
Los Limones	—	AIEPI		
Los Negros	—	AIEPI 1 CORS		
Los Tramojos	water system repair	AIEPI Rehabilitate CORS		
La Ciénaga	water system repair <sup>11</sup>	AIEPI 1 CORS		
El Caimital	water system repair <sup>14</sup>	AIEPI		
Los Corozos	water system repair <sup>13</sup>	AIEPI		
Los Palmaritos	water system repair <sup>13</sup>	AIEPI 1 CORS		
El Montazo	—	AIEPI 1 CORS		
La Cruz	—	AIEPI		
La Demajagua	—	AIEPI 1 CORS		
Rancho Francisco	water system repair <sup>11</sup>	AIEPI 1 CORS		
La Saona	water system reconstruction <sup>15</sup>	AIEPI 2 CORS		
El Maní	water system reconstruction <sup>14</sup>	AIEPI 2 CORS	50 latrines	Reactivate water/health committee
Boquerón	—	AIEPI Rehabilitate 1 CORS		
Hatillo Arriba	—	AIEPI Rehabilitate 1 CORS	50 latrines	Reactivate water/health committee
La Vereda	water system reconstruction	—	16	Form Water /Health committee

<sup>12</sup> These activities were carried out during the three month project extension, and were not included in the initial goals as specified in the Grant Agreement.

<sup>13</sup> The original goal was 75 latrines in these communities. See footnote 7 for an explanation.

<sup>14</sup> These 3 communities benefit from the same spring source and central tube-line, but each have independent distribution networks.

<sup>15</sup> These two communities share the same water system.

<sup>16</sup> The specified goal in the Grant Agreement was to construct 25 latrines in La Vereda, but it was learned that another institution had received funding to construct latrines there. To avoid duplications, Hermandad solicited a change of agreement in order to construct these 25 programmed latrines in the 12 ALCAMPO communities.

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<p><b><u>Realized</u></b> <b>Total of 17 communities benefited</b></p>	<p>Reconstruction of 7 water systems serving 10 communities</p>	<p>AIEPI en 16 communities, Rehabilitation of 3 and establishment of 11 CORS</p>	<p>Construction of 251 sanitary VIP latrines</p>	<p>Form 2 new and reactivate 14 existing water/health committees</p>
<p><b><u>Programmed</u></b> <b>Total of 17 communities</b></p>	<p>Reconstruction of 5 water systems serving 8 communities</p>	<p>AIEPI en 16 communities, Rehabilitation of 3 and establishment of 9 CORS</p>	<p>Construction of 200 sanitary VIP latrines</p>	<p>Form 2 new and reactivate 14 existing water/health committees</p>

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## Appendix 2 Products by Trimester, through May 1, 2001

Programmed
Executed

PRODUCT	Goal	Unit	Q1	Q2	Q3	Q4	Q5	Q6	Q7
<b>Health</b>									iii
Communities with Primary Health Care	16	Communities	3		13				
Community Health Agents trained in AIEPI	2	CHA	2						
Health Committees formed/improved	16	Committees		16					
Voluntary Promoters trained in AIEPI	16	promoters		16					
CORS's functioning in Hatillo	1	CORS		1					
CORS's functioning in Boquerón	1	CORS		1					
Attendants trained	26	attendants		26					
CORS's established in Saona/Maní	4	CORS		4					
CORS's established - 12 ALCAMPO communities	4	CORS				4			
	8			4	2	1		1	
<b>Comm. Organization</b>									
Water/Health/Development Committees formed	16	Committees		16					
Board of Directors elected in Saona/Maní	1	Board			1				
Committees collecting monthly water quota - Boquerón, Hatillo, ALCAMPO	14	Committees					14		
Committees collecting monthly water quota - Saona/Maní y La Vereda	2	Committees						2	
Saona/Maní W/H/D committee begun process of legal incorporation	1	Committees				1			
	0								
<b>Latrines</b>									
Communities orientated	16	Communities	16						
	16		16						

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Number of latrines constructed (cumulative)	200	latrines		50	125		150	200	
	201		25	60	96	139	201		
** Number of latrines constructed (during 3 mo. extension period)	50	latrines						30	50
	50							30	50
<b>Water</b>									
Communities orientated	16	Communities	12	4					
	16	roof	14	1	1				
Concrete tank roof built in Los Tramojos	1	roof		1					
	1			1					
Tank constructed in Sabana Abajo (La Mesa Domingo)	1	tank		1					
	1		1						
Family tap-stands constructed in La Mesa Domingo	50	tap-stands			50				
	50				50				
Tube-lines extended for Corozos/Los Palmaritos	1	tube-lines				1			
	1					1			
Distribution networks constructed in Saona/Maní	2	dist. network				2			
	2			1	1				
Family tap-stands constructed in Saona/Maní	750	tap-stands				375		375	
	840			250	250	170	80	50	40
Central tube-line and tank constructed in La Vereda	1	tube-line and tank				1			
	1					1			
Distribution network constructed in La Vereda	1	network					1		
	1						1		
* Family tap-stands constructed in La Vereda	40	tap-stands						40	
	23						23		
** Family tap-stands reconstructed in Rancho Francisco	42	tap-stands						42	
	42							42	
** Family tap-stands reconstructed in La Ciénaga	91	tap-stands						70	21
	85							70	15

\* Owing to migration from La Vereda, 100% of the 23 families still present in La Vereda at the completion of the water system have tap-stands.

\*\* Shaded cells are additional Products completed during the 3 month project extension (through May 1, 2001), not contemplated in the original Grant Agreement.

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## Appendix 3 Training Activities

Programmed
Executed

Training Activity	No. Events	Participants/event	Total participants	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Training in AIEPI for Voluntary Promoters	1	18	<b>18</b>	18	0	0	0	0	0	0
	1	19	<b>19</b>	0	19	0	0	0	0	0
Training for CORS Attendants	1	26	<b>26</b>	0	26	0	0	0	0	0
	3	n/a	<b>31</b>	30	26	0	0	0	0	0
Training in Community Nutrition	1	18	<b>18</b>	0	0	18	0	0	0	0
	1	13	<b>13</b>	0	0	0	0	13	0	0
Training in Pregnancy, Birthing, and Postpartum	1	18	<b>18</b>	0	0	0	0	18	0	0
	2	n/a	<b>17</b>	0	0	0	17	0	0	0
Series of 6 Motivation Courses	12	50	<b>600</b>	100	100	100	100	100	100	0
	20	n/a	<b>779</b>	53	90	0	188	132	0	316
Proper Use and Maintenance of Latrines	200	1	<b>200</b>	0	50	75	0	25	50	50
	251	1	<b>251</b>	25	35	36	42	62	0	51
Water System Maintenance - Plumbing, pumping, and advanced techniques	3	25	<b>75</b>	0	0	50	0	25	0	0
	1	25	<b>25</b>	0	0	0	0	0	0	1
Democratic Principals	2	25	<b>50</b>	50	0	0	0	0	0	0
	1	20	<b>20</b>	0	0	0	0	0	0	20
Basic Accounting for Water Use Quotas	2	25	<b>50</b>	25	0	0	25	0	0	0
	2	9/20	<b>29</b>	0	0	0	0	9	0	20

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## Appendix 4 General Activities, by Component

Programmed
Executed

Activities	Q1	Q2	Q3	Q4	Q5	Q6	Q7
<b>Admin/Monitoring</b>							iii
Baseline Study	x						
	x	x	x				
Monitoring "en terreno"	x	x	x	x	x	x	
	x	x	x	x	x	x	x
Meetings with project personnel	x	x	x	x	x	x	
	x	x	x	x	x	x	x
Final Evaluation (Contraction)						x	
							x
Audit						x	
						x	x
<b>Health</b>							
Initial meetings	x						
	x						
Baseline Study – Prevalence of common infant illnesses	x						
	x						
Baseline Study – functionality of existing CORS's	x						
	x						
Elect 16 Voluntary Promoters	x						
	x						
Contract 2 CHA's	x						
	x						
Form Children's Primary Health Committees	x						
	x						
Reserve AIEPI training spot for 2 CHA's	x						
	x						
Train 16 promoters and 2 CHA's in AIEPI	x						
		x					
Train 16 promoters and 2 CHA's in Community Nutrition			x				
					x		
Train 16 promoters and 2 CHA's in Pregnancy, Birthing, and Postpartum				x			
					x		
Schedule meeting calendar with CHA's	x						
	x						
Meeting with Health Committees		x	x	x	x	x	
		x		x	x		

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Schedule training calendar	X						
		X			X		
Obtain educational and didactic materials	X						
	X	X	X		X		
Series of 6 motivation courses (2 repetitions each)	X	X	X	X	X	X	
	X	X		X	X	X	X
Evaluation of course series						X	
							X
Establish relations with SESPAS y DPS	X						
	X						
Train attendants for CORS's	X	X					
	X	X		X		X	
Rehabilitate existing CORS's	X	X					
	X	X				X	
Establish new CORS's			X	X			
		X	X	X	X	X	
<b>Community Organization</b>							
Initial meetings with community members	X						
	X						
Form community Health/Water/Development committees	X						
	X				X		
Democracy course	X						
							X
Elect Boards of Directors	X						
	X			X			
Write Statutes		X					
				X			
Meeting about legal incorporation (Saona/Maní)		X					
Write/adapt rules governing appropriate use of water systems	X	X	X	X			
				X	X		X
Begin process of legal incorporation			X				
Course: Basic Accounting for Community Funds	X		X	X			
	X				X		X
Establish monthly water use quotas	X		X	X			
	X				X		X
<b>Latrines</b>							
Initial meetings with beneficiaries	X						
	X						
Elect beneficiaries	X	X		X			
	X	X	X	X		X	
Charla: Why latrines?	X		X	X			
	X						X

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Finalize list of potential beneficiaries	X	X		X			
	X	X	X			X	
Collect quotas	X	X		X			
	X	X	X	X		X	
Quota and purchase materials	X			X			
	X	X		X		X	
Train technicians	X			X			
		X	X	X			
Obtain educational material: leaflets and posters	X					X	X
Construct latrines	X	X	X	X	X	X	
	X	X	X	X	X	X	X
Charla: Proper use and maintenance			X	X			
				X		X	X
<b>Water</b>							
Initial meetings with beneficiaries	X			X			
	X		X				
Assign technicians	X						
	X						
Schedule work calendar	X			X			
	X			X			
Elect beneficiaries	X			X			
	X		X	X			
Collect pre-construction water quotas	X	X		X	X		
	X	X	X	X	X		
Form community work brigades	X			X			
	X		X	X			
Quota and purchase materials	X			X			
	X	X		X			
Construct water systems	X	X	X	X	X	X	
	X	X	X	X	X	X	X
Course: Water System Maintenance			X		X		
						X	X
Meetings about rational water use/collection of quota		X			X		
				X	X		X

## Protección de Salud de Niños Afectados por el Huracán Georges PROSANA

### Appendix 5

#### No. of Total Direct Beneficiaries per Component by Community (Indicators)

Programmed (Grant Agreement)
Actual # of beneficiaries reached *

Communities	Water				Sanitation				Primary Health Care			
	Fam.	Ind.	Women	<5	Fam.	Ind.	Women	<5	Fam.	Ind.	Women	<5
<b>La Mesa</b>	<b>50</b>	<b>250</b>	<b>70</b>	<b>27</b>	<b>5</b>	<b>55</b>	<b>7</b>	<b>4</b>	<b>50</b>	<b>250</b>	<b>70</b>	<b>27</b>
<b>Domingo</b>	<b>50</b>	<b>181</b>	<b>70</b>	<b>27</b>	<b>30</b>	<b>169</b>	<b>32</b>	<b>33</b>	<b>50</b>	<b>181</b>	<b>70</b>	<b>27</b>
<b>Los Limones</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>52</b>	<b>19</b>	<b>12</b>
<b>Los Negros</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>99</b>	<b>36</b>	<b>19</b>
<b>Los Tramojos</b>	<b>113</b>	<b>560</b>	<b>133</b>	<b>70</b>	<b>7</b>	<b>71</b>	<b>8</b>	<b>6</b>	<b>102</b>	<b>560</b>	<b>133</b>	<b>70</b>
<b>La Cienaga</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>95</b>	<b>13</b>	<b>25</b>	<b>79</b>	<b>257</b>	<b>98</b>	<b>40</b>
<b>El Caimital</b>	<b>12</b>	<b>60</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>60</b>	<b>13</b>	<b>4</b>
<b>Los Corozos</b>	<b>75</b>	<b>380</b>	<b>97</b>	<b>26</b>	<b>5</b>	<b>48</b>	<b>8</b>	<b>3</b>	<b>66</b>	<b>380</b>	<b>97</b>	<b>26</b>
<b>Los Palmaritos</b>	<b>70</b>	<b>350</b>	<b>87</b>	<b>24</b>	<b>3</b>	<b>21</b>	<b>4</b>	<b>4</b>	<b>64</b>	<b>350</b>	<b>87</b>	<b>24</b>
<b>El Montazo</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>90</b>	<b>33</b>	<b>16</b>
<b>La Cruz</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>35</b>	<b>5</b>	<b>8</b>	<b>25</b>	<b>93</b>	<b>35</b>	<b>14</b>
<b>La Demajagua</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>34</b>	<b>18</b>	<b>5</b>	<b>47</b>	<b>157</b>	<b>55</b>	<b>35</b>
<b>Rancho Francisco</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>76</b>	<b>9</b>	<b>10</b>	<b>46</b>	<b>186</b>	<b>75</b>	<b>19</b>
<b>Hatillo Arriba</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>250</b>	<b>100</b>	<b>25</b>	<b>55</b>	<b>375</b>	<b>195</b>	<b>38</b>
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>171</b>	<b>61</b>	<b>22</b>	<b>55</b>	<b>191</b>	<b>71</b>	<b>33</b>

## Protección de Salud de Niños Afectados por el Huracán Georges PROSANA

<b>Boquerón</b>	0	0	0	0	50	220	90	22	73	330	165	33
	0	0	0	0	50	228	70	42	73	341	129	55
<b>La Saona/El Maní **</b>	750	4,735	1,836	650	50	420	170	42	1,281	4,880	1,904	650
	840	5,040	1,865	656	50	281	61	90	1,281	4,880	1,904	656
<b>La Vereda</b>	40	135	60	28	0	0	0	0	0	0	0	0
	23	115	60	20	0	0	0	0	0	0	0	0
<b>Total</b>	1,110	6,235	2,296	829	200	1,325	432	154	1,979	8,119	3,015	1,027
	1,284	6,659	2,506	889	251	1,218	305	279	1,979	7,384	2,855	1,050

Fam.	Families
Ind.	Individuals
Women	Women
<5	Children under 5 years of age

\* The numbers of women and children under 5 years of age are included in the total number if individuals. Where it was not possible to conduct an accurate census of the total population (Saona/Maní) owing to the size of the barrios, we estimate that the total number of women is equal to 45% of the total estimated population after subtracting the total number of children under 5. The census of children <5 is fairly accurate as we have confirmed the numbers through comparison to the number of children vaccinated during community-wide Public Health (SESPAS) vaccination campaigns during the project. In Saona and Maní, we estimate that the entire population is benefiting (albeit indirectly) from both the Water System and the Primary Health Care components (see below).

\*\* This total differs from our Final Trimester Report due to information gathered during the External Final Evaluation. Of the 1,400 total dwellings in these communities, 840 families (instead of 800) have access to the water system through a family tap-stand in their patios. We have not included the indirect beneficiaries who have access to the water system by other means. We estimate that there are approximately 8,400 total beneficiaries (direct and indirect) of this water system, which would increase the total number for the Water Component of the Project to **9,919**.

**Protección de Salud de Niños Afectados por el Huracán Georges  
PROSANA**

**Appendix 6  
Final Financial Report**