

ADRA

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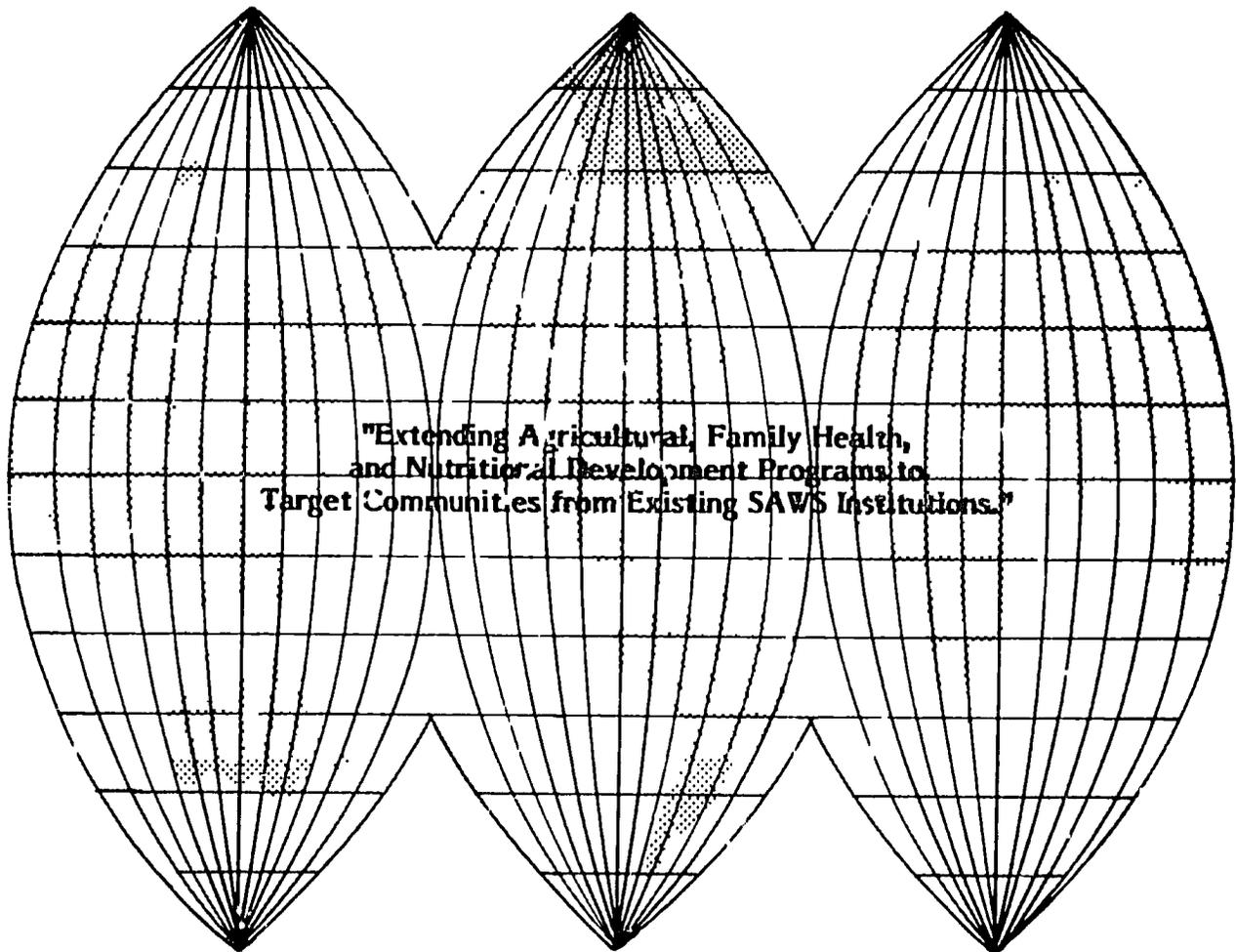
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PO-017-05

ISN-46140

Evaluation Report

1982-1983



Seventh-day Adventist World Service/International
Washington, D.C.

PA-AHT-885

Frontispiece

**"Extending Agricultural, Family Health,
and Nutritional Development Programs to Target
Communities from Existing SAWS Institutions."**

SAWS/USAID Matching Grant Program
PDC/0228/G/SS/1160/00
October 1, 1982 - September 30, 1983

Submitted To -
THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
By
SEVENTH-DAY ADVENTIST WORLD SERVICE, INC.
November 30, 1983

Prepared By:

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GLOSSARY

ADRA/I	Adventist Development & Relief Agency International
AID	Agency for International Development
ASHA	American Schools and Hospitals Abroad
CHA	Community Health Aid
CHC	Community Health Committee
CHP	Community Health Promoter
CHW	Community Health Worker
EOPS	End of Project Status
FFP	Food For Peace
HNP	Health Nutrition Promoter
GOZ	Government of Zimbabwe
IMR	Infant Mortality Rate
KAP	Knowledge Attitudes Practices
MCH	Maternal Child Health
MGP	Matching Grant Program
MIS	Management Information System
MOH	Ministry of Health
NA	Not Available
NS	Not Stated
OPG	Operation Program Grant
PEM	Protein Energy Malnutrition
PHC	Primary Health Care
PID	Project Identification Document
PVO	Private Voluntary Organization
SAA	Student Agriculture Assistants

SAWS/I	Seventh-day Adventist World Service International
SDA	Seventh-day Adventist
TBC	Tuberculosis
TMR	Toddler Mortality Rate
TY121A	Oral Typhoid Vaccine
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VEW	Village Health Worker
VOLAG	Voluntary Agency

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SECTION 1 -- EXECUTIVE SUMMARY

The Matching Grant Program described has completed its second year of operation and is reasonably well aligned with its stated intent and contracted targets. During the second year many formative developments have taken place. Two country programs were dropped and the remaining 26 projects have all been implemented in 15 countries. The planning and management systems have been tested and modified. There is still substantial refinement needed.

Existing management systems have been stretched to capacity necessitating considerable organizational restructuring and a strengthening of the overall management commitment to the M.G.P. for the third year. The basic design of the reporting and evaluation system has been substantiated during the period but considerably more refinement is necessary if the system is to realize its full potential and usefulness. A growing commitment to evaluation has taken place and three project specific evaluations took place during the reporting period.

Implementation has continued to be laborious and protracted. Responsibility for much of this lies beyond SAWS/I manageable control, however, some undoubtedly was caused by underestimated and inadequate capacities for developmental intervention. These weaknesses are in the process of being rectified.

Training thrusts have continued with an increasing ability on the part of SAWS/I to conduct their own training workshops. A standard of training consistency has been maintained and benefits are being realized at the field level.

By far the heaviest project emphasis is in the area of child health and nutrition with agriculture, environmental health, potable water and agro-business, in that order. Significant successes have been achieved, although it cannot be said that there are a large proportion of highly innovative approaches when understood in its widest sense, however nearly all are "innovative" for SAWS institutions in the field.

Currency fluctuation, slow communications and budgetary re-allocations have continued to be problematic but the cash flow system is now working satisfactorily. Substantial changes in this area are planned during the third year to enhance the cost accounting system and enable true cost/benefit analysis to take place.

During the year SAWS/I, regional and country staff have been challenged and tested in a wide variety of ways. In spite of some failures and acknowledged weaknesses, lessons learned are being applied and improvements are taking place. That in itself is the essence of developmental progress. The staff of SAWS/I face the challenges of tomorrow with optimism, flexibility, commitment and a willingness to learn. If such dispositions are maintained the Matching Grant will reach its purpose.

SECTION 2 - OVERVIEW

2.1 Introduction

SAWS/International's interest in a Matching Grant Program began in 1980 when it came to the realization that, because of its ready access to a formidable array of health care and educational institutions in more than 192 countries worldwide, it was in a unique position to make a significant contribution to the W.H.O. Target of "Health Care for All by the year 2000," in an effective and timely manner.

Organized as an official VOLAG, in 1956, SAWS had expanded its relief and development program to a wide variety of developing countries. Recognizing the need for strengthening its developmental programming ability to meet the growing demands and necessities of the underdeveloped nations in the remaining two decades of this century, SAWS/I sought from the Agency for International Development, assistance to this end. Approval was granted by AID, October 1, 1981, for SAWS to implement a MGP in seventeen approved countries.

2.2 Background

Seventh-day Adventist World Service (SAWS) was organized by the General Conference of Seventh-day Adventists, as a voluntary agency in 1956. As both a humanitarian relief and development agency SAWS endeavors to direct its multisectoral, non-sectarian assistance to the neediest communities in developing countries. The scope of its activities include the areas of agriculture, community development, literacy, nutrition, mother-child health, and low cost housing, working through its own registered agencies and local representatives in each project country.

2.3 Matching Grant Program

The overall intent of this program is to conduct appropriate community-based health and agriculturally related interventions in each of the targeted countries within the broad parameters of the proposal outline, while recognizing the necessity for alignment with local needs and already established local health care priorities.

Problems facing the Fifteen target countries are varied and complex and it is not within the capability of this program to address every area of intervention, as outlined in the logframe purpose statement, for each and every country. Local country projects, therefore, concentrate on the most pressing health needs as established by the community itself together with local and national government in consultation with SAWS staff.

The following statement from the approved proposal makes this point clear:

"It must be made abundantly clear, however, that it is not intended that the services and programs offered in this Matching Grant Proposal be implemented in each of the sixteen countries listed, nor in every community in the environs of the institutions operated by SAWS in these countries."

(Proposal--Page 28, March 1981)

2.3.1 Program Goals

Through the application and adaption of its community-based integrated human development approach the broad objectives for each target country are:

"To improve the health, nutrition and socio-economic conditions of the population within a defined radius of the health care and educational institutions operated by SAWS in targeted countries."

"To expand community health and agricultural education outreach programs from SAWS health care and educational institutions."

2.3.2 Purpose

Over the three-year period SAWS will support a community development process that will emphasize new programs in designated communities of six countries, and expand ongoing programs in designated communities of ten countries within the overall context of SAWS integrated community development framework in the following areas:

1. Community Nutrition Awareness
2. Health and Sanitation Reforms
3. Improved Gardening Practices
4. Improved Production of Protein-rich Legumes
5. Small Community-operated Agro-businesses
6. Community Planning, Data Collection, and Evaluation

SECTION 3 - PLANNING AND EVALUATION

3.1 Introduction:

The role of adequate planning and evaluation in development programs cannot be over emphasized. Good projects do not simply occur in a vacuum of goodwill and commitment alone. Success is invariably tied to a significant measure of overt or covert planning. SAWS/I has learned much about this vital process during the course of the Matching Grant program thus far.

It has had the opportunity to design and test its evaluation system and has endeavored to apply lessons learned to improving its capabilities in this area. While important progress has been, SAWS/I is the first to admit that there is considerable room for improvement, especially in the more technical aspects of this field.

Indicative of the success of the system has been the lack of problems field staff have had in completing the required activity reports and the increasing acceptance of, and commitment to, the evaluation processes. This latter fact has been recognized and supported in the two independent evaluations that have been conducted by Management Sciences for Health during the report period. Increasingly SAWS/I is discovering the value of evaluation as a vital tool in the whole planning and systems management process.

3.2 Evaluation Model:

The traditional role of evaluation as practiced by many agencies has generally been to ask the question "what happened" after activities ceased, thereby measuring actual outcomes against planned ones. This typical approach stems from scientific research

methodologies and has a place in the development field. Examined within the perspective of the small PVO and the reality of the third world programming, this model has a limited role, and unless applied appropriately, can cause more confusion than benefit. The scientific approach tends to produce rigidity of design and inflexible programming which may well be of interest and value to the statistical buffs in Washington but has no immediate practical value to the reality of village based community development intervention.

The task that SAWS/I set about in establishing its evaluation model was to seek a balanced approach that would endeavor to apply the principles of experimental design wherever feasible and necessary while maintaining a fluid "emerging design" approach to programming that emphasizes the process of project evolution. To this end SAWS/I has developed a model which includes the following emphases:

1. The evaluation component has access to and is involved in the whole project design and implementation process over the life of the project.
2. The model encourages evaluation inputs into project design in terms of preparing baseline data collection instruments, quantification and specification of stated objectives and feasibility analysis.
3. While substantive attempts to establish scientifically valid impact measurements are encouraged, the major emphasis is on the "process". Project directors are encouraged to identify the significant input/output achievements and monitor these against predetermined indicators as identified in project specific logframes. The evaluation questions most often asked are, "what is happening" and "why is it happening." Where information shows that changes are justified and necessary in order to achieve outputs, the design allows this within the overall project goal/purpose hypothesis.

While SAWS/I recognizes the value and practicability of this model, it also understands that it needs to generate an increasing understanding and capability

its field staff if this system is to realize its full potential. The tendency towards generality, profusion of goals and over ambitious planning, is a real constraint to effective evaluation. Experience has also taught SAWS/I that field staff frequently need technical assistance in enabling them to establish reporting systems within the project themselves. While the present country to headquarters information system is working reasonably well an essential evaluation thrust within the third year should concentrate upon information systems and flow within the projects themselves. Some countries could well need some technical assistance to this end.

Another area at present that needs strengthening, is the present limited capability of SAWS management staff to adequately cope with any significant amount of raw data for analysis purposes. While the adopted model is not totally dependent upon statistical analysis, some measure of this must be developed if the organization is going to make important decisions about impact and cost effectiveness in the future.

3.3 Program Purpose Achievement:

The original project logframe as approved, undertakes to realize the following purpose achievements.

<u>Indicators</u>	<u>Planned</u>	<u>Actual</u>	<u>%</u>
1. A. # Health Care Institutions involved.	47	31	66
B. # Communities involved in health care programs.	40	214	535
C. # Countries involved in health.	13	13	100
2. A. # Educational Institutions involved.	38	10	26
B. # Communities involved in agriculture.	30	39*	130

3. A. # Communities in small community projects with AT for food production.	6	6*	100
4. A. # Community Health Committees Est.	80	133	166

* These figures do not include the 187 agricultural trainees of Solusi Scientific Gardening Project who are extending skills learned to their home communities.

Simple analysis of the above shows SAWS/I to be on, or ahead of target, other than the number of institutions involved. The deletion of two countries has reduced this level by 5 facilities. This trend was clearly identified in the FY 1981-82 Report and has continued as more programs implemented projects. Fewer project centers and increased beneficiary spread is a healthy improvement and eases management constraints.

3.4 Program Output Achievements:

A general summary of the planned and actual OVI's components to date at the output level are listed below.

	<u>Planned</u>	<u>Actual</u>	<u>%</u>
1. # Feasibility studies for new countries.	6	10	167
# New impact areas.	29	59	203
2. % Planning processes implemented by 10/84.	100	81.5	NA
3. # CHE's operating.	324	227	70
4. # Agro Businesses.	NS	4	NA
5. # CHE Countries reporting.	17*	8	53
6. # Countries received training programs.	17*	13	87
7. # Countries field staff training.	17*	13	87
8. # Projects reporting system operational.	26	21	80
9. # Country programs evaluated by 10/84.	17*	3	20

* Country total reduced to fifteen. Percentages calculated on basis of fifteen country programs.

It can be fairly said that the Matching Grant is now reasonably well on target for the second year's operational targets on the basis of the main generalized proposal logframe. Assessment of project purpose and outputs achievement are made in the country specific evaluation sections.

3.5 External Factors:

Several factors beyond the manageable control of SAWS/I have had significant repercussions on implementation during the second year.

Drought

Unrelenting drought seriously hampered projects in Ghana and Zimbabwe which are completely dependent upon adequate water sources. In the case of the latter, the program came within two weeks of closing down. In both cases the situation is now eased.

Economic Adversity

Several economic factors have adversely affected projects.

- A. Devaluations of local currency and accompanying inflation have placed serious budgetary constraints upon projects in Bolivia and the Philippines.
- B. Serious shortage of essential supplies and fuel have slowed implementation in Ghana, Tanzania, and Guyana.

Staffing

Difficulties in getting project staff to sites on a timely basis have continued to be a major problem. Projects have been delayed or hampered in Guyana, Barbados, Dominica, St. Lucia, and Jamaica during the report period.

3.6 Program Extension:

Owing to the many factors clearly articulated in both the 1981-82 and 1982-83 reports which have mitigated against expeditious implementation, SAWS/I is formally requesting USAID to extend the grant ending period from October 1, 1984 to May 31st, 1985. This will be a time extension only and will involve no extra budgetary commitment. The extra time will enable those projects that had a late implementation to achieve their output goals. SAWS/I intends to seek a further Matching Grant funding with USAID for FY 85 to commence in June 1985. Submissions of a PID and Proposal are planned for the summer of 1984 to this end.

3.7 Projections:

SAWS/I has designed, implemented and is in the process of testing an evaluation and management information system. The basic design has proved satisfactory but considerable work still remains to be done in bringing greater specificity and effectiveness to the model. This will involve substantial refinement and sophistication in the third year as SAWS/I prepares for further programming after FY 84, when the current grant expires. The following developments will be undertaken during the third year:

1. In line with the new organizational developments discussed in Section 4, SAWS/I will computerize its data, collection, retrieval and evaluation systems as part of a totally enhanced management information system. Attention to survey data analysis, statistical testing and graphics reporting will be made. SAWS/I has been reluctant to spend time and resources on this aspect of management until it was in a position to apply the lessons learned from two years in the field to the most appropriate data management design. It is now in a position to do this.

2. SAWS/I will continue to follow its policy of decentralization in the planning processes. Considerable effort will be made during the third year operation to develop the capacity of regional and country directors in the whole project management process.

3.8 Independent Evaluations:

Management Sciences For Health conducted two independent evaluations of SAWS Matching Grant projects during 1983. Countries reviewed were Haiti and Tanzania respectively.

SAWS/I has a totally supportive stance to independent evaluations and has encouraged evaluators to be as "objective" and "frank" as possible. Files have been opened without restraint and relatively little changes have been made to the initial draft evaluations.

The two evaluations show great disparity owing to the differing longevity of the programs examined. Potential and actual strengths are clearly highlighted as are weaknesses in design and implementation. SAWS/I recognizes that a major factor in successful development intervention is the ability of an organization to learn from its mistakes and make those decisions from them which will contribute to dynamic and effective projects.

The MSH evaluators[#] are to be commended for their technical expertise, practical competence, understanding and patience. Above all their adaptive capacity in carrying out their assigned tasks within an unfamiliar client system and under severe discomfort at times, was greatly appreciated.

* Jack Lasar, MD

Polly Harrison, PhD

Nick Danforth, MA

Joyce King, MA

SAWS/I intends to encourage the dissemination of these reports to all Matching Grant projects so that country staff can become better acquainted with those aspects that are involved in evaluations of this nature.

SECTION 4 - MANAGEMENT

4.1 Introduction

Within the first evaluation report to USAID for the Matching Grant 1981 - 1982, the following statement is to be found.

"A major premise of this project is for the institutions and management of this worldwide infrastructure to realize their potential capacity for development programming and interventions over and above their traditional involvement in relief and other associated activities. This transition to a wider program perspective is an important step for any agency and of necessity involves a considerable amount of fresh conceptualization and involvement by the managerial hierarchy at every level if it is to be successful."

Section 4.1, p.16

SAWS/I experience during the second year has reinforced more strongly than ever the validity of the above projection.

Transition from a primarily relief and quasi-relief agency to the full maturity which developmental programming demands is a lengthy and extensive process. For SAWS/I this process began in 1978 when it changed its name from Seventh-day Adventist Welfare Service to Seventh-day Adventist World Service.

Since that time, as the growing organization has enlarged its focus and activities, the iterative process of managerial redesign and adaptation has been both evident and

constant. There can be little question that the requirements of this current Matching Grant Program has played a significant role in making more apparent to SAWS/I upper and middle level management the need to continue this process in order to keep abreast of expanding responsibilities.

While the total effect above was not anticipated in the Matching Grant Proposal, nevertheless a careful analysis of SAWS/I experience since implementation gives credence to the facts stated above. Whatever else the programmatic aspects of the Matching Grant in the field may be as outlined elsewhere in this report, the fact is that the very existence of this grant has contributed significantly to the ongoing maturation and enhancement of the SAWS/I management system. Several lessons have been learned during this second year which have resulted in substantive changes within the organization as a response to the constraints listed below in section 4.2.

4.2 Management Constraints

There have been several managerial constraints upon the Matching Grant Program during the second year.

-Overhead Rate: SAWS/I had projected an overhead rate of approximately 10%. However during the second year of operation this was fixed officially by the USAID Grant Office at 2.0%. This gross disparity is due to the fact that most of the facilities and personnel for SAWS/I operation are supplied at no cost by the parent organization. This situation has become problematic in many ways, not the least of which is the inability to assign overhead expenses proportionately to individual projects.

-Project Backstopping: Until such times as country staff capabilities have been built to certain levels there will continue to be considerable reliance placed upon headquarters to operationally backstop the various projects with technical assistance and follow-up. SAWS/I experience has taught them thus far that they have underestimated the amount of managerial backstopping required for a grant of this magnitude. The wide socio-politico-cultural variance of the countries encompassed by the Matching Grant demands more specific attention and coverage than previously provided.

-Evaluation: There is an increasing need to determine cost/benefit of individual country programs for evaluation and decision making purposes. This necessitates accurate proportioning of SAWS/I management and direct support costs to each project. The current system has made that data difficult to identify accurately.

-Communication: Staff in the field have encountered difficulties in differentiating between program planning, implementation, finance, and evaluation components of the program thereby hindering a smooth and efficient cross-flow of information.

4.3 SAWS/ADRA

The constituency of SAWS/I, cognizant of the need for dealing effectively with the above constraints and desirous of creating a management system that would have the flexibility and practical independence necessary to address these problems realistically, believed a new management approach to be necessary. To this end they have totally reorganized the SAWS/I management team as part of a total organizational restructuring which is hoped will result in a heightened capacity for developmental programming and greater effectiveness in management.

Along with these changes a new organizational title has been conceived which it is projected will be phased in gradually. Adventist Development and Relief Agency (ADRA) International as it will be called, will over time, legally and practically, assume the same philosophical and non-sectarian mandates that are encompassed within the current SAWS Constitution and Bylaws.

The new management team module is outlined in section 4.4 to give the scope of the new organization. Those members who have significant inputs into the regular day to day operations of the Matching Grant Program have clearly proportioned time responsibilities to the Matching Grant assigned in their respective boxes.

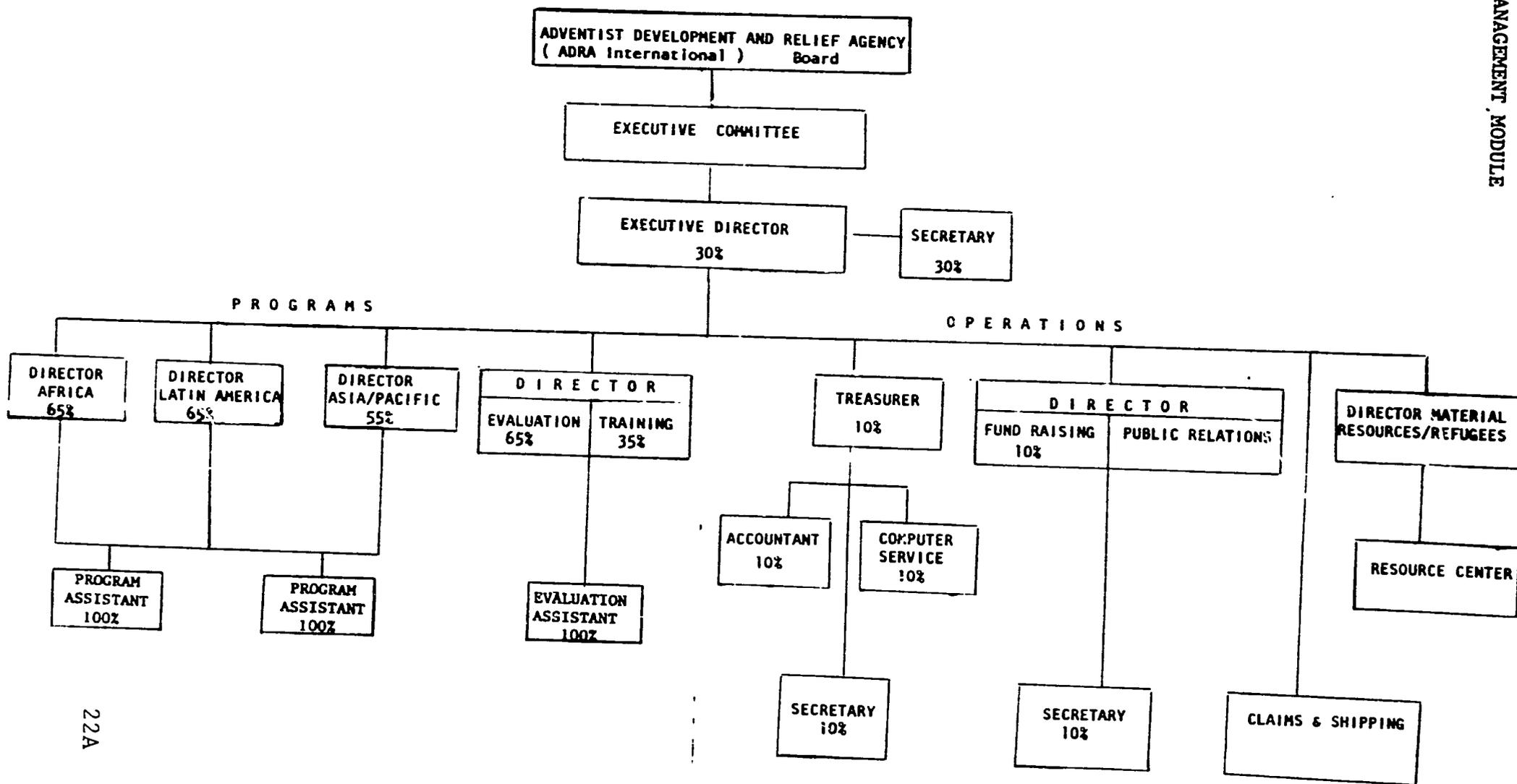
4.4 Management Module

It is not easy, without imposing tedious and time consuming requirements, to definitively assign a time factor to those elements of the Matching Grant team which share responsibilities with other non-matching grant programs. However, SAWS/I recognizes the need to base its management commitment upon some kind of logical, if not scientific, rationale. Two basic approaches were considered.

First, to identify the contribution of each element as a percentage of the Matching Grant to the total financial volume of operations. This does not prove very satisfactory, especially for the program staff, for the correlation between project cost and the amount of time needed to manage it is not proportional.

The second view would be to look at the Matching Grant Projects (27) in relationship to the overall number of projects for which the staff are responsible. This is a more valid approach from a programmatic point of view but has less validity for the financial operational aspects of the organization.

The formula presented in the chart represents the blending of both approaches. Program staff have been calculated on the basis of the number of projects they serve, while the operations staff have been assessed on the volume of money they handle. The Evaluation/Training Director and Program Assistant are both giving 100% time to the matching grant.



4.5 Executive Director

Definition: Chief Executive Officer and Program Administrator

Organization Relationships: Reports to SAWS/ADRA International Board

Time: 30%

Specific Responsibilities:

- Co-ordinates Activities of Each Department
- Facilitates Authorization and Implementation of Program Objectives
- Vice Chairman, Executive Committee
- Administration of Personnel
- Liason with USAID
- Field Visitation

4.6 Program Administration:

4.6.1 Directors:

Africa
Asia Pacific
Latin America

Definition: Responsible for planning, co-ordinating and facilitating all programs within their respective territories.

Organizational Relationships: Reports to Executive Director

Collaborates with: Director Evaluation/Training
Treasurer

Time Involvement: Director Africa 65%
 Director Asia/Pacific 55%
 Director Latin America 65%

Specific Responsibilities:

- Facilitating the Planning and Design Components of Country Specific Projects.

- Liason Between Country Programs and Headquarters Management.
- Liason Between USAID, Central Office/Missions and Country Programs.

- Facilitating the Flow of Managerial and Operational Inputs to Matching Grant Projects.

- Field Visitation and Technical Assistance.
- Monitoring Matching Grant Quarterly Reports in Collaboration with Evaluation Director's Office.

4.6.2 Program Assistants:

Definition: Assistant to the Regional Program Directors in all matters pertaining to Matching Grant Programs within their respective territories.

Time: 100%

Specific Responsibilities:

- Collection and Filing of Resource Data
- Proposal Editing
- Monitoring Project Reporting System
- Report Preparation
- Program Backstopping during Director's absence
- Correspondence

4.7 Evaluation and Training

4.7.1 Director

Definition: Responsible for all matters pertaining to Evaluation and Training.

Organizational Relationship: Reports to Executive Director

Time: Evaluation 65%

Training 35%

Specific Responsibilities:

- Evaluation of Project Design
- Design of Evaluation System
- Process Monitoring of Project Reports
- Formulation of Baseline, Endline and Needs Assessment Surveys
- Assist Field Projects in Developing Evaluation Capacity
- Process and Impact Evaluation Analysis
- Co-ordination and Implementation of Independent and Internal Evaluations.
- Writes Evaluation Reports

- Designs, Plans and Co-ordinates Training Activities
- Produces Training Materials and Informational Exchanges
- Provides Technical Assistance as Requested by Executive Director
- Field Visitation

4.7.2 Evaluation/Training Program Assistant:

Organization Relationships: Reports to Evaluation/Training Director

Time: 100%

Specific Responsibilities:

- Collects, Monitors and Collates all Periodic and Episodic Evaluation Reports.
- Assists Evaluation in Analysis of Project Data
- Assists in Operation of Computer for Statistical Evaluation and Graphics Presentation.
- Produces Reports as Required
- Tracks Management Information System Effectiveness
- Provides Editorial and Word Processing Skills to Evaluation Training Office.
- Backstopping of Directors Responsibilities While Absent
- Controls Information Resource Center
- Facilitates Training Activities
- Correspondence

4.8 Time Commitment Matching Grant

Executive Director/Program Administrator	30%
Executive Secretary	30%
Director Africa	65%
Director Asia/Pacific	55%
Director Latin America	65%
Program Assistants (2)	200%
Director Evaluation	65%
Director Training	35%
Program Assistant	100%
Treasurer	10%
Accountant	20%
Computer Services	10%
Secretarial	20%
Director Fundraising	10%
	<hr/>
	7.15

Based on a working year of 2000 hours this translates into a commitment of 7.15 person years. The previous model projected a commitment of 4.70 person years. This represents, therefore, an increase of 2.45 person years in management capacity for the grant. While this does not appear a huge increase, it should be noted that by the disbursement of the previous duties of the Financial Management Officer to operations staff it has enabled this extra time to be put where it counts, namely, in the regional planning, implementation and project backstopping.

SAWS/ADRA projects that this new management structure will effectively and adequately overcome the constraints highlighted in section 4.2 and will contribute to a much improved capacity for programming and operation.

4.9 Field Monitoring

COUNTRY	PROGRAM ADMINISTRATOR	EVALUATION TRAINING	* DIRECTOR AFRICA	* DIRECTOR ASIA	* DIRECTOR LATIN AMERICA
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AFRICA

Burundi	1			1	
Ghana				2	
Kenya	1	2		1	
Rwanda	1			1	
Tanzania		2		1	
Zimbabwe	1			1	

ASIA

Philippines	1	1		1	
Sri Lanka		1			

LATIN AMERICA

Barbados		1			
Bolivia		1			
Dominica					1
Guyana					
Haiti			1		
Honduras				1	
Jamaica			1	2	1
St. Lucia		2			

* The Regional Directors listed above were operating under previous responsibilities during most of this report period, hence the non-alignment of their itineraries with current regional responsibilities.

SECTION 5 - TRAINING

Section 5.

Training

5.1 Introduction

SAWS/I experience during the second year of operation has reinforced its belief that appropriate training of all field staff is vital to project viability and ultimate success. Recognizing the inherent potential of its indigenous and expatriate field workers for strong developmental intervention, SAWS has sought through the activities of its training office to expand and extend the programming capacity of its staff during the second year.

The SAWS/I development training model developed in conjunction with the training officer and the New Transcentury Foundation has been built upon incorporating into the workshop refinements suggested by ongoing experience and the analysis of participant evaluation sheets. It is true that such training activities have taxed the organizations management capacity and tended to contribute to a somewhat slower rate of implementation; however, the resulting improvement in understanding and project management capability is slowly being realized and augurs well for future programming.

5.2 Training Capacity

During the first year SAWS/I was largely dependent upon outside expert trainers from the New Transcentury Foundation for their training activities. One of the stated objectives of the New Transcentury staff was to institutionalize a training capacity within SAWS/I itself.

During the second year, SAWS/I Training Officer assumed the role of co-trainer to Ms. Jane Watkins of Transcentury and is now in a position to design and conduct appropriate training interventions for SAWS/I without a dependency upon outside

assistance. To this end one major objective of the training program has been achieved. This has been highlighted by the fact that the training officer for SAWS/I was invited to act as an expert trainer to the following organizations during the report period:

Episcopalian Church Development Workshop
Baguio City, Philippines - May 16-20, 1983

U.S.D.A. Management for Government Organizations
(A training workshop for midlevel managers from G.O.
in 11 developing countries.)
George Mason University, VA. - July 5-6, 1983

It was felt, that despite the training officer's full time commitment to the Matching Grant, involvement such as the above would not only reinforce learned training skills in a different environment but would also usefully serve as an indicator of interagency collaboration, to which SAWS/I is firmly committed.

5.3 Training Workshops

5.3.1 "Training of Trainers Workshop" Washington, D.C. - Feb. 14-17, 1983

This workshop was designed by the New Transcentury Foundation and funded equally under their M.D.S. Grant and SAWS/I training program. All SAWS/I upper level management staff attended this 4 day workshop. In addition representatives from the following organizations participated in the workshop:

Foster Parents Plan
W.I.C.
New Transcentury Foundation
Project Director - SAWS/St. Lucia Matching Grant Project

Goals: To orientate participants to the key concepts of adult education and experience based learning.

To give participants an opportunity to practice the key steps of experience based training design and delivery.

Subjects covered included:

- Pedagogical - Andragogical Approaches To Learning
- Learning style inventories
- Technology of Human Relations Training
- Brainstorming
- Resource Inventory
- Action Research Model
- Interpersonal Group Relationships
- Thomas Kilman Conflict Mode Instrument

5.3.2 Development Planning Workshops:

Southern Asia Region
Lonavla, India - March 29-April 3, 1983

Philippines
Silang - May 9-13, 1983

Workshop Evaluations:

Rating Scale -

0 = Inappropriate

1 = Poor

2 = Fair

3 = Good

4 = Above Average

5 = Excellent

Questions -

1. How well does this workshop compare with other workshops you have attended?
2. How well were the workshop objectives covered?
3. How would you rate the training methods used?
4. How useful will this training be to your organization?
5. How would you rate the performance of the trainers?
6. How would you rate the performance of the SAWS facilitators?

	KENYA	ZIMBABWE	ASIA	PHILIPPINES
Question 1	4.31	4.26	4.24	4.12
Question 2	4.07	4.08	4.14	4.01
Question 3	4.40	4.48	4.64	4.27
Question 4	4.35	4.40	4.05	4.41
Question 5	4.55	4.34	4.55	4.41
	<u>4.22</u>	<u>4.15</u>	<u>4.02</u>	<u>4.23</u>
	4.32	4.29	4.27	4.24

Because of the newness of these workshops and the participants exposure to them it was not thought that pre and post K.A.P. testing was warranted. However, this may be included in further workshops. There is no statistical difference between the above workshop scores. The workshops have maintained a consistency over a wide spread of differing cultures while utilizing different trainers and facilitator mixes for each workshop. This speaks well for the replicability of the workshop design both for SAWS/I and other agencies.

5.3.3 Field Development Training Sessions:

La Paz, Bolivia - December 11, 12, 1982

Baraton, Kenya - March 9, 10, 1983

Arusha, Tanzania - March 16, 17, 1983

Kandy, Sri Lanka - March 30, 31, 1983

5.4 Training Methodology

The philosophy behind SAWS/I development planning workshops are based upon the well established principles of development, namely:

- Village based, village focused interventions
- Training indigenous communities to participate actively in the development processes.
- Minimizing dependency upon high technology and inappropriate resources for local development.
- Maximizing interventions that best blend local "felt" needs with professionally "perceived" needs to create attainable and effective development goals.
- Institutionalizing the development process within the community itself ensuring continuity, self reliance and ongoing community advancement.

In collaboration with the New Transcentury Training Center, SAWS/I believes that it has produced a workshop that embodies the above mentioned philosophies into a format that is readily accepted and understood by those, many of whom have had little professional exposure to the development modalities, hitherto. Seeing that one of the basic premises of the Matching Grant since its inception has been to "institutionalize" the development capabilities of local leadership within the

extensive worldwide infrastructural base that SAWS/I has access too, the strong training thrust SAWS/I believes to be unequivocally justified.

The training methods used are based primarily on those espoused by the National Training Laboratory (NTL) in the U.S.A. and the "Tavistock" model in the U.K.. It is an experience based learning model with strong bias favoring the participatory approach to learning skills. There is minimal pedagogical instruction and teams practice, critique and present actual projects with which they have an interest in and knowledge of. The case history approach to training used so frequently in the past has been found to be, for the most part, problematic in achieving lasting results. SAWS/I emphasises a realistic, dejargonized, basic approach to its training. Participants in the workshops are conducted through the following aspects of program planning and design -

- Data Collection and Analysis
- Problem Identification and Prioritization
- Goal and Indicator Setting
- Action Planning
- Assumptions
- Process and Impact Evaluation

Having completed one cycle of the workshop design they are then put through the identical cycle again on their own to reinforce the principles learned. Some of the small projects developed by these small groups have been or will in the future be given consideration for funding. This latter fact tends to help internalize the value of the training given for it is not perceived, as is so often the case, a futile exercise in mental gymnastics with no meaningful application at the end.

5.5 Information/Resource Exchange

The 1981-82 Evaluation Report projected the production of a bi-monthly development training journal to facilitate inter-communication between program personnel thereby better orientating them towards technical resources and information relating to development issues.

The training officer has responded to this projection by producing a quarterly paper known as "INTERFACE". Dedicated to helping staff keep abreast of current events and issues as well as exposing them to project reviews and evaluations, it has already brought a favorable response from the field.

Each issue contains an editorial on a current development issue, two technical articles, one project summary, a book review and newsnotes. It is projected that as the journal becomes better established a crossflow of questions and information exchange will take place through its pages.

5.6 Training Projections

Projecting the training thrust SAWS/I training office has three major objectives to fulfill in the third year of the matching grant.

1. Complete training workshops for the two somewhat isolated areas of the Matching Grant - Bolivia & Ghana.
2. Expand training capacity of SAWS/I upper management staff with particular emphasis to the three regional directors by involving them directly in training activities.
3. To provide for follow-up training to Matching Grant field staff with particular emphasis upon process and impact evaluation methodologies including simple data analysis techniques.

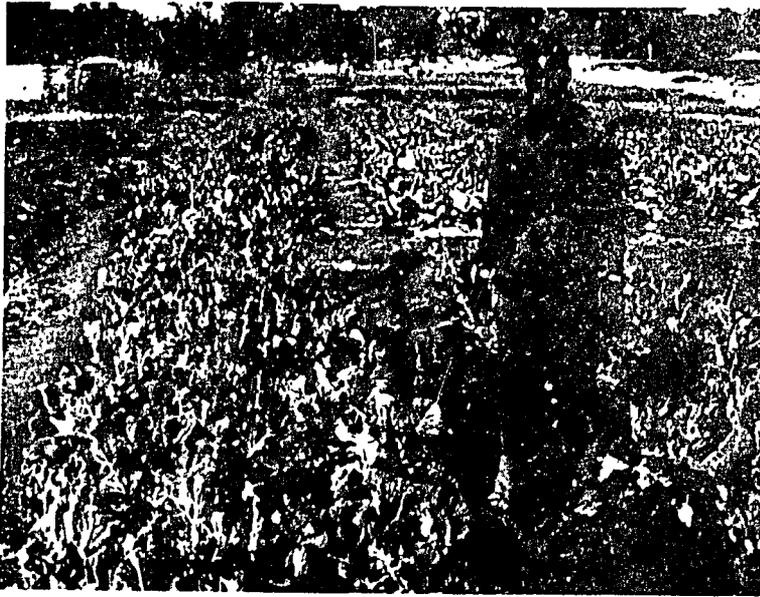
SECTION 6 - AFRICA IMPLEMENTATION

AFRICA

Section 6



ZIMBABWE: Students preparing organic mulch for seedbeds.



ZIMBABWE: Village farmer implementing skills on his own land



ZIMBABWE: Harvesting Kale for the market

AFRICA



TANZANIA: Evaluation team at work in the village with the Community Health Worker



KENYA: Student trainers visit farmer who is starting to implement intensive gardening skills



TANZANIA: Village water supply in beneficiary village

6.1 Burundi

The projected program for Burundi to conduct a Community Health Worker Training Project from four new health centers has been deleted from this grant. The decision to drop Burundi from this current grant was taken by the officers of SAWS/ADRA for the following reason.

Under a September 7, 1982, cooperative agreement with the United States Government (Bureau for Refugee Programs) No. 1037-220065, SAWS/I agreed to build, equip, and operate four rural health centers. It was felt that the Matching Grant could usefully complement this primary health care service delivery package. Inasmuch as the first of the four centers will not be completed until January 1984, the May 1985 deadline leaves insufficient time to make any health behavioral impact in the community.

SAWS/I has therefore decided to hold the planned program for implementation under a new Matching Grant for FY 1985 - 87. Funds allotted to this country have been reallocated to other country programs.

6.2 Ghana

Introduction:

The serious economic situation in Ghana exacerbated by the return of more than 1,000,000 Ghanaians during this report period has not made the two Matching Grant projects in this country easy to implement. A severe and unrelenting drought across the "Sahel Belt" has also brought its share of burden to this stricken land. The fact that implementation has taken place and significant results are being achieved in at least one of the two projects testifies to the tenacity and management ability of the SAWS/Ghana staff.

Project Description:

SAWS Ghana has implemented two agricultural projects under extreme conditions of difficulty. Implementation in one project has been slower than the other but this was due to the need for dealing with the harsh and extreme drought conditions in the Northern project with its resultant privation on the target communities. Priority was therefore given to address that need. Inasmuch as the drought has now broken it is expected that the Central Ghana Project will pick up momentum.

Project Purpose:

"Increased Dry Season Vegetable Production Capability of Rural Farmers in Agona, Kwanyako Villages, Central Ghana and Zangum, Tamale, Northern Ghana by May 1985."

Output Achievements:

	AGONA	ZANGUM
1. A. Earthen storage dam constructed by Januay 1984.	20%	100%
B. Construction of irrigation canals by June 1984.	-	NA
C. Farmers irrigating crops during dry season by June 1984.	-	-
2. A. Agricultural extension officer spending a minimum of 20 hrs. per week in field training activities by December 1983.	?	20
B. Agricultural extension officer trained at Solusi Scientific Gardening course.	*	*

* This indicator is under review and will possibly be changed.

	A G O N A		Z A N G U M	
	# Farmers	# hours	# Farmers	# Hours
3. A. Farmers given a minimum of 100 hrs. practical instruction in the following areas:				
a. Irrigation Methods	30	4	40	20
b. Vegetable Production	30	4	40	25
c. Plant and Pest Control	30	4	40	6
d. Fertilization	30	4	40	12
e. Storage	30	4	20	3
f. Crop Marketing	-	-	20	3
g. Family Nutrition	-	-	20	3

B. # Farmers implementation training
as evidenced by:

- a. Land under cultivation.
- b. Two or more varieties of crops growing.
- c. Cultivation of crops during dry season.

No activities due
to severe drought.

Assumptions Status:

- 1. Maintenance of an average rainfall for the perspective areas was a key assumption for both projects. From December 1982 until October 1983 there was no rainfall whatsoever.
- 2. That inflation would not rise faster than the average of the previous three year period was another major assumption. In fact it has risen enormously and is the highest in West Africa.

Recommendations:

- 1. That given the current situational and national priorities, SAWS/Ghana seriously review the status and feasibility of the Agona Project, with a view to the following:

Either - A. Intensive implementation immediately

or - B. Reassigning project resources to Zangum Project in the North to extend its coverage to wider areas thereby maximizing the excellent community support already engendered there.

2. Improving the management information system flow between country and SAWS/I headquarters.

3. As soon as weather conditions permit, to move intensively into the dryweather crop production phase with strong emphasis upon regular farm visitation and technical assistance being given by the Agriculture Extension Officer.

6.3 Kenya

General Introduction:

SAWS/Kenya has chosen to use the University of Eastern Africa as its rural setting for a community health and development intervention. Three projects in all are being conducted in the surrounding rural communities under the auspices of the University faculty and preprofessional students. Apart from the specific project characteristics there are certain innovative components that all three projects share in common.

The University has chosen to train and utilize pregraduate students as the promoters of change in their projects. Rationale for this is based upon the following observations:

1. Academic training in whatever field is not usually wholly sufficient to product the type of professionals that can apply their skills realistically to the needs of developing communities.
2. The gap between young academics and the older untrained but experienced members of society are significant barriers to meaningful development.
3. Sensitization and involvement of professional persons during their training years in community development planning and intervention should result in a residual transfer and application of learned skills to their postgraduate professions.

To this end, while the stated purposes of the following project activities are to improve the health and wellbeing of people living in the target communities, clearly an equally valid long-term purpose can be made for the impact of such involvement upon

university graduates as they transfer developmental technology to their chosen professions.

6.3.1 Intensive Dryweather Food Production Project

Project Description:

This project grew out of a community health need assessment conducted by the university in 1980. From analysis of data one outstanding feature emerged; namely, that as the dry season progressed community health deteriorated. The hypothesis was developed that if table food could be successfully grown in the dry season, then community nutritional health could be substantially improved. A pilot project was devised to develop methods appropriate to the local farming conditions that would provide local subsistence farmers with dry season agricultural capability and secondly a model system that farmers could look at and evaluate for themselves. These objectives were successfully met and this project arises out of requests from community farmers for assistance to implement all weather gardens.

Purpose:

"Increased Nutritional Intake Of Subsistence Farmers Families in the Nandi District By May 1985".

Output Achievements:

	PLANNED	ACTUAL
1. Trained Student Agricultural Advisors (SAA).	12	10
Hrs. Formal Training	20	50
Hrs. Informal Training	20	10
KAP Analysis 50% Increase, $p = < 0.001$	6	9

2. Increased Water Supplies For Irrigation

Water Supplies Improved	10	2
Water Available	?	?

3. Farmers Formally Trained In Intensive Gardens

# Farmers Trained	25	8
# Hrs. Training	10	-

4. Farmers Informally Trained

# Hrs SAA Spent In Field	2880	1035
* # IG Frames Operating	40	6
# Variety Being Grown	3	6

* Purchased by farmer

Assumptions Status:

Projected assumptions have held constant during the report period. During the first quarter funds did not arrive on a timely basis but are now doing so.

Recommendations:

While the project is moving well into the implementation phase there are several areas that the field staff need to review.

1. While considerably more time has been given to formal training of the student agricultural assistants it should be noted that success could very well become dependent upon the amount of informal training and

support they are given in the field as they associate with the farmers.
This could be strengthened.

2. Introduction of the Blakes Hydram technology is appropriate but continued care to ensure accuracy in making the necessary calculations, especially where water heads are marginal, is vital.
3. Project management need to review seriously the time inputs of the SAA's in the field. Despite the attrition of three SAA's during the period the projected outputs are not being realized. This will impact upon project success if not adjusted.

6.3.2 Maternal Child Health/Nutrition Project

Introduction:

Protein Energy Malnutrition, P.E.M., is a major health problem in most developing countries. In Africa, hospital figures show that nutritional deficiency contributed 30% to 50% of all deaths of children under 5 years of age, (Idusogie, 1979). In Kenya approximately 50% of the total population is children under 15 years of age, while 20% is under-five of which 1-5% are severely malnourished. Bohdal et. al 1968, conservatively estimated the case fatality to be 22%.

There is however, overwhelming evidence that clinical P.E.M. affects adversely growth and development, learning and school performance. Most of the preschool and school age children are in the rural areas. These are the areas found to have the higher rates of both mild and severe forms of P.E.M.. We can speculate that over 80% of the school children are survivors of various degrees of P.E.M..

Baseline Data of Interest:

Based on a constructed sample target population of 1,200 persons and a 0 - 5 year population of 257 children we find that -

21% are Gomez Category II Malnutrition

4% are Gomez Category III Malnutrition

25%

Approximately 25% of children in this sample are moderately to severely malnourished.

Based on a population profile constructed from national demographic and and health statistics this population had 64 live births of which 8 died.

This gives:	Local IMR	National IMR
	130/1000	83/1000
	Local TMR	National TMR
	4/1000	2/1000

Given a ± 10 degrees of freedom for survey bias and error this still represents a significantly higher rate than national averages.

Purpose:

"Reduced Incidence Of Protein Energy Malnutrition Among Young Children Aged 0 - 5 Yrs. In Rural Families Of Nandi District By May 1985."

Sub Purpose:

"Ten University Preprofessional Students Trained in Nutrition Developmental Programming By May 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. At Risk Families Identified.	3/83	20	6/83	27
2. Nutrition Health Committees Functioning.	4/83	3	9/83	3
3. At Risk Children Identified.	9/83	50	6/83	65

4. Student HNP's Trained -

a. # Students	8/83	12	8/83	9
b. # Hrs. Formal Training	8/83	30	8/83	40
c. # Hrs. Informal Training	10/83	20	6/83	96
d. HNP's KAP Increase	10/83	12	6/83	8 *
e. HNP's Functioning & Capable of Home Demonstrations.	12/83	12	6/83	8

* 2 Dropped by Attrition

5. Community Training -

a. # Family Education/Food Preparation.	5/85	20	9/83	27
b. Hrs. Monthly Per Family/ Informal Training/HNP.	12/84	40	9/83	24
c. # Community Members Have Trained 2 Other Families.	5/85	16	9/83	--
d. # Families Taught Prenatal Nutrition.	5/85	7	9/83	27
e. Families In Community Nutrition Club.	5/85	9	9/83	--

Assumptions:

All the major assumptions have held stable as projected.

Recommendations:

1. With the addition of more children and the shortening of the project timetable to May, 1985, staff should consider increasing the number of HNP's in order to achieve all objectives planned for.
2. Baseline information would be enhanced by the collection of the following substantiating data.
 - A. Total # of children aged 0 - 11 months.
 - B. Total # children aged 1 - 5 years.
 - C. Total # live births per year.
3. Increase efforts to solidify community involvement through the planned for committees and nutrition clubs.

6.3.3 Poultry Husbandry for the Subsistence Farmer

Project Description:

The project consists of three phases. First, there is a model poultry house built on the campus of the University of Eastern Africa (UEA). This has been done under the auspices of the Agriculture Department of the University Students in the Department were closely involved in building the model. The model is a simple 10' X 10' laying house which houses 25 laying hens. It includes nests, roosts, feeders, and waterers. The purpose of student involvement in the construction is so they may assist the recipient farmers in the later phases of the project.

The second phase involved bringing groups of farmers to see the model project. They are given a thorough orientation of the model. This gives them an opportunity to see exactly what they can expect to have at their farm. Information is given to them concerning the advantages of utilizing this particular model.

In the third phase the farmers who are interested in the operation of a poultry husbandry project on their farm are directly assisted in its development. Students who have had experience in constructing the demonstration model are assigned in teams of two to help each farmer in constructing his project.

In addition, this third phase of the project includes assistance in the operation and management of the farmer's completed facility. Weekly, the student team will visit the farmer and discuss with him the practices and procedures of proper poultry husbandry. Not only will this be a verbal lesson, but it will be demonstrated and encouraged on the farmer's own facility and birds. Constant supervision will be given to the farmer by the student team until the farmer is well-oriented in the practices of proper poultry husbandry.

Purpose:

"Increased Egg Production of 25 Rural Farmers in Nandi District by May, 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. # SAA's Trained	12/83	12	-	12
2. # Hrs. Formal Training	12/83	20	9/83	14
3. # Hrs. Informal Training	12/83	20	9/83	8
4. # SAA's KAP Increased	12/83	12	9/83	11
5. # Farmers Visiting Poultry Demonstration.	12/83	50	9/83	9
6. # Community Orientations	3/84	3	9/83	3
7. # SAA's Team's Planning In Farmers Poultry Facilities.	12/84	2	9/83	5
8. # SAA's Assisting in Construction of Poultry Facilities.	12/84	2	9/83	10
9. # Hrs. Per Farmer Given Monthly	5/85	20	9/83	8
10. # Farmers Formal Training	6/84	18	9/83	8
11. # Hrs. Formal Training	6/84	10	9/83	4
12. # Completed Poultry Facilities	5/85	20	9/83	1
13. # Hrs. SAA's Spent With Farmers On Site Monthly.	5/85	120	9/83	60

Assumptions:

All major assumptions are holding reasonably stable although community participation is less than projected.

Recommendations:

1. Every effort must be made to hasten the implementation process because of the late start and shortened project time frame.
2. Greater attention to community involvement and participation is necessary. This may become easier as some farmers implement and benefits are perceived.

6.4 Rwanda

Project Description:

Rwanda is one of the most densely populated countries in Africa--its population being largely poor and uneducated farmers. Malnutrition is widespread especially among the children. Most of this malnutrition is due to lack of education about gardening methods, food selection, and food preservation during the dry season. Infectious diseases are frequent and along with the decreased general resistance to disease brought on by the malnutrition, the results are frequently disastrous. Many of these infections could be prevented by proper personal hygiene, and simple instruction on the prevention of disease. This is also true of the high prevalence of intestinal worms with all their complications. Personal hygiene can also be improved with adequate education.

This program is working in close cooperation with the Department of Health, local communal and secteur governments and other volunteer agencies. Each existing SAWS medical institution has four trained community health workers who will work under the immediate supervision of the medical assistant responsible for the health center or dispensary. All the community health workers are responsible to a medical doctor who works with them to supervise them.

Each health worker is responsible to a particular sector which usually contains 3000 to 4000 people. He facilitates the setting up of community health committees in that sector and helps determine local health needs, and supports efforts to initiate change and fill these needs. All work done is in cooperation with other volunteer agencies such as the Swiss and French agricultural programs. These community health workers are also responsible for health talks and teaching at local schools, churches,

community centers and also at the dispensaries. Most of their time is spent in the community and in the homes.

Purpose:

"Improved Health Status Of Children Aged 0 - 5 In 3 Target Communities Of Rural Western Rwanda By May, 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. # Community Health Committee Meeting Monthly.	6/83	6	6/83	12
2. # Community Health Workers Formally Trained.	1/84	28	6/83	12
3. # Hrs. CHW Formal Training	1/84	70	6/83	72
4. # Mothers Attending MCH Meetings Regularly.	5/85	NS	6/83	90
5. # Hrs. Mothers Received Informal Training.	5/85	20	6/83	60
6. # New Latrines Constructed	5/85	NS	6/83	4

Assumptions:

All assumptions have held reasonably well during the reporting period.

Recommendations:

1. Effort should be made to speed up the CHW training phase to maximize on the time available for these workers to have an impact on their communities.
2. The end of project projected date of January 1985 should be extended to May 1985 and the budget adjusted accordingly.

3. Although in those communities where the CHW's are already operational implementation appears to be proceeding well effort must be made to increase the numbers of mothers and children involved per CHW if this project is to realize an acceptable cost benefit ratio.

6.5 Tanzania

General Introduction:

SAWS/Tanzania is currently operating two community development grants in health and agriculture respectively. Owing to the serious logistical and economic constraints in this country implementation has been laborious and difficult.

Despite these problems both projects are implemented and Management Sciences For Health has conducted an initial evaluation of the health project with SAWS country and headquarters staff. This evaluation was unique in that it provided an in-depth look at a project just 5 months after implementation, thus enabling a very valuable technical assistance package to be given to the project when it can best use it to make those adaptations that will contribute to project success.

6.5.1 Community Health Project

Project Description:

The Community Health Worker Project utilizes eight health care centers of the Adventist Health Care System network in Tanzania. SAWS/Tanzania has embarked upon a Community Health Promotor Training Project in 29 communities.

The CHP's act as health change agents in their respective communities and are to serve as a liason between the community and the health center staff.

Purpose:

"Improved Health Status Of Young Children aged 0 - 5 In Eight Rural Communities Of Tanzania By May, 1985."

Output Achievements:

	I K I Z U		P A R A N E	
	<u>Planned</u>	<u>Actual</u>	<u>Planned</u>	<u>Actual</u>
1. Community Health Committees Established by June, 1983.	15			
2. 3 CHP's From Each CHC Selected From Their Communities For Training.	45*	15	45*	15
3. # CHP's Trained	45	15	45	15
4. # Hrs. Training	60	102	60	102
5. **MCH Services Delivered *				
a. MCH Clinics Operating twice weekly in each community.	15	-	15	-
b. Mothers with Children 0-5 attending MCH Clinics twice monthly.	70%	-	70%	-
c. Children 0-5 immunized				
- measles	75%	-	75%	-
- D.P.T.	75%	-	75%	-
- Polio	75%	-	75%	-
6. Potable Water System ** Established By Dec., 1984				
a. # Communities	6	-	NA	NA
b. % Of Population having Access To 30 Litres Potable Water Per Day	60%	-	NA	NA
7. Sanitation Program Completed By May, 1985 **				
a. % Of Families Using Pit Latrines	40%	-	40%	-
b. % Increase In # Of Pit Latrines	100%	-	100%	-

* Numbers reduced due to government imposed minimum pay requirements.

** Outputs planned for later implementation and not yet reached due to late implementation. Currently in Process.

Assumptions:

1. Community support tends in Tanzania to be generated from within the political cellular framework of each community and the National Political Party. This structured system is both a constraint and a blessing. Total community participation has not been possible because of the need to work within the established organization structures. This assumption has not held strongly.
2. Food and material supply levels have dropped significantly during the reporting period and these could adversely effect the impact indicator attainment. Fuel has been non-attainable for 5 months.

Recommendations:

1. SAWS/Tanzania field staff should reassess the management staff and support systems needed to sustain and fulfill the projects objectives. Key areas of concern are:
 - Supervision of CHP's
 - Supporting of CHP's
 - Supplying of CHP's
2. Innovative ways must be sought to seek and establish greater community involvement and collaboration between project staff, the health centers and the CHP. Linkage between CHP's and the health centers is vital.
3. CHP work assignments and responsibilities must be focused more sharply and prioritized towards those preventive measures which will have the greatest chance of positively impacting on community health. Accurate reporting is essential.

4. Establishing some kind of incentive scheme for productive CHP's. This could include a small medical/first aid kit and various extra training materials. The preparation of a CHP manual in the vernacular would be of tremendous use to the CHP's. David Werners "Where there is no Doctor" is available in Swahili and should be supplied to each CHP.

5. Readjust baseline survey with especial attention to establishing the following criteria:
 - # live births per 1,000 population
 - Total # children aged 0-11 months
 - Total # children age 1-5 years

This will enable you to accurately determine your IMR & TMR rates.

6. Analyze your baseline and use the results as a basis for curriculum adjustment and further training activities.

6.5.2 Pare Mountain Income Generation Project

Project Description:

Rapid population growth, changing weather patterns, and economic decline has had its impact upon many communities in Tanzania. In the mountains where arable land is restricted, water supply is essential to live. In the Pare region, German settlers nearly a century ago established a simple system of earth bank irrigation ditches which supplied large areas of the mountain valleys with water for washing, drinking and irrigation. Over the years these have become clogged and eroded and for many years some have functioned both intermittently and insufficiently. This has resulted in a population migration nearer to the river sources thus leaving valuable arable soil unattended because of lack of water. This project is reconstructing

approximately 10 kms of irrigation ditch which will restore a dryweather food production capacity to 800 families living below its borders.

Purpose:

"Improved Income Earning Capacity Through Agro Production of 800 Families In The Pare Mountains Of Northeast Tanzania By May, 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Irrigation Ditch Reconstructed				
a. 10 cu.ft./sec. Available 5 kms From Source.	6/83	10	7/83	4
b. 2 cu.ft./sec. Flowing 7 kms From Source.	6/83	2	7/83	2
c. # Families Irrigating Crops By "Ditch" Twice Weekly.	6/83	400	7/83	60
2. Agricultural Training Officers Trained.				
a. 2 Local Villages Given 14 Week Course In Scientific Gardening.	12/83	2	11/83	2
b. 2 Ag. Extension Officers Teaching Villages Fulltime.	1/84	2	-	-
3. Farmer Agriculture Training Program Established.				
a. # Farmers Utilizing New Technology.	5/85	400	-	-
b. # Varieties Of Crops Being Grown.	5/85	100% Increase		

4. Village Education Program
Established.

a. # People Given Education On Agro-Health.	6/84	2800		
b. # Hrs. Instruction Given.	6/84	10	-	-

5. Other Non-Specified Indicators -
Community Labor = 1000 Person Hrs. Per Week

Assumption Status:

Generally assumptions are holding well although the availability of supplies and fuel in-country are extremely marginal.

Recommendations:

1. SAWS/Tanzania should seek ways to establish clearer linkages between the Matching Grant Health Project component being conducted in Parane and the Agro-Production Project.
2. Capitalizaing on the fact generated from the baseline survey that the "ditch" is not just for irrigation but the major source of water for all purposes. Some health education components should be strengthened in the project design to address this need.

3. As soon as the agricultural extension officers return from their training in Solusi they should be given considerable orientation and technical support as they implement their responsibilities. A clear understanding of the projects objectives, reporting requirements and structure should be given to them. Their collaboration and involvement with the Parane Village Health Committee would be recommended.

6.6 Zimbabwe

General Introduction:

SAWS/Zimbabwe has chosen to implement two projects under its Matching Grant allocation. The first is an income generating agricultural project and the second a Health Center based primary health care system. The recent unrelenting drought and uncertain security situation has had its impact on these two programs. Despite these constraints the SAWS staff are to be commended for pushing the implementation phase through successfully to the point where impact is starting to be seen.

6.6.1 Solusi Scientific Gardening Project

Project Description:

The project as outlined in the first 1981-82 evaluation report has, on the basis of lessons learned, changed its primary focus from that of nutrition to that of income generation. It is SAWS/Zimbabwe's opinion that either approach is compatible with an overall higher goal of enhanced health and well-being of rural indigenous peoples.

Rural farmers are brought into the training center at Solusi College and given a 14 week intensive agricultural training in food production. Exposure to both inorganic and organic methods are given with an increasing bias towards the latter. Following completion of the, course graduates return to their villages where they implement their acquired skills on their own land and then seek to transfer that skill to other neighbors.

Project staff monitor their activities and provide technical assistance and visitation on a regular basis. The project has created great interest in government and other agency circles. See Appendix (A).

6. # Graduates marketing garden produce at least twice a month after training?		<u>65</u>
7. # Graduates owning the following prior training? Evaluated		<u>133</u>
a. Radio		<u>24</u>
b. Television		<u>5</u>
c. Cassette Player		<u>16</u>
d. Bicycle		<u>79</u>
8. # Graduates owning the following after training? Evaluated		<u>208</u>
a. Radio		<u>88</u>
b. Television		<u>23</u>
c. Cassette Player		<u>35</u>
d. Bicycle		<u>196</u>
e. Motor Vehicles - pickup, truck or car		<u>21</u>
f. Donkey Carts		<u>124</u>
g. Water Irrigation Setups		<u>19</u>

Assumptions Status:

Most of the major assumptions have not held for this project. Water and commodity supplies have come perilously low. Environmental stability has fluctuated and several epidemics of plant diseases and pests has occurred.

In the face of these constraints SAWS/Zimbabwe staff have demonstrated a tremendous capacity for adapting to the local conditions while maintaining the essential thrusts of the program.

Recommendations:

1. SAWS/Zimbabwe should seek ways whereby the model, successfully established, can be taken out and replicated on a larger scale nationwide.
2. Greater involvement by women in the program should be encouraged where possible.

6.6.2 P.H.C. - SDA Health Systems Project

General Introduction:

SAWS/Zimbabwe through its infrastructural development program is currently in the process of constructing six P.H.C. Centers in rural areas of Zimbabwe. The Matching Grant allocation is providing the community outreach components of this total system through the provision and utilization of Community Health Aides in six target areas. No USAID funds are being used for the infrastructural components. It is hoped that by encouraging these new centers to become involved in preventive community interventions from the start that they will be in a better position to "institutionalize" the community development thrust from the very beginning.

SAWS/Zimbabwe conducted their own internal evaluation in June, 1983, and their report is included verbatim follows.

ADVENTIST PHC HEALTH SERVICE PROJECT - ZIMBABWE

Evaluation June, 1983

ADVENTIST HEALTH SERVICES--ZIMBABWE
EVALUATION JUNE 1983

GOAL	INDICATORS	ASSUMPTIONS	EVALUATION
To develop, in cooperation and consultation with the population to be served and the Government of Zimbabwe, a system of Primary Health Care in six health centre areas	Six health centres operating PHC programmes by 31 December 1983	GOZ attitude favorable--met International funding available for startup--met but delayed	Three health centres operating PHC programmes
Subgoal I			
A health centre functioning in each designated area.	health centres functioning in each designated area by 31 Dec 82	Funding available--Feb 1983 Favorable response by population--met	Three health centres functioning. Two additional health centres under construction Site selected for health centre number six 25 935 clinic services first half 1983 Unable to isolate this data
	Number of clinic services	Community perceived need--met	
	Number of health centre educational contacts	Community acceptance	
Subgoal II			
PHC services available to all of population in designated area	Community Health Aides trained for each village within 5 km radius of health centre by 30 June 83	Community acceptance--slowly being met Availability of volunteers for CHA training-- Competing with paid cadre of GOZ VHW	Delay in establishing this aspect of programme
	CHA trainer/supervisor visits each village within 5 km radius of health centre monthly by 31 Dec 1983	Funding available for CHA trainer/supervisor--met	Visits being made

AHS-Z, Evaluation June 1983--2

Subgoal III

Community horticultural education outreach programmes functioning in each health centre area	Community horticultural workers trained and one located in each designated area by 31 Dec 1982	Horticultural training programme funded-- met Trainees available from designated areas-- met	Workers trained Unable to function do to water shortage
	Community horticultural workers growing demonstration gardens in each designated area by 31 Dec 1982	Land and supplies available-- met	Unable to function due to water shortage
	Fifty percent increase in production of legumes in target communities by 31 Dec 1983	Acceptable climatic conditions--not met Community acceptance-- unable to determine since programme not functioning	Not met
		Land and supplies available--unable to determine	
	Eighty percent increase in production of garden vegetables by 31 Dec 83 in target communities	Acceptable climatic conditions--not met Community acceptance-- unable to determine since programme not functioning	Not met
		Land and supplies available--unable to determine	
	Continuous supply of protein-rich legumes available at affordable prices in target communities by 31 Dec 83	Community acceptance-- unable to determine since programme not functioning	Not met
		Land and Supplies available--unable to determine	

AHS--2, Evaluation June 1983--3

PURPOSE

Provision of high quality curative PHC services to rural populations	Trained staff in each health centre by 31 Dec 1982	Staff available-- partially met GOZ funding for staff-- met	One qualified staff person at each of two clinics, two at the remaining one. No staff yet retained for additional clinics
	Qualified Director makes monthly supervisory visits to each health centre by 31 Aug 82	Director available-- met Adequate travel budget-- met Funding for Director-- met	Qualified Director making fortnightly visits to each health centre
	Appropriate medical intervention given to patients presenting to each health centre	Qualified Director available-- met Drugs and medical supplies available-- partially met Referral arrangements possible-- met	Individual patients seen fortnightly as teaching exercise between staff and Director. Chart reviews used to monitor care and to provide teaching cases
Provision of relevant appropriate health promotive services to rural population	Health promotive services a part of each health centre patient contact	Staff trained in health promotion-- ongoing process	Patient-staff interaction seen by Director to include health promotive services
	CHA actively promoting health in each village within 5 km radius of health centre by 31 Dec 1983	Volunteers willing to function as CHA-- not met	Delay in establishing this aspect of programme.
	Health Centre staff involved in community health promotive activities in cooperation with CHA by 31 Dec 83	Staff trained in community health promotion-- ongoing process	Reports show staff involved in regular community visits and health promotive demonstrations. Samples observed by Director

ARS--Z, Evaluation June 1983--4

Increased availability of affordable, continuous supply of garden vegetables to rural population	Community horticultural workers growing demonstration gardens in each designated area by 31 December 1982	Volunteers willing to serve as CHW-- potentially met pending availability of water	Unable to function due to water shortage
		Land and supplies available-- met	
	CHW actively promoting improved horticulture in target communities by 31 December 1982	Volunteers willing to function as CHW-- potentially met pending availability of water	Delay in establishing this aspect of programme
	CHW and CHA cooperatively promoting good nutrition practices and appropriate methods of food preservation and storage in target communities by 31 Dec 83	Training of CHW and CHA emphasize cooperative efforts-- not yet met	Delay in establishing this aspect of programme
Collection of relevant, appropriate vital data eg. births, deaths, illness, on which the community and the health services can base prioritization and decision making	Vital data being collected and utilized in each health centre area by Dec 1982	Training of health centre staff in vital data collection and use-- ongoing process	Data being collected by survey sample and used in decision making process for health centre efforts
		Training of CHA in vital data collection and use-- not yet met	

AHS--Z, Evaluation June 1983--5

OUTPUTS

Health Centre established in each target area	Six health centres established by December 1982	International funding available for startup-- met after delay in February 1983	Three health centres operating, two under construction
Trained staff in each health centre	Med-level health workers and aid in each health centre by December 1982	Staff available-- partially met	One qualified staff person at each of two clinics, two at the remaining one. No staff yet retained for additional clinics
		GOZ funding for staff-- met	
		Continuing training available for staff-- provided by Director	
Community Health Aides in villages surrounding each target health centre area	CHA trained for each village within 5 km radius of health centre by 31 Dec 83	Funding available for CHA trainer/supervisor-- met	Delay in establishing this aspect of programme
		Availability of volunteers willing to function as CHA-- not met	
Community Horticultural Workers located in each health centre area	CHW trained for each health centre target area by 31 Dec 82	Funding available for horticultural training-- met	Delay in establishing this aspect of programme due to water shortage
		Availability of volunteers willing to function as CHW-- potentially met pending availability of water	
Vital data system in each target health	Each CHA trained in vital data collection and use, providing data to the health centre for collection and use and each health centre providing vital data to AHS-Z and SAWS-Z by 31 Dec 83	Training of workers includes vital data collection and use met for clinic staffs, not met for CHA	Data being collected and used

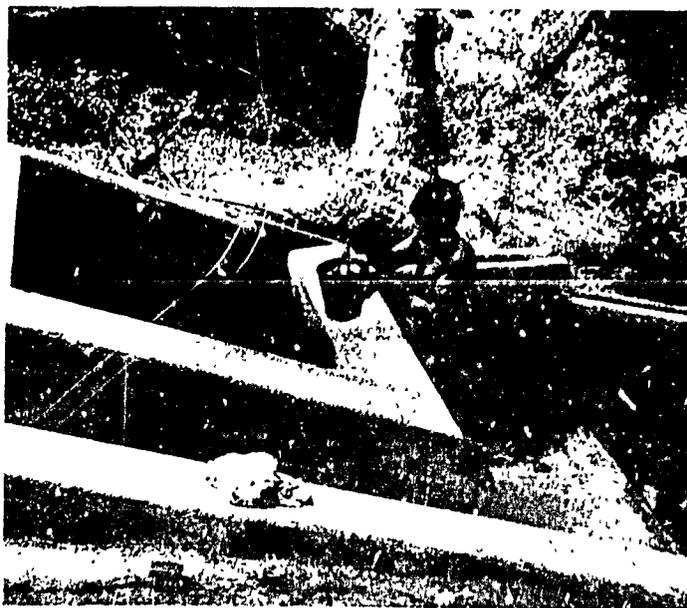
AHS--2, Evaluation June 1983--6

INPUTS

Personnel for management, training, supervision and coordination of programs	SAWS-2 Executive Director AHS-2 Director Horticulture training course Director and staff	Personnel available within scheduled time--met	Personnel in place .
Training equipment and supplies	Supplies available	Supplies available within scheduled time--met	Equipment and supplies available and being refined
Health Centre buildings and supplies	Buildings built and stocked	Land and physical facilities, and equipment and supplies available within scheduled time--partially met	Buildings being built and stocked
Staff Salaries	GOZ recognition of health centres CHA trainer/supervisors	GOZ funding available--met Personnel available--met	Salaries being provided through GOZ recognition Personnel working
Drugs and medical supplies	GOZ recognition of health centres	GOZ funding available--met but frequent shortages	Clinics functioning at reasonable level
Transportation costs	Vehicle and operating budget	Vehicle available within scheduled time--met	Vehicle in use
Health promotion materials	Materials available	Appropriate materials available within scheduled time--partially met	Some materials in use, some being developed, more need to be developed
Horticulture supplies and equipment	Supplies available	Supplies available within scheduled time--met	Supplies in use

SECTION 7 - ASIA/PACIFIC - IMPLEMENTATION

ASIA-PACIFIC SECTION 7



SRI LANKA: Villager at new bathing site



SRI LANKA: Young Children enjoy clean water



SRI LANKA: New latrine nearing completion

ASIA-PACIFIC



PHILIPPINES: Graduates of Training Workshop



PHILIPPINES: Main Street of Lupapula which will benefit from Water Project in Tawi Tawi



PHILIPPINES: Manobo tribeswoman talks to Village Health Educator

7.1 Philippines

General Introduction:

SAWS/International is well placed to conduct community development activities in the Philippines. Not only does it have access to a wide body of highly trained health and agricultural experts but it has significant infrastructure with which to facilitate such interventions. This is both a strength and a constraint.

When a grant is made for a country program there are various ethnic and organizational priorities which must be considered before allocation is made. In the case of the Philippines this is particularly true where institutional needs are catered to by three separate geographically determined organizations.

These constraints have resulted in a total of five projects in the Philippines. From a management point of view, fewer projects would have been desirable, however, if one accepts the premise that this Matching Grant is significantly contributing to the institutional transition from the relief/curative mode to development/promotive one, then each can be seen as a pilot program which will test and hopefully strengthen local capacity for significant future strategies.

7.1.1 Rural Nutrition, Water Supply and Sanitation Education Project

Project Description:

The project is dealing with the major problems of nutritional deficiency and inadequate environmental conditions in three rural barrios, namely, Casile, Carmen and Puting Kahoy through health education and action programs over a three year period. No specific health care activities have been available to these barrios so local health authorities are supportive.

The project involves the utilization of Public Health pregraduate students as health change promoters in three target areas and the training of village health aides. The thrust will be aimed at the total family rather than individuals in order to bring about the desired changes.

Purpose:

"Improved Health Status of Mothers and Children in 3 Target Communities Within A Radius of 10 km of Philippine Union College By June, 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Established				
a. # Target Communities Implementing	4/83	2	4/83	3
b. % Of Project Staff Hired	4/83	3	12/82	3
2. Community Health Education Established				
a. # Hrs. Formal Education Delivered to 75% Of Population.	5/85	20	NA	NA
b. # Mothers Attending Community Informal Training Session.	5/85	NS	6/83	11
c. # Hrs. Training Officer In Each Target Community Monthly.	5/85	20	9/83	24
3. Growth Monitoring Program Established				
a. % Of Malnourished Children Enrolled In Program.	1/84	90%	In Process	
b. % Of Malnourished Children Receiving Food Supplements.	1/84	90%	-	

c. % Of Mother's With Malnourished Children Able To -				
I Chart on Road To Health Chart.	1/85	75%	9/83	NA
II Monitor Weight Loss/Gain.	1/85	75%	9/83	NA
III Identify 3 Warning Signs Of Early Malnutrition.	1/85	75%	-	-
4. Sanitary Latrine Program Implemented				
a. % Increase in # of Sanitary Latrines.	6/84	50%	-	-
b. % Families Using Sanitary Latrines.	6/85	75%	-	-
5. Solid Waste System Established				
a. # Solid Waste Collection Areas.	6/83	3	-	-
b. # Target Communities Using Collecting Areas.	6/83	3	-	-
6. Table Garden Promotion Established				
a. % Increase In Variety Foods Grown.	6/85	40%	-	-
b. % Homes with 100 sq. ft. Garden Plot.	6/85	70%	-	-
c. % Homes Growing Minimum 5 Varieties of Table Food.	6/85	70%	-	-
7. Barrio Potable H2O Development Del'vd.				
a. # Of Potable Water Systems.	6/85	3	-	-

Assumptions Status:

All major assumptions have held during this project period. Cash flow problems were encountered but are now settled.

Recommendations:

1. Project staff must seek to bend every effort to hasten implementation. This may necessitate additional staff, but the project budget has been increased to offset those needs.

2. Punctual reporting between the project and SAWS/I leaves room for improvement.

3. Project staff should ensure that the appropriate training aids are gotten to the community health aides in good time so that their interest is maintained.

7.1.2 T.B.C. Project

Project Description:

The Central Philippine Adventist College has negotiated with the local Ministry Of Health to conduct a municipal tuberculosis prevention project in Murcia, Negros Occidental.

Pulmonary T.B.C. is rampant in this area and apart from government curative services and infrequent screening little else is being done. By training college students as Rural Health Aides with a specific focus on T.B.C. prevention, the college aims to screen and facilitate the treatment and prevention of TB in their surrounding communities.

The requisite approvals have taken time to obtain and project staff waited until the Philippine Training Workshop before finalizing the project design. Using a community based health promoter model of intervention, the project will train and support 60 Rural Health Aides and 30 Hilots in primary T.B.C. prevention and treatment. Working in teams of three, these agents will identify, screen, refer, educate and follow-up, all suspected cases of T.B.C. in their respective communities. Their activities will be in close collaboration with the existing government health care system.

Purpose:

"Decreased Incidence Of Pulmonary T.B.C. Among The Population (45,505) Of Murcia Municipality, Negros Occidental By May, 1985."

Outputs:

1. Project Infrastructure Established.
 - a. # Areas Implemented
 - b. # Project Staff Hired
 - c. # Hilots Selected

2. Rural Health Aide Training Program Established.
 - a. # Hrs. Formal Instruction
 - b. # RHA's Implementing
 - c. # New Cases Identified
 - d. # Referrals
 - e. # Health Education Units Delivered

3. Community T.B.C. Screening Program Established.
 - a. # People Having Access To Screening
 - b. # Persons Screened

4. Hilot Training Program Established.
 - a. # Hrs. Formal Training
 - b. # Hilots implementing regularly

5. Community Health Education Program Established.
 - a. # People Attending Meetings
 - b. # Hrs. T.B.C. Education Delivered
 - c. # Hrs. Mass Media Instruction

6. T.B.C. Treatment Support Program Established.
 - a. # Active Cases Under Treatment
 - b. # BCG Vaccinations

The project started in September, 1983, and hopefully will move into expeditious and effective implementation.

Recommendations:

1. Quick and efficient implementation is now necessary to make any kind of impact in the remaining time left. The increase in budget should assist in this regard.

2. Continuous and close facilitation of the project between the government program and the SAWS initiative should be ensured.

3. Every effort to maintain the local pilots involvement in the project should be made. Their inputs and support are crucial to purpose achievement.

7.1.3 Rural Non-Formal Agriculture And Home Nutrition Training Project

Project Description:

This project is operating out of Mountain View College in Bukidnon, Mindanao and will extend a combined home food production and nutrition intervention package to 450 rural families. Utilizing the services of college faculty and graduate students, four Agricultural Extension Agents and four Home Economics Facilitators are being trained and then supported to carry their skills into needy communities surrounding the college.

Participating farmers and their wives will be exposed to four weeks of appropriate formal training after which they will implement their acquired skills in their home barrios. The Extension Agents will provide ongoing technical assistance and follow-up to those enrolled in the program.

Project implementation was delayed but has been implemented September, 1983.

Purpose:

"Improved Nutritional Health Status of 450 Farming Families In The Province Of Bukidnon By May, 1985."

- # Food Production
- # Food Variety Consumption
- # Iron Deficiency Anemia
- # Children wt./age Increase

Outputs:

1. Community Farmers Trained.
 - a. # Farmers Being Trained
 - b. # Hrs. Formal Training
 - c. # Farmers Implementing Training

- d. # Area of Land Under Cultivation
- e. # Food Varieties Grown

2. Agricultural Extension Agents Trained.

- a. # Trained
- b. # Hrs. Training
- c. # Hrs. In Field

3. Home Nutrition Facilitators Trained.

- a. # Trained
- b. # Hrs. Training
- c. # Hrs. In Field

4. Community Farming Wives Trained.

- a. # Trained
- b. # Hrs. Training
- c. # Hrs. In Field
- d. # Implementing Training

Assumptions Status:

The devaluation of the peso against the dollar caused delay and reworking of the project budget. In this area there has also been some civil instability but currently all seems to be clear for quick progress.

Recommendations:

1. Implementation must be pushed and every effort made to realize output objectives. This may necessitate running some of the planned phases concurrently.

7.1.4 Non-Formal Integrated Community Health Education Project

Out of their past experience in conducting extension schools for the remote Manobo tribes in Bulalang, Mountain View College has had considerable opportunity to study behavioral change patterns in this cultural minority group.

Through the creation of a "model barrio" training center and village, the college is embarking upon a non-formal three-month training of selected Manobo's who will then return to their own mountain villages as "change" agents. Through this program it is expected that both the concept of the model barrio and also the acquired skills of the trained villages will be "transferred" to their respective communities. In many aspects this project is both "innovative" and experimental.

Purpose"

"Improved Health Status Of Selected Manobo Villages In San Fernando,
Bukidnon By May, 1985."

- # IMR
- # Malnutrition Rates
- # Diarrhoeal Disease
- # Food Production

Output Achievements:

1. Model Barrio Established.
 - a. # Staff Onsite
 - b. # Trainees In Place
 - c. # Water Systems
 - d. # Bathing Systems
 - e. # Sanitary Latrines
 - f. # Gardens/Farms

2. Manobo Villager Trained.

- a. # Graduates
- b. # Implementing Training
- c. # New Technologies Transferred

Assumption Status:

The peso devaluation and civil instability have imposed implementation constraints upon this project. Currently the situation is calm and the project is moving forward.

Recommendations:

1. Implementation must be pushed by all means available.

7.1.5 Lake Singuan Potable Water System Development - Tawi Tawi

Project Description:

Cagayan de Tawi-Tawi lies some 250 nautical miles due west of Zamboanga, and 71 miles north of the Sabah coast. It is a remote part of the Philippine Island group and its 22,000 population is predominately Muslim. Community needs analysis pinpoints potable water supply as their most pressing need. SAWS Philippines has had an engineering feasibility study carried out to ascertain the possibility of bringing pure water from the volcanic crater, Lake Singuan, to the Barangay of Mahalu, with a population in excess of 5,000 people.

The project will enable the provision of 252,000 gallons of potable water per day to the beneficiaries, which amounts to 50 gallons of water, per person, per day. Since W.H.O. recommends a minimum of 32 litres per person, per day, (8.45 US gallons) as a minimum for maintenance of human health, the provided amounts leave ample capacity for population growth and extension to more distant barangays on the island.

The completion of the feasibility study pinpointed a serious shortfall in the budgetary appropriation for this project. Owing to the recent deletion of the Burundi Program this has enabled SAWS/I to reassign the necessary funds to this project. SAWS/Philippines are implementing this project immediately.

Inasmuch as water supply was such an overwhelming concern for the island populace, SAWS/I sees this intervention as the first phase of what it hopes to be an ongoing developmental thrust for many years to come. It proposes to pickup the health education and primary health care focus once adequate water supplies are available.

Purpose:

"To Provide The Populace Of Mahalu Barangay With 250,000 Gallons Of Potable Water Per Day."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Engineering Feasibility Study Completed.	7/83	1	8/83	
2. System Construction				
a. Supplies Procured	12/84			In Process
b. Tank Construction	6/84	1		" "
c. Delivery Pipe Installation	6/84	NS		" "
d. Pump House	6/84	1		" "
e. Standpipes	7/84			" "
3. Water Cooperative Established.	8/84	1	-	-

Recommendations:

1. Purchase and transport as many materials as possible before inflation raises prices.
2. Give considerable time to establishing a water cooperative that will realistically be able to manage and maintain the water system, together with a consumer price support arrangement that will provide the resources to do it.

7.2 Sri Lanka

General Description:

SAWS Sri Lanka has implemented two environmental health/sanitation projects under its country program. Significant achievements have been made during the report period and despite the recent civil unrest community relationships have remained strong and supportive. There is clear evidence that indicates that, had the two institutions not embarked upon their respective community outreach programs eighteen months ago, they would have been severely discomfited by the recent unrest in the country. As it was, in both instances, the beneficiary groups came and protected institutional staff and property.

The impact engendered by these programs on the people was recently acknowledged by Dr. A.T. Ariyaratne, well known and respected President of the Lanka Jathika Sarvodaya Shramadana Sangamaya movement in a personal letter to the SAWS administrator. The cross-cultural boundaries so often a barrier to meaningful development have been significantly overcome in these two projects and augurs well for future interventions.

7.2.1 Mailapitiya Environmental Health Project

Project Description:

This project aims at improving the health of two rural villages through the delivery of potable water, sanitary human waste disposal facilities and health education interventions. The two beneficiary communities are predominately Bhuddist and have a population of approximately 800 families.

The communities provide a considerable amount of labor to the project in addition to the technical support and involvement by SAWS project staff.

Purpose:

"Decreased Incidence Of Water Related Diseases Among The Population Of
Mailapatiya By May 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Established.				
a. # Project Committees Functioning	10/82	1	10/82	1
b. Construction Commenced	10/82	1	10/82	1
2. Community Health Education Del'vd.				
a. # Hrs. Community Education To Whole Community.	1/84	20	9/83	20
b. # Hrs. Environmental Health Education Delivered.	1/85	6	9/83	25
c. # Schools	1/85	2	9/83	2
3. Potable Water System Established.				
a. Pumphouse Catchwell Area Protected	1/84	1	9/83	1
b. % Pumping Capacity Increased	1/84	80	9/83	600
c. # Sandpipes Colony "A"	1/84	4	9/83	7
d. # Springs Protected	1/84	1	9/83	1
e. Supply To Colony "B"	1/84	1	9/83	1
f. # Standpipes	1/84	NS	9/83	5
4. Pit Latrine Construction Program Established.				
a. # Latrines Constructed	1/85	1000	9/83	9
b. # Families Utilizing	1/85	480	9/83	4
c. # Village Able To Construct Latrines	1/85	10	9/83	6

Assumptions:

Most of the assumptions are holding reasonably well. Since implementation, the project lost its Director and more recently its Tamil Health Educator during the July - August ethnic disturbances. It is planned that the latter will be replaced shortly.

Baseline Evaluation Data Of Interest:

For Detailed Information See Appendix (B).

93.5% of water is carried by women, daughters (60%) and mothers (33.5%).

26 gallons of water are used for drinking, bathing and washing per day of which, 82% is for bathing and washing, and 18% for drinking/cooking.

Local IMR is 52/1000 live births compared with a national average of 45/1000.

Local TMR is 38/1000 compared with 17/1000

Recommendations:

1. Every effort must be made to obtain the services of another Health Educator as soon as possible.
2. SAWS staff need to seek ways whereby they can collect specific morbidity data pertaining to their project impact indicators from the local government health care services if we are to be able to measure a reduction in diarrhoeal related diseases.

7.2.2 Nuwarella Environmental Health Project

Project Description:

This project is being conducted under the auspices of the Lakeside Adventist Hospital in Kandy. The intervention is aimed at a peri-urban settlement with inadequate human and solid waste disposal facilities and a high incidence of diarrhoeal disease.

Community support is strong and implementation has the potential to make significant health impact in the beneficiary community. The hospital is well placed to be able to monitor and assist in that change.

Purpose:

"Improved Sanitary Hygiene Among Villagers Of Nuwarella, Periswatte, Kandy District By January, 1985."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Community Health Education Established.				
a. % Of Families Educated	1/85	75		?
b. # Hrs. Education	1/85	10		?
c. % KAP Increased	1/85	50		?
2. Sanitary Latrine Construction Program.				
a. # New Pit Latrines	1/85	40	6/8}	18
b. # Inhabitants Able to Construct	1/85	10		?

3. Communal Solid Waste System Established.

a. # Solid Waste Collection Sites	1/85	2	5/83	1
b. % Freelying waste diminished	1/85	50		?

Assumptions Status:

No major problem with assumptions has occurred.

Recommendations:

1. Project staff need to give stronger impetus to their reporting system. Although SAWS/I knows that progress is being made - adequate reports are not being sent. Urgent attention must be given to this matter.
2. The health education aspects of the program needs strengthening and implementing.

SECTION 8 - LATIN AMERICA - IMPLEMENTATION

LATIN AMERICA

SECTION 8



HONDURAS: Mothers attending MCH clinic.



ST. LUCIA: Community Health Aide makes a home visit



ST. LUCIA: Project Director discusses plans with Ministry of Health Personnel

LATIN AMERICA



HAITI: Mothers monitoring their child's growth



HAITI: Cooking with local resources for nutrition



HONDURAS: Terraced Vegetable Gardens

8.1 Barbados

Project Description:

The World Health Organization in its publication, "Global Strategy For Health For All By The Year 2000" states, "In the developed countries...about half of all deaths are due to cardiovascular diseases, a fifth to cancer, and a tenth to accidents. These problems are increasing in developing countries too."

As a developing country Barbados is no exception to the above statement. The five leading causes of mortality in Barbados are degenerative ones. In young women aged 25-29 breast cancer causes one in three female cancer deaths and cervical cancer is a close second to breast cancer.

In conjunction with the M.O.H. SAWS/Barbados has entered into an agreement to provide a community based early cancer detection program. This will involve an intensive pilot health education thrust into two parishes of the island and will include breast self-examination and pap-smear screening activities.

Purpose:

"The Early Detection Of Breast And Cervical Cancer In Women Ages 16 - 50 In Five Target Areas Of Barbados."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Established.				
a. # Lectures Presented	1/84	5	-	-
b. # Demonstrations	1/84	5	-	-
c. Baseline Completed	1/83	1	9/83	1
d. KAP Pretested	9/83	1	9/83	1

2. Women's Organizations Trained.

a. # Organizations	6/84	NS		
b. # Hrs. Training	6/84	9		
c. # Class Sites	1/84	12	9/83	12

3. Screening Programs Established.

	6/84	5	-	-
a. Referrals	6/84	NS	-	-
b. Pap Smears	6/84	NS	-	-

4. Professional Seminars Delivered.

a. # Seminars

5. Cancer Registry Established.

a. # New Cases Recorded	1/85	-	-	-
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Assumptions Status:

All major assumptions have held stable.

Recommendations:

1. SAWS/Barbados must push implementation now that the baseline survey is completed.
2. Attention should be given to providing more specificity to project indicators.
3. Maintain informed and close collaboration with M.O.H. and National Cancer Society.

Baseline Data Of Interest:

Method:

Two questionnaires were used in the survey which was conducted randomly. Each covered knowledge, attitudes and practices of women with regard to pap smear and breast self-examination.

According to the survey data supplied, there was an estimated 57,270 women of childbearing age (15-49) in the target areas. If that estimate is valid then the sample size of 1.4% is a little small to draw firm conclusions from. However, inasmuch as the target communities represent only a small part of the total island, and the given total population of Barbados of women of childbearing age for the year 1980 was 70,000, then one must assume that the estimated population figure used in the survey data could be on the high side. If that is the case, then the sample size would appear to be adequate.

<u>Data *</u>	<u>Pap Smear Exam</u>		<u>Breast Self Exam</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Mean Age Correspondents	29.95		30.57	
Mean Yrs. Schooling	9.7		10.13	
Mean # Pregnancies	2.07		2.09	
# Had Heard Of	87.5%	12.5%	77.5%	22.5%
# Had Recieved	59.0%	41.0%	57.5%	42.5%
# Think Reg'lr Exam Necessary	92.0%	8.0%	95.0%	5.0%
# Wishing To Participate In Prog.	94.0%	6.0%	95.0%	5.0%
# Employed	45.0%	55.0%	45.0%	55.0%
# Breastfeeding Children	N.A	N.A	96.5%	3.5%

* Figures generated from an analysis of a random 10% sample of each questionnaire. Degrees of freedom +/-2

8.2 Bolivia

8.2.1 General Description:

Bolivia is a country where SAWS is conducting both a FFP Title II Program as well as a Matching Grant. Some attempts have been made to use the Matching Grant as a complement to the Title II Outreach Program however insufficient budgetary allocation and protracted delays have made this difficult to realize in any meaningful way.

In addition escalating inflation from currency devaluations and the official exchange by which SAWS/I are contractually bound have been maintained at an artificially low rate. This has taxed local management capacity to the limit.

SAWS/Bolivia has designed two Matching Grant projects out of Cochebamba and the Beni which were both implemented in the second half of this report period. SAWS/I has little question about either the need for these projects or their capacity to implement them under normal circumstances. However, the heavy requirements of starting up a large FFP Program combined together with the serious economic constraints brought about by a succession of devaluations has raised serious questions about the continuing viability of these projects. The value of the peso today is only 20% of its value one year ago.

Given the above situation, SAWS/International has suspended the program, pending full reappraisal by the Director for Latin America during November. It is expected that a definitive answer will be given to USAID during the December Matching Grant Review on this matter.

8.2.2 Cochabamba Integrated Rural Development Project

Purpose:

"Increased Socio-economic Status Of Villages In 8 Rural Target Communities
In The Province Of Quillacollo, Cochabamba By January, 1986."

- # Malnutrition Incidence 0 - 5
- # Unemployment
- # Literacy Rate

Output Achievements:

1. Nutrition Rehabilitation.

- a. # Children Enrolled
- b. # Malnourished Children Decreased
- c. # Food & Milk Supplementation (PL 480)
- d. # Mother Trained In Nutrition
- e. # Hrs. Training

2. Skill Training Program.

- a. # Graduates
- b. # Hrs. Formal Training -
 - 1. electrician
 - 2. house building
 - 3. sewing/handicrafts
- c. # Hrs. Informal Training
- d. # PL 480 Commodities FFW

3. Literacy Program

- a. % Illiterate Adults
- b. # Hrs. Literacy Education
- c. # Persons
- d. # Literacy Trainers
- e. # Hrs. In Target Community

Assumptions Status:

1. Inflation does not exceed 25% per annum. - In fact, in 1983, inflation has increased by 500%.
2. Staff maintain contractual obligations. - Project director left to get married.

8.2.3 Beni Agro-Production Project

Purpose:

"Increased Income Generation Through Agro-Production Intervention Among Subsistent Farmers In Six Rural Communities By May, 1985."

- # Increased Income Realized
- # Incidence Of Nutritional Disorders

Outputs:

1. Agricultural Promotion.
 - a. # Families Growing Food
 - b. # Hectares In Production
 - c. # Volume Crops Produced By Variety
2. Formal Training Extension Officers.
 - a. # Seminars
 - b. # Hrs. Instruction
 - c. # Graduates
3. Informal Training Agriculture Extension Officers.
 - a. # Hrs. Field Training
 - b. # Farmers Trained

4. Farmers Club Established.

- a. # Farmers Attending
- b. # Wives Participating
- c. # Meetings Held

5. FFW Supplementation PL 480.

- a. # Commodities By Category
- b. # Days Worked
- c. # Participants

6. Community Health Promotion.

- a. # Vaccinations

8.3 Dominica

General Description:

The Matching Grant project for Dominica is one of an Environmental Health and Sanitation thrust. SAWS has implemented their project in Dominica along the lines of the "model" established in St. Lucia. An agreement has been signed between the Ministry of Health and SAWS to collaborate in this health thrust.

Diarrhoeal disease is a major public health problem in the island and the project is in line with published national and .A.H.O. objectives for this area.

Over the project period SAWS/Dominica will focus its attention upon improving the environmental health of two target communities - namely Marigot and Grande Bay. Because of the nature of the project design SAWS/I contracted a specialist consultant to provide technical assistance to the early stages of the project. This was accomplished in August, 1983 and this report is attached in Appendix (C).

Project Purpose:

"Decreased Incidence of Diarrhoeal Diseases In The Health Districts Of -

a. Marigot

b. Grande Bay

- # Incidence Typhoid Fever Mortality**
- # Incidence Typhoid Fever Morbidity**
- # Incidence Of Gastroenteritis Mortality**

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Est.				
a. # Country Agreement	6/83	1	8/83	1
b. # Director On Site	4/83	1	6/83	1
c. # Feasibility Completed	8/83	1	8/83	1
2. Health Education Implemented.				
a. # Students Educated	1/84	NS	9/83	-
b. # Communities Educated	1/85	NS	9/83	-
c. # Hrs.	1/84	10	9/83	-
3. Community Health Care Workers Trained.				
a. # CHW's	1/84	NS	9/83	-
b. # Hrs. Formal Training	3/84	NS	9/83	-
c. # Hrs. Informal Training	1/85	NS	9/83	-
4. Environmental Sanitation Program Est.				
a. # School Latrines	5/85	NS	9/83	-
b. # School Wash Basins	5/85	NS	9/83	-
c. # Pit Privies	5/85	2000	9/83	-
d. # Water Supplies Protected	5/85	NS	9/83	-
5. Promotive Health Program Est.				
a. % Vaccinated TY 121A*	5/85	100	9/83	-

* Under revision.

Assumptions Status:

All major assumptions have held.

Recommendations:

1. Implementation must be expedited if project stands any chance to achieve projected outcomes.
2. Logframe indicators need revision and specificity assigned on the basis of consultant's report.
3. Recommendations of feasibility study should be incorporated within the project design as situation and budget limitations allow.

8.4 Guyana

General Description:

Prevailing economic conditions have created a situation in Guyana where families once dependent upon imported foodstuffs now find that they have little ability to provide nutritionally adequate food to their families through the utilization of local food resources. Undernourishment, especially among young children, is prevalent in some areas and the SAWS/Guyana program is addressing this need. Utilizing the well established model of village based health promoters SAWS is conducting a program in 10 communities.

Purpose:

"Decreased Prevalence Of Under-Nutrition In Children Aged 0 - 5 In 10

Target Communities Of Rural Guyana."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Est.				
a. # Formal Training Sessions Delivered.	10/82	2	9/83	12
b. # Community Nutrition Promoters (CNP)	10/82	10	9/83	23
2. CNP's Formally Trained.				
a. # CNP's	5/85	20	9/83	23
b. Hrs. Training	5/85	40	9/83	44
3. Small Mothers Groups Est.				
a. # Meetings	5/85	Monthly	9/83	Monthly
b. # Communities	5/85	6	9/83	10
c. # Mothers	5/85	NS	9/83	400

4. Mothers Trained.

a. % Mother's Passing Test	5/85	50	9/83	..
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5. CNP's Informally Trained.

a. # CNP's	5/85	20	9/83	21
b. # Hrs.	5/85	50	9/83	80

Assumptions Status:

1. Staff maintaining contractual agreements. - Some CNP's have had to be replaced.
2. No Major Epidemics. - An epidemic of gastro-enteritis has been seen in target areas.

Recommendations:

1. With the arrival of the new Training Officer implementation should be hastened and the budgetary restraints eased by the additional allocations to this project.
2. Any adjustments to the project design necessitated by additional funding and lessons learned so far should be forwarded to SAWS/I for endorsement as soon as possible.

8.5 Haiti

Project Description:

SAWS/Haiti project is designed as a complementary health education PHC/MCH outreach to accompany the existent PL 480 Title II program that has been running for a number of years.

Using the village level - community based - health promoter approach it identifies the mothers as the first level of health care provider to the children of those communities.

The project is now in its third year of operation and has recently been evaluated by USAID through Management Sciences For Health.

Some significant findings are listed below.

- For all under-five children in all entrant categories of nutritional status, 82% showed an improvement in weight for age after four months in the program. Improvement rates were as high as 98% in one rural area, 93% in an urban area, and as low as 35% in another urban area.
- 70% of these children continued to improve in follow-up. Since post-program intervals averaged only seven months, due to the short length of program time, it was not possible to assess longer-term impact.
- Of third-degree entrants, 69% improved to second or first degree levels; 95% improved their wt/age during the four month program; and none died. In follow-up growth surveillance of 42 cases of third degree entrants, 28% of those cases moved up into improved status categories, i.e. to second, to first, and to normal.

Project Purpose:

"Decreased Prevalence of Malnutrition In Children Between Ages 0 - 5
In Ten* Target Areas Of Haiti By January, 1985."

* SAWS Haiti is starting to extend their outreach to another 70 target
areas during the third year.

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Training Centers Established.				
a. # Centers	1/83	10	6/83	10
b. # Nutrition Assistants Trained	1/83	10	6/83	10
c. # Mothers In Training	1/85	900	6/83	1040
d. # Children In Program	1/85	NS	6/83	2125
2. Mothers Self-Help Organization Est.				
a. # Organizations	1/85	10	6/83	10
b. # Mothers Able To Interpret Road To Health Chart.	1/85	720	6/83	600
c. # Mothers Able To Identify Early Signs Of Malnutrition	1/85	720	6/83	200
3. Mothers Trained In Food Sanitation.				
a. # Boiling Water . Milk	1/85	720	6/83	600
b. # Sanitizing Hands/Utensils	1/85	720	6/83	700
c. # Protect Food From Contamination	1/85	720	6/83	600
4. Mothers Trained In Agriculture.				
a. # Growing Two Vegetables Minimum	1/85	500	6/83	389

5. Mothers Trained In Nutrition.

a. # Identifying 3 Basic Food Groups	1/85	720	6/83	750
b. # Preparing a Nutritionally Balanced Meal.	1/85	720	6/83	500

6. Environmental Sanitation Est.

a. # Pit Latrines	1/85	500	6/83	100
b. # Burying Fecal Waste	1/85	500	6/83	250

Assumptions Status:

Some staff attrition and replacement has taken place without any untoward serious consequences. Drought in Belladere and the northwest has effected crop yields and locally available food supplies. Flu epidemics in three target areas have also been problematic but none of these irregularities in assumption status appear to have negatively impacted on the program.

Recommendations:

1. SAWS/Haiti staff should take considerable time in analyzing the MSH evaluation document and applying those recommendations that are feasible. Especial attention should be given to seeking ways of increasing community participation in both the project management and training modes.
2. Greater attention must be given to developing a more andragogical approach to adult learning. Plenty of good material is available on this subject.
3. Careful thought should be given to the future of this project after defunding. Possible future interventions should be considered.

8.6 Honduras

Project Description:

The project design focuses on the nutritional status of mothers and young children. It has integrated the components of community health education and agricultural development in one package to achieve these ends. The project is centered in eight target communities surrounding a rural hospital and has trained 8 community health workers to promote health, nutrition and agricultural activities in their respective communities. A food supplementation component is included as an incentive for mothers to attend regular MCH clinics. The project is not innovative as such but is in line with both USAID Mission and host country priorities.

Purpose:

"Improved Nutritional Intake Amongst Young Children In 8 Target Communities Of The Municipality of Valle de Angels."

Output Achievements:

	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>Actual</u>
1. Project Infrastructure Est.				
a. # Hrs. Formal Training Del'vd.	10/82	120	9/83	240
b. # CHW's	10/82	8	9/83	7
2. CHW's Formally Trained.				
a. # CHW's	2/83	8	9/83	7
b. # Hrs. Formal Training	2/83	170	9/83	240
3. CHW's Informal Training.				
a. # CHW's	1/85	8	9/83	7
b. # Hrs. Informal Training	1/85	48	9/83	200
c. % Mothers Passing Test	1/85	75	9/83	-

4. Community Groups Established.

a. # MCH Groups Meeting Monthly	1/83	8	9/83	35
b. # Ladies Clubs Meeting Monthly	1/85	8	9/83	19*
c. # Average Ladies Attending	NS	NS	9/83	15

*Meeting Weekly

5. Food Supplementation Implemented.

a. % Mothers	1/85	95	-	
b. # lbs. Per Child	1/85	6	9/83	12
c. # Undernourished Children	NS	NS	9/83	142

6. Home Table Garden Production Implemented.

a. % Families With Gardens of 10 sq. Meters	1/84	NS	9/83	-
b. # Varieties Of Vegetables	1/84	NS	9/83	-

Assumptions Status:

Some attrition and replacement has taken including the reassignment of the project director to Costa Rica. Replacements have been made and no serious effects upon the program are expected.

Recommendations:

1. Continued emphasis on the agricultural promotion aspects is vital to the achievement of this output and project impact.
2. Reporting has been excellent and under the new project management this characteristic must be maintained.
3. Any training materials developed and used in the vernacular would be useful for possible replication elsewhere.

8.7 Jamaica

Project Description:

Operated under the guidance of Andrews Memorial Hospital and SAWS/Jamaica Director, this project aims to enhance the quality of health and wellbeing in a depressed area of greater Kingston.

Through the establishment of a community P.H.C. Center, delivery of promotive health care services and the training of Community Health Promoters, this project addressed urgent health needs of this community. Using community labor, considerable environmental rehabilitation will take place.

Purpose:

"Improved Health Status of The Trenchtown Community, Kingston, Jamaica, By June, 1985."

Output Achievements:

ctual	<u>Time</u>	<u>Planned</u>	<u>Time</u>	<u>A&</u>
1. Community Health Committee Est.				
a. # CHC Established	12/82	1	1/83	1
b. # Meetings Monthly	6/83	1	6/83	1
c. # Community Action Teams	6/83	4	6/83	4
d. # Hrs. Per Day		NS	6/83	3
2. P.H.C. Delivery Established.				
a. # Centers	1/83	1	6/83	1
b. # Services Rendered	6/83	NS	6/83	-
c. # Attendance	6/83	NS	6/83	200

3. CHP Training Completed.

a. # CHP's	6/85	5	6/83	-
b. # Hrs. Formal Training	6/85	20	6/83	-
c. # Hrs. Informal Training Monthly	6/85	16	6/83	-

4. Environmental Sanitation Program Established.

a. % Of Standpipes Functional	6/85	90	6/83	75
b. # Functioning Latrines	6/85	NS	6/83	"
c. # Families Using These	6/85	NS		
d. % Showers Functional	6/85	NS	6/83	65
e. # Families Using Them	6/85	NS		
f. % Standing Pools Drained	6/85	90	6/83	100
g. % Solid Waste Disposed Regularly	6/85	90		
h. # Incinerators	6/85	5		
i. # Community People Trained In Pipe Maintenance.	6/85	10		

5. Community Health Education.

a. # People	6/85	3000	-	-
b. # Hrs.	6/85	10		

Assumptions Status:

Some slowness in the cashflow system has been encountered which delayed progress. This is now rectified. Various permissions from the city council and Ministry of Health were necessary and time consuming but government support appears to have been maintained.

Recommendations:

1. Implementation must be speeded up now that the health director is hired and on site. CHP training is vital to implement at an early stage.

2. Reporting has been a little tardy and non-specific. More care in providing numerical data as outlined in the report forms is necessary.

3. Community involvement in a continuing way is vital. Ways of maintaining this involvement need to be considered.

8.8 St. Lucia

General Introduction:

During the report period SAWS/International conducted an internal project design and implementation evaluation review of this "Community Health Aid Nutrition Extension Training Program". Inasmuch as this represents an attempt by SAWS/I to objectively evaluate one of its own programs it is included verbatim within this report.

**PROJECT DESIGN & IMPLEMENTATION REVIEW
OF
SAWS/USAID MATCHING GRANT FUNDED**

"COMMUNITY HEALTH AIDE NUTRITION EXTENSION TRAINING PROGRAMME"

**ST LUCIA
1982 - 1985**

**Conducted By
SEVENTH-DAY ADVENTIST WORLD SERVICE (INTERNATIONAL)
AUGUST 13 - 26, 1983**

Introduction

SAWS/International conducted an internal evaluation of the St. Lucia Programme from August 13 - 26, 1983. During this time visits were made to SAWS area office in Barbados as well as extensive consultations and visits in St. Lucia itself. Inasmuch as the project has only been operational for 15 months, SAWS/I did not feel at this stage an expensive independent analysis of the programme was justified, although such an evaluation is welcomed at a later date.

In order to minimize the inherent "bias" that tends to accompany "internal" evaluations, SAWS/International, Director for Evaluation conducted this review independently of the SAWS/SL Project Administrator and Director, although their inputs and substantial contributions have been incorporated into the main body of this report along with all the other data collected from those associated with the programme. Rough Drafts of the report have been submitted to the local SAWS staff for comment and adjustment where necessary. What follows therefore is a consensus document agreed upon by the following personnel:

Vivette Payne -- Project Director, St. Lucia

Roy Hoyte -- SAWS Area Director, Barbados

David R. Syme-- Director for Evaluation, SAWS/I, Washington, D.C.

Evaluation

Rationale:

SAWS/International has a solid commitment to evaluation of its projects. While it is concerned with impact assessment, it is also vitally interested in monitoring the "process" of programme execution for it is in this area that most often the lessons of developmental intervention can be learned best. US/AID Washington

through Management Sciences for Health, Boston is conducting two major independent evaluations of SAWS Matching Grant projects during 1983.

1. June 15-30 Haiti
2. Sept. 16-Oct 2 Tanzania

SAWS International and country staff are taking part in these evaluations. Technical in nature, they provide important information and technical assistance to upper level management staff. In their present form however their usefulness to lower level country staff without interpretation, is questionable.

Recognizing a need for a different style of evaluation which would hopefully be understood by the front-line country workers and also hoping to demonstrate that SAWS has a commitment of its own to the evaluation process, whether required or not, SAWS/International embarked on this evaluation with the following objectives:

Objectives:

1. To conduct in an as "objective" manner as possible a review of the project design and implementation thus far.
2. To assess the validity of the project goal and indicators of success within the current health situation and planning initiatives of the local Government.
3. To examine the sufficiency of planned inputs (manpower, money and materials) in bringing about the achievement of those factors necessary for project success.
4. To provide those involved in the programme at the village level an assessment of their programme in a form which they can learn from, assimilate and utilize.

5. To examine present accomplishments in the light of future potential areas for concern and intervention upon project completion if indicated.

Constraints:

1. SAWS recognizes that it is virtually impossible to eliminate "bias" in an evaluation of this kind. It hopes however that their analysis fits within the consensual perspective of those associated with the project in one way or another.
2. Despite a deliberate attempt at simplicity SAWS recognizes that there is some academic disparity among those who will read this document. A certain degree of compromise therefore has been necessary to make the document meet the needs of the widest cross-section of people possible.
3. Owing to vacation absences and sickness, some key personnel were not consulted during this evaluation but were consulted during earlier visits in 1983 by SAWS/International staff.

Personnel Consulted:

Mr Cornelius Lubin, Permanent Secretary for Health, Ministry of Health, St. Lucia

Dr. D'Souza, Director of Health Services, Ministry of Health, St. Lucia

Dr. St Catherine, Medical Officer of Health, Castries. Chief Epidemiologist, Ministry of Health, St. Lucia

Mrs. Cecil Gibson, Community Health Aide Co-ordinator, Public Health Nursing Supervisor, Ministry of Health, St. Lucia

Mr. Francis Fletcher, Chief Public Health Inspector, Ministry of Health, St. Lucia

Miss Jean Isaac, Director of the Bureau of Health Education, Ministry of Health, St. Lucia

Thomas Francois, Headmaster, La Croix - Maingot

Nurse Harris, District Nurse, La Croix

Veronica Sylvester, Community Health Aide, La Croix

Mary Alexander, Community Health Aide, La Croix

Berlinda Prosper, Community Health Aide, La Croix

Patricia Girard, Community Health Aide, La Croix

Nurse Desir, District Nurse Vannard

Mary Augustin, Community Health Aide, Vannard

Augusta Regis, Community Health Aide, Vannard

Nurse Phillip, District Nurse, Anse le Raye

June Lawrence, Community Health Aide, Anse le Raye

Glenda Andrew, Community Health Aide, Anse le Raye

Mrs. Leonce, Director, Save the Children Fund, St. Lucia

Marianne Modeste, Nursery Aide SCF Multipurpose Center, Anse le Raye

Patricia Leo, Sewing & Crafts Supervisor, SCF Multipurpose Centre, Anse le Raye

Mothers of St. Lucia, Anse le Raye, Vannard, La Croix

Vivette Payne, SAWS/St. Lucia Project Director

Roy Hoyte, SAWS Area Director

Gail Rowe, Nutrition consultant, SAWS/International, assigned to St. Lucia

Irwin Phillip, Public Health Student Assistant

Meetings:

Group meetings with eight Community Health Aides from the three already implemented target areas - Vannard, Anse le Raye, La Croix.

Group meetings with District Nurses and CHA's in Vannard, Anse le Raye, La Croix.

Involved Personnel Unobtainable:

Mrs. Toni Wagner, P.V.C. Director, US/AID Mission, Barbados (under reassignment Dominican Republic)

Miss Linda Philogence, Nutrition Officer, Ministry of Health, St. Lucia (on vacation)

Profile

St. Lucia, the second largest of the Windward Islands lies between 13 43' and 14 07' North of the equator and between 60 53' and 61 05' West of longitude. Covering a land mass of 238 square miles, it is, for the most part, lush and mountainous. The coastal borders soon give way to wooded hills and mountains rising to a spectacular 3,145' above sea level at Morne Gimie. The volcanic outcrops are intersected by fertile valleys most notable of which are the Cul-de-Sac and Roseau Valleys.

The island lies 24 miles south of Martinique and 21 miles northeast of St. Vincent. Its indigenous people speak English and a local French related patois and are mostly of African origin.

Annual rainfall ranges from 60-70 inches around the coastal margins and 100-145 inches in the interior. The wettest months are July and August. The basic unit of currency is the Eastern Caribbean Dollar (E.C. 2.65 = U.S. \$1.00). Major income sources are derived from tourism and banana exports. Estimated mid-year population in 1982 was 124,001 persons.

	<u>Year</u>	<u>Figure</u>
<u>Demographic Indicators:</u>		
Estimated mid-year population (in thousands)	1981	125
Density (inhabitants per square kilometer)	1981	203 km ²
Percentage of population under 15 years of age	1980	48%
Percentage of population in localities of 20,000 inhabitants and over	1979	45%
Percentage of rural population*	1980	40%
Rate of natural increase per 1,000 population	1980	25.1
Fertility rate per 1,000 women 15-49 years of age	1980	179.9

	<u>Year</u>	<u>Figure</u>
<u>Health Indicators:</u>		
Life expectancy at birth	1979	67
Infant mortality rate per 1,000 live births	1980	22.4
Perinatal mortality per 1,000 births	1979	33.0
Rate of maternal deaths per 1,000 live births	1980	0.26
Death rate 1-4 years per 1,000 population	1980	7.2

Percentage Of Deaths From:

Infectious and parasitic diseases (001-138)**	1979	10%
Tumors (140-239)**	1979	12%
Heart Disease (390-429)**	1979	34%
Motor vehicle traffic accidents (E810-812)**	1979	0.59%
Signs, symptoms and ill-defined morbidity (790-799)	1979	15%

Health Services Indicators:

Percentage of children under one yr. immunized against -

Diphtheria	1981	64%
Poliomyelitis	1981	65%
Measles	1981	18%
Tetanus	1981	64%
Whooping Cough	1981	64%
Tuberculosis	1981	23%
Percentage of population served with potable water	1979	70%
% of population served with sanitary waste disposal	1979	62%

	<u>Year</u>	<u>Figure</u>
<u>Economic Indicators:</u>		
Gross Domestic Product (GDP) per capita in U.S. dollars	1978	716
Total Health expenditure as a % of GDP	1978	4%
% Of total health expenditure by central Government	1981	14.2%
Health expenditure per capita	1978	\$29*US

Other Indicators:

% Of new born with weigh under 2,500 grams	1978	9.7%
% Of literate population over 15 yr. age	1978	51.7%

* Use the country definition

** Excluding signs, symptoms and ill-defined states

Health Sector Assessment

The Ministry of Health operates a primary and secondary health care system throughout the island. Through an existing infrastructure of 5 hospitals with a total capacity of 572 beds (1980) and 27 well placed health centres, basic health care is available and accessible to all. The doctor-population ratio of 1:3215, and the nurse-population ratio of 1:366 is comparable, if not better than many other Caribbean counterparts. This is particularly true of trained nurses. Approximately 18% only of the nursing manpower are involved substantially at the field primary health care level.

At the primary level district nurses are responsible for the delivery of curative, promotive and preventive health services in their respective districts. Their activities are complemented at the village level by a taskforce of 102 Community Health Aides, 45 Environmental Health Aides, 6 Family Life Health Educators and 4 School Health Supervisors.

Mortality and morbidity rates for the more traditional developing country patterns of diseases have dropped significantly in recent years. These patterns have been offset somewhat by rising incidences of the degenerative type diseases. Ischaemic Heart Disease, Diabetes Mellitus, Hypertension and Cancer are all becoming increasingly problematic. Undernutrition has continued to remain a problem in some areas of the island.

Project Background

Seventh-Day Adventist World Service/St. Lucia, (SAWS/SL), is one of three country organizations in the Caribbean approved for a SAWS/International--USAID funded Matching Grant which has no health care infrastructure from which to extend its Community Health Education outreach programme.

Owing to the compactness of the Island and the well established health delivery system operated by the Ministry of Health it was mutually agreed upon after consultation with those responsible that SAWS could best assist the island by providing additional health service support in collaboration with and through the auspices of the existing Ministry of Health programme.

This was to be accomplished in such a manner that there would be little, if any, unnecessary duplication of effort and the support services rendered would not create a recurrent cost and commitment burden for the Ministry following completion of the project.

SAWS/SL in accepting this task had basically three major grant constraints:

1. The programme had to be strongly oriented towards community involvement.
2. The project must address a priority health need in the island.
3. A strong health education component was required.

Project Rationale

Over several months a series of consultations with Ministry of Health officials and other agency staff took place and it was mutually concluded that the existing problem of malnutrition which persisted in the island should be the point of intervention.

The Caribbean Food and Nutrition Institute conducted surveys in 1974 demonstrating that 20-40% of children under the age of five were underweight for their age. Significant incidences of Anaemia was also found in all age groups and particularly in pregnant and lactating mothers. Annual reports of both the Ministry and World Food Program up until 1980 continued to substantiate the findings of C.F.N.I.

Using existing data SAWS/St. Lucia made an analysis to determine the extent of the problem and if possible to determine the most problematic areas. Following in abbreviated summary table form is the data upon which SAWS/SL designed their project.

Clinic Location	Year	Total # Children	% Normal	% Gomez 1	% Gomez 2	% Gomez 3	% Total 1,2,3	% Total 2,3
Anse le Raye	1978	125	80.0	9.0	9.0	2.0	20.0	11.0
	1979	203	66.5	25.0	8.0	.5	33.5	8.5
	1980	362	60.8	32.0	7.2	-	39.2	7.2
Babonneau	1978	-	-	-	-	-	-	-
	1979	388	39.4	55.7	4.4	.5	60.6	4.9
	1980	368	85.9	11.1	3.0	-	14.1	3.0
Bexon	1978	1074	76.4	16.2	7.1	.3	23.6	7.4
	1979	499	88.8	8.8	2.0	.4	11.2	2.4
	1980	206	86.8	6.9	6.3	-	13.2	6.3
Boguis	1978	465	83.0	13.0	3.0	1.0	17.0	4.0
	1979	1002	95.8	2.9	1.0	.3	4.2	1.3
	1980	154	88.3	6.5	5.2	-	11.7	5.2
Canaries	1978	288	74.3	22.2	3.5	-	25.7	3.5
	1979	277	75.8	22.0	2.2	-	24.2	2.2
	1980	256	78.1	19.9	2.0	-	21.9	2.0
Castries	1978	-	-	-	-	-	-	-
	1979	2154	87.0	11.8	1.0	.2	13.0	1.2
	1980	1477	86.3	12.1	1.6	-	13.7	-
Dennerly	1978	205	63.0	26.3	8.3	2.4	37.0	11.7
	1979	270	45.0	41.0	12.6	.4	54.0	13.0
	1980	297	56.6	35.4	7.7	.3	43.4	8.0

Clinic Location	Year	Total # Children	% Normal	% Gomez 1	% Gomez 2	% Gomez 3	% Total 1,2,3	% Total 2,3
Desruisseaux	1978	740	96.0	2.0	2.0	-	4.0	2.0
	1979	782	81.6	15.8	2.5	.1	18.4	2.6
	1980	730	85.4	13.7	.6	.3	14.6	.9
Fond St. Jacques	1978	80	82.5	13.8	3.7	-	17.5	3.7
	1979	77	71.4	26.0	2.6	-	28.6	2.6
	1980	98	78.6	19.4	2.0	-	21.4	2.0
Gros-Islet	1978	130	88.0	6.0	3.0	3.0	12.0	6.0
	1979	312	72.0	21.0	6.0	1.0	28.0	7.0
	1980	307	62.2	35.0	2.7	.1	37.8	2.8
Laborie	1978	421	58.5	32.5	8.0	1.0	41.5	9.0
	1979	-	-	-	-	-	-	-
	1980	294	69.8	28.5	1.5	-	30.2	1.6
La Fargue	1978	217	83.5	11.5	4.5	.5	16.5	5.0
	1979	306	74.0	22.6	3.3	.3	26.2	3.6
	1980	315	69.8	28.6	1.6	-	30.2	1.6
La Resource	1978	1412	62.7	29.6	6.7	1.0	36.7	7.7
	1979	-	-	-	-	-	-	-
	1980	491	72.9	21.0	5.3	.8	27.1	6.1
La Clery	1978	342	91.0	8.0	1.0	-	9.0	1.0
	1979	367	87.4	11.2	1.4	-	12.6	1.4
	1980	341	93.2	5.6	1.2	-	6.8	1.2

Clinic Location	Year	Total # Children	% Normal	% Gomez 1	% Gomez 2	% Gomez 3	% Total 1,2,3	% Total 2,3
La Croix-Maingot	1978	839	90.6	8.5	.8	.1	9.4	.9
	1979	732	70.5	25.3	4.1	.1	29.5	4.2
	1980	742	72.6	22.1	5.0	.3	27.4	5.3
Marchand	1978	280	81.4	10.7	7.5	.4	18.6	7.9
	1979	1157	88.1	10.1	1.7	.1	11.9	1.8
	1980	730	91.2	6.8	1.9	.1	8.8	2.0
Micoud	1978	2482	86.5	13.3	.2	-	13.5	.2
	1979	574	72.3	26.7	1.0	-	27.7	1.0
	1980	503	77.3	21.7	.4	.6	22.7	1.0
Monchy	1978	188	79.0	17.0	4.0	0.0	21.0	4.0
	1979	249	60.6	36.6	2.8	0.0	39.42	2.8
	1980	315	80.0	18.4	1.6	0.0	20.0	1.6
Mongouge	1978	256	79.7	14.5	5.8	0.0	20.3	5.8
	1979	448	60.7	36.8	2.5	0.0	39.3	2.5
	1980	382	63.4	31.6	5.0	0.0	36.6	5.0
Mon Repos	1978	447	80.9	17.9	.4	.9	18.2	1.3
	1979	384	68.5	30.0	1.5	0.0	31.5	1.5
	1980	694	98.7	.6	.7	0.0	1.3	.7
Richfond	1978	771	76.0	16.7	6.8	.5	24.0	7.3
	1979	467	52.8	45.6	1.5	.1	47.2	1.6
	1980	266	57.2	34.2	6.8	1.8	42.8	8.6

Clinic Location	Year	Total # Children	% Normal	% Gomez 1	% Gomez 2	% Gomez 3	% Total 1,2,3	% Total 2,3
Saltibus	1978	-	-	-	-	-	-	-
	1979	268	50.0	43.6	6.0	.4	50.0	6.4
	1980	254	60.2	35.0	4.0	.8	39.8	4.8
Soufriere	1978	127	82.6	15.8	1.6	0.0	17.4	1.6
	1979	338	78.4	18.6	2.7	.3	21.6	3.0
	1980	452	85.4	12.6	2.0	0.0	14.6	2.0
T. Rocher	1978	231	84.8	10.9	4.3	0.0	15.2	4.3
	1979	384	60.1	35.0	4.4	.5	39.9	4.9
	1980	217	67.8	30.8	1.3	.1	32.2	1.4
Vannard	1978	181	71.0	20.0	8.0	1.0	29.0	9.0
	1979	118	77.6	11.2	10.5	.7	22.4	11.2
	1980	252	75.2	14.3	9.6	.9	24.8	10.5
Vieux Fort	1978	1725	63.4	34.2	2.3	.1	36.6	2.4
	1979	-	-	-	-	-	-	-
	1980	463	51.3	44.3	3.4	1.0	48.7	4.4

TABLE #1**Average Percentage of Malnourished Children Aged 0-5 1978-1979-1980**

Year	# Districts	Gomez 1	Gomez 2	Gomez 3	Total % PCM/PEM
1978	23	15.9%	4.5%	0.6%	21%
1979	23	25.8%	3.7%	0.3%	29.8%
1980	26	21.1%	3.4%	0.3%	24.8%

TABLE #2**Number of Children Aged 0-5 Malnourished by Category 1978-1980**

Year	Total Pop. 0-5	Gomez 1	Gomez 2	Gomez 3	Total # Affected
1978	10986	1748	494	67	2309
1979	11910	3073	441	36	3550
1980	10966	2314	373	33	2720

TABLE #3**Districts Where Above Average Moderate/Severe Malnutrition Existed 1980**

Locality	Gomez 1	Gomez 2	Gomez 3	Total % PCM/PEM
Vieux Fort	44.3%	3.4%	1.0%	48.7%
Vannard	14.3%	9.6%	0.9%	24.8%
Saltibus	35.0%	4.0%	0.8%	39.8%
Mongouge	31.6%	5.0%	0.0%	36.6%
Anse le Raye	32.0%	7.2%	0.0%	39.2%
Boguis	6.5%	5.2%	0.3%	12.0%
La Croix-Maingot	22.1%	5.0%	0.3%	27.4%
Bexon	4.9%	6.3%	0.0%	11.2%
Dennery	35.4%	7.7%	0.3%	43.4%
Richfond	34.2%	6.8%	1.8%	42.8%
La Ressource	21.0%	5.3%	0.8%	27.1%

Although SAWS staff were interested in the total spread of the nutrition problem they were particularly interested in those areas where category 2 & 3 cases were highly prevalent. It has been shown that weight for age and age for height anthropometric measurements are often open to question in the first category of malnutrition according to Gromez, unless the growth curves used have been standardized to local use. The high figures in the category first columns above might substantiate this finding. With this bias, a selection of the eleven target districts was made on the basis of higher than national average (3.48%) prevalence of moderate to severe malnutrition (Category 2 & 3) in the under five population.

Having substantiated a priority need for some form of nutrition intervention in eleven high risk target areas, a strategy was developed to meet this need.

Causeative factors of this nutrition problem were defined as :

1. Inadequate knowledge about the need for and preparing a balanced diet.
2. Overdependence on imported foodstuffs and underutilization of locally produced foods.
- 3.. Poor breast feeding/weaning practices.
4. Inadequate income generating capacity.

While recognizing the importance of income generation to improving nutritional status SAWS/SL did not consider its resources were adequate to address that issue at this point in time and therefore concentrated its attention on those factors which are most amenable to change through community health education and training.

The existing Community Health Aides (CHA) were seen as key agents for bringing about the desired changes. Spending 50-60% of their time in the communities themselves and acting as an effective link between community and the health service system, their involvement was vital to achieving project success.

SAWS/SL understanding that it would be neither desirable nor practical for the CHA's to become totally involved in nutrition at the expense of diluting other essential health activities designed a training and support programme that would minimize this risk. Nutrition in any case is one essential component of the total health circle and should not be viewed in isolation from all the other factors that interrelate with it.

Project Strategy

SAWS/SL proposed to implement a community-based nutrition health education programme which would provide formal and informal nutrition extension training to existing Community Health Aides in St. Lucia. They would then utilize their training under supervision in the eleven target areas where the prevalence of severe to moderate malnutrition was higher than the national mean, 3.48%.

Based on the premise that CHA's are more effective and better motivated when they are exposed to continuous informal support and training in the field, particular emphasis was placed upon the project providing such assistance to them.

Even though the project would focus on only eleven of the 26 health districts, it was felt that all existing and projected CHA's (120 in all) should receive the formal nutrition extension training. This would minimize discriminatory feelings while providing a possibly interesting study of the effect of formal versus informal training in terms of field utilization of acquired knowledge.

Specific Strategy

Purpose:

"To decrease the prevalence of moderate to severe malnutrition in children under five in twenty-five target communities of St. Lucia."

Impact Indicators: It is expected that by the end of the project the prevalence amongst children 0-5 of malnutrition for Gomez Category 2 + 3 will have been reduced by 25% + 30% respectively in 11 target areas, namely --

Vieux Fort, Bexon, Vannard, La Croix, Saltibus, Dennery,
Mongouge, Richfond, Anse le Raye, La Ressource, Boguis

Specific local mortality rates for children aged 1-5 as established by baseline census are expected to be reduced by 25%.

Intermediate Indicators:

- 120 Community Health Aides working out of 26 existing health centres will be given 36 hrs. of formal nutrition extension education in subject areas appropriate to the proposed intervention.

- 25 Community Health Aides working in "high prevalence" areas will be given 60 hours of experience based learning in their own communities. Field training in data and census gathering, group teaching skills, role modeling, home visitation, growth monitoring, table and garden promotion will be given by project staff. By the end of project it is expected that 75% of the informally trained C.H.A.'s will be actively utilizing their acquired skills in their respective areas.

Implementation

The Project Director arrived in St. Lucia, May, 1982 and an agreement was signed between the Ministry of Health and SAWS/SL on May 24, 1982. (See Appendix A) Work on the project officially commenced on June 1, 1982. Despite the non arrival of the planned for Training Officer, formal training of 90 Community Health Aides took place in four group sessions from September 13 to October 22, 1982. The second phase of providing preliminary informal training to the 35 Community Health Aides from the eleven target areas took place March 21-25,

and the project has commenced field training and monitoring in three of the eleven projected districts. The school curriculum has been developed and initial school nutrition education programmes have commenced. Preliminary work in the schools has identified a keen interest on the part of both staff and students. Teachers have noticed diminished response and academic ability among students who are on an inadequate nutritional intake.

As will be seen from the Project Performance Tracking Chart below, actual progress so far is reasonably aligned to the projected performance, except in the second phase, which was delayed for reasons dealt with under the "Issues" section. All major assumptions have held for the project thus far.

PROJECT PERFORMANCE TRACKING CHART

ACTIVITIES	0	3	6	9	12	15	18	21	24	27	30	33	36
MOH Approval	xxxx	**											
Staff in place	xxxxxxx	**											
Selection/purchase materials	xxxxxxxxxxxx	*****											
Program scheduling	xxxxxxx	****											
Formal CHA training		xxxxxxxxxxxxxxxxxxxx	*****										
Baseline Collection			xxxxxxx				*****--						
Informal CHA training				xxxxxxxxxxxxxxxxxxxx			*****-----						
Small mothers groups							xx						
CHA Monitoring							xx						
School curriculum development				xxxxxxx			*****-----						
School Education					xxxxxxx		*****-----						
EOPS Evaluation													xxx

x = planned outputs
* = actual outputs

Issues/Findings

Project Design:

Ultimate responsibility for the project design rests upon the programme planning officer of SAWS/International. Project staff's primary responsibility is for the delivery of inputs in a timely and effective manner according to the agreed upon action plan. Analysis of the design after fifteen months of implementation and field experience has revealed some small weaknesses which can conceivably be corrected if those involved deem it advisable.

Initially the design rested very heavily upon the prevalence rates of second and third degree malnutrition in given communities. Beneficiary selection was based upon these rates with little reference to the population numbers affected. A more accurate look at available district population levels might question the selection of two of the target areas. The chart below will demonstrate this point.

District	Total % 1980 Malnourished	Total # 0-5 Children Affected	District	Total % 1980 Malnourished	Total # 0-5 Children Affected
Vieux Fort	48.7%	245	La Croix	27.4%	242
Vannard	25.8%	91	Dennerly	43.4%	153
Saltibus	39.8%	113	Richfond	42.8%	141
Mongouge	36.6%	159	La Ressource	27.1%	163
Anse le Raye	39.2%	168			
Boguis	11.7% (5.2)	26 (8)	Desruisseaux	14.6%	114
Bexon	13.2% (6.3)	26 (8)	Micoud	22.7%	119

The particular areas in question are Boguis and Bexon which had rates of second and third degree malnutrition of (5.2) and (6.3). Owing to the smallness of their populations this translates into a very small number of children affected. If we look at the total spread of malnutrition categories as we have done in the chart recognizing that some of those who were borderline cases are at least at substantial risk then we see that these two areas are less attractive for cost effective coverage than two others listed at the end of the chart, namely Desruisseaux and Micoud. The inclusion of the latter instead of Bexon and Boguis would increase the projects overall coverage population wise 9.2% for no additional cost.

Inasmuch as phase II training has already been given to the CHA's from Bexon and Boguis, careful ethical consideration must be given to possible heightened expectations on the part of both the CHA's and community, before changes, if any, are made in the design. If the two new areas suggested can be included it will improve the cost benefit ratio of the project considerably.

In some discussions regarding the project design some general reservations were expressed concerning the danger of externally funded grants establishing infrastructure that will result in unbudgeted and unplanned for, recurrent expenditures to the local government once external support is withdrawn. This is a very valid observation and one which concerns SAWS planning staff.

Examination of the project design shows that the project envisaged should not result in any additional expense to local government. With a finite purpose of providing additional training and support to the CHA's the only residual elements of the project left should hopefully be a body of primary health care workers with increased capacity for community training and organization.

Field experience has already shown a need for the training to encompass more than simple nutrition education. Obesity and malnutrition may often be found in

the same families. Diabetes Mellitus is common. Gastro enteritic disease and helminth infestation are frequently found. These factors point to the need for flexible approaches to community health needs with a definite increased emphasis upon environmental health and sanitation. Some feel that little progress can be made in decreasing malnutrition unless the cycle of 'gastro enteritis - malnutrition - gastroenteritis' is broken. These are factors that local project staff must examine closely and attempt to adapt their curriculum and emphasis accordingly. The project design does call for both training for and promotion of vegetable gardening for home use. It has become clear that this is an area which could stand some rethinking and possible expansion if the project is to realize maximum impact. Some assistance from SAWS with starter seeds and perhaps stronger collaboration with agricultural extension workers are two areas for serious consideration.

Management

The project as designed called for the services of two full time project staff and one part-time administrator. SAWS/Caribbean Director, Mr. Roy Hoyte, serves as Project Administrator and is responsible for the smooth flow of funds to the project, host country agreements and personnel at the project level. He visits the project frequently from Barbados and is the first point of contact in the staff line between SAWS/International and SAWS/St. Lucia.

Director of the project is Ms Vivette Payne, a Jamaican born national who holds a Masters degree in Public Health Education and has had prior experience in Population Control Research in the United States. She has performed her duties thus far in a creditable manner and under somewhat trying circumstances has managed to keep the project momentum up satisfactorily.

The appointed Training Officer, who held an M.P.H. also in nutrition, has thus far been unable to take up her appointment due to United States Immigration

requirements and thus far SAWS/International has not been able to fill this post. During the implementation of phase II a nutritional consultant, Ms Gail Rowe, was provided to the project to assist Ms Payne for five months. Utilizing her services and locally available personnel, the absence of the training officer has been minimized. Now that the project is moving out into the field this lack will, if not corrected, seriously hamper the achievement of objectives. It is unrealistic to think that one person can give all the coverage required to the CHA's within the allotted time frame. This has now become a major constraint upon programme effectiveness.

Two possible solutions have been considered to this problem. First - try and find a replacement training officer who can be moved to St. Lucia quickly. Second - negotiate with the Ministry of Health for their existing Nutrition Officer to become more directly involved in the programme. The latter possibility raises an important management issue, namely, who is ultimately responsible for co-ordinating nutrition programming in St. Lucia?

Currently all programmes are supposed to be co-ordinated by the "Food and Nutrition Council" under the Ministry of Agriculture while at least three major programs are working from or through the Ministry of Health.

This issue is a vital one, for while each of these programmes work within the framework of the national health planning and policy guidelines, each in its own way has its own needs and priorities. While it is not vital to establish rigid hierarchical lines of nutrition administration there does appear to be a need for much closer co-ordination of efforts. If tighter and more collaborative linkages can be established between the Nutrition Office of the Ministry of Health and the SAWS staff then this will enhance considerably the effectiveness of the programme.

During initial planning and design stages of the project SAWS/International unwittingly bypassed key nursing administration staff who were ultimately

responsible for the CHA programme. This resulted in the early stages of the project in some misunderstandings and delays in integrating the SAWS initiative into the existing primary health care programme. This matter was quickly rectified and since that time there appears to be a smooth and effective working relationship between those involved. The situation now is one of informed co-operation.

Training

Under the planned training outputs formal training was to provide 36 hours of formal nutrition training to 120 Community Health Aides in St. Lucia. It should be noted that the CHA's do receive 2 weeks of basic nutrition training in their 12 week training course. Experience thus far has demonstrated that the CHA's taking the project training had a much stronger grasp of nutritionally related diseases than they had of basic nutrition information and the skills of applying same. This may reflect a bias in the CHA basic training module which might bear looking at.

Inasmuch as at the time of the project training there were only 90 CHA's available for training of the 102 existing CHA's, these have received formal training. Forty hours of training was given to each of four groups -

1. Venue: St Jude Hospital, Vieux Fort, September 13-17, 1982. 23 Trained.
2. & 3. Venue: Morne Training College, October 5-9 and 10-15, 1982. 50 Trained.
4. Venue: Soufriere Town Hall, October 18-22, 1982. 17 Trained.

Good media coverage was given to the training sessions.

Training was carried out through the medium of lectures, group discussions, role plays and demonstrations. CHA's interviewed, contrasting this kind of training

with other learning experiences commented that they found the training more practical than any they had experienced hitherto. For some it was a refresher for information they already been given but all agreed that the visual/audio presentations and demonstrations made retention better. Local experts were called in to assist SAWS staff in training.

This is supported by analysis of the pre and postest K.A.P. figures which appear on the following chart:

Training Group	Average % Pretest Score	Average % Postest Score	Average % Improvement Score	# In Sample (n)
Vieux Fort	47.2%	84.3%	84.4%	23
Castries #1	49.6%	83.8%	74.5%	30
Castries #2	50.2%	82.4%	72.6%	20
Soufriere	<u>52.3%</u>	<u>84.9%</u>	<u>67%</u>	<u>17</u>
Total Averages	49.8%	83.9%	74.6%	90

Overall the figures demonstrate a successful increase in K.A.P. (Knowledge, Attitudes, Practices) of approximately 75% which is highly satisfactory for all groups. It would be appropriate to repeat the K.A.P. test at a one year interval to examine the long-term retention of information and also to measure any possible score differences between the CHA's who are working in the target areas as against those in other centres.

Also worth noting are some clear progressions in the chart. The lower the average pretest score, the higher the average improvement score which would be predictable. Statistically, comparison of these sets of data show through correlation analysis a negatively sloped correlation of $r=0.99$. In lay terms this means that the average mean improvement scores for all groups are significantly comparable (approximately the same). In practical terms this shows that the standard of training and the retention of the students was maintained to a high degree throughout the four course sessions and did not drop progressively as might be thought by a casual glance at column one.

Content of the course covered the areas of:

- Nutrition for pregnant and lactating mothers.
- Breastfeeding and weaning practices.
- Balanced family nutrition utilizing local resources.
- Nutrition related diseases.
- Oral rehydration.
- Food sanitation and preparation.
- Vegetable gardening for table use.

Forty hours of courses were given to each group based upon the above curriculum.

On the basis of information gathered during this evaluation it is suggested that any future training, in addition to the above, should give broader attention to the role that environmental sanitation, low socio-economic status and dietary excesses have upon nutritional status and well-being. The latter are especially important as the leading morbidities in St. Lucia are degenerative diseases, all of which have strong linkages with poor nutritional practices.

Informal Training - Community Monitoring

One of the major premises of the project design is that community level health workers become more effective when they are trained and supported in the community in which they work. The traditional pattern of primary health care service delivery is for the community to come to the centre for all its health needs. While much of the curative and promotive care must necessarily be delivered in such settings it is our belief that preventive health delivery is more successful given in a non-institutional setting and particularly in the home.

District nurses interviewed, while subscribing heartily to this view, find the demands of health centre delivery programmes so high that they have precious little time to give the CHA's the support they should have in the community setting. The effect of this is two-fold.

First there is a tendency for the CHA's to migrate to the centres for their work because that is where the support is. Secondly the focus becomes one of "referral" to the health centre when one is sick rather than preventing the need for referral.

During field visits to health centres, communities, and homes it became very apparent that where SAWS personnel have spent time with CHA's in their districts significant improvement of the CHA's status and acceptance by the community are taking place. Their work and importance to the people has much more credibility than hitherto. District nurses indicated that several of the CHA's have become more confident in working with the people since receiving their training and there appears to be increased motivation towards their community work than hitherto.

Independent feedback to Ministry of Health resources indicate a very positive reaction by the CHA's involved with the project, to the support being given

them. Early indications are that mothers are starting to implement some of the training being given them and several have commenced kitchen gardens. This was confirmed by the evaluation team during site visits. Further evidence is suggested by the fact that some of the Environmental Health Aides and other CHA's not in the programme are questioning when the project will extend its services to them. There is some evidence to suggest that if some of the visiting physicians, and in some cases the district nurses themselves, would take a more positive role in accepting, training and supporting the CHA's their commitment and effectiveness would be greatly enhanced.

During this phase of the project 35 Community Health Aides from the target areas were exposed to training relevant to community work. Areas such as methods of persuasion, personal relationships, interviewing, and data collection were taught. This training will now be used as these CHA's conduct the baseline survey in each of their respective areas. While emphasis has been placed on breastfeeding, weaning, eating from the family pot and kitchen gardens, SAWS personnel have not overlooked the problems relating to family life, sanitation, personal hygiene, dental problems and economics.

While the project goal of reducing malnutrition in children aged 0-5 is the area of change that is being sought, it is important that the project maintain a flexibility and comprehensiveness that will impact in a more wholistic nutritional manner than simply undernourishment.

Church-State Relationships

The project design does not allow for easy manipulation of the programme for ulterior motives. Working in close collaboration with the Ministry of Health has meant that unbiased selection of target areas and trainees has taken place. In addition a working relationship has been set up with other agencies including Save the Children Fund and World Food Programme.

Strong emphasis has been placed on alternate non-meat sources of protein but not to the exclusion of animal protein sources. This might be interpreted as "Adventist Bias" but given the paucity and expense of animal protein on the island, the inclusion of alternate sources is a valid one and is supported by many other sources. e.g. ("Food First," Lappe-Collins; "By Bread Alone," Brown - Eckholm..et al)

One further indicator of the non-sectarian approach of the project is the feeling by some Adventist church members that SAWS has neglected them. If this is so then it is probably because of a sincere desire on the part of SAWS management to demonstrate unequivocally a clearly non-sectarian approach. Recognizing however that Adventist members comprise a significant part of the indigenous Protestant population, this may be an area where the project should ensure that this group does not become alienated from the project at large, for they are part of the total community.

Finance

The project envisages an expenditure of E.C. \$427,111.00 over the three year period. Expenses are going for staff support, transportation, training materials and equipment, seminars and evaluation. (See Appendix B)

In the early part of 1982 it was agreed upon between the Ministry of Health and SAWS/St. Lucia that the latter would assume some of the extra costs and support that the Ministry had expected to cover. This was due to the strengthening of the U.S. dollar on the world market and other severe economic constraints which placed impossible burdens on local Ministry budgets. This SAWS/SL agreed to do and on the basis of experience thus far the budget projections seem adequate for achieving project objectives.

In the early part of the project SAWS/SL experienced considerable difficulty in obtaining a smooth cash flow from Washington to the project. This has received attention and further problems are not expected in this area.

Reporting/Evaluation

The quarterly reporting system set up between SAWS/International and SAWS/St. Lucia is functioning smoothly and on schedule. Baseline information is being collected during the second phase of the programme as it moves into the target areas.

As CHA's conduct the survey (See Appendix C) in the target areas, data generated from these will be analysed and more specific local data established. The survey will be completed in three target areas by September 30.

Currently the information being collected through the health centres and World Food Programme does not provide very complete information but does at least substantiate an ongoing nutritional problem.

A random sample analysis of some WFP records for the period June 1981 - June 1982, showed of 1,567 children in their feeding programme, for which statistics were available.

18.2% were considered "At Risk"
75.3% Gomez Category 1 degree
6.5% Gomez Category 2 degrees
0.0% Gomez Category 3 degrees
n=466

While this gives us the spread of cases, unfortunately no record is being kept of the total number of children in the community from which these cases came so that they cannot be seen as a percentage of the population at large.

The Ministry of Health is currently undertaking a nationwide family by family census as part of their primary health care initiative. A complete file on each household will be compiled and this should provide very adequate current information on nutritional status in the island once available.

Community Support vs Participation

After only three months in the field it is probably too early to assess the extent of participation taking place. The project appears to be well supported from the Ministry of Health through the health centres to the local community themselves. Support however does not mean the same thing as participation. The former implies more of an absence of opposition or tacit acceptance while the latter includes a commitment and involvement by the beneficiaries themselves. The nature of this project makes it difficult to push community participation per se very hard for it operates through a structured system which traditionally has encouraged a more directed approach through community organization rather than a sharing of control and decision making with the grass roots opinion.

However that may be, there are elements of the CHA's work which lend themselves to a more participatory approach at the local level. The CHA's can be encouraged to involve the community in their outreach programme more closely and SAWS personnel should not only duly encourage them to do so but seek ways of supporting them in this task. This can be done by paying more attention to working with mothers groups and through school and farmer associations.

Achievements Against Project Indicators

Impact Indicators: It is too early to examine progress towards achieving any impact yet, but those concerned feel that the project will bring about the desired results. In the light of data currently available it would seem that the projected

reduction by 25% of the Toddler Mortality Rate (TMR) will be impossible to measure owing to the very low number of cases currently prevalent, i.e. 1982/3.5 per thousand.

It would probably be advisable therefore to readjust the nutrition indicators to include Category I malnutrition as there appears to be a downward trend of children from the higher categories to the lower/at risk categories if the project is to generate any meaningful data with a large enough sample to make it worthwhile.

Intermediate Indicators: 120 CHA's were to be given 36 hours of formal nutritional training. Thus far 90 of the existing 102 have received such training. Those CHA's still in basic training will receive their training at a later date.

25 CHA's were to be given 60 hours of informal training in their respective communities. This number has been increased to 35 and these have already received 30 hours of practical group training. Currently six are being trained individually in their own communities.

Areas For Potential Expansion Or Continuation Of The Project

There are a number of potential areas that SAWS can look at as possible areas of future ongoing collaboration with the Ministry of Health. None of the following have been examined closely or even discussed with the Ministry but have arisen out of this evaluation analysis. They provide merely some points of future dialogue with those concerned.

1. A natural extension of this project is to provide the same kind of extension support to all of the CHA's in the Island with possibly a more integrated approach to health training than merely nutrition.

2. The environmental health aides are also a necessary and interesting group that could well benefit by such a programme. The possible linkage and cross-fertilization of the major objectives and responsibilities of each group needs to be explored further. A project which would assist in bringing a more concentrated community "team" approach through the medium of the CHA's and EHA's is well worth looking into further.
3. Collection, filing and analysing health data is a vital part of any health care system. While the means of collecting such data are reasonably well developed the filing, retrieval and analysis of the same, pose considerable problems to many countries. If accurate surveillance is the first prerequisite for prevention and control of disease then a project to set up a modern but locally manageable system would be of inestimable value to a Ministry of Health.

Recommendations

Arising out of the information reviewed under this evaluation the following recommendations are made to the SAWS/St. Lucia staff for their attention and possible adoption.

1. That every effort be made to increase existing collaboration and involvement between the Ministry of Health nutrition personnel and the SAWS/SL Project Director in order to provide the support necessitated by the non-arrival of the Training Officer. If this is not feasible, a training officer must be placed quickly or the number of target areas diminished by approximately 40%.
2. That consideration be given to including Micoud & Desruisseaux as target areas and the possible exclusion of Boguis and Bexon if current conditions correlate to the figures noted in the report.

3. That time be spent in attempting to co-ordinate all activities relating to nutrition in the Island with especial emphasis to a common reporting requirement.
4. That every opportunity should be explored for expanding the vegetable production and sanitation components of the programme as resources permit.
5. That CHA's be supplied as soon as possible with the necessary visual and manual aids to complement their community training, as provided for in the budget.
6. That the Baseline Nutrition Survey be pushed forward in all eleven target areas as soon as is practicable.
7. That church groups, womens organizations, school and farmers co-operatives be encouraged to participate in this project to the greatest extent possible.
8. That no let up be made in continuing to give CHA's the maximum amount of support and experience based training in their respective communities.
9. A further identical K.A.P. test should if possible be given to all the trained CHA's before the end of 1983 to establish the retention of nutritional educational skills over the longterm.

Conclusion

Given the shortness of time since implementation and the several constraints mentioned, this is an excellent and creditable project which should prove to achieve more than its stated objectives.

This project has many interesting facets which can have important implications for future community health planning initiatives. While there are not many lessons that can be drawn at this stage, the nature of the project lends itself to a more in depth final evaluation. SAWS/I would encourage such an independent evaluation to take place nearer completion of the project.

All credit should be given to those involved with the project at the local level and especial mention should be made of the cordial and supportive way in which the Ministry of Health staff have given their time and expertise to making the project a reality.

A final word of commendation should go to the committed Community Health Aides who tramp many a weary mile over difficult and tiring terrain to bring their skills to the people they serve. Without them this project would never have happened.

AGREEMENT

BETWEEN 1: The Government of St. Lucia, Ministry of Health

AND 2: Seventh-day Adventist World Service, St. Lucia
(hereafter designated as SAWS/SL)

CONCERNING: A Proposed SAWS/SL Community Nutrition Training Programme in selected target communities of St. Lucia to be operated with the co-operation of the Government of St. Lucia, Ministry of Health.

SUMMARY NARRATIVE:

In an effort to see how a SAWS/SL project could be delivered to the peoples of St. Lucia in a manner that would best meet local needs and complement the intended thrust of the Government's "Health Policy and Health Development Plan, 1981-85-", SAWS after consultation with officials of the Ministry of Health propose:

To design and implement over a three year period, commencing June 1982 a SAWS Community Nutrition Training Programme within the State of St. Lucia.

This project has as its goal, a significant contribution towards the improvement of the health status of mothers and children. It is envisaged that this will be attained by addressing at the community level existing problems of poor nutrition in a manner that is culturally appropriate and acceptable to the recipient groups. A strong emphasis upon community participation and involvement throughout the life of the project utilising existing community health aides and Community Health Councils will be given in an effort to foster a spirit of self reliance and self determination.

In order that unnecessary duplication of activities between the Ministry of Health and SAWS/SL will not occur and to provide a continuity for the community nutrition training programme after funding ceases, it is understood that a mutual collaboration over the life of this project will take place between SAWS/SL and the Ministry of Health.

The above project summary, it is felt, complements and supports the intent of both existing and projected activities as outlined in the five year Health Policy and Health Development Plan. (see sections, 3.2.3-5; 3.4.1-5; 3.6.6; 7.2.2(1);)

by special contractual agreement with the Government of St. Lucia, Ministry of Health; SWS/SJ will conduct a Community Nutrition Education Project over a three year period (1982-85) and will in addition render the following logistical support to make it possible.

- 1: Personnel
 - a. Fulltime Project Administrator
 - b. Fulltime Training Officer
- 2: Equipment and materials appropriate to the nutrition training programme as determined by SWS/SJ in mutual consultation with the Ministry of Health.
3. Financial support for the life of the Project
4. Project Vehicle

The Government of St. Lucia, Ministry of Health will support this project by providing:

- 1: Centres for Health Education
- 2: Janitorial services for each centre
- 3: Maintenance for each centre
- 4: Security for each centre
- 5: Office for SWS project Administrative Personnel
- 6: Maintenance and Fuel for SWS Project Vehicle.

It has been agreed by both parties that the above version in the English language shall be for the intent and purpose of this Agreement considered as the official text.

Discontinuance Agreement

The parties of the Agreement may discontinue this Agreement notifying the other party, by registered mail, becoming effective within 90 days, but not before 30 days after receipt of such notification.

The above Agreement has been approved and signed by both parties and becomes effective on the date of signing by both parties, or whichever is the later date.

Castles City of the Country of Saint Lucia

This 24th day of the May month, 1962

Government of St. Lucia.

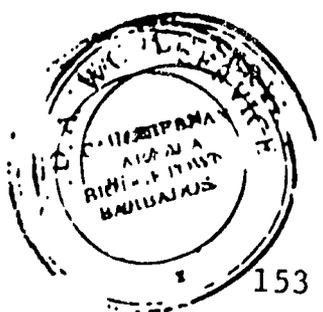
Signature: [Handwritten Signature]

Title: Minister of Health

SEVENTH-DAY ADVENTIST WORLD SERVICE, INC.

Signature: [Handwritten Signature]

Title: Director S.A.W.S. Caribbean



ST. LUCIA MATCHING GRANT BUDGET

	YEAR I		YEAR II		YEAR III		TOTAL	
	Local Currency	US Dollars						
A. Project Support								
A1. Project Coordinator	71,494	26,979	74,894	28,262	78,466	29,610	224,855	84,851
A2. Administrative Support	18,636	7,040	18,775	7,085	18,958	7,154	56,389	21,279
B. Training Materials								
B1. Visual Aids/Equipment	15,000	5,660	15,000	5,660			30,000	11,320
B2. Training Materials	4,998	1,886	5,000	1,887	4,452	1,680	14,450	5,453
C. Educational Expenses								
C1. Seminars	1,499	566	1,499	566			4,499	1,698
C2. On-site Training	5,000	1,887	9,333	3,522	10,181	3,842	24,514	9,251
D. Development Project Support								
D1. Evaluation					13,250	5,000	13,250	5,000
E. Transportation								
E1. Vehicle Purchase/Main	39,750	15,000	6,625	2,500	6,625	2,500	53,000	20,000
E2. Travel	3,882	1,465	3,882	1,465	3,887	1,467	11,651	4,397
E3. Contingency	2,000	755	6,333	2,390	7,183	2,710	15,516	5,855
TOTALS	162,279	61,238	141,343	53,317	144,501	54,529	448,124	169,104
FINANCING								
USAID/MG--50%	81,140	30,618	70,671	26,669	72,290	27,265	224,062	84,552
SAWS/Washington--25%	40,570	15,309	35,336	13,334	36,125	13,632	112,031	42,276
SAWS/Division--25%	40,570	15,309	35,336	13,334	36,125	13,632	112,031	42,276

NOTE TO THE INTERVIEWER:

INSTRUCTIONS ARE IN CAPITAL LETTERS AND SHOULD NOT BE READ TO THE RESPONDENT. READ ALL ANSWER CATEGORIES TO THE RESPONDENT EXCEPT YES/NO QUESTIONS OR UNLESS SPECIFICALLY INSTRUCTED TO DO OTHERWISE.

TARGET COMMUNITY _____

INTERVIEWER _____

INTERVIEWER NUMBER _____

NAME OF THE INTERVIEWEE _____

POSITION IN THE FAMILY _____

INTRODUCTION:

Hello! The Ministry of Health Nutrition Department is conducting a survey to determine the nutritional health of your community nutritional needs. The questions that we will be asking are very simple and easy for you to answer. Your response will be kept confidential.

1. What language do you speak the best?
 - a. English
 - b. Creole
 - c. Other (specify) _____
2. How long have you lived in this community?
 - a. Less than 2 years
 - b. 2 to 5 years
 - c. Over 5 years
3. In what country were you born? _____
4. In what year were you born? _____
5. What ethnic group do you belong to?
 - a. Negro
 - b. Indian
 - c. Caucasian
 - d. Other _____ INTERVIEWER SPECIFY _____
6. What is your religion?
 - a. Catholic
 - b. Baptist
 - c. Protestant
 - d. Other (specify) _____

8. What is your marital status?

- a. Single
- b. Married
- c. Widowed
- d. Separated or divorced
- e. Other (specify) _____

NOTE: FOR WOMEN ONLY Questions 9-12

9. Have you ever become pregnant?

- a. Yes
- b. No IF NO, GO TO Question 23

10. If "Yes," how many time have you become pregnant? _____

11. Did you ever have any children?

- a. Yes How many births have you had? _____
- b. No IF NO GO TO NUMBER 23

12. How many times did you visit your doctor or Health Clinic during your last pregnancy?

- a. One time
- b. 2 to 3 times
- c. 4 to 5 times
- d. 6 or more times
- e. Never

13. Have any of your children died?

- a. Yes How many? _____
- b. No IF NO GO TO 17

14. How many of your children died between 1 and 5 years of age? _____

What was the cause of the death? _____

15. How many of your children died after the age of 5 years of age? _____

What was the cause of death? _____

16. How many of your children died before the age of 1 year? _____

What was the cause of death? _____

17. How many of your children are 5 years of age or younger? _____

18. How many of your children are 6 to 12 years of age? _____

19. How many of your children are more than 12 years of age? _____

20. How old is your youngest child now? _____

21. Are you pregnant now?

- a. Yes
- b. No

22. Have you ever raised or cared for a child during the first two years of life?

- a. Yes
- b. No

23. If you were to feed a baby with a bottle, which of the following formulas would you use?

CIRCLE ONLY ONE ITEM

- a. Water mixed with sugar
- b. Milk formula mixed with sugar
- c. Pabulum
- d. Cornmeal.....
- e. Arrowroot
- f. Other (specify) _____

24. How much? 25. How often?

26. Which do you think is the best for your young babies. (6 to 2 years)?

- a. Bottle feeding
- b. Breast feeding
- c. Both
- d. It makes no difference
- e. Other (specify) _____

27. At what age do you think you should stop breast feeding? **CHECK BOX**

0-3 month, 4-6 month, 7-9 month, 10-11 month, 12-15 month, 16-24 month

1. 2. 3. 4. 5. 6.

28. At what age did you begin to introduce solid or adult food to your child?

0-3 month, 4-6 month, 7-9 month, 10-11 month, 12-15 month, 16-24 month

1. 2. 3. 4. 5. 6.

DO NOT READ THE CATEGORIES

29. What was the first feed apart from milk that you fed your last baby?

CIRCLE ONLY ONE

- a. Porridge
- b. Mashed fruits
- c. Mashed vegetables
- d. Fruit juice
- f. Eggs
- g. Strained soup
- h. Other (specify) _____

30. Which of the following vaccinations has your child had?

PLEASE CIRCLE ONE NUMBER FOR EACH TYPE OF VACCINATION. CIRCLE "0" IF THEY HAVE NOT HAD THE VACCINATION.

How many Vaccinations?

a. Polio	0	1	2	3
b. DTP	0	1	2	3
c. BCG	0	1	2	3
d. Measles	0	1	2	3
e. Other (specify)	0	1	2	3

31. Does your child have a Child Health Passport?

- a. Yes
- b. No

32. What is your occupation?

- a. Farmer
- b. Housewife not working away from home
- c. Employed fulltime (30 hours or more per week)
- d. Employed parttime (30 hours or less per week)
- e. Unemployed
- f. Student
- g. Other

33. Who is the primary wage earner in in your home?

- a. Your-self
- b. Husband
- c. Parent
- d. Other (specify) _____

34. Is the wage earner presently employed -

- a. Full time (30 or more hours per week)
- b. Part time (30 hours or less per week)
- c. Unemployed
- d. Other

35. What is your usual occupation? # _____

- a. Student (not working full time)
- b. Homemaker (not employed outside the home)
- c. Labourer or Farm worker
- d. Owner or Manager of small business, agency, or farm which sells
- e. produce, (insurance agent or the like)
- f. Owner or executive of a large business or high level government agency?
- g. Operators (truck driver, factory machine operator)
- h. Service worker (fireman, waiter, orderly, maid, barber, Police)
- i. Skilled craftman or foreman (carpenter, plumber, mechanic, painter)
- j. Clerical and sales (book keeper, secretary, salesclerk, salesman)
- k. Professional (requiring advanced degree or University education such as doctor, teacher, nurse, minister)
- l. None of these categories fit.

36. What is the usual occupation of the primary wage earner?

37. How many years of schooling have you had? _____

38. Do you grow your own food?

a. Yes

b. No **IF NOT, GO TO QUESTION 40**

39. Approximately how much of your own food do you grow?

**PLEASE INDICATE THE NEAREST CATEGORY
CIRCLE ONLY ONE
HOLD UP DISPLAY CARD**

- a. 10 percent or less
- b. 20 percent
- c. 30 percent
- d. 50 percent
- e. 75 percent

40. If you had more money and foods were available to you, what other foods would you add?

41. How often do you eat the following foods?

**HOLD UP DISPLAY CARD
CIRCLE NUMBER**

	never	3-6 times per week	7-11 times per week	1 time per wk	less than	NOT EAT
a. Canned green vegetables	0	1	1	1	1	6
b. Fresh green vegetables	0	1	1	1	5	6
c. Canned tomatoes, squashes, carrots, pumpkin etc.	0	1	1	1	5	6
d. Fresh tomatoes or yellow veg...	0	1	1	1	5	6
e. Refined cereals, white rice or bread.	0	1	1	1	5	6
f. Unrefined cereals brown rice, whole wheat bread .	0	1	1	1	5	6
g. Root crops, yams, cassava, tannia, dashine etc.	0	1	1	1	5	6
h. Legumes, beans, peas.	0	1	1	1	5	6
i. Eggs	0	1	1	1	5	6
j. Beef	0	1	1	1	5	6
k. Fish	0	1	1	1	5	6
l. Foultry, chicken, turkey.	0	1	1	1	5	6
m. Other animal meats	0	1	1	1	5	6
n. Nuts	0	1	1	1	5	6
o. Fresh fruits	0	1	1	1	5	6
p. Dried or canned fruits	0	1	1	1	5	6
q. Meatlike foods from vegetables.	0	1	1	1	5	6
r. Spices, chilli, pepper	0	1	1	1	5	6
s. Sweets, ice cream, sugar	0	1	1	1	5	6

42. Where do you obtain most of your drinking water?

- a. Directly from piped water within the house
- b. From public stand pipe
- c. From the river
- d. From the spring
- e. Rain water
- f. Other (specify) _____

43. Do you boil your water?

- a. Yes
- b. No

44. How long do you boil the water? _____

45. Is your water chemically treated?

- a. Yes
- b. No
- c. Don't know

46. What type of bathing facilities do you most often use?

ASK OPEN - ENDED. WRITE IN THE ANSWER AND CIRCLE ONE MOST APPROPRIATE CATEGORY

- a. Bath tub/ shower within your own home
- b. Bathing in the stream or river
- c. Bathing in the sea
- d. Bathing near the stand pipe using a bucket
- e. In a tub out side the home
- f. Other (specify) _____

OBSERVATION BY THE INTERVIEWER
WHAT TYPE OF TOILET FACILITIES DO THEY USE

INTERVIEWEE

- a. Flush toilet in your home
- b. Pit toilet
- c. No toilet facilities
- d. Other (specify) _____

PLEASE CHECK CAREFULLY TO MAKE SURE THAT ALL QUESTIONS HAVE BEEN ANSWERED AND THEN COMPLETE INFORMATION BELOW.

Thankyou for participating in this important survey.

NAME OF THE TARGET COMMUNITY _____
 INTERVIEWER NAME _____
 DATE COMPLETED _____

24 HOUR RECALL QUESTIONNAIRE

NOTE TO THE INTERVIEWER:

The objective of the 24 hour recall is to find out the exact food or drink eaten by the child or infant the day before the interview.

Do not categorize but rather ask further questions such as, "Did you have anything else to eat?" "Did you drink something?"

At the same time determine approximately how much was eaten, either by using cards or familiar utensils that would be used in the home. For example cup measure, or spoon size.

* In most cases the questions would be directed to the mother or the person looking after the child.

AGE OF THE CHILD _____

POSITION IN THE FAMILY _____

1. What did the child/infant have to eat or drink when they first woke up?

_____	_____
_____	_____

2. How much did they eat of each item.

_____	_____
-------	-------

3. Did you breast feed as well? YES NO

-- If YES. From which breast did you feed? _____

How long did you feed the child? _____

4. What did the child/ infant eat for breakfast? How much did they eat?

ITEM	QUANTITY	ITEM	QUANTITY
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. Did the child have any thing to drink? YES NO

What? _____ How much? _____

6. What was eaten during the morning?

_____	_____
-------	-------

7. What did they drink? What? _____ How much? _____

9. What did the child/ infant have to eat for lunch?

ITEM	QUANTITY	ITEM	QUANTITY
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

10. Did the child /infant have anything to drink?

What? _____ How much? _____

11. What was eaten during the afternoon? How much?

12. What did they drink? _____ How much? _____

13. What did they eat for the evening meal? How much?

ITEM	QUANTITY	ITEM	QUANTITY
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

14. Did they eat or drink anything before going to sleep?

FOR THOSE BREAST FEEDING

1. How often do you breast feed? During the day? _____
During the night? _____

2. What else do you give them to eat or drink? How much?

3. Does the child have problems breast feeding? YES NO
If YES, What problem? _____

4. Do they cry after feeding? YES NO
If so, Why do they cry? _____

SECTION 9 - FINANCE

Section 9

Finance

9.1 Finance System:

The system for financial management has been established to enable SAWS/I to have control and access to financial information at any stage of a program. The financial operational system is set up as follows:

1. The local field, organized as a SAWS/Local unit, prepares a budget presenting all the components of a particular project. The budget is prepared in the local currency and must be approved by the SAWS/Local unit. After this approval the budget is sent to the SAWS/Regional office for consideration and approval. When the regional office approves the budget, it is sent to SAWS/I for consideration and approval.
2. The budgets are divided into five sections:
 - A. **Project Support** includes all the administration of the program, such as salaries, office rent, telephone and other related charges, office expenses, etc.
 - B. **Training Materials** covers expenses relating to materials and training activities, for instance - film and/or slide projectors, design and printing of materials, etc.
 - C. **Educational expenses** are those related to activities authorized under specific projects intended to teach and train project staff and beneficiaries in the program. This section includes seminars, curriculum

development, etc., but only when the activity demands specific disbursement of money.

D. **Development project support** covers expense destined for the purchasing of equipment, the construction of minor buildings or facilities, the financial support for special projects under the main one, and the evaluation of the program. This section includes costs for activity supports for the core of the program.

E. **Transportation** section embraces the cost of transport and mobilization, the maintenance of vehicles used for the program, and for some countries, the purchasing of vehicles to be used in the program.

3. Once the budget is approved, SAWS/I sends forms to the field where the local administrators of the project must schedule all the drawdowns of money for their activities. These forms circulate through SAWS/Regional offices and serve also as a means of keeping records of the financial disbursements.
4. SAWS has its own system of accounting and auditing. This system follows generally accepted auditing practices. All the records, books and documents are kept in the SAWS/local office, and copies of monthly or quarterly balances are sent to SAWS/regional offices and SAWS/International.
5. SAWS has received an approval of a 2% overhead rate and we are using this rate for this financial report. This approved rate is not realistic. A new accounting system is being implemented which will reveal and substantiate the true overhead rate that will be used in the future.

6. The total AID allocation of funds for FY-82 was \$499,256, and FY-83 was 700,000, of which SAWS has requested and received \$757,256 through letter of credit 72-00-1189. SAWS will withdraw the rest of the money for FY-83 before the end of the second fiscal year.

9.2 Financial Status Report

Seventh-day Adventist World Service, Inc.
Statement of Support, Revenue and Expenses
Annual Matching Grant Financial Report
Period: October 1, 1982 - September 30, 1983

Public Support and Revenue

I Public Support

Contributions:

Individual	647 802
General Conference of SDA	600 000
Gift In Kind	<u>350 731</u>

Sub-Total Public Support 1 598 533

II Revenue

Investment Income
Miscellaneous

Sub Total Revenue

Total Public Support and Revenue 1 598 533

III Government Support

US Government

AID Matching Grant	763 558
AID OPG	453 707
AID/ASHA Grants	<u>1 411 555</u>

Total Government Support 2 628 820

TOTAL 4 227 353

PROGRAM	PRIVATE CONTRIBUTION	AID MGP	AID OPG'S	OTHER GOVT.	TOTAL
<u>BARBADOS</u>					
Project Support	13 092	13 093			26 185
Training Materials					
Ed. Expenses	1 000	1 000			2 000
Dev'ment Proj. Support	12 100	12 100			24 200
Transportation	<u>1 000</u>	<u>1 000</u>			<u>2 000</u>
Sub-Total Barbados	27 192	27 193			54 385
<u>BOLIVIA</u>					
Project Support	16 850	16 850			33 700
Training Materials	2 375	2 375			4 750
Ed. Expenses	2 000	2 000			4 000
Dev'ment Proj. Support	10 000	10 000			20 000
Transportation	<u>3 800</u>	<u>3 800</u>			<u>7 600</u>
Sub-Total Bolivia	35 225	35 025	170 000		240 050
<u>DOMINICA</u>					
Project Support	14 023	14 024			28 047
Training Materials	2 080	2 081			4 161
Ed. Expenses	2 495	2 495			4 990
Dev'ment Proj. Support	12 166	12 166			24 332
Transportation	<u>10 788</u>	<u>10 788</u>			<u>21 576</u>
Sub-Total Dominica	41 552	41 554			83 106
<u>GHANA</u>					
Project Support	28 485	28 485			56 970
Training Materials	1 567	1 568			3 135
Ed. Expenses	1 667	1 667			3 334
Dev'ment Proj. Support	13 167	13 167			26 334
Transportation	<u>2 933</u>	<u>2 934</u>			<u>5 867</u>
Sub-Total Ghana	47 819	47 821			95 640
<u>GUYANA</u>					
Project Support	20 405	20 405			40 810
Training Materials	500	500			1 000
Transportation	<u>4 300</u>	<u>4 300</u>			<u>8 600</u>
Sub-Total Guyana	25 205	25 205			50 410

PROGRAM	PRIVATE CONTRIBUTIONS	AID MGP	AID OPG'S	OTHER GOVT.	TOTAL
HAITI					
Project Support	44 210	44 210			88 420
Training Materials	8 750	8 750			17 500
Dev'ment Proj. Support					
Transportation	<u>4 300</u>	<u>4 300</u>			<u>8 600</u>
Sub-Total Haiti	57 260	57 260	258 707	214 474*	587 701
HONDURAS					
Project Support	33 600	33 600			67 200
Training Materials	400	400			800
Dev'ment Proj. Support	1 250	1 250			2 500
Transportation	<u>4 700</u>	<u>4 700</u>			<u>9 400</u>
Sub-Total Honduras	39 950	39 950			79 900
JAMAICA					
Project Support	23 471	23 472			46 943
Training Materials	1 485	1 486			2 971
Dev'ment Proj. Support	14 285	14 286			28 571
Transportation	<u>1 428</u>	<u>1 429</u>			<u>2 857</u>
Sub-Total Jamaica	40 669	40 673			81 342
KENYA					
Project Support	46 500	46 500			93 000
Training Materials	5 250	5 250			10 500
Ed. Expenses	3 000	3 000			6 000
Dev'ment Proj. Support	24 000	24 000			48 000
Transportation	<u>5 000</u>	<u>5 000</u>			<u>10 000</u>
Sub-Total Kenya	83 750	83 750			167 500
PHILIPPINES					
Project Support	33 248	33 249			66 497
Training Materials	11 960	11 960			23 920
Ed. Expenses	375	375			750
Dev'ment Proj. Support	31 658	31 658			63 316
Transportation	21 861	21 862			43 723
Inflation Factor	<u>5 150</u>	<u>5 150</u>			<u>10 300</u>
Sub-Total Philippines	104 252	104 252			208 506

* AID/ASHA Grants

PROGRAM	PRIVATE CONTRIBUTIONS	AID MGP	AID OPG'S	OTHER GVT.	TOTAL
<u>RWANDA</u>					
Project Support	21 275	21 275			42 550
Training Materials	4 400	4 400			8 800
Ed. Expenses	1 520	1 520			3 040
Transportation	<u>2 500</u>	<u>2 500</u>			<u>5 000</u>
Sub-Total Rwanda	29 695	29 695	25 000	41 925*	
<u>SRI LANKA</u>					
Project Support	4 663	4 663			9 326
Training Materials	1 390	1 390			2 780
Dev'ment Proj. Support	16 228	16 228			32 456
Transportation	<u>1 219</u>	<u>1 219</u>			<u>2 438</u>
Sub-Total Sri Lanka	23 500	23 500			47 000
<u>ST. LUCIA</u>					
Project Support	17 673	17 674			35 347
Training Materials	3 773	3 774			7 547
Ed. Expenses	2 044	2 044			4 088
Transportation	<u>3 177</u>	<u>3 178</u>			<u>6 355</u>
Sub-Total St. Lucia	26 667	26 670			53 337
<u>TANZANIA</u>					
Project Support	34 985	34 985			69 970
Training Materials	5 775	5 775			11 550
Educational Expenses	6 175	6 175			12 350
Dev'ment Proj. Support	32 100	32 100			64 200
Transportation	<u>1 013</u>	<u>1 013</u>			<u>2 026</u>
Sub-Total Tanzania	80 048	80 048		3 914*	164 010
<u>ZIMBABWE</u>					
Project Support	12 487	12 488			24 975
Training Materials	5 670	5 670			11 340
Ed. Expenses	10 935	10 935			21 870
Dev'ment Proj. Support	3 037	3 038			6 075
Transportation	<u>6 750</u>	<u>6 750</u>			<u>13 500</u>
Sub-Total Zimbabwe	38 879	38 881			77 760

*AID/ASHA Grants

PROGRAM	PRIVATE CONTRIBUTIONS	AID MGP	AID OPG'S	OTHER GVT.	TOTAL
<u>SUPPORTING SERVICES</u>					
<u>Shared Prog. Adm.</u>					
Salary	27 486	27 487			54 973
Travel	6 713	6 713			13 426
Eval. & System Mgmt.	26 662	26 662			53 324
Overhead: (2% of \$121,723)	<u>1 217</u>	<u>1 217</u>			<u>2 434</u>
Total Supporting Svc.	<u>62 078</u>	<u>62 079</u>			<u>124 157</u>
Total MGP Expenses	<u>763 541</u>	<u>763 558</u>	<u>453 707</u>	<u>260 313</u>	<u>2 241 119</u>
<u>OTHER ACTIVITIES</u>					
Program Services				1 151 242	1 151 242
<u>Supporting Services</u>					
Management & General	785 519				785 519
Fund Raising	<u>49 473</u>				<u>49 473</u>
Total Sup. Svc.	<u>834 992</u>				<u>834 992</u>
Total Other Act.	<u>834 992</u>		<u>1 151 242</u>		<u>1 986 234</u>
TOTAL SAWS PROGRAM	<u>1 598 533</u>	<u>763 558</u>	<u>453 707</u>	<u>1 411 555</u>	<u>4 227 353</u>

9.3 Projections:

The flow of funds has improved. The financial reporting from the project holders is slow due to mailing and other restrictions.

The FY-84 will be, in terms of financial management, no different than FY-83. Implementation on almost all projects is now on schedule. However, due to delays in beginning, some of the completion dates will be at different dates.

The three year program is scheduled to end October, 1984. We project a delay until May of 1985. We are requesting an extension of the program to that date, May 31, 1985.

9.4 Fund Raising:

During the reporting period SAWS/I has initiated a direct mail fund raising program which is enhancing SAWS matching capabilities for this and future grants. The percentage of the Matching Grant for SAWS/I has been guaranteed by the Board of Directors.

9.5 Project Financial Summaries

Projects specific information for USAID supported PVO projects follows:

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY BARBADOS

Project Purpose: (limit to 40 words or less)

Decrease the incidence of breast and cervical cancer among women through health education and screening interventions.

Project Implementation

Start Date: June 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Project implemented. Baseline survey conducted. Curriculum and infrastructure established
 Training commenced.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>27,543.</u>	AID\$ <u>24,900.</u>	AID\$ <u>27,712.</u>	AID\$ _____
PVO\$ <u>13,772.</u>	PVO\$ <u>12,450.</u>	PVO\$ <u>13,856.</u>	PVO\$ _____
INKIND <u>13,771.</u>	INKIND <u>12,450.</u>	INKIND <u>13,856.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>55,086.</u>	TOTAL <u>49,800.</u>	TOTAL <u>55,424.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Parishes of St. Michael and St. Peter.

PVO Representative in Country (if any)

(name) Mr. Roy Hoyte
 (address) SAWS/Barbados, Mango Lane, Speightstown, Barbados, West Indies
 (phone) (809) 42 28709

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/BARBADOS

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY DOMINICA

Project Purpose: (limit to 40 words or less)

Reduction of typhoid and dysenteric fevers among children 0 - 18 years in 2 target communities.

Project Implementation

Start Date: June 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Needs assessment completed. Contract signed with M.O.H. Training Officer on site and project implemented.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>37,122</u>	AID\$ <u>30,976</u>	AID\$ <u>31,895</u>	AID\$ <u> </u>
PVO\$ <u>18,561</u>	PVO\$ <u>15,488</u>	PVO\$ <u>15,948</u>	PVO\$ <u> </u>
INKIND <u>18,561</u>	INKIND <u>15,488</u>	INKIND <u>15,947</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>74,244</u>	TOTAL <u>61,952</u>	TOTAL <u>63,790</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

PVO Representative in Country (if any)

(name) Malcolm Court M.P.H.
 (address) % SAWS/Dominica, Ministry of Health, Rosseaux, Dominica, West Indies
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY GHANA 1 - Zangum

Project Purpose: (limit to 40 words or less)

Increased dryseason crop production of 40 rural farmers in Zangum, Ghana.

Project Implementation

Start Date: January 1983 Estimated Completion Date: May, 1985
 Status: (limit to 25 words or less)

Implemented training undertaken. Construction of irrigation systems underway.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>9,743.</u>	AID\$ <u>14,742.</u>	AID\$ <u>13,014.</u>	AID\$ <u> </u>
PVO\$ <u>4,872.</u>	PVO\$ <u>7,372.</u>	PVO\$ <u>6,508.</u>	PVO\$ <u> </u>
INKIND <u>4,871.</u>	INKIND <u>7,371.</u>	INKIND <u>5,507.</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>19,486.</u>	TOTAL <u>29,485.</u>	TOTAL <u>26,029.</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

Zangum - Northern Ghana

PVO Representative in Country (if any)

(name) M. Bediako M.P.H.
 (address) P.O. Box 1016, Accra, Ghana, West Africa
 (phone) Accra 23720

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/GHANA

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY GHANA II - Agona Kwanyako

Project Purpose: (limit to 40 words or less)

Increased dryseason crop production of rural farmers in Agona, Kwanyako villages, Central Ghana.

Project Implementation

Start Date: January 1983 Estimated Completion Date: May, 1985
 Status: (limit to 25 words or less)
 Staff on site - Project implemented. Slow implementation contributed by drought.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>14,168.</u>	AID\$ <u>14,166.</u>	AID\$ <u>14,165.</u>	AID\$ _____
PVO\$ <u>7,084.</u>	PVO\$ <u>7,083.</u>	PVO\$ <u>7,083.</u>	PVO\$ _____
INKIND <u>7,035.</u>	INKIND <u>7,083.</u>	INKIND <u>7,083.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>28,337.</u>	TOTAL <u>28,332.</u>	TOTAL <u>28,331.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Agona, Kwanyako - Central Ghana

PVO Representative in Country (if any)

(name) H. Bediako M.P.H.
 (address) P.O. Box 1016, Accra, Ghana
 (phone) Accra 23720

Local Counterpart/Host Country Agency (If no PVO representative)

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY GUYANA

Project Purpose: (limit to 40 words or less)

Reduction of undernutrition in young children and mothers in 10 rural communities.

Project Implementation

Start Date: March 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Baseline conducted village nutrition promoters trained. Promoters trained.
 Project functioning at village level.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>36,245.</u>	AID\$ <u>30,205.</u>	AID\$ <u>32,004.</u>	AID\$ _____
PVO\$ <u>18,122</u>	PVO\$ <u>15,103.</u>	PVO\$ <u>16,002.</u>	PVO\$ _____
INKIND <u>18,122.</u>	INKIND <u>15,102.</u>	INKIND <u>16,002.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>72,489.</u>	TOTAL <u>60,410.</u>	TOTAL <u>64,008.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Georgetown, Essequibo Districts, Guyana

PVO Representative in Country (if any)

(name) Winston Ennis
 (address) SAWS/Guyana, P.O. Box 78, Georgetown, Guyana
 (phone) 63313 / 67691

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Guyana

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY HAITI

Project Purpose: (limit to 40 words or less)

Decrease moderate to severe malnutrition among children aged 0 - 5 in 10 target communities.

Project Implementation

Start Date: October 1981 Estimated Completion Date: October 1984
 Status: (limit to 25 words or less)

Project Funding Information

<u>Year 1982</u>	<u>Year 1983</u>	<u>Year 1984</u>	<u>Year</u>
AID\$ <u>46,330.</u>	AID\$ <u>57,260.</u>	AID\$ <u>59,150.</u>	AID\$ _____
PVO\$ <u>23,165.</u>	PVO\$ <u>28,630.</u>	PVO\$ <u>29,575.</u>	PVO\$ _____
INKIND <u>23,165.</u>	INKIND <u>28,630.</u>	INKIND <u>29,575.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>92,660.</u>	TOTAL <u>114,520.</u>	TOTAL <u>118,300.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

10 Rural Districts scattered country-wide

PVO Representative in Country (if any)

(name) J. Fulfer
 (address) P.O. Box 1339, Diquini, Port-au-Prince, Haiti
 (phone) _____

Local Counterpart/Host Country Agency (If no PVO representative)

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY HONDURAS

Project Purpose: (limit to 40 words or less)

Improved health status of mothers and young children in eight rural communities.

Project Implementation

Start Date: _____ Estimated Completion Date: _____
 Status: (limit to 25 words or less)

Program implemented and functioning well.

Project Funding Information

Year <u>1982</u>	Year <u>1983</u>	Year <u>1984</u>	Year _____
AID\$ <u>36,200.</u>	AID\$ <u>39,950.</u>	AID\$ <u>46,087.</u>	AID\$ _____
PVO\$ <u>18,350.</u>	PVO\$ <u>19,975.</u>	PVO\$ <u>23,044.</u>	PVO\$ _____
INKIND <u>18,350</u>	INKIND <u>19,975.</u>	INKIND <u>23,044.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>72,900.</u>	TOTAL <u>79,900.</u>	TOTAL <u>92,174.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Valle de Angeles

PVO Representative in Country (if any)

(name) Tom David, M.P.H.
 (address) Valle de Angeles Hospital, Francisco Morazan, Honduras
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY JAMAICA

Project Purpose: (limit to 40 words or less)

Improved environmental health status of poor urban community through urban rehabilitation and health service delivery.

Project Implementation

Start Date: January 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Project implemented. Urban renewal in progress; health care delivery system underway.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>36,286</u>	AID\$ <u>40,671</u>	AID\$ <u>37,857</u>	AID\$ _____
PVOS\$ <u>18,143</u>	PVOS\$ <u>20,336</u>	PVOS\$ <u>18,929</u>	PVOS\$ _____
INKIND <u>18,143</u>	INKIND <u>20,335</u>	INKIND <u>18,928</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>72,572</u>	TOTAL <u>81,342</u>	TOTAL <u>75,714</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Kingston - Trenchtown , Jamaica

PVO Representative in Country (if any)

(name) H. Campbell, SAWS Director
 (address) P.O. Box 22, Mandeville, Jamaica, West Indies
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Jamaica

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY KENYA

Project Purpose: (limit to 40 words or less)

Increased income through poultry husbandry for subsistence farmers.

Project Implementation

Start Date: June 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>14,000.</u>	AID\$ <u>17,000.</u>	AID\$ <u>19,000.</u>	AID\$ <u> </u>
PVO\$ <u>7,000.</u>	PVO\$ <u>8,500.</u>	PVO\$ <u>9,500.</u>	PVO\$ <u> </u>
INKIND <u>7,000.</u>	INKIND <u>8,500.</u>	INKIND <u>9,500.</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>28,000.</u>	TOTAL <u>34,000.</u>	TOTAL <u>38,000.</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

Baraton, Nandi District

PVO Representative in Country (if any)

(name) Lee Davis
 (address) P.O. Box 2500, Eldoret Kenya
 (phone) Kapsabet 10

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Kenya
 Solomon Wolde-Endreas, Director
 East Africa Division
 P.O. Box 14756, Nairobi, Kenya, East Africa

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY KENYA

Project Purpose: (limit to 40 words or less)

Reduce malnutrition in young children among rural families of Nandi District.

Project Implementation

Start Date: October 1982 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Community health promoters trained and active in the field. At risk children identified and undergoing growth monitoring.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>7,500.</u>	AID\$ <u>8,500.</u>	AID\$ <u>9,000.</u>	AID\$ _____
PVO\$ <u>3,750.</u>	PVO\$ <u>4,250.</u>	PVO\$ <u>4,500.</u>	PVO\$ _____
INKIND <u>3,750.</u>	INKIND <u>4,250.</u>	INKIND <u>4,500.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>15,000.</u>	TOTAL <u>17,000.</u>	TOTAL <u>18,000.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Baraton Nandi District

PVO Representative in Country (if any)

(name) Sarah Jackson, M.P.H.
 (address) P.O. Box 2500, Eldoret, Kenya
 (phone) Kapsabet, 10

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Kenya

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
Project/Grant No. PDC-0228-G-SS-1160-00
Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
Funding Mechanism MG
(i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY KENYA

Project Purpose: (limit to 40 words or less)

Project #1. Increased nutritional health status of families in Nandi District through dryweather agricultural production.

Project Implementation

Start Date: October 1982 **Estimated Completion Date:** May 1985
Status: (limit to 25 words or less)

Agricultural extension trainers trained and active in community. Project well implemented farmers utilizing new technology.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>14,000.</u>	AID\$ <u>17,000.</u>	AID\$ <u>19,000.</u>	AID\$ _____
PVO\$ <u>7,000.</u>	PVO\$ <u>8,500.</u>	PVO\$ <u>9,500.</u>	PVO\$ _____
INKIND <u>7,000.</u>	INKIND <u>8,500.</u>	INKIND <u>9,500.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>28,000.</u>	TOTAL <u>34,000.</u>	TOTAL <u>38,000.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Baraton - Kapsabet District, Nandi

PVO Representative in Country (if any)

(name) Jon Green, M.P.H.

(address) P.O. Box 2500, Eldoret, Kenya, East Africa

(phone) Kapsabet 10

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Kenya

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTH DAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY PHILIPPINES - PUC

Project Purpose: (limit to 40 words or less)

Improved health status of mothers and children in 3 target communities in Siland District.

Project Implementation

Start Date: December 1982 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)
 Program implemented. Health education/improvement interventions proceeding according to plan.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>30,500.</u>	AID\$ <u>17,500.</u>	AID\$ <u>17,000.</u>	AID\$ _____
PVO\$ <u>15,250.</u>	PVO\$ <u>8,750.</u>	PVO\$ <u>8,500.</u>	PVO\$ _____
INKIND <u>5,250.</u>	INKIND <u>8,750.</u>	INKIND <u>8,500.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>61,000.</u>	TOTAL <u>35,000.</u>	TOTAL <u>34,000.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Casile, Carmen, Hugo Tartara, Luzon

PVO Representative in Country (if any)

(name) D.C. Van Ornam
 (address) P.O. Box 401, Manila, Philippines 2800
 (phone) 59-23-74

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Philippines

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY PHILIPPINES - C.P.A.C.

Project Purpose: (limit to 40 words or less)

Reduce the incidence of TBC among families of the Barangay - Alegria, Murcia, Negross Occidental.

Project Implementation

Start Date: August 1983 Estimated Completion Date: May 1985

Status: (limit to 25 words or less)

Slow implementation due to project redesign and government approvals. Project now implemented.

Project Funding Information

<u>Year 1984</u>	<u>Year 1985</u>	<u>Year _____</u>	<u>Year _____</u>
AIDS\$ <u>18,000.</u>	AIDS\$ <u>22,000.</u>	AIDS\$ _____	AIDS\$ _____
PVO\$ <u>9,000.</u>	PVO\$ <u>11,000.</u>	PVO\$ _____	PVO\$ _____
INKIND <u>9,000.</u>	INKIND <u>11,000.</u>	INKIND _____	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>36,000.</u>	TOTAL <u>44,000.</u>	TOTAL _____	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Algeria Murcia Negros Occidental

PVO Representative in Country (if any)

(name) Mike Ryan, Director

(address) Central Philippine Union College, P.O. Box 420, Bacolod City 6001,

(phone) 2-57-11

Philippines

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Philippines

P.O. Box 401

Manila, Philippines 2800

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
Project/Grant No. PDC-0228-G-SS-1160-00
Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
Funding Mechanism MG
(i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY PHILIPPINES - Tawi Tawi

Project Purpose: (limit to 40 words or less)

Reduction of waterborne gastroenteritic disease among the island population of Cagayan de Tawi-Tawi through provision of potable water supply.

Project Implementation

Start Date: September 1983 Estimated Completion Date: May 1985
Status: (limit to 25 words or less)

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>20,000.</u>	AID\$ <u>22,666.</u>	AID\$ <u>25,334.</u>	AID\$ _____
PVO\$ <u>10,000.</u>	PVO\$ <u>11,333.</u>	PVO\$ <u>12,667.</u>	PVO\$ _____
INKIND <u>10,000.</u>	INKIND <u>11,332.</u>	INKIND <u>12,667.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>40,000.</u>	TOTAL <u>45,332.</u>	TOTAL <u>50,668.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Cagayan De Tawi Tawi

PVO Representative in Country (if any)

(name) Don Christenson, Director

(address) Mt. View College, College Heights, Malaybalay, Bukidnon, Philippines

(phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Philippines Foundation

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY PHILIPPINES - MVC

Project Purpose: (limit to 40 words or less)

Integrated, Barrio Development Project. Establishment of a model barrio with extension education to surrounding villages.

Project Implementation

Start Date: August 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)
 Slow implementation - Project now underway.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>17,110.</u>	AID\$ <u>13,350.</u>	AID\$ <u>12,040.</u>	AID\$ _____
PVO\$ <u>8,555.</u>	PVO\$ <u>6,675.</u>	PVO\$ <u>6,020.</u>	PVO\$ _____
INKIND <u>8,555.</u>	INKIND <u>6,675.</u>	INKIND <u>6,020.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>34,220.</u>	TOTAL <u>26,700.</u>	TOTAL <u>24,080.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Bulalang, Bukidnon

PVO Representative in Country (if any)

(name) Don Christensen, Director

(address) Mt. View College, College Heights, Malaybalay, Bukidnon, Mindanao

(phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/PHILIPPINE FOUNDATION

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY PHILIPPINES

Project Purpose: (limit to 40 words or less)

Improved nutritional health status of 450 farming families.

Project Implementation

Start Date: August 1983 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Slow implementation due to program design, lateness of training program.
 Project implemented in community.

Project Funding Information

<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>	<u>Year</u>
AID\$ <u>16,613.</u>	AID\$ <u>10,887.</u>	AID\$ _____	AID\$ _____
PVO\$ <u>8,307.</u>	PVO\$ <u>5,444.</u>	PVO\$ _____	PVO\$ _____
INKIND <u>8,306.</u>	INKIND <u>5,443.</u>	INKIND _____	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>33,226.</u>	TOTAL <u>21,774.</u>	TOTAL _____	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Province of Bukidnon - Mindanao

PVO Representative in Country (if any)

(name) Don Christensen

(address) Mt. View College, College Heights and Malaybalay, Bukidnon, Philippines

(phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS PHILIPPINE FOUNDATION/MOUNTAIN VIEW COLLEGE FOUNDATION

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY RWANDA

Project Purpose: (limit to 40 words or less)

A CHW Training Project conducted in 7 target areas of rural Rwanda. Will improve nutrition health status of mothers and children.

Project Implementation

Start Date: March 83 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

16 CHWS trained currently working in target communities. Further twelve will be trained by January 1984. Project moving toward achievement of outputs.

Project Funding Information

<u>Year 1983</u>	<u>Year 1984</u>	<u>Year 1985</u>	<u>Year</u>
AID\$ <u>35,980</u>	AID\$ <u>29,695</u>	AID\$ <u>38,876.50</u>	AID\$ _____
PVO\$ <u>17,990</u>	PVO\$ <u>14,847.50</u>	PVO\$ <u>19,438.25</u>	PVO\$ _____
INKIND <u>17,990</u>	INKIND <u>14,847.50</u>	INKIND <u>19,438.25</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>71,960</u>	TOTAL <u>59,390</u>	TOTAL <u>77,753</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Mugonero, Prefecture Kibuye, Gitwe, Prefecture of Gitararna
Rwankeri, Prefecture of Ruhengeri

PVO Representative in Country (if any)

(name) Dr. Barry Wecker, Director
 (address) SAWS Project, B.P. 2, Kigali, Rwanda
 (phone) _____

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Rwanda

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY SRI LANKA

Project Purpose: (limit to 40 words or less)

Reduce the incidence of Sanitary related disease in Nuwarawella Village.

Project Implementation

Start Date: Jan. 82 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Implemented . Latrines under construction, health training being given. Outputs being achieved.

Project Funding Information

<u>Year</u>	<u>Year</u>	<u>Year</u>	<u>Year</u>
<u>1983</u>	<u>1984</u>	<u>1985</u>	<u> </u>
AID\$ <u>4325</u>	AID\$ <u>6907.50</u>	AID\$ <u>5577.50</u>	AID\$ <u> </u>
PVOS\$ <u>2162.75</u>	PVOS\$ <u>3453.75</u>	PVOS\$ <u>2788.75</u>	PVOS\$ <u> </u>
INKIND <u>2162.75</u>	INKIND <u>3453.75</u>	INKIND <u>2788.75</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>8651.</u>	TOTAL <u>13,815.</u>	TOTAL <u>11,155.</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

Nuwarawella Kandi District

PVO Representative in Country (if any)

(name) Dr. Fernando, MPH, Director
 (address) Lakeside Adventist Hospital, 40 Victoria Drive, Kandy, Sri Lanka
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Sri Lanka

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981 - SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY SRI LANKA

Project Purpose: (limit to 40 words or less)

Reduce the incidence of waterborne dysenteric disease in villa-e of Mailapitya.

Project Implementation

Start Date: Jan 1982 Estimated Completion Date: December 84
 Status: (limit to 25 words or less)

Project Implemented. Potable water supply systems completed, and sanitary latrines under construction.

Project Funding Information

<u>Year</u> <u>1982</u>	<u>Year</u> <u>1983</u>	<u>Year</u> <u>1984</u>	<u>Year</u> _____
AID\$ <u>9733</u>	AID\$ <u>16 592.50</u>	AID\$ <u>6964.50</u>	AID\$ _____
PVO\$ <u>4869.</u>	PVO\$ <u>8296.25</u>	PVO\$ <u>3482.25</u>	PVO\$ _____
INKIND <u>4869</u>	INKIND <u>8296.25</u>	INKIND <u>3482.25</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>19 476.</u>	TOTAL <u>33 185</u>	TOTAL <u>13 929</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Mailapitiya - Kandi District

PVO Representative in Country (if any)

(name) Mr. Joseph, Director, SAWS Project
 (address) Lakpahana Adventist Seminary, Mailapitiya Sri Lanka
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Sri Lanka
 Director
 P.O. Box 1253
 Colombo, Sri Lanka

***Complete separate sheet for each project/activity in a country**

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY ST LUCIA

Project Purpose: (limit to 40 words or less)

Reduction of undernutrition of young children in 11 high risk communities of St Lucia through CHA training and village extension.

Project Implementation

Start Date: June 82 Estimated Completion Date: May 1985

Status: (limit to 25 words or less)

Project Implemented Phase I completed, Phase II in process. Midterm evaluation conductions, outputs being achieved.

Project Funding Information

<u>Year 1982</u>	<u>Year 1983</u>	<u>Year 1984</u>	<u>Year</u>
AID\$ <u>30 619</u>	AID\$ <u>26 668.50</u>	AID\$ <u>27 264.50</u>	AID\$ _____
PVO\$ <u>15 309.50</u>	PVO\$ <u>13 334.25</u>	PVO\$ <u>13 632.25</u>	PVO\$ _____
INKIND <u>5 309.50</u>	INKIND <u>13 334.25</u>	INKIND <u>13 632.25</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>61 238</u>	TOTAL <u>53 337</u>	TOTAL <u>54 529</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

PVO Representative in Country (if any)

(name) Vivette Payne , Director SAWS Project
 (address) % Ministry of Health, Castries, St. Lucia, West Indies
 (phone) (809) 4522611

Local Counterpart/Host Country Agency (If no PVO representative)

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, CPG, Contract, CA, Etc.)

COUNTRY TANZANIA

Project Purpose: (limit to 40 words or less)

To increase income generation of 800 rural families in rural Tanzania through increased dryweather crop production.

Project Implementation

Start Date: Oct. 82 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Irrigation ditch rehabilitation underway. Training officers undergoing Ag. Extension Training. Outputs being achieved.

Project Funding Information

<u>Year 1982</u>	<u>Year 1983</u>	<u>Year 1984</u>	<u>Year</u>
AIDS\$ <u>34,238.30</u>	AIDS\$ <u>12,850</u>	AIDS\$ <u>11,800</u>	AIDS\$ <u> </u>
PVO\$ <u>17,119.15</u>	PVO\$ <u>6,425</u>	PVO\$ <u>5,900</u>	PVO\$ <u> </u>
INKIND <u>17,119.15</u>	INKIND <u>6,425</u>	INKIND <u>5,900</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>68,476.60</u>	TOTAL <u>25,700</u>	TOTAL <u>23,600.</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

Parane - Pare Mountains - Same District

PVO Representative in Country (if any)

(name) N. Bunker, Director
 (address) PO Box 2011, Arusha, Tanzania, East Africa
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Tanzania

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY TANZANIA

Project Purpose: (limit to 40 words or less)

Improved health status of mothers and children in 29 rural communities of Tanzania.

Project Implementation

Start Date: October 82 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

Baseline conducted - staff in place, CHW's trained implementing training in villages. Evaluated by USAID/MSH/SAWS International.

Project Funding Information

<u>Year 1982</u>	<u>Year 1983</u>	<u>Year 1984</u>	<u>Year</u>
AIDS\$ <u>47 822.50</u>	AIDS\$ <u>41 837.50</u>	AIDS\$ <u>47 015.</u>	AIDS\$ <u> </u>
PVO\$ <u>23 911.25</u>	PVO\$ <u>20 918.75</u>	PVO\$ <u>23 507.50</u>	PVO\$ <u> </u>
INKIND <u>23 911.25</u>	INKIND <u>20 918.75</u>	INKIND <u>23 507.50</u>	INKIND <u> </u>
LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>	LOCAL <u> </u>
TOTAL <u>95 645</u>	TOTAL <u>83 675</u>	TOTAL <u>94 030</u>	TOTAL <u> </u>

Location in Country (Region, District, Village - Be Specific)

Ikizu - Paren

PVO Representative in Country (if any)

(name) Dr. G. Chamba MBBS
 (address) Box 2011, Arusha, Tanzania
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Tanzania

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY ZIMBABWE

Project Purpose: (limit to 40 words or less)

Improved health status of mothers and children in 5 target communities through delivery of integrated P.H.C. delivery system and V.H.W.'s extension program.

Project Implementation

Start Date: December 1982 Estimated Completion Date: May 1985
 Status: (limit to 25 words or less)

VHW's trained. Integration PHC service being delivered to communities. Outputs being achieved.

Project Funding Information

<u>Year</u> <u>1983</u>	<u>Year</u> <u>1984</u>	<u>Year</u> <u>1985</u>	<u>Year</u> _____
AID\$ <u>24,000</u>	AID\$ <u>10,000</u>	AID\$ <u>10,000</u>	AID\$ _____
PVO\$ <u>12,000</u>	PVO\$ <u>5,000</u>	PVO\$ <u>5,000</u>	PVO\$ _____
INKIND <u>12,000</u>	INKIND <u>5,000</u>	INKIND <u>5,000</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>48,000</u>	TOTAL <u>20,000</u>	TOTAL <u>20,000</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Countrywide. 5 Locales

PVO Representative in Country (if any)

(name) Paul Gibblett, Director
 (address) SAWS, P.O. Box H.G. 100, Highlands, Harare, Zimbabwe, Africa
 (phone)

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Zimbabwe

*Complete separate sheet for each project/activity in a country

**COUNTRY INFORMATION FOR
AID-SUPPORTED PVO PROJECTS**

Organization: SEVENTHDAY ADVENTIST WORLD SERVICE
 Project/Grant No. PDC-0228-G-SS-1160-00
 Grant Dates OCTOBER 1 1981- SEPTEMBER 30 1984
 Funding Mechanism MG
 (i.e., MG, OPG, Contract, CA, Etc.)

COUNTRY ZIMBABWE

Project Purpose: (limit to 40 words or less)

Increase income generation of farmers through dry weather crop production.

Project Implementation

Start Date: December 1981 Estimated Completion Date: December 1984
 Status: (limit to 25 words or less)

Project has achieved expected outputs and a measure of impact.

Project Funding Information

<u>Year 1982</u>	<u>Year 1983</u>	<u>Year 1984</u>	<u>Year</u>
AID\$ <u>25,000.</u>	AID\$ <u>25,500.</u>	AID\$ <u>23,655.</u>	AID\$ _____
PVO\$ <u>12,500.</u>	PVO\$ <u>11,250.</u>	PVO\$ <u>11,828.</u>	PVO\$ _____
INKIND <u>12,500.</u>	INKIND <u>11,250.</u>	INKIND <u>11,827.</u>	INKIND _____
LOCAL _____	LOCAL _____	LOCAL _____	LOCAL _____
TOTAL <u>50,000.</u>	TOTAL <u>45,000.</u>	TOTAL <u>23,655.</u>	TOTAL _____

Location in Country (Region, District, Village - Be Specific)

Solusi. Bulawayo District

PVO Representative in Country (if any)

(name) Jim Rankin, Project Director

(address) Solusi College, Private Bag T-5399, Bulawayo, Zimbabwe, Africa

(phone) Figtree 0-1723

Local Counterpart/Host Country Agency (If no PVO representative)

SAWS/Zimbabwe

*Complete separate sheet for each project/activity in a country

SECTION 10 - CONCLUSION AND RECOMMENDATIONS

10.1 Conclusions:

As a result of two years activities in this Matching Grant Program, SAWS/I has come to the following conclusions:

1. That the intent of the original Matching Grant in utilizing existing third world institutions as a springboard for conducting development programs is being substantively realized albeit in fewer institutions than first projected. The basic premise continues to be a good model and deserves replication.
2. That an unstated, but clearly emerging output of the Matching Grant is the impact it is having in assisting SAWS/I to make the transition to mature, development planning, implementation and management methodologies. There is much greater awareness of the issues surrounding the whole development process and a significantly enhanced commitment to its requirements than hitherto.
3. That adequate and timely management at all levels are essential to project viability and the effectiveness of the same becomes greater the nearer they are taken to the implementation sites.
4. That continued training and technical assistance are time consuming but essential prerequisites to developing developmental programming capabilities among field staff. They must be given maximum priority if changes of ideas and program advances are to be made.

5. That there are many lessons to be learned through experience and association with other agencies but the lessons can only be applied as they are adapted and made to fit within existing organizational constraints and policies.
6. That a three year project timetable may be sufficient to achieve some health impact changes under certain favorable conditions but where any measure of significant human health behavior change is anticipated such a period is totally inadequate.
7. That evaluation properly understood and applied can be an important tool for improving management and decision making processes as well as testing existing capabilities and achievements.

10.2 Recommendations to SAWS/I Headquarters:

1. That the reorganized regional management structure make renewed efforts to facilitate the stabilization and growth of all Matching Grant projects in their areas with particular emphasis upon the following.
 - a. Clarifying linkages between actual project activities and specified design requirements.
 - b. Increasing the reporting-monitoring response effectiveness between projects and headquarters.
 - c. Establishing achievable training objectives and technical assistance protocols for field project staff in collaboration with SAWS/I training officer.
 - d. Ensuring projects obtain and maintain adequate staffing levels to achieve projected outputs.

2. That every member of the SAWS/I program staff become actively involved in and committed to ongoing in-service training and skill development for their own professional enrichment.
3. That the organizational commitment to decentralization of planning and management activities continue but not without ongoing reference to minimum staffing requirements at headquarters.
4. That a renewed thrust in training and follow-up be given to field staff and that SAWS/I training officer endeavor to create an effective training capability among the program staff in order to increase the organizational training capacity overseas.
5. That the new organization ADRA International (SAWS) expedite the development of its cost accounting system to enable a more realistic overhead rate to be established. Cost assignment of headquarters support expenses should be made to each project.
6. That an extension of project "run" time be made until May 31st, 1985, and that initial studies for a renewed Matching Grant to commence in FY-85 should proceed forthwith.

10.3 Recommendations to USAID:

1. That USAID recognize that beyond the achievement of contractual outputs and purpose is the equally valid objective of enabling and facilitating a P.V.O. to make the transition from relief to development programming capability. This is a slow and laborious process but eminently worthwhile if viewed in the long term

2. That USAID give serious consideration to increasing the funding period to a minimum of five years for all projects where change in human behavior is expected and that within that time frame a significant period of time be allotted for project revision, design refinement, baseline data collection, and staff recruitment prior to implementation.

3. That USAID encourage and assist PVO's in designing and implementing their O.D. structures as part of the overall Matching Grant process.

4. That USAID's commitment to the evaluation process continue to give increasing emphasis to the "process" rather than "impact" evaluation and that greater attention be given to facilitating a cross fertilization between technical resource people in various PVO's for evaluation purposes.

SECTION 11 - APPENDICES

APPENDIX (A) - PTA Consulting Services Letter - Zimbabwe

PTA CONSULTING SERVICES

OPERATES IN EUROPE

15, ... AVENUE,
PO BOX UA 582
HARARE
ZIMBABWE

TELEPHONE 708292
- TELEGRAPHIC ADDRESS 'CONSULTPTA'
HARARE, ZIMBABWE
TELEX 2-254 ZW

10th June, 1983.

Mr. Jim Rankin,
SPWS Scientific Garden,
Solusi College,
Private Bag T 5300,
Bulawayo.

Dear Mr. Rankin,

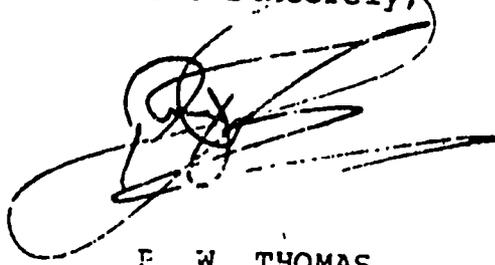
Following our visit to-day in the company of Mr. Ken Middleider and Mr. John Wilkins, Dr. Purves and I would like to express our admiration of your farm projects. We were particularly impressed with the vegetable production unit. As you may be aware, our Company is currently tasked with the development of the communal areas over a quarter of the country.

In reviewing our development proposals, we believed small-scale vegetable production had a fundamental part to play. It was therefore not only topical but of great interest to us to observe the College's programme in this field. There is little doubt in our minds that if similar operations could be duplicated in other parts of Zimbabwe, a major improvement could be effected in the communal areas of the country and in the standard of living of its people.

If you have no objection, we shall use Solusi as an example in our recommendations to Government.

Thanking you for a most interesting visit.

Yours sincerely,



F. W. THOMAS
DIRECTOR

cc: Mr. Ken Middleider,
President of the General Conference of 7th Day Adventists
Trans-Africa Division

APPENDIX (B) - Baseline Report - Sri Lanka

SAWS MATCHING GRANT PROJECT

**First
BASELINE REPORT**

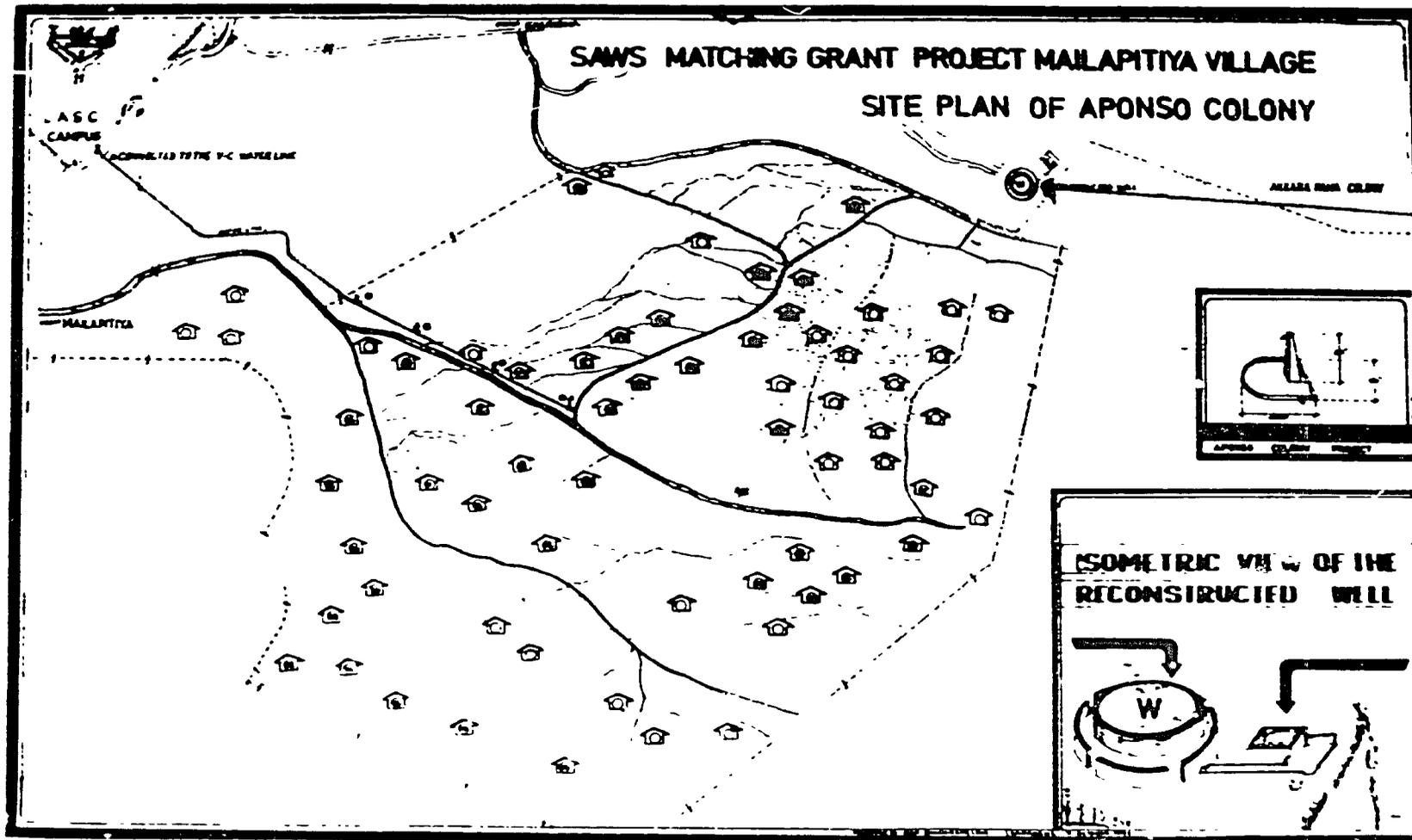
Use of Water

**at Aponso Colony
and
Akkara Paha**

**Mailapitiya Village Water/ Sanitation Project
SAWS SA SLK 004**

December 1982

204



Reconstructed Well

Plan of Aponso Colony Site B

Original Plan: 40 x 25 inches

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INTRODUCTION TO BASELINE REPORT

The first Baseline Report was taken on Thursday, December 30, 1982. The Sample survey sheet was taken as basis for preparing this report..

The Survey included:

- a. The number of people coming to the well from
 - Aponso Colony
 - Akkara Pahato collect water.
- b. The amount of water the people are transporting to their homes (mostly in 4 or 5 gallon clay, alluminium or brass pots).
- c. The frequency (number of times) they come to the well.
- d. During what time of the day do most people come to collect water.
- e. For what purpose is the water collected.
- f. Who is responsible for collecting the water.

This survey sheet was used for water taken from the "big" (drinking) well. A seperate record was taken on the water used on the "small" (bathing) well.

The time spent at the site was from 5:30 am to 7 pm (Sunrise/Sunset is 6:15 am/ 6:15 pm). Survey could have continued until 9 pm since often men come after field and housework to take a bath.

One person was responsible for taking the survey but was always assisted by one other person. People were informed of the nature of the survey and were very co-operative in supplying the necessary informations.

Wk

The results should be helpfull for future health education work.

- * Girls (60%) are mainly responsible for collecting the water from the drinking well. Since only individual (own) buckets are used in collecting the water out of the well it would be very important to teach those girls the importance of cleanliness of those buckets.
- * Since Aponso Colony is the larger of the two sites it is natural that more people are coming from that site (see Table 3) although they have a longer distance of walking.
Nearly 2000 gallons are carried to Aponso Colony (see Table 3) and are mainly used in the mornings between 6-9 am (Figure 3) and in the evening between 3-5 pm. Future pipeline water should supply at those timings to Aponso Colony. It would not only supply cleaner water but would reduce the distance for people to carry the water (Figure 4).
- * Since 75% of the water consumption at the well site comes from the Bathing/Washing Well (see Table 3) for Bathing and Washing mainly this well should be maintained properly.
- * It would be helpfull to survey the site again after the constructed pipeline will be in use to see how the consumption has shifted to pipe water and the dependance on well water has been reduced.

W

TABLE 1 : Number of people collecting water

Place	Number of People Collecting Water				
Aponso Colony	273	Mothers	Daughters	Sons	Others
Akkara Paha	160				
TOTAL	433	33.5 %	60 %	5.5 %	1 %

TABLE 2 : Frequency of Collecting water

Place	Number of People Collecting Water													
Aponso Colony	273													
Akkara Paha	160	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL No.	433	144	64	57	41	37	24	28	16	8	10	2	2	
TOTAL %	100	33	15	13	9.5	8.5	5.5	6.5	3.5	2	2.5	0.5	0.5	

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TABLE 3 : Use of Water at Aponso Colony and Akkara Paha

	Frequency of Collecting water by Number of People	Drinking	Bathing/Washing	TOTAL	Aponso Colony	Akkara Paha	
"Big" Well (Drinking)	433	2094 gal.	703 gal.	2797 gal. (25%)	273 (63%)	160 (37%)	Number of people using well
					1390 * (50%) 468 " (17%)	704 * (25%) 235 " (8%)	Number of gallons being used
"Small" Well (Bathing/Washing)	149	- o -	8,559 gal.	8,559 gal. (75%)	86 (58%)	63 (42%)	Number of people using well
					not determined by villages		Number of gallons being used
		2,094 gal. (18.5%)	9,262 gal. (81.5%)		* Drinking " Bathing/ Washing		
TOTAL				11,356 gal.			

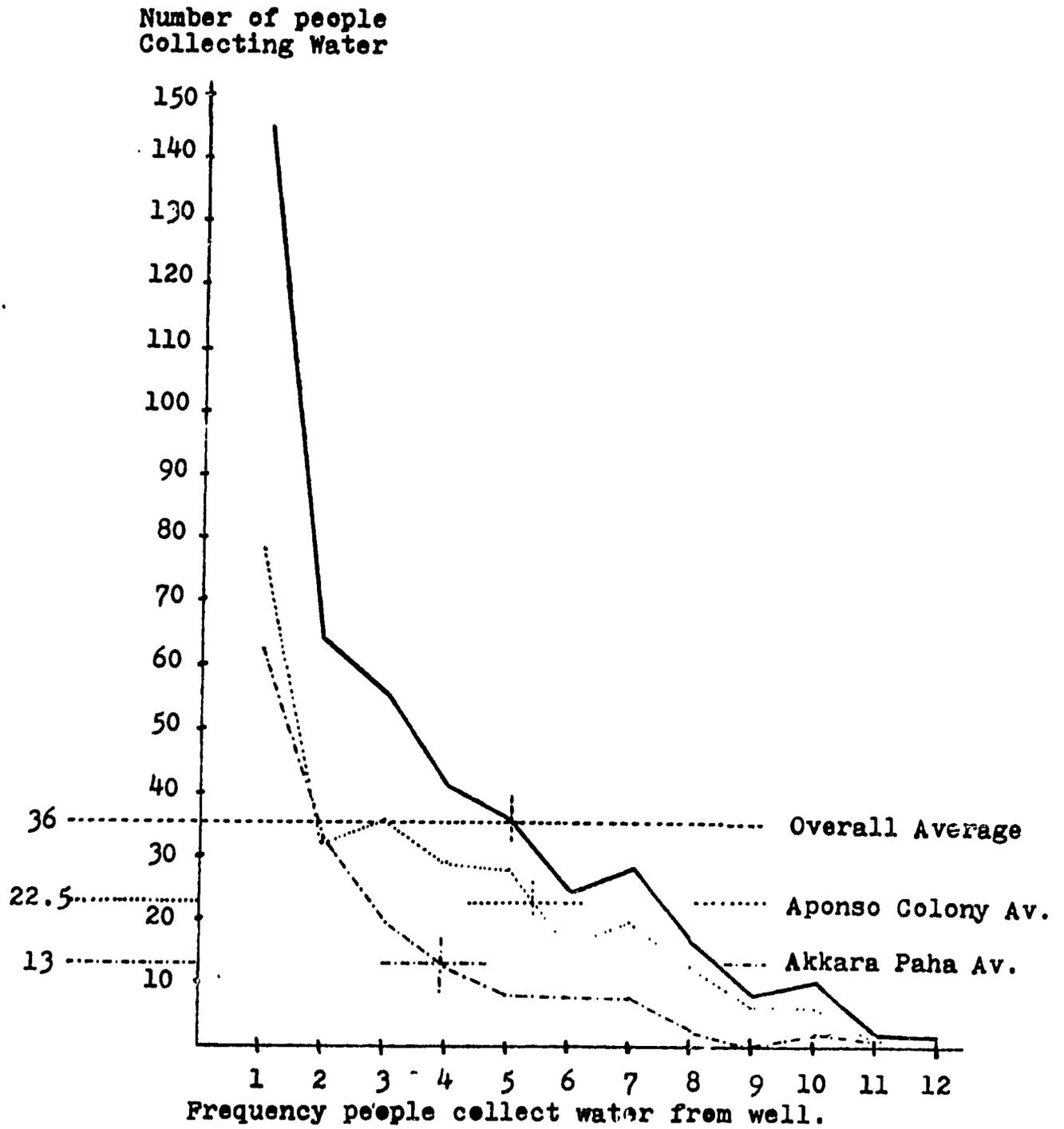
20

TABLE 4 : Use of Water
 Amount of water used during period of survey
 according to village site
 and
 according to people collecting and carrying water

Time	Aponso Colony	Akkara Paha	Sub Total	TOTAL		People carry water	
				gal.	%	No.	%
am 5:30	26/29	11/ 0	37/ 29	66	2.4	8	1.8
6:00	147/ 69	56/ 40	203/109	312	11.3	41	9.5
7:00	50/ 26	92/ 20	142/ 46	188	6.8	27	6.2
8:00	84/ 39	127/ 42	211/ 81	292	10.6	42	9.7
9:00	55/ 17	50/ 29	105/ 46	151	5.5	30	7.0
10:00	66/ 57	37/ 25	103/ 82	185	6.7	25	5.7
11:00	76/ 24	27/ 14	103/ 38	141	5.1	24	5.5
12:00	116/ 43	33/ 7	149/ 50	199	7.2	32	7.4
pm 1:00	66/ 19	17/ 8	83/ 27	110	4.0	19	4.5
2:00	61/ 19	25/ 9	86/ 28	114	4.1	17	4.0
3:00	175/ 45	73/ 19	248/ 64	312	11.3	48	11.0
4:00	178/ 38	81/ 16	259/ 54	313	11.4	52	12.0
5:00	71/ 12	30/ 6	101/ 18	119	4.3	26	6.0
6:00	162/ 55	66/ 14	228/ 69	297	10.8	50	11.5
7:00							
TOTAL	1390/468 *	704/235	2094/703	2797	100	433	100

390/468 represents: Drinking(Cooking)/ Bathing (Washing).

FIGURE 1 : Frequency of Collecting Water



2797
gal

2094
gal

703
gal

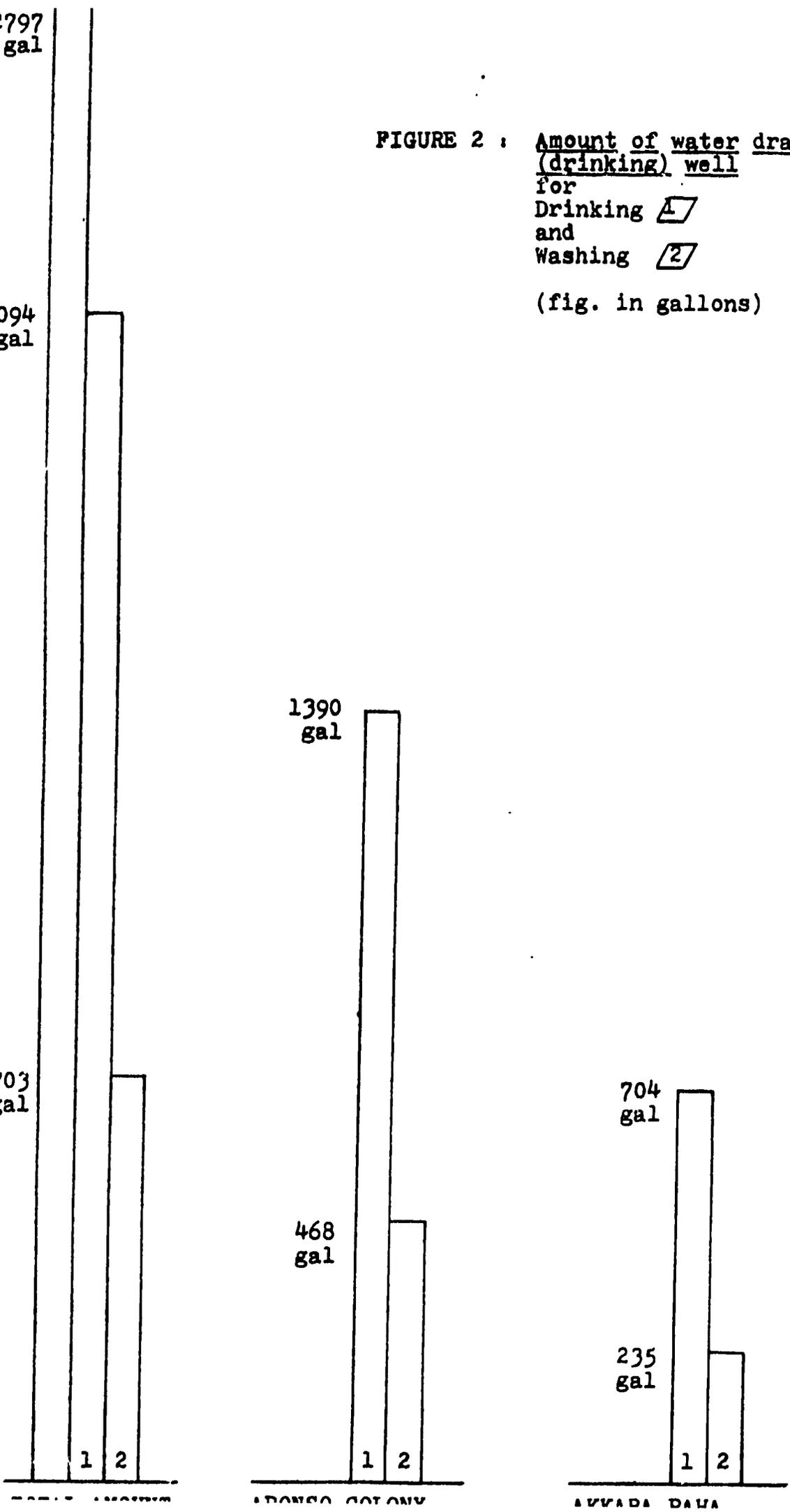
1390
gal

468
gal

704
gal

235
gal

FIGURE 2 : Amount of water drawn from "big"
(drinking) well
for
Drinking 
and
Washing 
(fig. in gallons)



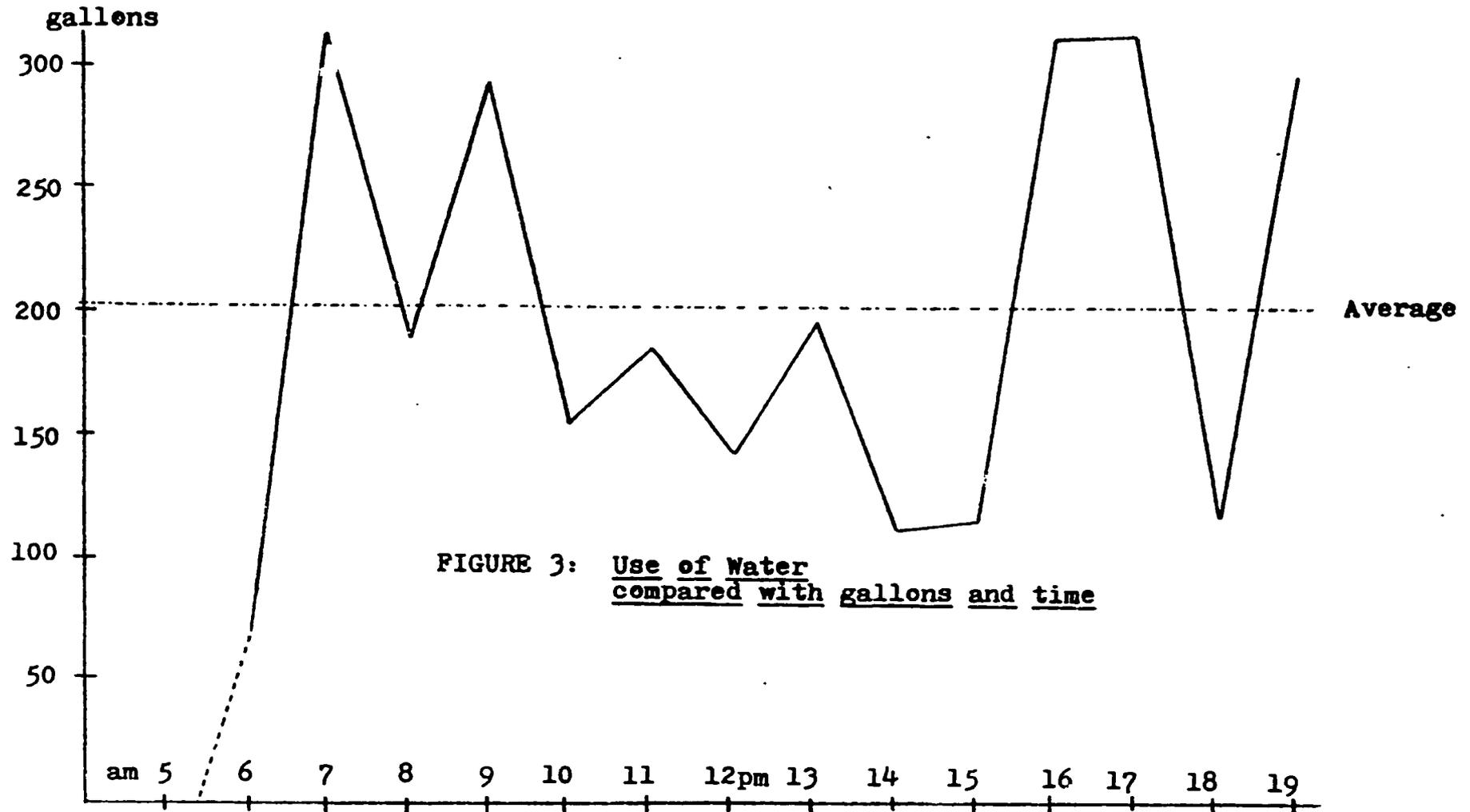
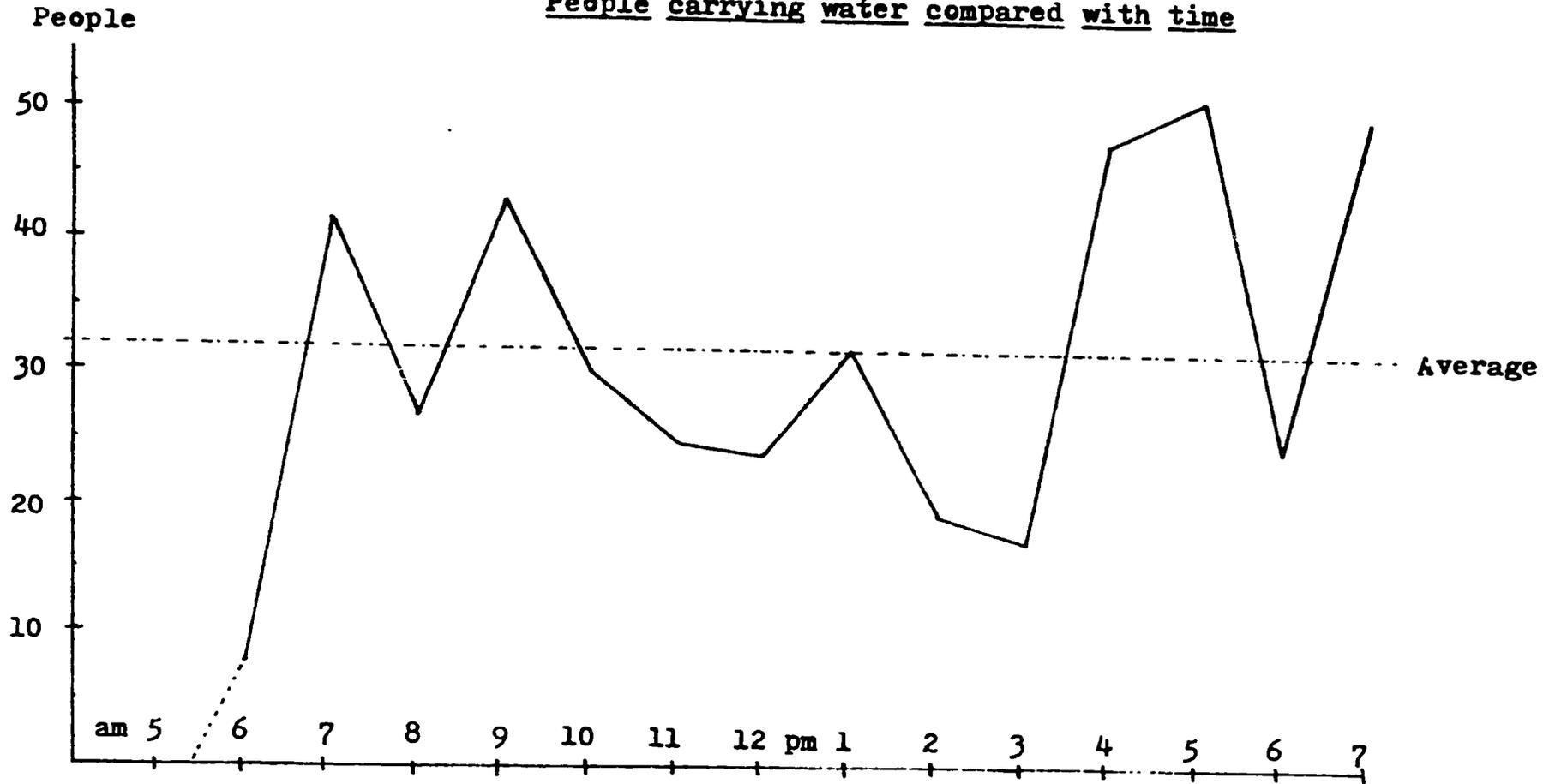


FIGURE 3: Use of Water
compared with gallons and time

For figures: see Table 4

23

FIGURE 4 : Use of Water
People carrying water compared with time



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SUMMARY OF SURVEY

Water use

25 %	from Drinking Well ("big" well).
75 %	from Bathing Well ("small" well).
18 %	of total water consumption : Drinking
82 %	of total water consumption : Washing/ Bathing

USE OF DRINKING WELL:

63 %	people from Aponso Colony
37 %	people from Akkara Paha

USE OF BATHING/ WASHING WELL:

149 people used	8,559 gallons
Average	57 gallons/person
Highest	140 gallons/person

SAWS MATCHING GRANT PROJECT

Second
BASELINE REPORT

HATHBAWA
Village Survey
on
Education
health
housing

Mailapitiya Village Water Sanitation Project
83-1-10-016

February 1984

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INTRODUCTION
to
BASELINE REPORTS
TWO & THREE

The information of these two reports were collected during the months of January and February. The survey tried to collect the following informations:

1. Population structure
2. Educational structure
3. Health Condition
4. Housing situation
5. Use of water.

In order to make this survey more appealing and educational to the people a health talk always concluded every visit. Two pices of soap (one for body use, and one to wash clothes) and a package of tooth powder were used as a means to accomplish this task (it is very important to bring a present to a family you visit).

The informations were given either by the father or mother (of course with a big audience around).

COMPARISON AND SUMMARY OF SURVEY

on HATHBAWA AND APOUNSO COLONY,

I. Population: -

	H.	A.
Number of Families	32	93
Number of People	194	457
% of Boys	35%	35%
% of girls	30%	28%

II. Education: -

Average school education of parents.	6.5 years	4.3 years
School Age children that do <u>not</u> attend school	2.4%	28%
Average performance of above Average $\frac{1}{2}$ schoolage children	8.5 years	5.3 years
Population finishing schooling with Diploma.		
GCE (O/L)		
Fathers	17%	4%
Mothers	26%	6.6%
Boys	25%	6.3%
Girls	21%	9.3%
Total	22%	6.8%
HSC (A/L)		
Fathers	-	4.0%
Mothers	-	3.3%
Boys	3%	1.8%
Girls	2%	3.1%
Total	2%	2.8%

SUMMARY:

The educational average of parents and children in A is way below the one of village H (National figures would be interesting to compare with but time does not permit it for this report.

It would be of great importance to establish a SAWS program to assist parents in creating an awareness of proper school education for their children and to assist the children in their studies (the local government school is understaffed to carry a strong program particular in the lower grades- 80 students per grade with one or two teachers only).

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III. Health: -

	H	A
Immunization	85%	68%
Sterilization	22%	22%

IV. General Health Condition: -

Number of children	180	497
Number of children still born	3.3%	8.5%
Other children died before 1st year	3.9%	5.2%
before 5th year	-	3.8%
Total child mortality	7.2%	17.5%

SUMMARY:

Child mortality seems to be very high in village A (17.5%) before the child reaches the age of 6) compared with 7.2% of village site H.

It would be very vital to set up a mother and child care program at site A.

SAWS MATCHING GRANT PROJECT MAILAPITIYA

Name of Site: _____

NAME: House No:

	Age	Sex	Education			Health					Frequency of Bath	Other Comments
			Grade: Diploma		Immun.	Diarrh	Skin	Steril	Surg.	Other		
			Now	Comp								
Father: D/L												
Mother: D/L												
Children: (living at home)												
Others:												

General Health Condition:

Number of Children _____
 Babies stillborn _____
 Older Children died _____
 Before 1st year _____
 Before 5th year _____
 Last 12 months _____
 Pregnant: YES/NO month _____
 Family Planning: YES/NO _____
 Male/Female _____

Comments on Housing:

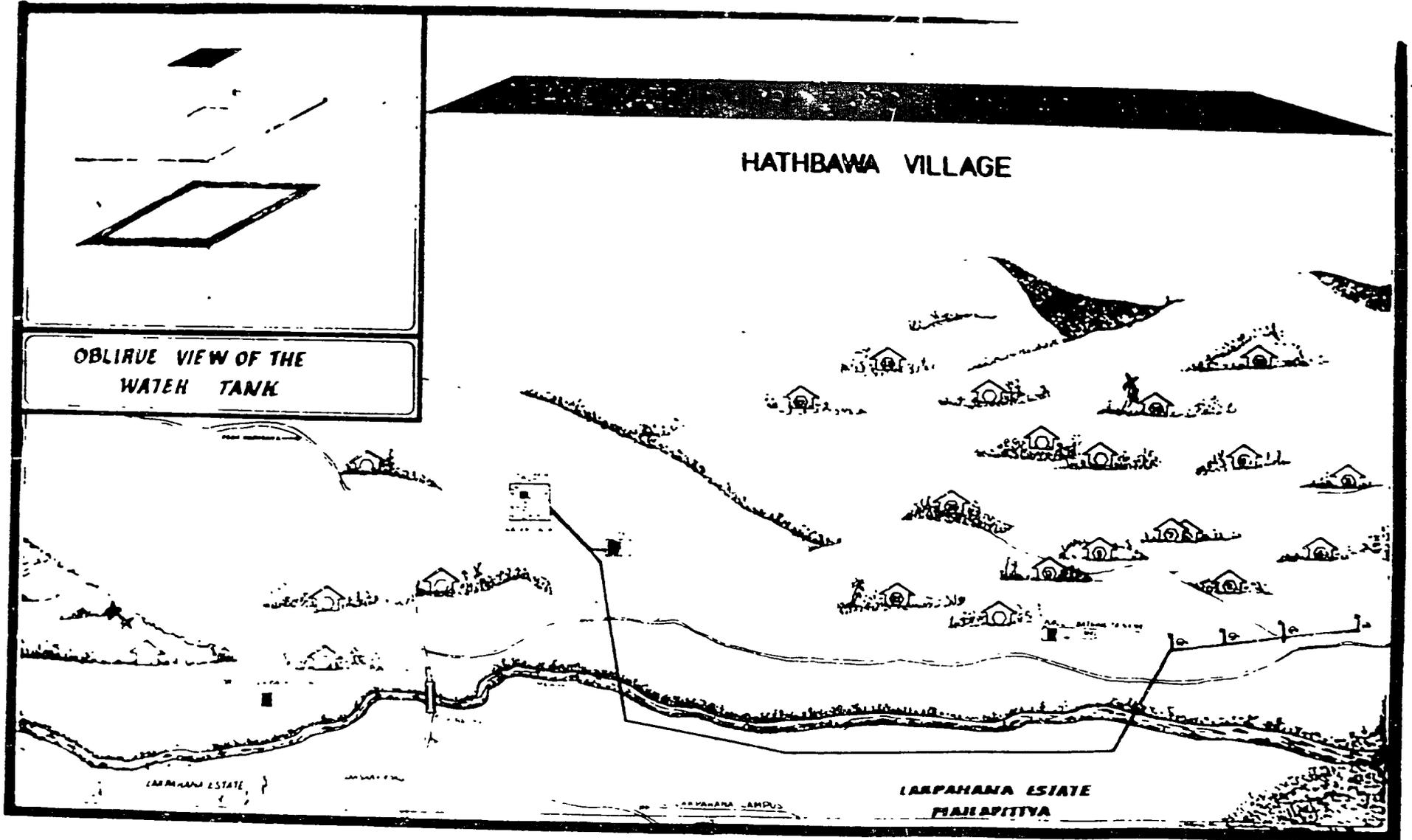
Number of Rooms _____
 Separate Kitchen _____
 Kind of Walls _____
 Floor _____
 Roof _____
 Latrine _____

YES/NO
S / M / L
S / M / L
T / L /
Common / own

House: _____
 Private _____
 Rented _____
 Free _____

Water use:

Frequency to water site _____
 Amount of Water transported _____



Plan of hathbawa village

Original plan: 40 x 25 inches

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SAWS MATCHING GRANT PROJECT MAILAPITIYA

Name of Site: H a t h b a w a

I. Population: -

Number of Families.....	32
Number of Households.....	28
Number of Families living with parents.....	4
Number of People.....	194
Fathers.....	29 (15%)
Mothers.....	31 (16%)
Boys.....	67 (35%)
Girls.....	58 (30%)
Others.....	9 (4%)

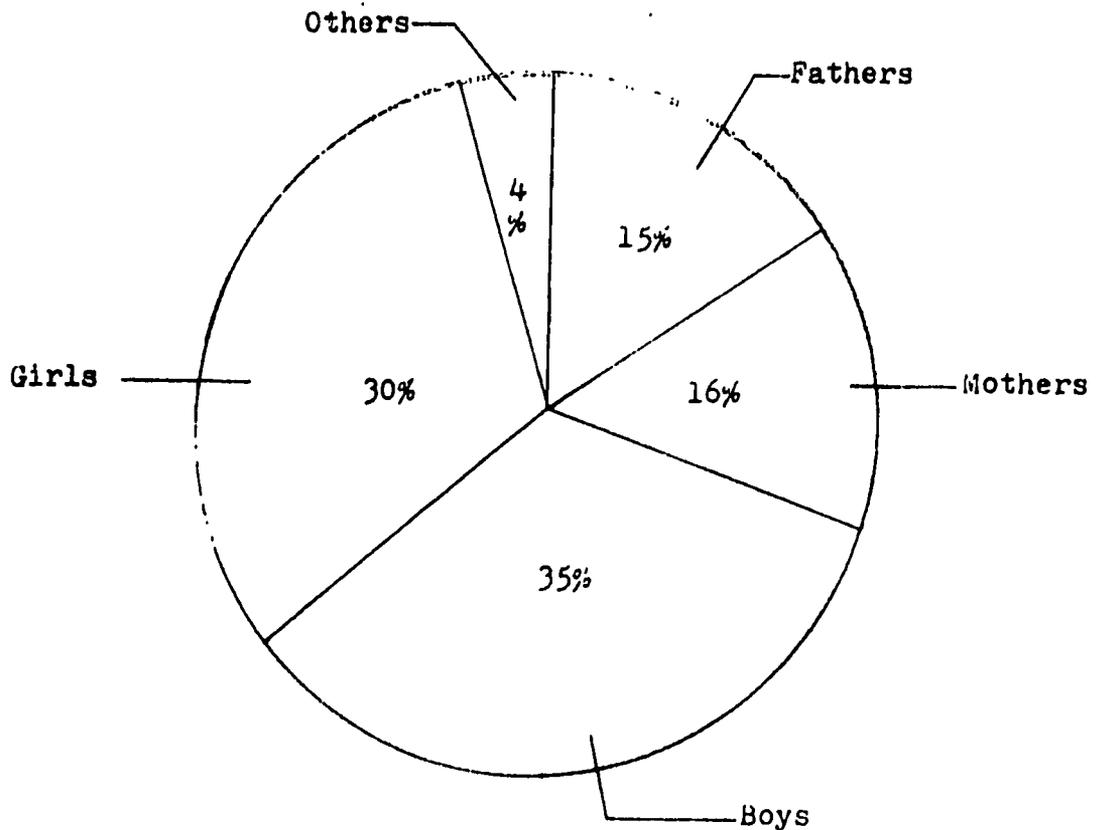


TABLE 1 - Age Category of Village Population

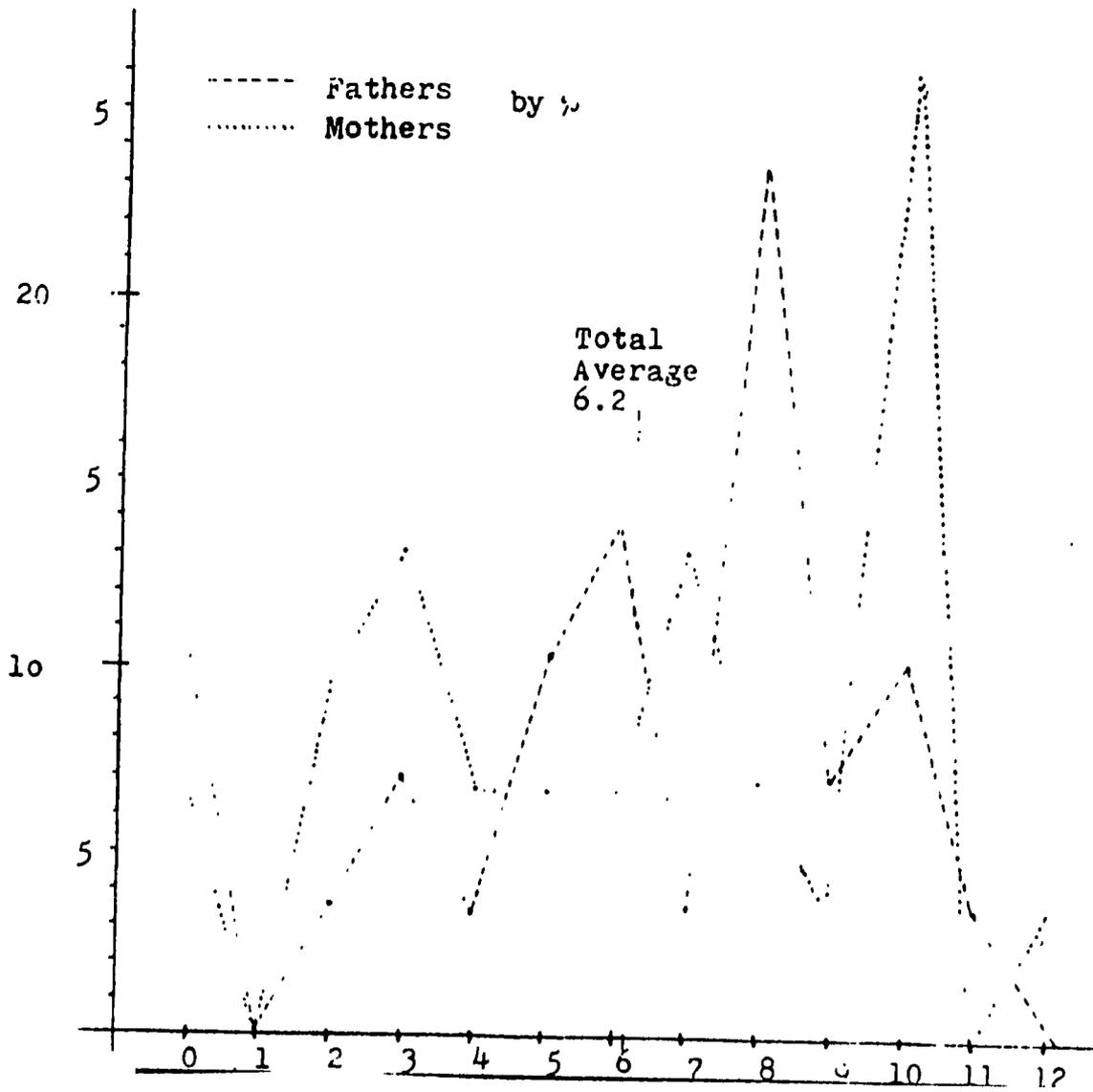
Age	Boy	Girl	Male	Fem.	Total	Age	Boy	Girl	Male	Fem.	Total
0	1	1			2	51					
1	1	2			3	52					
2	0	2			2	53					
3	4	2			6	54			1		
4	3	2			5	55			3	2	
5	4	2			6	56				1	
6	2	1			3	57				1	
7	3	7			10	58			2	0	
8	2	2			4	59				1	
9	3	2			5	60			2	1	
10	4	3			7	61				1	
11	0	2			2	62					
12	1	4			5	63				(1)	
13	2	5		(1)	8	64					
14	2	0			2	65			2		
15	2	1			3	66					
16	3	1			4	67					
17	1	3			4	68			1	1	
18	6	1			7	69			1		
19	3	3			6	70					
20	3	4			7	71				(2)	
21	2	1		1	4	72				(1)	
22	4	1		2	7	73					
23	2	1		1	4	74					
24	2	1	2	0	5	75					
25	1	1	0	2	4	76					
26	2	1	1	2	6	77					
27	1	0		2	3	78				(1)	
28	1	0		2	3	79					
29	0	1		0	1	80					
30	0	1		0	1	81					
31	0	0	2	1	3	82					
32	2	0	2	1	6	83					
33		(1)	1	1	2	84					
34			0	0	0	85					
35			2	1	3	86					
36					0	87					
37					0	88					
38			1		1	89					
39			1		1	90					
40		(1)	1	2	4						
41					0						
42			2	1	3						
43			1		1						
44					0						
45			1	4	5						
46					0						
47				1	1						
48		(1)		1	2						
49					0						
50					0						
Total	67	58(3)	29	31(6)	194						

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11. Education: -

1. Parents:

Grade	Father	Mother	Total
No school	3 (10.3)	2 (6.2)	5 (8.3)
1st	-	-	-
2nd	1 (3.5)	3 (9.5)	4 (6.7)
3rd	2 (7.)	4 (13.)	6 (10.)
4th	1 (3.4)	2 (6.5)	3 (5.)
5th	3 (10.3)	2 (6.5)	5 (8. 3)
6th	4 (13.8)	2 (6.5)	6 (10.)
7th	1 (3.4)	4 (13.)	5 (8.3)
8th	8 (27.7)	2 (6.5)	10 (16.6)
9th	2 (7.)	1 (3.1)	3 (5.)
10th	3 (10.3)	8 (25.8)	11 (18.4)
11th	1 (3.4)	-	1 (1.7)
12th	-	1 (3.1)	1 (1.7)
Total	29 (48.)	31 (52.)	60(100)

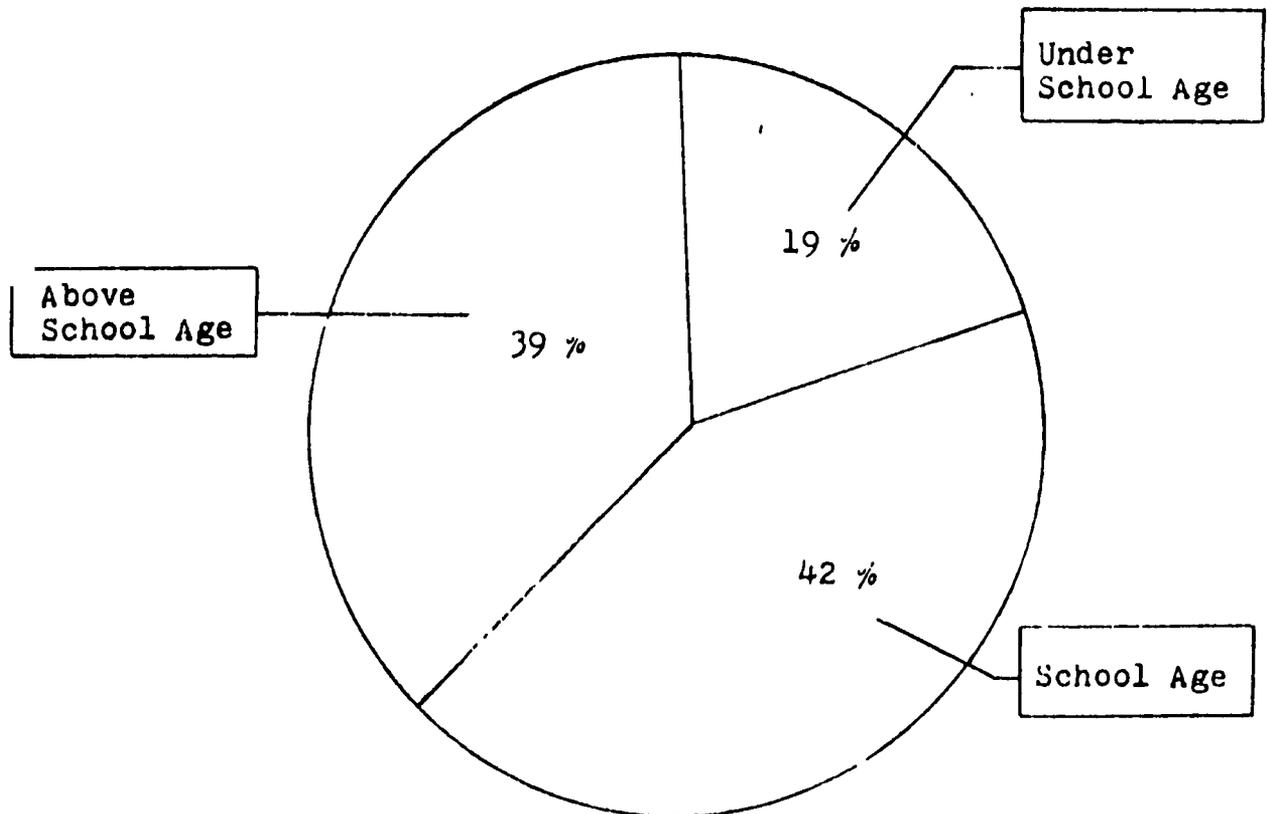


2. Children:

a. Age Structure

	Boys	Girls	Total
Under school age (0-5 years)	13 (19%)	11 (19%)	24 (19%)
School Age (6-16 years)	24 (36%)	28 (48%)	52 (42%)
Above school age (17 and above) *	30 (45%)	19 (33%)	49 (39%)
Total	67 (54%)	58 (46%)	125 (100%)

* O/L - ordinary level



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b. Attending school now

Grade	Boys	Girls	Total
1st	2	2	4
2nd	1	5	6
3rd	4	2	6
4th	1	2	3
5th	2	5	7
6th	3	5	8
7th	2	3	5
8th	3	-	3
9th	2	-	2
10th	3	2	5
11th	1	1	2
12th	-	2	2
Total	24	29	53

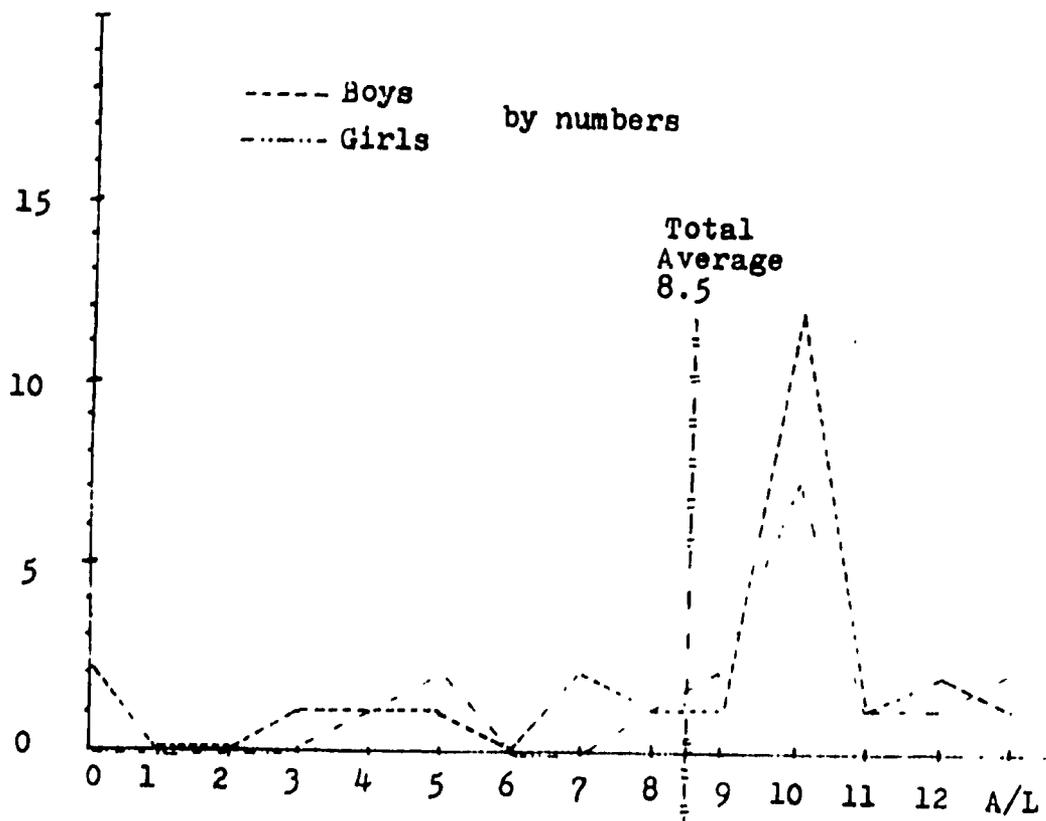
c. Attending other schooling

	boys	girls	Total
Under school-age attending school	-	-	-
School age do <u>not</u> attend school	2	1	3
Overage attend school	5	1	6
Attend A/L classes 11th-12th	1	3	4
Attend Kindergarten	5	2	7

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d. Above school age children performance (those completed):

	boys	girls	Total
no school	2	-	2
1st	-	-	-
2nd	-	-	-
3rd	1	-	1
4th	1	1	2
5th	1	2	3
6th	-	-	-
7th	2	-	2
8th	1	1	2
9th	1	2	3
10th	12	7	19
11th	1	1	2
12th	2	1	3
Total	24	15	39
Attend A/L	1	3	4
Overage but attend school	5	1	6
Total	30	19	49



e. Completed Diploma

	Father	Mother	Boys	Girls	Total
GCE (O/L)	5	8	17	12	42
HSC (A/L)	-	-	2	1	3
Junior Col.	1	-	-	-	1
Total	6	8	19	13	46

Completed diploma (by % measured from total of population)

	Total Fathers (29)	Total Mothers (31)	Total Boys (67)	Total Girls (58)	Total Popul. (194)
GCE	17%	26%	25%	21%	22%
HSC	-	-	3%	2%	2%
Junior Col.	3%	-	-	-	0.5%

III. Health:-

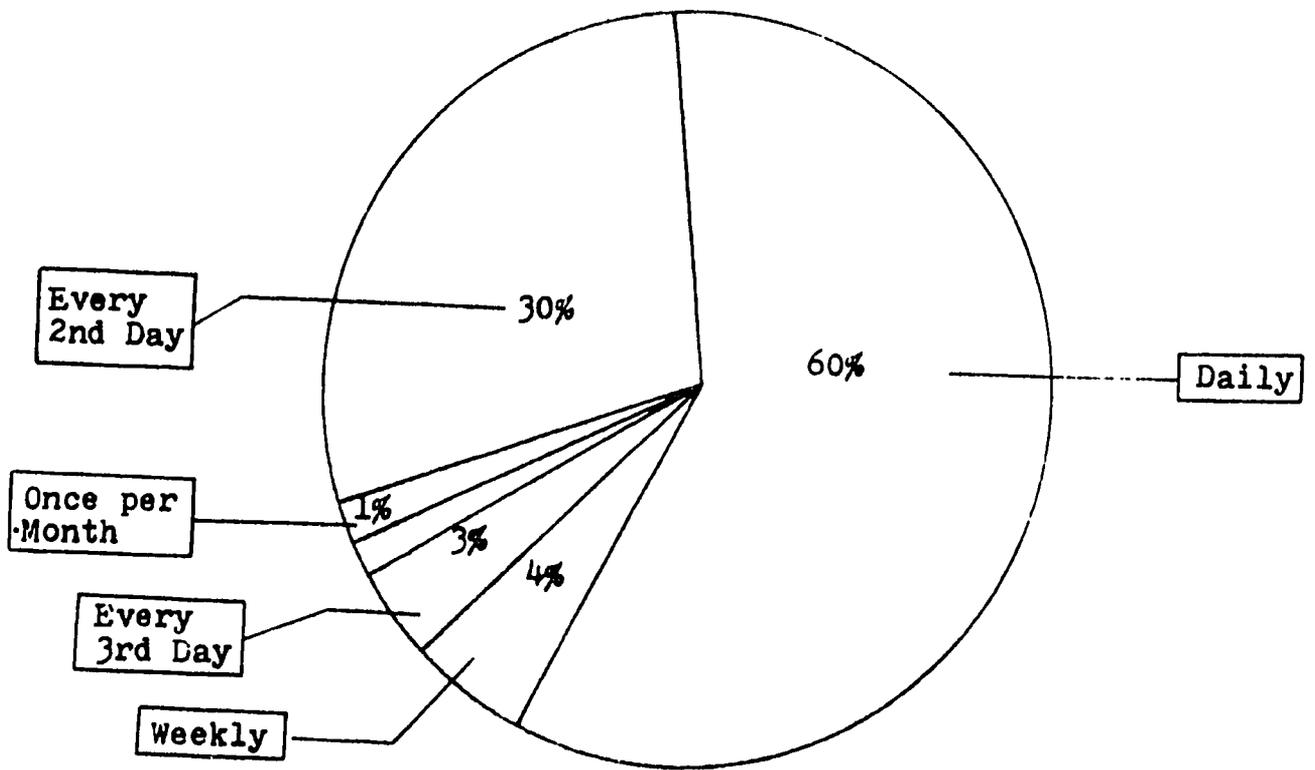
by number of people	Immunization	Immunization (%)	Diarrhea	Skin Problems	Sterilization	Surgery	Other Injections *)
Father	17	59	-	2	1	4	3
Mother	25	81	-	-	6	6	4
Boys	64	95	1	2	-	2	5
Girls	52	90	-	2	-	2	4
Others	7	78	-	1	-	1	-
Total	165	85	1	7	7	14	16

*) Rabies, Small Pox, Tetanus.

IV. Frequency of Bath:-

by %	Daily	2nd Day	3rd Day	Weekly	Later	once a Month
Father	42	34	7	17	-	-
Mother	45	45	3.5	6.5	-	-
Boys	78	19	1.5	-	1.5	-
Girls	67	28	3.5	1.5	-	-
Others	22	56	-	-	11	11
Total Average	61	30	3	4	1	1

FIGURE : Frequency of Bathing



V. Family Planning (Sterilization),
 (for mothers under 45 years of age)

Number of Ladies Sterilized	10	Age of Sterilized Mothers	Number of Children born	Age Range Children	Spacing of Children
	1	25	2	4 - 3	4,3,
	2	26	2	7 - 5	7,5,
	3	27	3	7 - 1	7,4,1,
	4	27	2	4 - 1	4,1,
	5	28	3	9 - 3	9,6,3,
	6	35	5	13 - 5	13,9,7,6,5
	7	40	9	20 - 3	20,19,16,1
	8	40	5	20 - 10	12,10,7,5, 20,18,15,1
	9	45	5	-11	10, 2 older,18
	10	45	7	- 7	11, 2 older,16, 10,9,7,

Number of Mothers under 45 and not Sterelized	12	Age of Mothers	Number of Children at Home	Age of youngest child	Total Number of Children
	1	21	1	1	1
	2	22	1	2	1
	3	22	1	2	2 †
	4	23	1	0	2 †
	5	25	2	3	4 †
	6	26	1	3	1
	7	28	2	7	2
	8	31	7	0	7
	9	33	4	4	4
	10	42	6	12	6
	11	45	9	3	10
	12	45	4	7	5

VI. General Health Condition: -

Number of Children 180

Babies still born 6

Other children died:

 Before 1st year 7

 Before 5th year -

 Last 12 months -

Pregnant 3

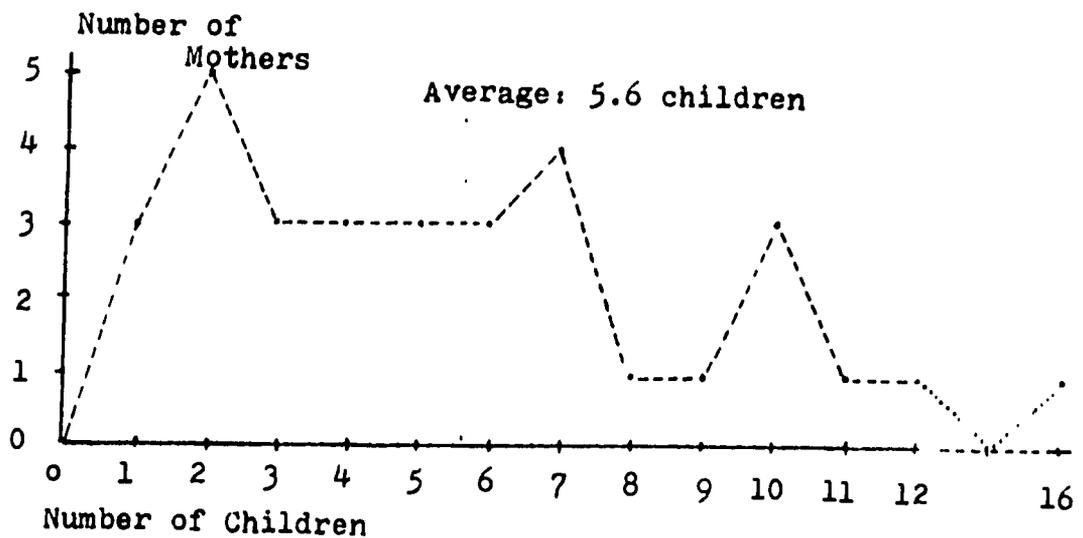
Family Planning:

 Male 1

 Female 6

Chart and Figure: Number of Children per Mothers

Number of Children	1	2	3	4	5	6	7	8	9	10	11	12		16
Number of Mothers	3	5	3	3	3	3	4	1	1	3	1	1		1



VII. Housing -

a. Number of Rooms -

Number of Rooms	1	2	3	4	5	6	7	8	Live together with other families
Number of Families	2	14	2	4	1	4	-	1	4

b. Kind of Housing - Material

	Stones	Mud	Leaves	Tiles/Tin
Walls	11 (39%)	16 (57%)	1 (4%)	-
Floors	6 (21%)	22 (79%)	-	-
Roof	-	-	21 (75%)	7 (25%)

c. Ownership of housing -

Private House	14	44%
Rented House	3	9%
Free Living	11	34%
Living together with parents	4	13%

d. Separate Kitchens

YES	NO
23 (82%)	5 (18%)

e. Latrines

Own	Common
22 (79%)	6 (21%)

f. Water Use

Frequency to water site	220 times
Amount of water transported	880 to 1000 gal.

2/2

SAWS MATCHING GRANT PROJECT

Third
BASELINE REPORT

APONSO COLONY
Village Survey
on
Education
Health
Housing.

Mailapitiya Village Water / Sanitation Project

83-1-10-016

March 1983

A SHORT HISTORY ON APONSO COLONY

Situated among a few hills about two kilometers away from the main road lies a rather small colony of people who live in sheer poverty and ignorance of the world around them.

They all are quite fortunate to have at least a small portion of land to call "theirs" which has been given to them by the government

Somewhere around 1940 Mr. Aponso owned this 78 acres of Coconut Palm Estate which was then named Atupola-yaya. After sometime he sold all this land to Mr. A.H.M. Champian. Then in 1961 Mr. A.H.M. Champian sold a total of about forty two acres of land to people who were interested and also who could afford it. The balance thirty six acres was purchased by the government authorities. After the requisitions of many poor people all this thirty six acres was distributed to ninety three families in the latter part of the year 1961. Finally each family owned between a quarter of an acre to half an acre with about fifteen coconut palm trees in each portion.

Most of the occupants of this colony, which is called Aponso Colony, do not have permanent occupations.

About 45% of the males are Coconut Toddy Tappers in their own land and also other peoples land in and around this area. The rest of the working people are simple laborers in tobacco fields, coconut pluckers and involved in other employments.

There is no significant event in their short history except the water supply project successfully provided by S.A.W.S.

The slowly but surely arising problem in this Colony is the state of poverty. The reason being the increase in the population.

At the present moment the total population, according to a recent survey was about four hundred and sixty people, which consist of about ninety six families, who are earnestly looking through the paths to development to achieve that acceptable standard of living.

SAWS MATCHUNG GRANT PROJECT MALLAPITIYA

Name of Site: A P O N S O C O L O N Y

I. Population: -

Number of Families	93
Number of Households	
Number of Families living with parents	
Number of People	457
Fathers.	76 (17%)
Mothers.	90 (20%)
Boys	160 (35%)
Girls.	129 (28%)
Others	2 (-)

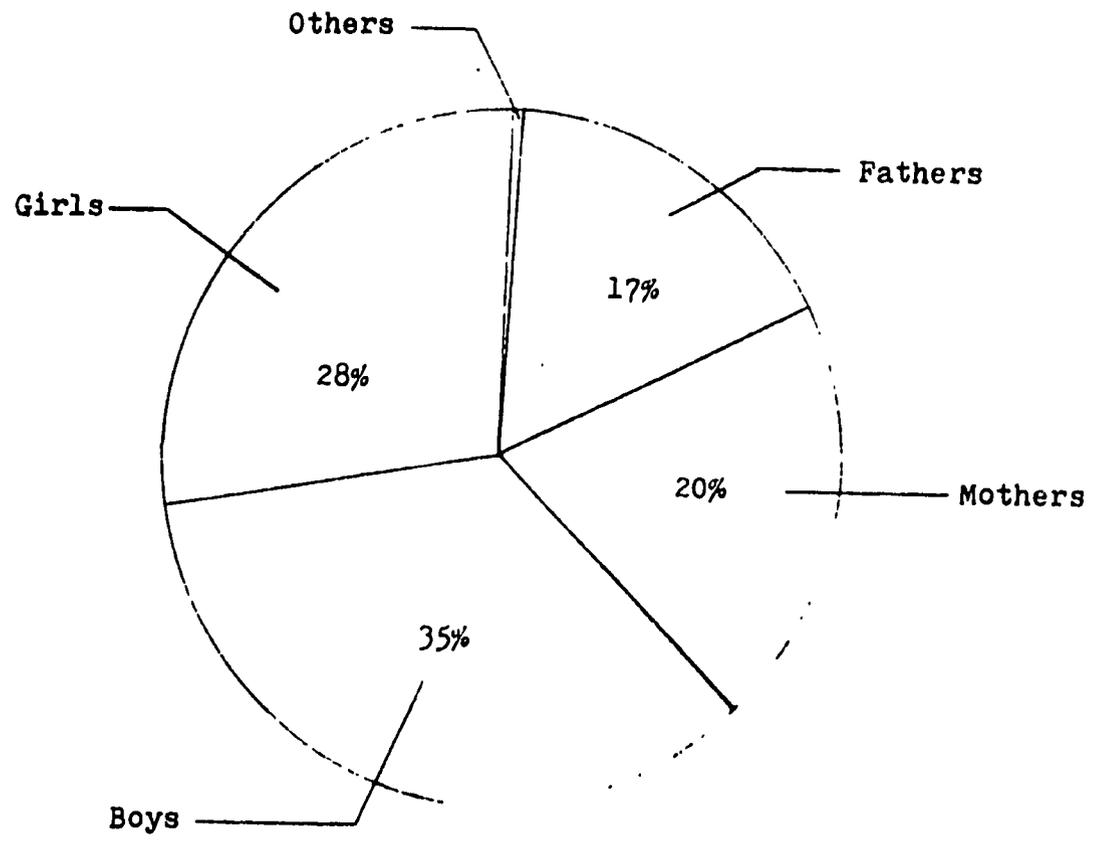


TABLE 1 - Age Category of Village Population

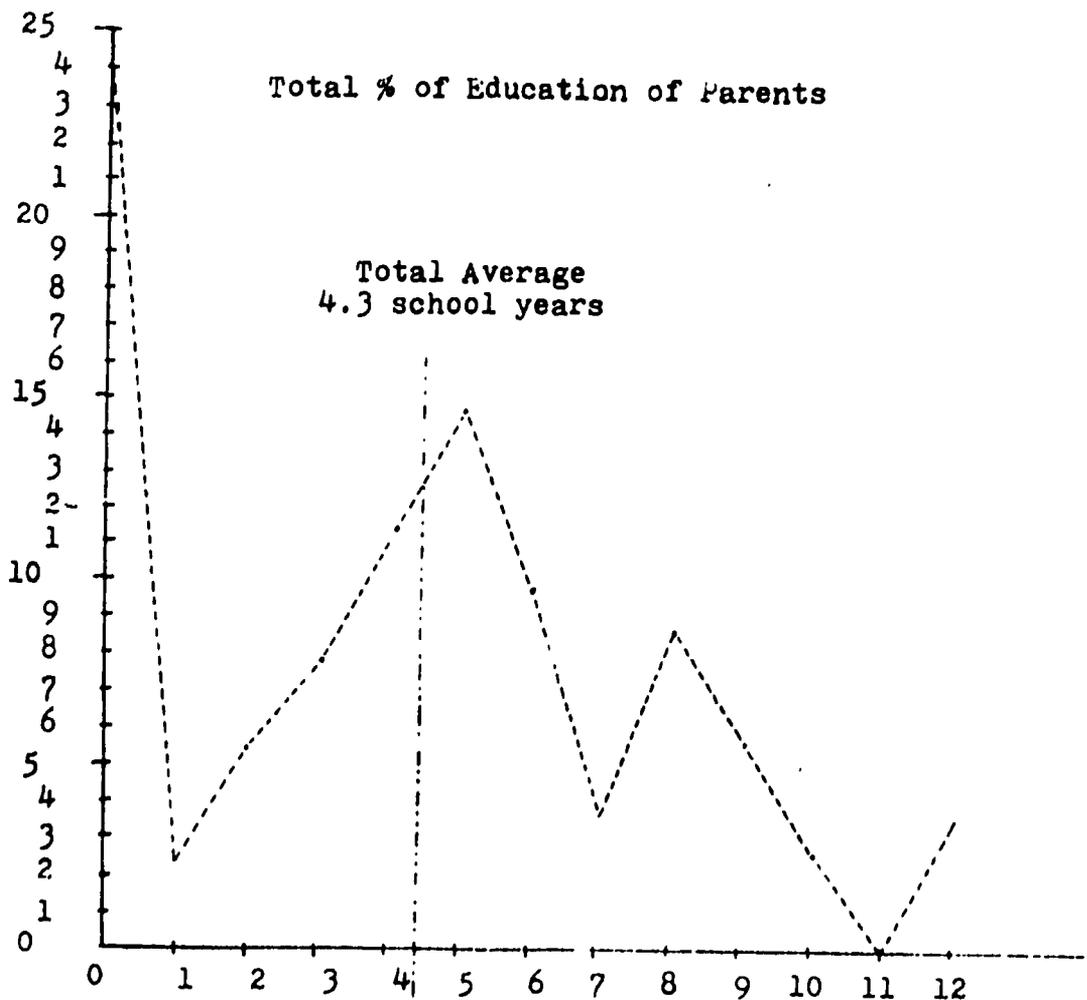
Age	Boy	Girl	Male	Fem,	Total	Age	Boy	Girl	Fem.	Male	To
0	6	4			10	41					
1	6	3			9	42					
2	3	8			11	43			2		
3	9	4			13	44			1		
4	6	6			12	45				1	
5	10	4			14	46			7	2	
6	13	10			23	47			1		
7	4	5			9	48					
8	3	10			13	49	1		3	2	
9	7	6			13	50		(1)			
10	6	3			9	51			5	2	
11	5	5			10	52			3	1	
12	9	8			17	53				1	
13	7	5			12	54				1	
14	5	5			10	55					
15	8	3			11	56			2	4	
16	5	7			12	57			1	1	
17	4	3			7	58			1	1	
18	14	7			21	59			1		
19	2	1			3	60					
20	4	4		1	9	61		(1)	1	3	
21	3	2		1	6	62					
22	3	6		3	12	63					
23	6	2	2	2	12	64					
24	2	2		4	8	65					
25	3		3	5	11	66			2	2	
26	2	1		7	11	67					
27	1		4	3	8	68					
28	2	2	4	6	14	69			1	1	2
29		1	1	5	7	70					
30		1	4	2	7	71				4	4
31			1	1	2	72					
32		1	5	5	11	73				1	1
33		1	4	1	6	74					
34			3	4	7	75			1		1
35			7	1	8	76					
36						77					
37			2	1	3	78					
38			3	2	5	79					
39						80					
40	1		3	3	7				1	2	3
TOTAL							160	128 (2)	90	76	457

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II. Education: -

1. Parents:

Grade	Father	Mother	Total	%
No school	13	27	40	24
1st	3	1	4	2.4
2nd	6	3	9	5.5
3rd	2	11	13	7.8
4th	10	9	19	11.4
5th	12	12	24	14.5
6th	7	9	16	9.6
7th	3	3	6	3.6
8th	10	4	14	8.5
9th	5	4	9	5.5
10th	2	4	6	3.6
11th	-	-	-	-
12th	3	3	6	3.6
Total	76	90	166	100.0
Average	4.8	3.9	4.3	

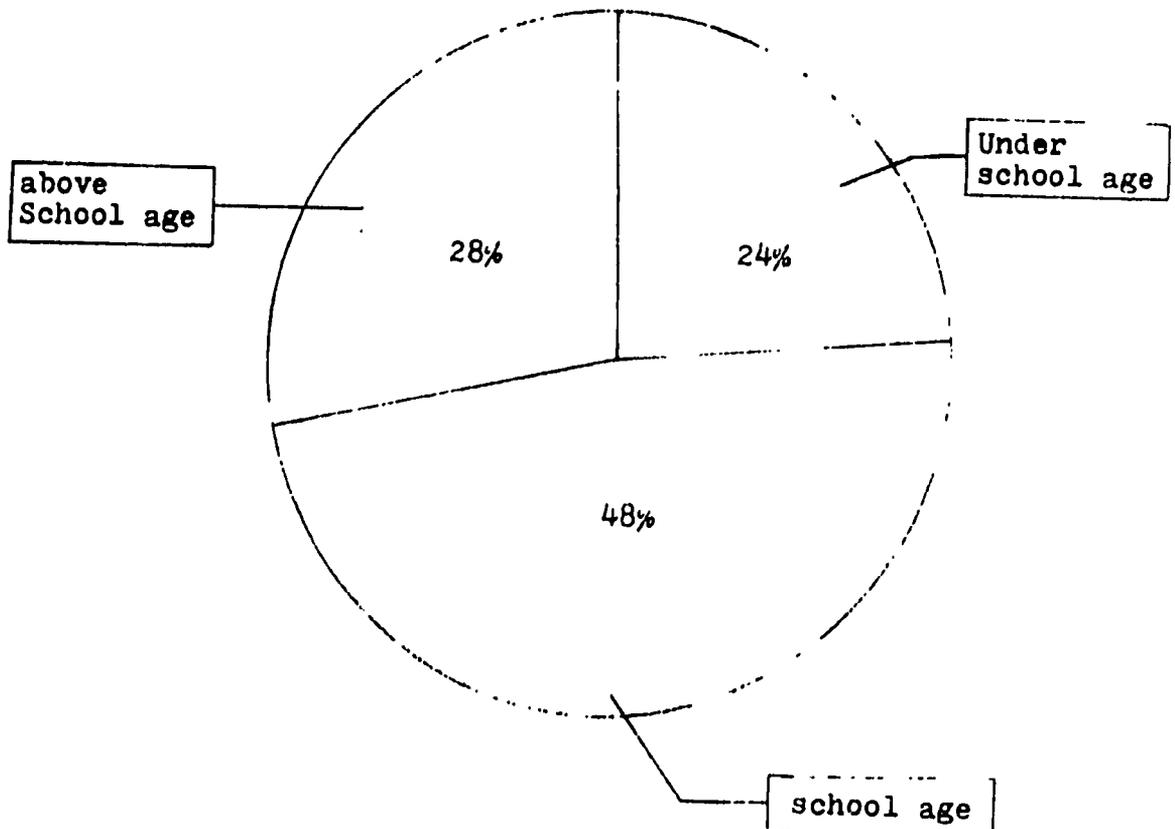


2. Children:

a. Age Structure

	Boys	Girls	Total
Under school age (0-5 years)	40 (25%)	29 (23%)	69 (24%)
School Age (6-16 years)	72 (45%)	66 (51%)	138 (48%)
Above school age (17 and above) *	48 (30%)	34 (26%)	82 (28%)
TOTAL	160 (55%)	129 (45%)	289 (100%)

* O/L - ordinary level



b. Attending school now: - (34% of children)

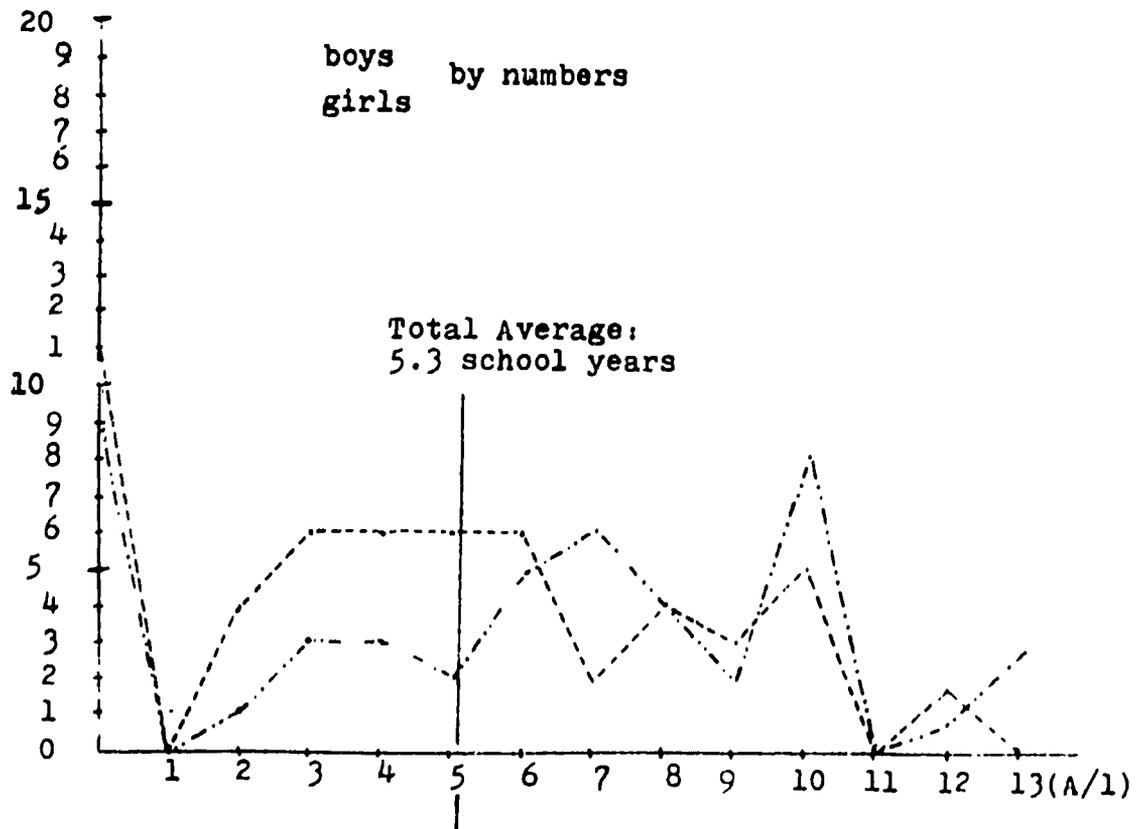
Grade	Boys	Girls	Total
1st	7	3	10
2nd	5	12	17
3rd	5	5	10
4th	10	5	15
5th	5	5	10
6th	5	5	10
7th	5	5	10
8th	3	-	3
9th	2	2	4
10th	5	2	7
11th	-	-	-
12th	-	3	3
Total	52	47	99

c. Attending other schooling

	boys	girls	Total
under school age attending school	1	1	2
school age children do <u>not</u> attend sch.	20	19	39(28%)
overage children attend school	2	3	5
Attend A/L classes (11th - 12th)	-	3	3
Attend Kindergarten	7	6	13

d. Children no longer attending school (performance) - (34.6 % of children).

	boys	girls	Total
no school	11	9	20
1st	-	-	-
2nd	4	1	5
3rd	6	3	9
4th	6	3	9
5th	6	2	8
6th	6	5	11
7th	2	6	8
8th	4	4	8
9th	3	2	5
10th	5	8	13
11th	-	-	-
12th	3	1	4
Total:	56	44	100
Attend A/L	-	3	3
average but attend school	2	3	5
Total:	58	50	108



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e. Completed Diploma

	Father	Mother	Boys	Girls	Total
GCE (O/L)	3	6	10	12	31
HSC (A/L)	3	3	3	4	13
Total	6	9	13	16	44

Completed Diploma (by % measured from total of population)

	Father	Mother	Boys	Girls	Total
GCE	4%	5.6	6.3%	9.3%	6.8%
HSC	4%	3.3%	1.8%	3.1%	2.8%

School Age Children 138
 Attending school 99 (72%)
 Boys : . . . 72%
 Girls: . . . 72%

School Attendance: Average

Parents:	Father	Mother	Total
	4.8 years	3.9 years	4.3 years

Children:	Son	Daughter	Total
Above school age (completed)	5.0 years	5.6 years	5.3 years
School Age	3.5 years	3.5 years	3.5 years

III. Health: -

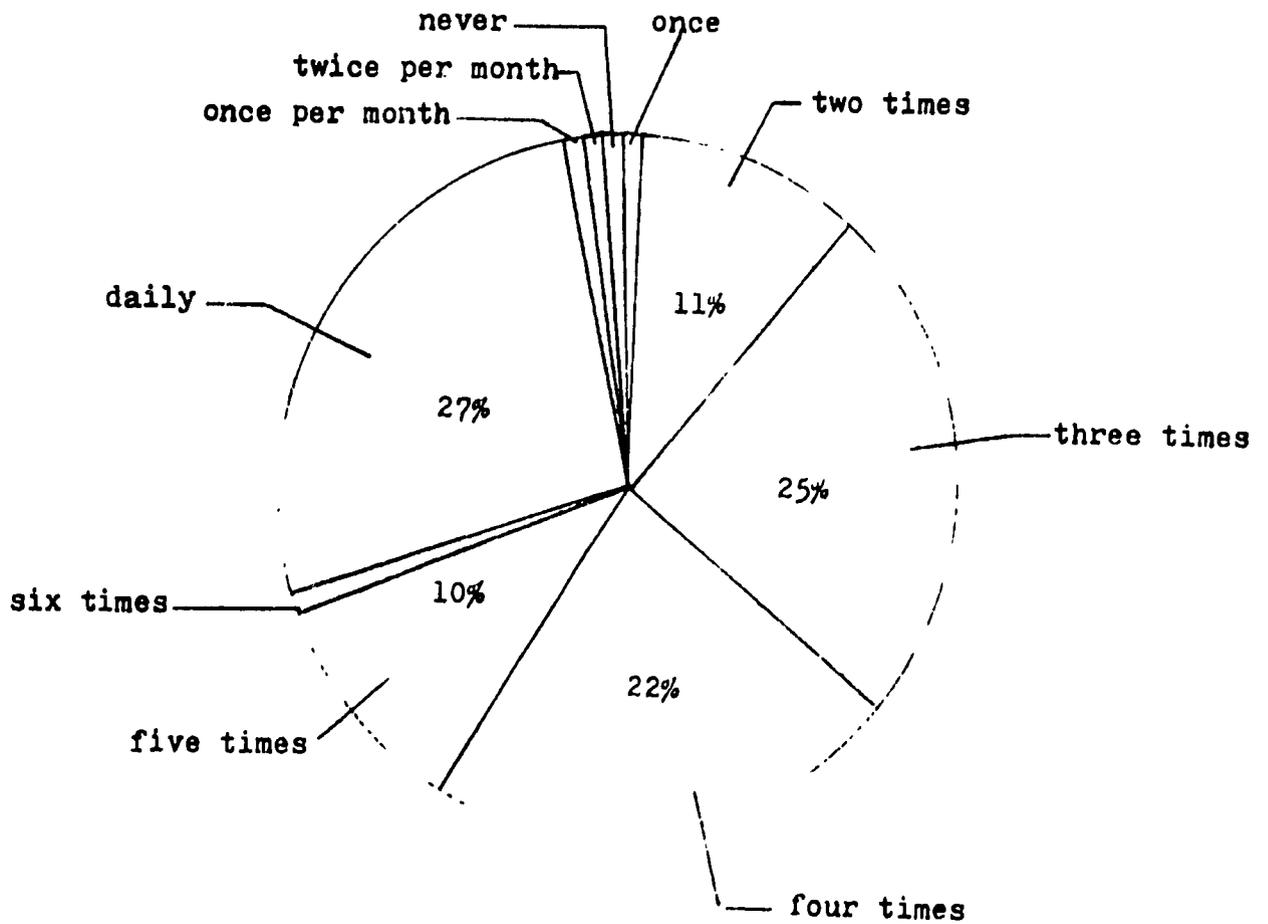
by number of people	Immunization	Diarrhea	Skin Problems	Sterilization	Surgery	Other Injections *)
Father (76)	47	-	2	-	5	41
Mother (90)	51	-	1	20	8	29
Boys (160)	116	1	1	-	4	28
Girls (129)	98	1	1	-	2	24
Others (2)	-	-	-	-	1	-
Total (457)	312	2	5	20	20	122

*) Rabies, Small Pox, Tetanus.

by %	Immunization	Diarrhea	Skin Problems	Sterilization	Surgery	Other Injections *)
Father	62	-	3	-	7	54
Mother	57	-	1	22	9	32
Boys	73	.6	.6	-	2.5	17.5
Girls	76	.8	.8	-	1.6	19
TOTAL	68					

IV. Frequency of Bath: -

by %	times per week							per month		No Bath
	1	2	3	4	5	6	7	1	2	
Father	-	13	19	24	10	2.5	27	1	1	2.5
Mother	4.5	16	33	22	13	1	9	2	-	-
Boys	-	7	22	17	11	-	42	-	.5	0.5
Girls	2	12	26	29	5	1	23	1	1	-
Total Average	1	11	25	22	10	1	27	1	1	1



V. Family Planning (Sterilization): -
 (for mothers under 45 years of age)

Number of mothers steriliced	19	Age of Sterilized Methers	Number of children born	Age range of children born
	1	24	3	5-3
	2	25	4	13-7
	3	26	3	9-0
	4	26	4	11-1
	5	26	3	6-2
	6	28	5	14-6
	7	28	5	12-6
	8	28	6	10-0
	9	28	3	14-1
	10	29	5	13-4
	11	29	3	10-2
	12	30	5	8-2
	13	32	5	16-3
	14	32	3	5-0
	15	33	6	16-3
	16	34	7	18-3
	17	34	3	11-1
	18	34	14	18-9
	19	40	6	18-5

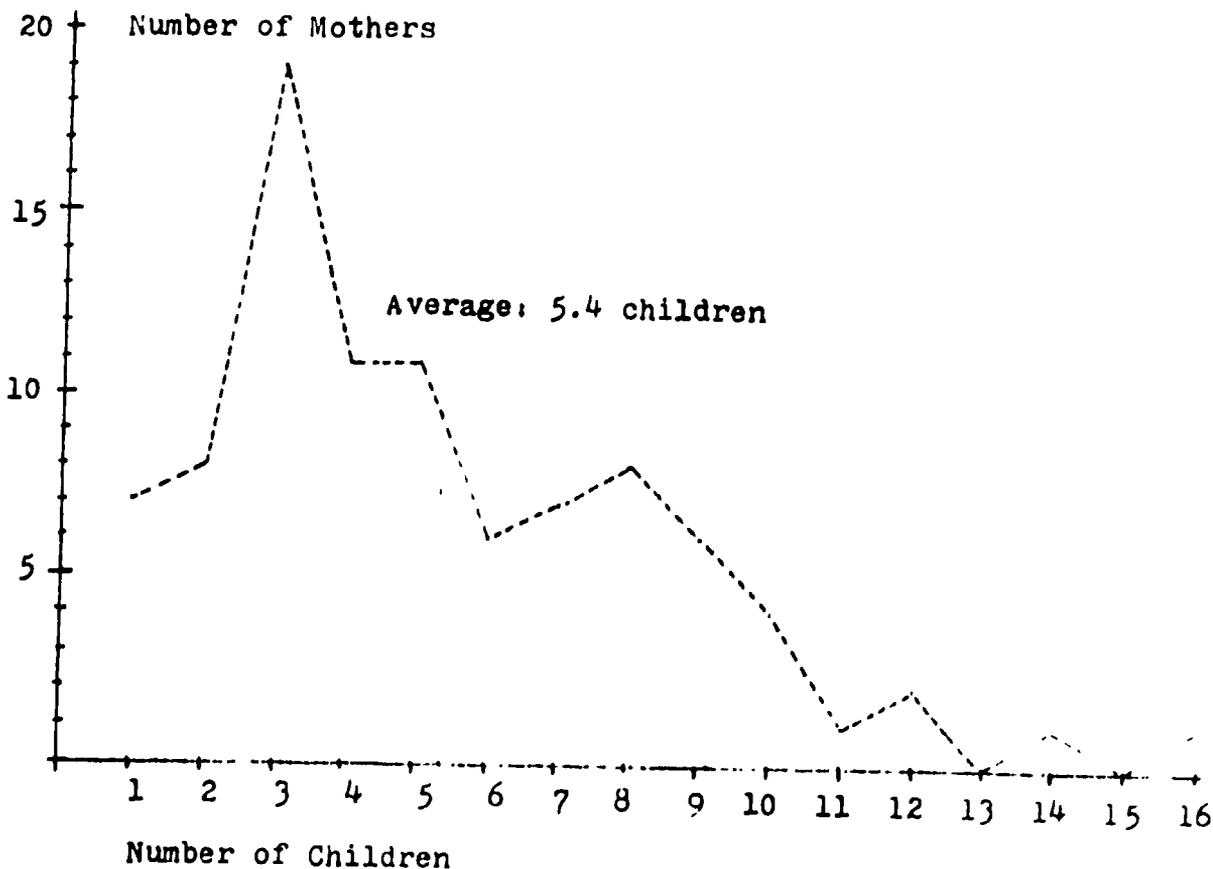
Number of Mothers under 40 and not sterilized	36	Age of Mothers	Number of Children at home	Age of youngest child	Total Number of Children
	1	20	1	2	2
	2	21	1	2	1
	3	22	2	0	3
	4	22	1	1	1
	5	22	1	1	1
	6	23	2	2	2
	7	23	1	2	1
	8	24	3	4	4
	9	24	0	0	1
	10	24	1	2	1
	11	25	1	0	1
	12	25	2	0	2
	13	25	3	1	3
	14	25	2	2	2
	15	26	3	6	3
	16	26	2	3	2
	17	26	2	10	2
	18	26	3	0	3
	19	27	3	4	3
	20	27	2	1	2
	21	27	4	2	4
	22	28	3	2	3
	23	28	3	1	3
	24	28	3	0	3
	25	29	2	0	3
	26	29	4	3	4
	27	29	4	0	4
	28	30	3	5	3
	29	32	5	6	5
	30	32	4	6	4
	31	32	6	5	6
	32	34	2	15	3
	33	35	7	5	11
	34	37	5	4	8
	35	38	1	25	10
	36	38	5	3	6

VI. General Health Condition: -

Number of children	497	
Babies still born	42	(8.5%)
Other children died:		
Before 1st year	26	(5.2%)
Before 5th year	19	(3.8%)
Last 12 months	1	
pregnant	5	
Family Planning . .		
Male	-	
Female.	20	(22. %))

Chart and Figure: Number of Children per mother

Number of children	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Number of Mothers	7	8	19	11	11	6	7	8	6	4	1	2	-	1	-	1



VII. Housing: -

a. Number of Rooms -

Number of Rooms	1	2	3	4	5	6	7	8	9	Families together
Number of Families	17	50	8	11	4	2	-	-	1	7

		Number of Family members per room											
Number of Rooms		1	2	3	4	5	6	7	8	9	10	11	total
↓ 1		2	2	4	4	2	2	-	1	-	-	-	17
2		-	6	8	4	15	6	6	2	2	1	-	50
3		-	-	2	2	1	2	1	-	-	-	-	8
4		-	-	2	3	4	-	1	1	-	-	-	11
5		-	-	1	-	-	-	-	-	2	-	1	4
6		-	-	-	-	-	-	-	1	-	1	-	2
7		-	-	-	-	-	-	-	-	-	-	-	-
8		-	-	-	-	-	-	-	-	-	-	-	-
9		-	-	-	-	-	1	-	-	-	-	-	1

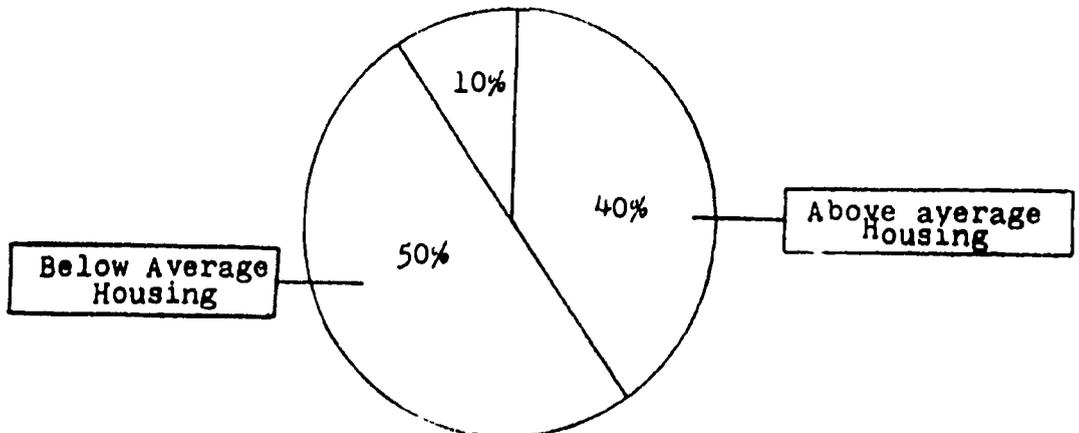
Average: 2.5 Rooms per family

Average: 2 People per room

Above Average Housing : 37 families - 40%

Below Average Housing : 47 families - 50%

Average Housing : 9 families - 10%



b. Kind of Housing - Material

	Stones	Mud	Leaves	Tiles/Tin
Walls	13	78	2	-
Floors	5	88	-	-
Roof	-	-	79	14

c. Ownership of housing

Private House	86	92%
Rented House	-	-
Free Living	-	-
Living togeth. with parents	7	8%

d. Seperate Kitchen

Y.S	NO
*89 (96%)	4 (4%)

e. Latrines

Own	Common
81 (87%)	12 (13%)

f. Water Use - daily

Frequency to Water site:	650 times per day
Amount of Water transported:	2600 - 3100 gal./ day
Average Water per person:	5.7 - 6.8 gal / day

APPENDIX (C) - Technical Assistance Report - Dominica

**Preliminary Recommendations Concerning SAWS/Caribbean Project
For Typhoid and Diarrheal Disease Control Project in the Grand
Bay and Marigot-Wesley Health Districts of Dominica 1983-1986.**

**From a Site Visit by
Allan R. Magie, PhD, MPH, RS
Environmental Health Consultant
10-19 August 1983**

22 August 1983

**Submitted to: SAWS/Washington: Milton Nebblett
SAWS/Caribbean: Roy Hoyte
Project Director: Malcolm Cort**

Individuals Consulted During Visit

SAWS/Caribbean Personnel

Mr. Roy L. Hoyte, Director, SAWS/Caribbean
Mr. Malcolm Cort, Project Director

Ministry of Health Personnel

Mr. Lipson Le Blanc, Chief Environmental Health Officer
Mr. Charles Maynard, The Ministry of Education and Health
Dr. Carisse Etienne, Director, Community Health Programs, and Acting Medical Officer of Health, and Acting Health Services Coordinator
Mr. John Charles, Senior Environmental Health Officer, Assistant to Mr. Le Blanc, in charge of slab and riser construction
Mr. Raphael Joseph, District Environmental Health Officer, Wesley District
Mr. Henderson Henry, District Environmental Health Officer, Marigot District
Mr. Bonifare Xavier, District Environmental Health Officer, Grand Bay District
Mr. James Hill, Vector Control Officer, Environmental Health Department
Mrs. Dorothy James, Health Education Specialist

Central Water Authority Personnel

Mr. Thomas Isidore, Manager, Central Water Authority
Mr. Simon De Haan, U.N.D.P., OPEC Hydrology Project
Mr. A.K. Guru, Commonwealth Fund for Technical Cooperation Engineer

SAWS 10-19 August 1983 Environmental Health Consultant Visit
Dominica Typhoid and Diarrheal Disease Control Project

SUMMARY AND OVERALL IMPRESSIONS

With appropriate modifications in program design and implementation the project is feasible during the stated period of SAWS/Caribbean involvement. The program districts, although scattered geographically, are well-suited to the program's objectives. The local populace appears receptive and in the case of Grand Bay anxious to become involved. The various Ministry of Health and Dominican government personnel and offices are supportive and prepared to cooperate in implementing the program.

Mr. Malcolm Cort, although not specifically trained in the technical areas of the project (e.g. water quality assurance, liquid waste disposal, enteric disease etiology, etc.), is conversant in the project objectives and quickly learning the technical concepts, has a good grasp of potentially acceptable and successful health education-promotion programs, and has the appropriate interpersonal skills to interface and coordinate the many interagency and departmental activities related to the project. His department in community contacts and his experience as a pastor are definite advantages for successful leadership.

It is my personal conclusion that after specific concerns and questions regarding the project are addressed that a significant reduction in gastrointestinal disease will be observed in the two project areas and that considerable improvement in the local populace's knowledge, attitudes and practices concerning the relationship of lifestyle (particularly environmental modifications) to health status will result.

In short, the project will be an excellent demonstration of health improvement through appropriate environmental health modifications and health promotional activities.

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SAWS/DOMINICA TYPHOID AND DIARRHEAL DISEASE CONTROL PROJECT

Chart of Specific Activities - September 1983-February 1984

(Not listed necessarily in Chronological Order) (First Six Months of Project)

1. Selection of individuals to serve as community health care workers. Selection to be based on availability, educational level, commitment to health principles, recognition as neighborhood leaders, existing hygiene practices, etc. Should utilize Seventh-day Adventists where available.
2. Training of community health care workers. Includes pre- and post- K.A.P. test and, in addition to information regarding typhoid etiology and control, will include basic commonalities of other gastrointestinal infections, including helminth infestations.
3. Development of educational programs to focus on school and community populations. This promotional activity will have to be closely coordinated with the Ministry of Health's Health Education Division. This will include development of project slogans, selection and/or preparation of visual media, identifying appropriate incentive materials, etc.
4. Coordinating casting of privy units at the two casting sites (Melville Hall and Grand Bay Plantation) with the Division of Environmental Health.
5. Identifying specific households requiring privy units, including common or extended family (double, etc.) installations, where appropriate, due to space and accessibility constraints.
6. Development of production delivery schedule for privy units. With projected 40 forms this would allow for approximately 160 units per week.
7. Fabrication of additional casting forms to a maximum of 40 units. Currently this would require 28 slab forms and 40 riser forms. The latter due to inappropriate casting method previously utilized. (Referred to in Recommendation 2).
8. Develop method of fabrication or acquisition of riser covers.
9. Community Health Care Workers coordinating privy construction (pit excavation) in each neighborhood area, perhaps using a coudmé (cooperative) effort.
10. Feasibility study of extension and/or development of potable water systems in the project communities. This will have to be coordinated with the Central Water Authority who are responsible for standpipe and system extension.
11. Implementation of potable water system extension.
12. Coordinating educational program for vendors of locally-prepared foodstuffs between Division of Environmental Health and Community Health Care Workers.
13. Identify sites in the project communities which are centrally located and which can adequately serve the various neighborhoods as Centers for Health Education.
14. Return visit of Environmental Health Consultant in approximately three months (December 1983) to evaluate progress in implementation of basic instruments of project, i.e. privy casting, delivery and installation; water system planning; Community Health Care Worker selection and training modality development; and various coordinating functions planning.

RECOMMENDATION 1. Reevaluate the Water System (Standpipes, Chlorination System, Wash Facilities) Phase of the Project.

It was not until discussions were conducted with Mr. Isidore, Mr. De Haan and Mr. Guru of the Central Water Authority that I became fully aware of the fact that the Central Water Authority was totally unaware of the project's goal-of potable water supply improvements in the target communities. In fact, it was only when I inquired of Mr. Le Blanc as to what plans had been made to extend the water supply service in one of the communities that he informed me that he knew of no such plans, and, furthermore, that such extension was not under the jurisdiction of the Ministry of Health.

The Central Water Authority is fully aware of the potable water deficiencies in the project's two districts, especially the serious problems in the Wesley area. In addition, water supplies in these areas are being further complicated by corrosion (plugging, disintegration, etc.) of the present system, which has disrupted service, and lessened catchment in the watersheds due to improper agriculture and forestry activities.

What this means is that:

1. The E.C. \$20,000 in the budget allocated for standpipes (and presumably the other aforementioned water-related activities) is woefully inadequate to accomplish its intended purpose.
2. Improvement in the existing systems of water supply will result in more dependable delivery.
3. SAWS should secure additional funds that can be allocated for this purpose if it can be demonstrated that failure of its accomplishment would seriously impact the health status of the population.

I recommend that SAWS determine the total amount of funds currently available for the improvement of potable water supplies in the two project areas and combine such funds with those available to the Central Water Authority to improve the potable water delivery. This will place a greater responsibility on the health education phase of the project to influence the communities' population to secure potable water for critical household purposes. This may restrict new water development to provide communal wash, toilet and shower facilities.

RECOMMENDATION 2. Sample Survey of Target Communities to Ascertain the Role of Organisms Which Initiate Intestinal Infections.

Typhoid Fever. Since the primary focus of the project is to eliminate (or significantly reduce) the incidence of typhoid, careful attention must be paid to the diagnosis and possible etiology of each human case. Salmonella typhi is a purely human pathogen so that the source of infection is the feces or urine (uncommon, except in areas where schistosomiasis prevails) of a human case or carrier. The disease is usually acquired by ingestion of contaminated food or water.

Incidence in Dominica. There was an appreciable decline in the incidence of typhoid fever between 1981 and 1982, the number of cases being 65 and 32, respectively. In the program's target communities the following was observed in the last year (1982):

	Sex		
	Male	Female	Total
Marigot	1	-	1
Wesley	4	-	4
Grand Bay	4	6	10

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According to Mr. Lipson Le Blanc, Chief Environmental Health Officer, all cases were traced to a food-related etiology. It was his clinical impression that most cases could be attributed to the sale of frozen products, e.g. ice cream, snow cones, "ices", etc. by unlicensed (and uninspected) vendors. This observation is an important one in that it may indicate that contamination of coastal waters with human waste and the subsequent contamination of fish and shell fish, could be one of the major etiologic pathways of human disease. Thus control would never be achieved without:

- (1) Complete elimination of all human cases and carriers, or
- (2) Adequate treatment of all human waste before disposal into the receiving environment.

Note: While in Dominica I noted the abundant sea life surrounding the area of liquid waste discharge into the ocean.

Diagnosis of typhoid. The most common presentation is headache, fever and abdominal discomfort. In its early stages constipation is usual, often with slight abdominal distension. A persistent cough is common and epistaxis may occur. If the disease state continues eventually intestinal hemorrhage and perforation occur at the site of ulceration. While typhoid fever cases, do not usually present with diarrhea, it should be noted that in small children and those presenting late in the course of the disease, diarrhea may be the most prominent feature.

Since the onset is usually insidious it is important to recognize the early indicators of infection. This is especially important since a victim may occasionally remain a symptomless excretor, with infectivity lasting for several months. One percent of cases become permanent carriers.

Infections of the Gastrointestinal Tract. These infections may be caused by worms, flukes, protozoa, bacteria, and occasionally viruses. The infections are aggravated by low standards of sanitation and hygiene, malnutrition and inadequate medical services.

Most intestinal infections have the following features in common:

1. They are acquired by ingestion of water or food, either contaminated directly by the infected excreta of man or animals, or indirectly by hands or articles infected from the same fecal sources.
2. Diarrhea is a feature common to many of the infections.
3. Symptomless carriers or excretors are common sources of infection.
4. The diseases tend to occur in outbreaks, often of a point-source type.

These common features provide as well common preventive measures which, when employed, will provide safety against all the disease agents.

1. Provision of pure water supplies.
2. Provision of safe sanitary disposal of excreta.
3. Hygienic standards in preparing and protecting food supplies.
4. Control of known human carriers, who are not permitted to engage in work involving the handling of food.

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5. Refrigeration of food.

The following table provides a partial listing of agents potentially present in Dominica and, therefore, suspected of playing an important role in the overall problem of intestinal disease morbidity and mortality.

1 PROTOZOA		
<i>Entamoeba histolytica</i>	Amebiasis	Chronic diarrhea is usual. Hepatic abscess is common.
<i>Giardia lamblia</i>	Giardiasis (Lambliasis)	Chronic diarrhea in infancy. Acute diarrhea in travellers.
2 BACTERIA		
<i>Salmonella typhi</i> <i>Salmonella paratyphi A,B and C</i>	Typhoid fever Paratyphoid fever	'Gastroenteritis' and symptomless excretors are common alternatives.
<i>S. typhimurium</i> many other types <i>Shigella sonnei</i> , <i>Sh. flexneri</i> and <i>Sh. dysenteriae</i> and <i>Sh. boydii</i>	Gastroenteritis (food poisoning) Dysentery	Rarely causes severe septicemic disease.
Specific types of <i>E. coli</i>	Gastroenteritis of infancy. Travellers' diarrhea	<i>E. coli</i> only appears to account for a small minority of cases.
<i>Vibrio cholerae</i>	Cholera	El Tor variety recently replaced classical strains.
<i>Vibrio parahaemolyticus</i>	Gastroenteritis (food poisoning)	Infection from raw seafood, particularly crab meat.
<i>Campylobacter</i> sp.	Gastroenteritis	Animal sources common.
<i>Staph. aureus</i>	1 Enterocolitis 2 Gastroenteritis due to toxin (food poisoning)	'Hospital' disease.
<i>Clostridium perfringens (welchii)</i>	Mild gastroenteritis (food poisoning)	Particularly affects the elderly.
<i>Clostridium botulinum</i>	Botulism	Very rare.
<i>Bacillus cereus</i>	Gastroenteritis	From recooked rice
3 VIRUSES		
<i>Enterovirus</i> <i>Rotavirus</i>	Mild gastroenteritis Gastroenteritis of infancy	Uncommon Common in cooler months

Identifying Cause in Diarrheal Diseases

In addition to the narrative history the following questions are essential:

1. How long have you had diarrhea?
2. Was there (or is there) fever?
3. What is the stool appearance - and in particular, does it contain blood or mucus? (Inspect the stool if possible.)
4. How frequent are the motions?
5. Any abdominal pain?
6. Any tenesmus? (Cramps in the rectum, often felt immediately after defecation.)
7. Any vomiting?
8. Does anyone else have a similar illness that you know of?

The answers should be interpreted as follows:

1. Duration diarrhea of more than 2 weeks duration is generally defined chronic, because after this length of time many of the causes of acute diarrhea can be discarded and a largely different list must be considered.
2. Fever subjective fever implies an infection, although the temperature may rise with dehydration whatever its cause. The fever may be due to an infection outside the gut - such as malaria - and does not necessarily imply an infective enteritis.
3. Blood this usually signifies ulceration of the large bowel. It has high discriminating value in tropical countries where hemorrhoids are uncommon.
4. Frequency a useful guide to the severity of the diarrhea. Very frequent stools associated with vomiting warn of the likely development of dehydration.
5. Abdominal pain most severe in conditions causing inflammation of the gut, such as *Campylobacter* and *Shigella* infections. Also when a necrotising toxin such as that of *Clostridium perfringens* is at work. A proper history should be able to distinguish between these visceral pains and the cramps of the abdominal muscles that occur in severe cholera.
6. Tenesmus an indication of inflammation in the rectum. Most often present in inflammatory bowel disease such as shigellosis.
7. Vomiting indicates systemic intoxication, although it also occurs with the severe metabolic acidosis of cholera. Occurs with preformed toxin food-poisoning and acute gut infections. May be a prominent symptom of malaria (especially *P. falciparum*) in non-immunes.
8. Others affected the object is to identify a common source outbreak. A much more useful question than 'what have you been eating recently?', which is usually answered by a time-wasting catalogue of scanty relevance.

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Crucial Questions For Classifying Diarrheal Disease. The questions are: duration? blood? fever? From these eight categories of diarrhea can be rapidly defined: four for acute diarrhea and four for chronic diarrhea. (The categories are more helpful when considering acute diarrhea than for chronic diarrhea).

The four acute categories are, with several examples of each:

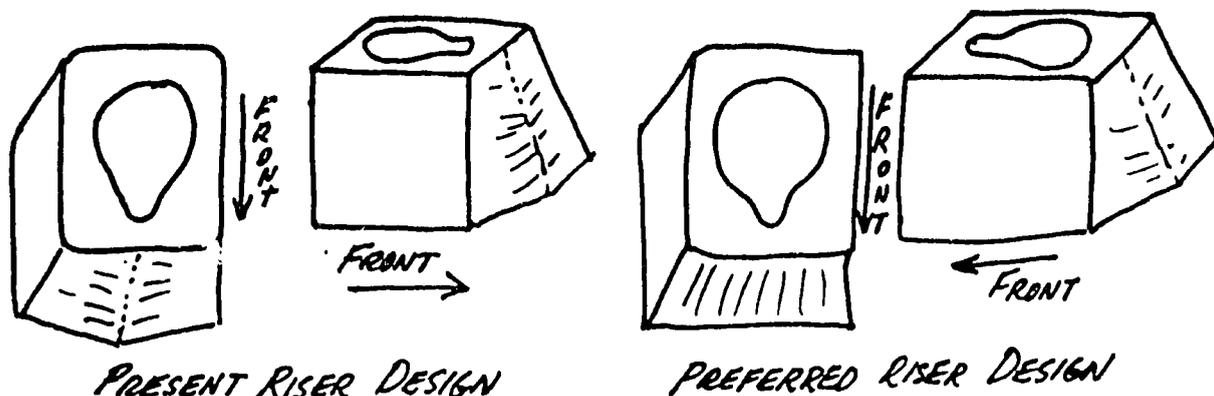
1. Acute diarrhea with fever and blood
 - a. Bacillary dysentery (Shigellosis)
 - b. Campylobacter enterocolitis
 - c. Salmonella enterocolitis
2. Acute diarrhea with fever, but no blood
 - a. Salmonella enteritis
 - b. Malaria
 - c. Almost any infection in a child
 - d. Mild (non-ulcerating) shigellosis
 - e. Campylobacter infections
3. Diarrhea without fever, but with blood
 - a. Amebiasis
 - b. Balantidium coli infection
 - c. Schistosomiasis
 - d. Trichuris infections, especially in small children who eat dirt
4. Acute diarrhea without blood or fever
 - a. Enterotoxin-producing strains of Staphylococcus aureus (staphylococcal food poisoning)
 - b. Enteropathogenic strains of Escherichia coli (traveller's diarrhea)
 - c. Clostridium perfringens (clostridial food poisoning)
 - d. Viral infections
 - e. Food toxicants

RECOMMENDATION 3. Redesign Casting of Slabs and Risers (See Recommendations 4-6 for completeness)

The pattern and procedures presently being employed in casting the slabs and risers have several drawbacks, namely:

1. Reinforcing metal is of excess size, weight and strength. One-third to one-half inch rebar is more costly and unnecessary and could be replaced by wire mesh of "pig wire" quality (BRC fabric would suffice). Incidentally, Mr. Le Blanc concerned in this change when I brought it to his attention.
2. Casting area should be roofed in order to allow optimum curing conditions for the slabs and risers. Currently the area used for this purpose is open to the intensely hot sun.

3. The opening in the risers is misdirected for proper use and comfort of the user. That is, the opening is the reverse of what it should be (See drawing below):



This preferred design will allow greater ease for mounting the riser. That is, the edge of the riser nearest the person using the latrine will be straight (right angles) not sloping away from him or her.

4. The risers have rough tops which might:
- be uncomfortable to the user and therefore hinder compliance.
 - cause user to squat on riser, thus increasing the breakage of same.
 - harbor disease agents to be communicated to subsequent users.

I recommend that study be given to secure for fabricate a suitable (smooth and hygienic) plastic, fiberglass or smoothly-finished wood cover for the risers which would be securely attached with brass bolts and nuts.

5. There is no provision for a water seal in the slab-riser combination. This allows unpleasant odors and insect access, both of which can be a drawback in use. The former for esthetic reasons and the latter for microorganism transmission.

I recommend that study be immediately given to the purchase of precast plastic water seal units currently available in the Far East, and possibly in other areas of the developing world as well. I consider this important to the success of the project....both in user compliance and in improvement in health status.

Another option, which has demonstrated its efficaciousness in the field, is to equip each privy pit with a vent pipe to carry off the unpleasant odors which accumulate in the process of putrefaction.

RECOMMENDATION 4. Field Test the Use of Squat Plate With Water Seal for Compliance and User Preference.

When this was suggested to Mr. Le Blanc he was enthusiastic, thinking that it might be better utilized than the slab-risers currently being fabricated (due to odors and unhygienic conditions). Cultural acceptance would have to be studied, however, as he pointed out, many users now squat on the risers for the aforementioned reason (see Recommendation 3:4).

Perhaps the cost of Recommendation 3:5 would be offset by the elimination of the riser in future units. (However, regardless of the eventual design...and it may be that both would have to be employed...the water seal is an essential element and should be introduced regardless of expense, unless appropriate use of vent pipes is instituted).

Suggested designs for squat plate:

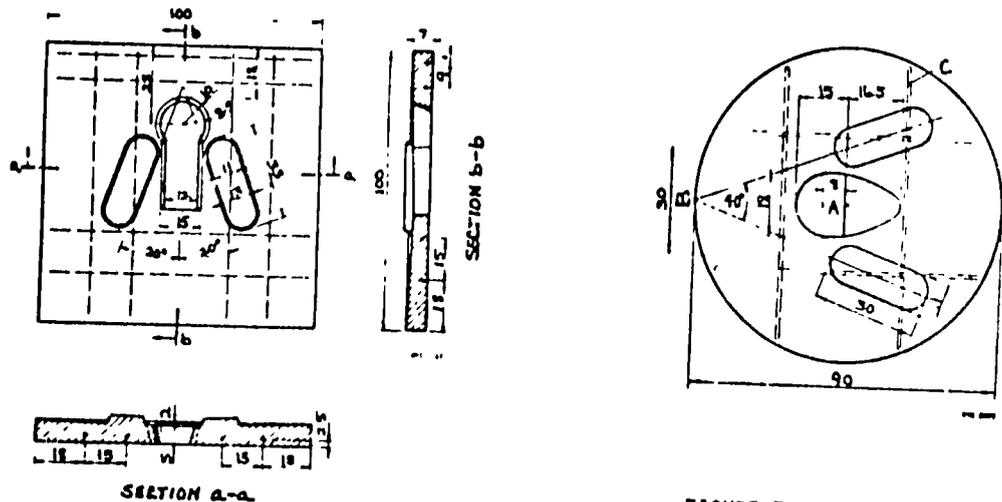


FIGURE 7

RECOMMENDATION 5. Casting of Sanitary Privy Slabs Should be Carried Out at Program Sites (that is, Marigot-Wesley and Grand Bay), Not at Centralized Site Currently Being Utilized in Roseau.

The reasons for this should be obvious, namely:

1. Increased rate of production of units. No wasted time of construction crew for curing process at one site versus two.
2. Reduced damage to units during transport.
3. Reduced "wear and tear" on transport vehicles. Both roads, to Marigot-Wesley and Grand Bay, are rough-surfaced and require unnecessary time in transport. The units, which weigh approximately 150-200 pounds, cannot be transported in any great quantity anyway.
4. Community awareness of project. Visibility might be important in acceptance of program.

Answers to Contraindications:

1. Quality fabrication would suffer. Use the same crew shuttled alternately to the two sites. Proper curing requires at least two days in the forms.
2. Expense of developing two sites. Adequate sites are available in the two areas and the presently used area must be covered anyway. Additional costs would be offset by transportation - maintenance savings of vehicles and reduced damage during transit.
3. Materials are not available at the alternate sites. I received assurances that adequate materials are available at both sites for quality fabrication.

After visiting the two program sites it has been determined that the following casting sites are available for use in this project. In addition, materials are readily available to close proximity to these sites.

1. Grand Bay: The abandoned old police office near the site of the new hospital which is currently under construction. A roof would have to be constructed over the proposed casting area. Another site which eventually may prove to be more satisfactory is a building on the old plantation site near the river. This also would require a roof for the casting area.
2. Marigot-Wesley: An abandoned terminal building at the Melville Hall Airport, midway between the two major districts of the project in this area. This building has the added advantage of not requiring the construction of a roof over the casting area.

RECOMMENDATION 6. Reevaluate the Numbers of Privy Units to Be Constructed.

According to the figures available from the Dominica Environmental Health Department's Annual Report (1982), the following numbers of households in the two program districts presently lack disposal facilities:

Marigot-Wesley - 670

Grand Bay - 740

This would indicate that there is not the need for the 2000 at each site presently projected. I recommend that a survey be conducted by the District Environmental Health Officers in these areas to determine that exact number of households that could benefit from the privy program. Some areas may not be able to benefit from conventional type disposal systems because of the nature of the soil and inadequate land space.

This last group of households may best be served through the construction of centralized public conveniences which might include shower baths in addition to the sanitary privies. Water carriage (to be discussed later) represents an additional problem.

RECOMMENDATION 7. Develop Alternatives for the Delivery of Potable Water to Marigot-Wesley.

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According to the Environmental Health Department approximately 40 percent of the population in the Marigot-Wesley area is currently without potable (pipe-borne) water supplies. Most of these rely on open streams in the area to meet their domestic water requirements.

A successful program to control gastroenteritis must address this problem. Most of this area is above the district sections that can be supplied by the gravity flow distribution system. A solution needs to be sought which would correct this deficiency. At least two options exist:

1. Develop a separate and new water treatment and distribution system. This would be very costly.
2. Extend coverage of current system through a centrifugal pump - distribution lines - standpipe network to reach the presently unserved neighborhoods. Potentially much less costly and much easier to implement.
3. Develop upstream stabilization impoundments to provide constant supplies on currently used streams and install sedimentation-filtration-chlorination units for gravity flow to standpipes in deficient areas.

Whatever the eventual recommendation it will have to be discussed with the Central Water Authority who is responsible for standpipes and system extension.

RECOMMENDATION 8. Support through Public Education the Food Safety Program of the Environmental Health Department.

Food handling and government agency inspection is a serious "weak link" in the environmental health program and is critical to the success of this program since it is clear that probably all new cases of typhoid are food-related (See Recommendation 2, under "Incidence in Dominica").

RECOMMENDATION 9. Do Not Initiate, or considerably modify, the Typhoid Immunization Program and Reallocate These Monies for Development of Health Education Materials and Water Quality - Public Shower Facilities.

As I have pondered this important phase of the projected program I keep coming back to my first impression: "Will it be cost effective in eliminating typhoid in the target communities?"

The reasons for my thoughts are many, but I'll only list the most important here:

1. All available information points to a food-related etiology for typhoid transmission among humans in the target population. (See Recommendation 2). Because of the potentially rapid growth of the bacterium on such products as ice creams, etc. the vaccine would be relatively ineffective (vaccination is protective only against small infecting inocula).
2. The cost effectiveness of a vaccination program is questionable since the population is spread out and dynamic. Total coverage would require constant monitoring of population movements in order to protect all new entries into the program areas. In addition, not all individuals would be equally

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protected and the program would have to become a permanent part of the region's health program (See number 3). Ever PAHO suggests that a 70 percent compliance might be the likely achievable in the communities.

3. It may mask the presence of excretors, making more difficult the search for cases and carriers who are the potential sources of new infections.
4. Even in epidemics routine use of vaccine is not recommended by leading public health professionals and the Centers for Disease Control (See Beneson, Control of Communicable Diseases in Man, 13 ed., 1980, pages 385, 386).
5. When asked the question: "Which would be more effective in eliminating typhoid cases in the project communities,?" Dr. Carisse Etienne, answered: "An intense health education program which would not only prevent new cases of typhoid, but would prevent most all other disease problems in the areas." This opinion was echoed by Mrs. Dorothy James, Health Education Specialist, although she thought it might act as an emotional incentive.

The suggested alternative uses of the money would spur community interest in the project and potentially encourage more active compliance to its objectives.

Questions Which Need Immediate Clarification

1. Whether recipients of pit privy units will be required to make a monetary payment for the unit. Currently, the practice is that recipients pay EC \$10.00 as down payment for the unit (which currently costs approximately EC \$45.00 for materials, labor and transportation--the exact cost is not available at the time of writing).

Concern focuses on the fact that previous recipients, although not part of the present program, might feel unfairly dealt with if their neighbors receive the units at no cost. Will USAID complain if a nominal charge is made? Should a charity fund be set up with a local organization to help those who may feel they cannot pay the nominal fee if such is implemented?
2. Is it still a part of the project and are funds available to pay for the chlorination system in the project community which requires it?
3. Are the sanitary and wash facilities in each school of the project communities still a part of the program and are funds available for their establishment?
4. Can present funds be used for remuneration of Community Health Care Workers?
5. What funds should be used for incentives to promote program, e.g. wall stickers, tee shirts, etc.?
6. Can films be purchased as part of the village promotional and educational phase of the program?
7. Are funds available, in addition to the budgeted amount, for developing the water supply systems as described in the proposal or should an immediate reassessment be made of that phase of the program and follow the suggestions of the Central Water Authority?