Process Evaluation of the Hillside Agriculture Project in Jamaica

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by

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FOREWORD

This evaluation of the Jamaica Hillside Agriculture Project (HAP) has been prepared by a team of specialists provided by Development Strategies for Fragile Lands (DESFIL), a centrally funded project of the Science and Technology and Latin America and the Caribbean Bureaus of the U.S. Agency for International Development. DESFIL's mandate includes the provision of services to A.I.D. missions in Latin America and the Caribbean and a focus on sustainable production on fragile lands. It is thus particularly appropriate that a DESFIL team should assist USAID/Jamaica by providing an interim evaluation of HAP, a project intended to stabilize agriculturally utilized hillside environments and generate income over the long term for small farmers.

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CHAPTER FIVE

LIST OF ACRONYMS

CIB	Cocoa Industry Board Coffee Industry Board
CIDCO	Coffee Industry Development Company
FISH	Foundation for International Self-help
FY	Fiscal Year
GOJ	Government of Jamaica
HAP	Hillside Agriculture Project
IICA	InterAmerican Institute for Cooperation in Agriculture
IRDP	Integrated Rural Development Project
JAS	Jamaica Agricultural Society
LMC	Local Management Committee
MIS	Management Information System
MOA	Ministry of Agriculture
MOA/R&D	Ministry of Agriculture Research and Development Division
NCPA	North Clarendon Processing Company
NGO	Nongovernmental Organization
NUCS	National Union of Cooperative Societies
PCC	Project Coordinating Committee
PIL	Project Implementation Letter
PMO	Producer Marketing Organization
PP	Project Paper
RMCEP	Rio Minho Cocoa Expansion Project
RPPD	Rural Physical Planning Division
UNITAS	Development Organization of the Moravian Church
USAID	United States Agency for International Development

PROJECT SUMMARY AS BACKGROUND FOR THE READER
(taken from the Project Paper)

More than 80 percent of the lands in Jamaica can be classified as hillside lands, which for the most part are covered by shallow highly erodible soils. Current cropping systems with emphasis on annuals are resulting in excessive soil loss, increased downstream siltation, decreased stream flow during the dry season, and lower quality of water.

The complexities of the socio-cultural situation of the Jamaican hillsides dictate that a cautious approach be adopted toward any new project aimed at small farmers. The small size of farm plots, the fragmentation of plots, the advanced age of farmers, the confused land tenure situations, the low level of esteem accorded to farming, the lack of information to make productive choices, and the fear of farm credit all combine to complicate the development milieu. In addition, small farmers on the hillsides have traditionally been burdened with a high level of risk in their ability to cope with climatic disturbances, pest and disease problems, and marketing systems. At the same time, external factors are acting to change the terms of reference of small hillside farmers to the overall Jamaican economy, including (1) an emerging export-oriented agriculture on the southern plains that can produce many of the traditional annual crops more cheaply and (2) a shift in emphasis from price toward greater emphasis on quality and timing of delivery of produce when determining the competitiveness of a product.

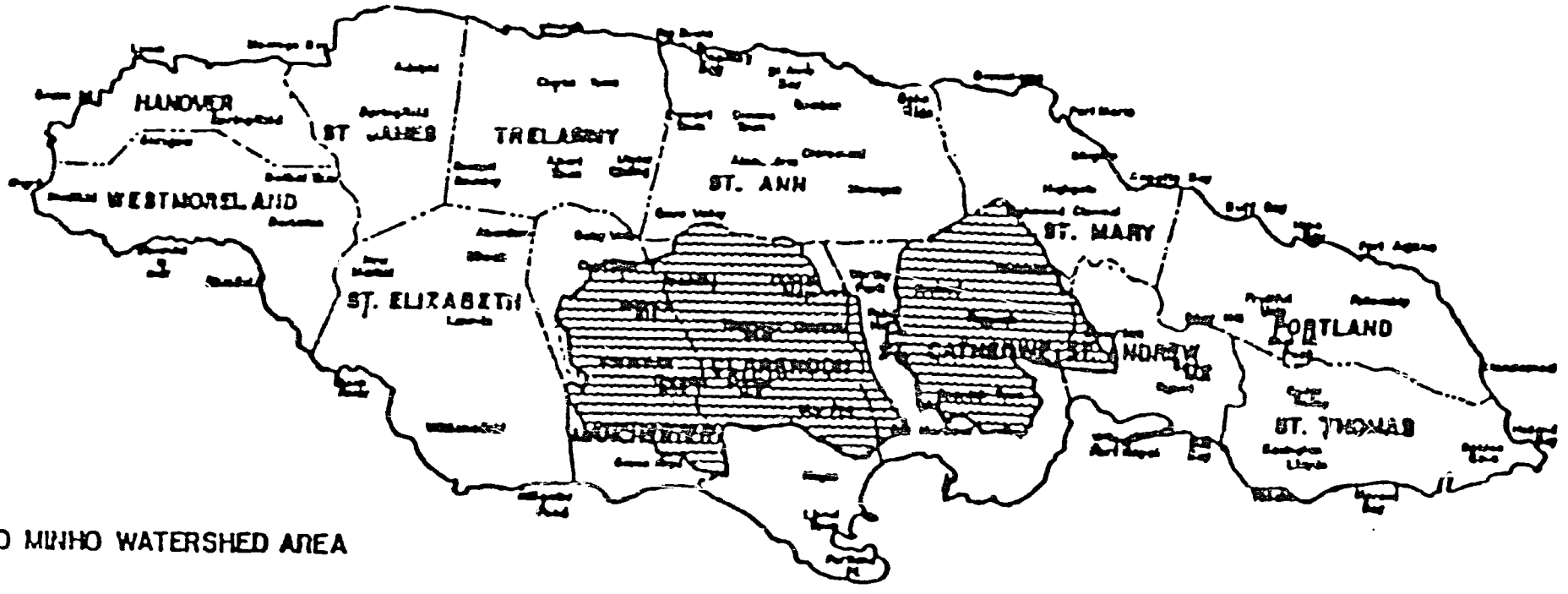
Small hillside farmers today use a diversified, minimal risk, low input system focused on the production of annuals that is not much different from the one used 100 years ago. As a result, they farm at a level only slightly above that required to meet the immediate needs of their families. This continuous open cultivation of annual crops on steep slopes is one primary cause of a growing problem relating to serious erosion of the hillsides. A shift from annuals to perennial crops is seen as a solution to both the hillside erosion problem and the farmers' need for additional productive income earning opportunities.

The technology for improving production and productivity of existing perennial crops (coffee and cacao, for example) already exists in some cases, and in other cases needs to be refined and adapted to meet the particular needs of small farmers in Jamaica. Additionally, there are new and expanding markets for perennial crops such as papaya, annatto, and passion fruit that are presently not exploited. These new techniques and technologies must be integrated into hillside farming systems if production and productivity of perennials are to be increased. The project strategy therefore has three aspects: perennial cropping, improved technologies, and community participation.

The project will fund self-managing projects that will promote production and productivity of perennial crops. This will be accomplished by: (1) subgrants to groups to carry out subactivities that are focused on the overall Hillside Agriculture Project strategy, are technically competent and technologically current, and have a sound strategy for community participation; (2) provision of technical assistance and training to persons engaged in project activities, and (3) networking of individuals and groups involved in project activities through the sponsorship of workshops, the production of a newsletter, and maintenance of close contact with international and domestic sources of technological innovation for perennial crops.

LOCATION MAP OF RIO COBRE AND RIO MINHO WATERSHED AREAS

JAMAICA



RIO MINHO WATERSHED AREA

RIO COBRE WATERSHED AREA

PREPARED BY ; RURAL PHYSICAL PLANNING DIV.

EXECUTIVE SUMMARY

This evaluation of the Hillside Agriculture Project (HAP) comes 31 months after the project agreement was signed between the Government of Jamaica and the United States Agency for International Development (USAID). Approximately one year ago, the first HAP subproject was funded. During Phase I, HAP is to support efforts that promote and use different approaches to increasing income from perennial crops for Jamaican hillside agriculture; at the same time, these approaches should be environmentally sound.

Important for this evaluation are process, organization, method, and subproject operations to date. It is simply too early to measure impact at the farm level or to assess adequately the effectiveness of the different approaches and technologies found in the nine subprojects.

The evaluation team had less than two weeks in which to gather the information and observations included in this report. The team is, however, confident that the principal findings listed below are sound and will allow HAP to be even more effective over the next several years.

Principal findings and recommendations include the following:

- HAP is fulfilling its mandate in Phase I and deserves continued support from both the Government of Jamaica and the USAID mission.

- Focus must be maintained on the development of viable small-farm enterprises in hillside agriculture. Greater financial return to the individual farmer from a systematic approach to the cultivation of perennial tree crops, as tried and demonstrated within HAP, is the key to sustainability.

- A strength of the project is the flexibility rooted in the project design -- this flexibility should be maintained to guarantee that a sufficient number of approaches for extension and technology transfer are found and tried in the subprojects.

- The Project Coordinating Committee has been very effective in establishing HAP and has worked well to formulate project policy and approve subprojects. Largely because of its success, the Project Coordinating Committee should now become more like a board of directors, holding quarterly meetings.

- Phase I should come to an end when FY-1990 funds are available in early 1990. A two-year Phase II, that supports ongoing subprojects, should follow. At the end of Phase II, an assessment should be made of the subprojects; extension approaches, technology transfer, and impact on participating farmers should be measured and compared. A decision whether to move forward with a Phase III should occur after this assessment.

- During Phase II several subprojects should be added that expand the range of extension approaches and technology transfer currently found in HAP's portfolio.

- Information management is weak. HAP should immediately employ an information manager to help monitor subprojects. In addition, HAP should add two positions to the IICA/MOA (R&D) subproject to carry out baseline surveys of all subprojects and to help measure impact over time.

- The project should not be adverse to tackling problems, such as the constraint and role of labor, in advancing the approaches being tried.

- Soil conservation should be better related to each subproject proposal and technical approach. Soil conservation practices specifically approved by the extension service of the Ministry of Agriculture for each holding should be a condition for farmer participation in subprojects.

STRATEGY

The project has been successful in promoting the production of income-producing perennial tree crops. This emphasis should be reinforced by strong support for the dissemination of known technologies, with little effort on the part of HAP devoted to identification and adaptation. The latter work is best left to the commodity boards and others.

The involvement of farmers in the design of HAP subprojects has been spotty. Since HAP is to contribute to the development of a policy for hillside agriculture, more needs to be learned about the way local involvement contributes to the development of hillside agriculture.

STRUCTURE AND ORGANIZATION

The framework in which HAP was established has enabled it to be effective in gaining the support of the Ministry of Agriculture; promoting subprojects; and supporting a variety of diverse activities such as approving grants, advancing training, and establishing a network among institutions and organizations that are concerned with hillside agriculture.

The use of a Project Coordinating Committee has proven to be a viable means of establishing policy and involving the Ministry of Agriculture, USAID, and the Jamaica Agricultural Society in important decision-making questions. The role of the Committee should now become more of policy making and oversight for the project. In addition, the Committee offers a focal point from which the effective dissemination of information from the subprojects can be shared.

IMPLEMENTATION

Although HAP got off to a difficult start with regard to subproject preparation, project management reacted well in finding ways to promote the development of subprojects. Most subprojects the evaluation team visited were active, with personnel who were keen to develop and implement various approaches of support for hillside agriculture.

Different approaches to extending technologies to the hillside farmers are in place or planned. HAP should closely follow the effectiveness of each approach and support the trial of additional approaches.

The project has fostered and followed an approach to training that is rooted in the practical. It is offered to those who work with the farming community. Networking is occurring, making HAP increasingly important in Jamaican hillside agriculture.

The management of information within HAP requires immediate attention if it is to be a leader in the development of policy for hillside agriculture. Without reliable and sufficient information, this simply cannot happen.

IMPACT

In the areas covered by subprojects, the results of HAP support are evident. Whether these results can be sustained will depend to a large extent on the financial return that will come from the applied technologies.

The evaluation team was concerned that many subprojects will be susceptible to a tendency that haunted rural development projects: those individuals with more and better organized resources benefit most from development assistance. This could mean that over time an important number of farmers having perennial tree crops will continue to use practices that are not conducive to improving hillside production.

CHAPTER ONE

STRATEGY OF THE HILLSIDE AGRICULTURE PROJECT

The Hillside Agriculture Project (HAP) was designed to follow a strategy consisting of three distinct parts. These parts were: (1) perennial cropping, (2) improved technologies, and (3) community participation. This strategy was developed to avoid pitfalls and problems found in previous projects and activities. The strategy can be summarized as advancing the production of perennial tree crops through improved technologies and with active farmer participation. The strategy was to be carried out by allocating subproject grants, providing technical assistance and training, and establishing a network among those involved in the project.

This chapter looks at the three strategies and their effectiveness to date.

STRATEGY # 1:

PROMOTION OF PERENNIAL TREE CROPS

The project paper states that the strategy is based on "focusing resources on... increasing production and productivity of selected perennial crops" and that the emphasis is to be on the use of improved production technologies through a community-based approach. Certain perennial tree crops are already grown by a large number of farmers in the project area. There is a fair knowledge of the requirements, preferences, and tolerances of these crops. However, a systematic application of this knowledge to production is lacking, on both individual and community levels. Effective implementation of the HAP strategy to promote trees crops systematically can therefore be expected to bring many benefits to subproject participants.

These same benefits can come about, however, only if the economic return to the farmer for participation in subproject activities is quickly rewarding and continues to be so. Coffee and cocoa offer the best chance that such rewards can be achieved. The strategy in fact has become dominated by these two crops, with two approaches followed: rehabilitation of existing plants, and new plantings. The former is meant to provide additional income quickly, while the latter is expected to contribute to income and maintenance costs over the long term. Both approaches should provide additional protection to the hillside environment.

Commodity associations give attention to marketing of cocoa and coffee; the higgler trade may be expected to take care of other production from perennial tree crops. As a result, marketing under this strategy should not be a limiting factor.

A limiting factor to date has been the inability to purchase an adequate number of coffee and cocoa seedlings to fulfill subproject plans. This result of the hurricane in 1988 means that a significant proportion of plantings will have to be postponed until next year. Resuscitation efforts should therefore receive additional attention.

Although the HAP strategy is working for coffee and cocoa, little attention has been paid to other tree crops. The participation of commodity boards (coffee and cocoa) in subprojects means a greater likelihood of success, if only because of self-interest. At the same time, their participation has meant that other tree crops have not received a great amount of attention under the current subprojects.

STRATEGY # 2:

IMPROVED TECHNOLOGIES

The second part of the HAP strategy is the identification, adaptation, and dissemination of improved technologies. The critical element for project success is the dissemination of improved technologies. The evaluation team saw no technologies in use that have not been known and available for some time; there was talk, however, of trying to use yams as a source of shade. The team did see concerted efforts to apply known technologies on both a systematic and a broad basis in subproject areas.

HAP is not a research project; rather, it is a production-oriented effort. The identification of improved technologies along with any adaption should not be a major concern for HAP. Identification and adaption should come from those most concerned with improving tree-crop production -- namely, the efforts associated with the commodity boards and research institutions. Known technologies can both improve production levels and farmers' incomes, and play a positive role in soil-conservation methods for the hillsides.

While keeping an eye open for improved technologies, HAP should concentrate its training efforts on improving the understanding of current technology and its application. This should occur from the farmer level through the upper echelons of extension personnel. In the long run, this approach may prove to be the greatest contribution HAP can make to sustainable hillside agriculture.

STRATEGY # 3:

FARMER INVOLVEMENT

One explicit goal of the project is to involve farmers in the design and implementation stages of all subprojects. Unfortunately, such involvement remains weak, especially with regard to participation in project design.

For the projects reviewed, the ideas were mainly developed by staff of the Ministry of Agriculture or personnel from nongovernmental organizations such as UNITAS, and eventually communicated to farmers by personal contacts and public meetings. One by-product of this approach has been, on occasion, the development of differing and even conflicting expectations of a project. Examples of this were to be found in both Moravia and the Blackwood area. The non-involvement of the farmer at the stage of needs identification and project design may not be altogether bad, however. Most of those actively involved in the development of ideas are reasonably close to the field situation, and may well be performing a good representational role. However, the general absence of skilled personnel and expertise, within the Ministry of Agriculture in particular, has militated against adequate development and elaboration of the proposals.

A related difficulty is that farmers are by now somewhat cynical and apathetic about programs run by the government. The time lag between the birth of an idea and its emergence from bureaucracy does not encourage high levels of motivation or participation. In this regard, nongovernmental bodies such as UNITAS, CARE, FISH, and IICA, with experience in design and implementation, compare very favorably with official bodies.

On the matter of participation in implementation, the hope was and remains that the local management committees (LMCs) and farmer organizations, such as the Jamaica Agricultural Society (JAS), will provide avenues for interest articulation and representation.

Certainly farmers are represented on the LMCs. In several subprojects this has worked well, but in other subprojects, questions can be raised about their real representation and organized base within the local community.

The JAS has not had any significant impact so far. In most of the discussions at both project and subproject levels, there has been a firm belief that as a long-standing farmer organization, JAS must of necessity be involved. The feeling has been that the JAS would and should assist in the promotion and implementation of the activities, as well as in the mobilization of support for them. Direct approaches have been made to the JAS at national, regional, and local levels, by project managers and staff. The results have not been encouraging. Active support has not really materialized or, at best, has been half-hearted. Communication between the interested groups has been either fitful or non-existent, and in one instance (Manchester Land Authority) the relationships are bordering on annoyance and hostility.

It is also of interest to note that there have been complaints of nonsupport of local branch activities by regional and even central JAS personnel. In the one case (Blackwoods-Elgin-Windsor) in which the involvement of the JAS appears high and meaningful from the perspective of the farmer, the JAS as a formal structure is incidental to the process of mobilization, promotion, and implementation. The successes were largely due to the reputation, status, and personalities of the individuals involved.

The only subproject that will really base its interventions on farmer participation in both planning and implementation is the IICA farming systems project. Since this subproject is just beginning, it is too early to say whether this approach will be more successful in promoting farmer participation.

Experience to date indicates that farmers will participate in implementation if stimulated through free material inputs. They will also use improved technologies that are associated with the material inputs. What has not yet become clear is whether farmer participation in planning should really be a concern for HAP, or what impact results from this participation.

CHAPTER TWO

STRUCTURE AND ORGANIZATION

HAP was designed to be outside of line operations of the Ministry of Agriculture. The primary reasons for this organizational placement were to avoid many of bureaucratic requirements and time delays associated with line operations in the Ministry of Agriculture, as well as give greater flexibility to HAP as an organization. In addition, location outside of the ministry structure was foreseen as fostering easier interaction with other organizations and institutions concerned with hillside agriculture and enabling a greater amount of project resources to flow to the farmer. This choice of project placement has proved to be an excellent one; it has allowed HAP to react faster than is normal in the Ministry of Agriculture and has given the project a flexibility not normally found in "official" government projects.

PROJECT COORDINATING COMMITTEE

What has given the project real legitimacy and made the structural placement work is the Project Coordinating Committee (PCC). This committee -- made up of the Permanent Secretary of the Ministry of Agriculture and others from the ministry, a representative of the JAS, and a representative of USAID -- has worked hard to establish HAP. It has also been the linchpin that holds together the real interests of the Ministry of Agriculture and USAID. Through the PCC, mutual decision and policy making ensures that the project is meeting the needs and demands of the grant recipient and the grantee.

To represent the viewpoint and be the voice of the hillside farmer, the PCC includes a representative from the national level of the JAS. To date, its participation has not met expected or desired levels. There are recent indications, however, that JAS participation is improving and becoming more active.

The minutes of the monthly PCC meetings are perhaps the best systematic documentation of the project to date. The dedication and time given by its members is to be highly commended. A competent Project Manager has been hired, policies underlying HAP operations are in place, nine subprojects have been seriously scrutinized and approved, and a sound working relationship has developed between the Project Manager and the PCC.

As HAP enters more into its own "corporate" life, serious thought should be given to modifying the role that the PCC fills. Subproject operations have now become the focus of HAP; the PCC should follow these operations through oversight. Many of the major decisions to establish and get HAP up and running have now been jointly made in the PCC. It is perhaps time for the PCC to begin to meet less than once a month. A quarterly meeting that is well prepared by the Project Manager appears to be both feasible and desirable.

One lesson concerning the use of the PCC-type of arrangement is that the dichotomy between planning and implementation has been minimal. In large part this is because the real formulation of the program for HAP occurred **after** the establishment of HAP and the hiring of the Project Manager. The value of such an arrangement in the Jamaican context should not be lost on project planners.

INTERNAL STRUCTURE AND ORGANIZATION

HAP is basically an agency for awarding grants to subprojects. In addition, it supports the cost of certain training activities that are linked to the dissemination and use of technologies found in the subprojects. As a funding agency, it operates with a simple structure and few personnel. The staff is composed of the project manager, a deputy manager, an accountant, a secretary, and one field agent. In addition, the Ministry of Agriculture supplies several auxiliary personnel through the use by HAP of a building located in Hope Gardens. All HAP staff members report directly to the project manager.

The organization chart for HAP that was drawn up in August 1988 (see Annex F) shows little difference from that found today. HAP remains lean and functional, and should remain so.

The Project Manager is responsible for implementing on a day-to-day basis the policy and directives established by the PCC and also serves as the executive secretary for the PCC. His duties appear to be well defined. Most indications are that he is successfully leading HAP.

The exact duties of the Deputy Manager are ill defined because the individual occupying this position does not have the necessary qualifications demanded in the scope of work. Whether the deputy position is really required, as it is now filled, is open to question. The original intention, still valid, for creating a position of Deputy Manager was to fill a void in the management of information within HAP.

What is required, and required urgently, is a person who can relate to the original scope of work; this scope of work concentrated on the management of information within HAP. This individual would report directly to the Project Manager and spend approximately one-third of his or her time in the field. The project must be willing to pay the level of salary and benefits for this position that will attract qualified and interested individuals. A suggested scope of work for an Information Manager is presented in Annex E.

No one should be hired as an accounting clerk. The project accountant is ably handling all accounting needs related to HAP and integrates financial reports received from the subprojects into HAP's financial data. Recent computer training has reinforced her ability to use computers for all accounting and financial functions.

Through the necessity of beginning field operations and to ensure proper use and control of HAP inputs, HAP was instrumental in the hiring, under subproject funds for Blackwoods, Elgin, and Windsor, a project manager cum technical assistant. This arrangement has proved effective. However, such heavy operational involvement in future subprojects should be done with caution. These three subprojects should give HAP a clear indication whether such a strong, supportive, and operational role is either necessary or effective in projects carried out by JAS branches.

LINKAGES TO SUBPROJECTS

Subprojects form the major framework in which HAP is to execute its mandate of assistance to hillside agriculture. As such, an effective linkage between HAP and each subproject is critical. This process begins with active discussions even before actual subproject proposals are drafted.

HAP has been successful in fostering and promoting ideas among various grantees, and then working with the grantees in several cases to draw up a document for a subproject. In other cases, the organization or institution has shown the internal capacity to develop ideas and draft them into a subproject proposal. Whatever the identification process, the HAP Project Manager is actively involved.

By the time a subproject proposal is presented to the PCC for examination and approval, many of the weaknesses have been corrected and the proposal includes critical aspects that meet HAP criteria for subproject approval. This close involvement by the HAP Project Manager means that a thorough understanding of the subproject is in place before actual funding is granted.

Through regular field visits by HAP personnel, written reports -- both substantive and financial -- received from the field, and the training activities sponsored by HAP, and because of the visits by many of the grantee personnel to the HAP offices, good working relationships have been developed and maintained between HAP and the subprojects.

As the number of subprojects increases, HAP will have to rely more on written reports from the field to monitor the subprojects. A standard, periodic reporting format for all subprojects would greatly assist HAP both in monitoring and in providing information that could be used to evaluate and compare the approaches followed by the various subprojects. The establishment and regular use of such a format should be the first priority of the Information Manager.

EXTERNAL LINKAGES

The establishment of linkages to many domestic and international institutions and organizations forms a small, but important, part of HAP's mandate. To date these linkages have primarily been in the form of personal contact between the personnel of HAP and other organizations, the sponsoring of visits to other countries to exchange views on different approaches to assisting coffee and cocoa production on hillsides, and the participation of HAP-related personnel at meetings that concern hillside agriculture.

The valuable linkages already established should continue and expand. With a growing knowledge of the production of perennial tree crops, HAP is becoming an important source of information for donors and others interested in assisting development efforts aimed at hillside farm enterprises.

The project paper mentioned the establishment of a HAP-sponsored newsletter to disseminate information about the activities supported by the project and perennial tree-crop production on the Jamaican hillsides. We believe that a newsletter, internal to HAP, would be a means of further linking the subprojects and sharing information emanating from them. It would also give HAP an additional avenue for the sharing of information that originates from sources outside of the project. This effort should be small, done on no more than a quarterly basis, and handled by the information manager within HAP.

GOVERNMENT OF JAMAICA OVERSIGHT

In ending, it should be noted that the HAP is well monitored by entities within the Government of Jamaica. Among these are the Public Sector Investment Program, the Project Analysis and Management Company (PAMCO), which is located within the Ministry of Development Planning and Production, and the Data Bank of the Ministry

of Agriculture; the latter entity reviews most project reports and activities. In addition, the Ministry of Agriculture provides financial audit and control over projects funds expended in local Jamaican dollars.

CHAPTER THREE

PROJECT IMPLEMENTATION

This chapter looks at elements that have played important roles in the implementation of HAP and the subprojects to date. It is worth noting that it took 18 months from the time that the Ministry of Agriculture and USAID signed the project agreement until the first subproject was approved. Although this amount of time was long, tremendous progress was made in those 18 months: a project manager was selected, a viable PCC was developed, procedures for subproject development and approval were put in place, procedural agreements were worked out between HAP and USAID, and the project was made known to many organizations that now have active subprojects.

SUBPROJECT IDENTIFICATION AND PROPOSAL DOCUMENTATION

Nine subprojects have so far been identified and approved by HAP for implementation. The strategy for subproject identification and development given in the project paper has allowed for flexibility and necessary creativity on the part of HAP management. As HAP has found out, it is one thing to state that "groups will be able to submit proposals to carry on specific projects within the framework of the overall project goal" (PP, p. 23) and another to actually receive proposals to consider.

The HAP Project Manager and USAID Project Coordinator are to be commended for their early and continuing efforts to introduce the project and its potential assistance to various organizations, institutions, and groups. Although these early efforts -- carried out through personal contact and the use of the mass media -- did not create an inflow of proposals, these same efforts made it clear to project management that proposals would not appear without more direct involvement of HAP resources; this largely because local capacity to develop written subproject proposals is weak, especially in the Land Authorities and JAS branches.

Project management facilitated the development of the first proposals through the following actions:

- Funds were made available to pay local consultants to develop subproject proposals for local groups; and
- Assistance in the drafting and review of some of the earliest proposals.

The first three subprojects approved -- Blackwoods, Elgin, and Windsor -- were developed and written by a consultant responsible to the Land Authority and JAS branches in these three locations. However, his services were paid for by HAP. A similar type of arrangement was used for the Manchester Land Authority subproject. The preparation of the pending subproject proposal from the North Clarendon Processing Company (NCPC), while largely funded by the company, did receive some assistance from HAP. In the case of the Mango Top-working subproject, the HAP manager virtually wrote the entire proposal.

Only experienced organizations such as UNITAS and FISH (nongovernmental), the Cocoa Industries Board and CIDCO (parastatal organizations), and IICA/MOA (a regional organization working with a government ministry) have been able to develop proposals largely on their own. In addition, several international nongovernmental organizations,

CARE and the National Cooperative Business Association, have developed and presented proposals for subproject financing.

Part of the third leg of the HAP's strategy for the development of hillside agriculture is the involvement of farmers in the design of project activities in their respective communities. The use of consultants -- in four out of the nine operational subprojects -- supports such involvement only to the extent that the consultants actually worked with members of the beneficiary population and personnel from the Land Authorities.

In the case of parastatal organizations, such as the Cocoa Industries Board and CIDCO, their ability to develop adequate proposals for HAP consideration from in-house resources places in question the actual involvement of the farming community in these proposals. Only the IICA/MOA (R&D) proposal, through its use of a farming systems research and extension (FSR/E) approach, guarantees the participation of farmers in developing the activities to be supported by the subproject. However, the proposal did not stem from a large amount of local involvement, but from a knowledge gained by IICA in other FSR/E-type projects.

Subproject proposals are meant to be reviewed by three different organizational entities before they are approved. These entities are the relevant Parish Land Authority, the Rural Physical Planning Division (RPPD) of the Ministry of Agriculture, and a subcommittee of the PCC. Experience to date indicates that little or no qualitative feedback will come from the Land Authorities. They appear to be happy to have another "project" that brings money and materials to the agriculture sector of the Parish. However, and at the least, approval from the Land Authority means that several people at the Parish level are aware of the project, know what the subproject is expected to accomplish, and officially sanction it.

The RPPD usually responds to HAP's request for a review of a proposed subproject with approval and a few comments. In no instance that the evaluators are aware was approval for a subproject held up by the RPPD. The real review of subproject proposals comes from the projects subcommittee within the PCC.

Because Phase I is meant to test and try different scenarios, greater involvement in the review process by both the Land Authorities and the RPPD is desirable. What can be stated is that their role has not hindered -- often approval is given quickly -- or been terribly beneficial to date. Should HAP move into a Phase III where approaches and methods from Phases I and II are to be vastly replicated, a more proactive approach from both the Land Authorities and RPPD will be required.

Final approval for any subproject comes from the PCC. In approving the first several subprojects, the PCC appears to have deliberately taken time to ensure that HAP criteria was firmly met. At the same time, the PCC established the procedures found today for approval of all subprojects. There has been improvement in reducing the time required for subproject approval from the time a proposal is presented to the PCC and to when it receives official acceptance. Only one proposal to date, a proposal presented by the JAS -- Introduction of Titling Scheme for Cocoa Cooperative Growers -- has not been approved. However, most of the current subprojects proposals went through modifications before approved. Several proposals currently before the PCC could also be rejected or undergo major modifications. In at least one instance, a proposal (from CARE) was withdrawn before serious discussions really began.

The processes used for subproject identification and proposal development have been both creative and successful. A clear and simple handout -- how to prepare, write, and present a subproject proposal -- has been prepared by HAP. Continued creativity will be necessary if HAP is to increase its portfolio of subprojects with additional organizational structures and approaches.

Only in the IICA/MOA farming systems proposal does one see the use of the logical framework. This analytical tool should be applied to all proposals; it is a rational way of working through a project design. HAP should help those preparing proposals to understand and use the logical framework.

The evaluation team recommends that HAP increase its current portfolio of nine subprojects by several additional ones. These additional subprojects should, if possible, concentrate on new or different approaches and organizational linkages than are currently found in the portfolio. This will allow HAP to make greater comparison between the various mixes of approaches, organizations, and structures. Examples of other types of subprojects include: (1) using a straight contract method for coffee or cocoa resuscitation, (2) covering all coffee and cocoa acreage in a small geographic area through resuscitation and additional plantings, and (3) establishing a subproject in which the Local Management Committee (LMC) is chosen by the local population and where farmer representatives other than from the JAS are LMC members.

Role of USAID

USAID has taken a proactive role in HAP. This has occurred through the following actions.

- The person responsible for the drafting of the project paper has also been hired under a personal services contract to be the Project Officer;
- There has been strong participation and involvement throughout the project by the Deputy Agricultural Development Officer and Project Officer with the PCC; and
- There was a large degree of flexibility built into the project design by USAID.

The USAID mission went to great lengths during the development of the project paper to overcome the problems and approaches that were found to be ineffective in earlier rural development projects associated with hillside agriculture. From these efforts came a simple and flexible design, a concentration on economically attractive production practices, an approach that does not initially saturate an area, and subprojects that are carried out by other organizations than the project per se.

The Ministry of Agriculture appears to be happy with the working relationship that has developed with USAID under HAP. The mission should strive to replicate the approach and structure that has proven effective to date in fostering active participation on the parts of both the Ministry of Agriculture and USAID.

USAID should work to maintain, through at least the fourth year of the project, the current Project Officer. This officer knows the project well, is committed to the development of hillside agriculture, has proved effective in learning and responding to internal USAID requirements, works well with HAP and PCC personnel, and is a key networker for the project.

TECHNICAL ISSUES

The control of soil erosion underlies implementation of HAP. Workable measures for soil conservation are known by agricultural extension workers and farmers, but are practiced only to a limited extent in the project area -- the occurrence of both sheet and rill erosion was common within the subproject areas visited. Suitable soil-

conservation practices, approved and monitored by the Extension Services of the Ministry of Agriculture, should be a basic requirement of each subproject. It would be most convenient to select complete mini-watersheds as subproject areas, thus simplifying run-off control on a scale beneficial to entire communities.

Each subproject visited, with one exception, had as the central theme the increase in production of cocoa or coffee through resuscitating old fields and increasing the density of population to approximately 900/acre for coffee and 430/acre for cocoa, the latter to be accomplished by adding new plants to older fields in some instances, or establishing plots of new plants in other areas. All operations connected with resuscitation and new planting are performed under the expert guidance and with direct assistance of skilled personnel from the cocoa and coffee commodity organizations. The farmer is normally required to work alongside, acquiring up-to-date knowledge of cocoa and coffee husbandry. This knowledge relates to the clearing of the area while leaving adequate protection for the land, adjusting overhead shade, fertilizing, pruning, and pest control, all in an orderly manner to which the average farmer is unaccustomed.

A field plan for each participant's holdings is prepared by an agricultural extension officer in consultation with the owner; details of the activities to follow are explained and recorded for reference. It seems, however, that each holding is dealt with as a unit completely independent of its neighbors; it would be preferable, where practical, to better coordinate plans of similar holdings in a locality to help foster concentrated impact within the subprojects.

Selection of the varieties and strains of cocoa and coffee to be grown presents no problem; the associations through which most marketing must be done make the decision and are also sources of supply for seedlings and rooting material. Currently, nursery production of coffee seedlings is not matching the demand from subprojects. However, the shortage is taken to be temporary.

The tempo of project implementation is on the increase through greater diffusion and understanding of HAP among the hillside farming communities, local organizations, the Land Authorities, the JAS, and the commodity boards. The project should move in early 1990 into a two-year Phase II. At the end of that period, it should be possible to have a clear view of the potential for sustainability and actual impact coming from subproject activities.

Indications are that the participants have a belief in the benefits to accrue from subproject activities, although they are maintaining a wait-and-see attitude before committing themselves further to subproject activities. When transition is made into a Phase III -- the transition founded on empirical evidence that the technologies are improving income and production -- the technology applied in Phases I and II will be familiar and its use continued, with or without modification, by farmers.

The husbandry procedures advocated for cocoa and coffee by the extension services of the Ministry of Agriculture and the commodity associations are considered appropriate. These procedures were designed for Jamaican producers. Their sustained, correct application can only lead to the desired increased production. The evaluation team did not observe or hear of any recommended practices for crops other than coffee, cocoa, and mango. It is reasonable to assume, should need arise, that support similar to that given cocoa and coffee can be given for other tree crops grown in the area, albeit on a lesser scale.

Improvement of technologies must come from experimentation; a limited amount of this may be included as adaptive research during Phase I of HAP. The MOA/IICA subproject includes trial and observation of various farming systems in comparison with the traditional or standard practices used by participating farmers. These efforts should be fully supported over several years to increase the knowledge base for hillside farming

and, where possible, show that modifications to current farming systems can lead to greater welfare for the farmer.

EXTENSION APPROACHES

The development of effective extension mechanisms for technologies and inputs to hillside farmers is a major concern under HAP. Different extension approaches are to be developed, tried, and evaluated within the activities of all subprojects. To date no subproject has operated long enough to measure either the effectiveness of differing approaches or the chances that any approach can be sustained once HAP funding is completed. In addition, some approaches have not yet been tried.

To date all the extension approaches used in HAP subprojects have included the supply of inputs along with technical advice. Variables on the supply side are limited to grant, and in one case loan. Variables on the technical side include organizational affiliation of the agents, the training they receive and give, the type and quantity of interaction the agents have with the farmers, and the motivation of the agents.

Several observations concerning approaches to extension follow. These are linked to the various organizational mixes that are found in subprojects and shown here:

- Use of the traditional extension apparatus operating under the Ministry of Agriculture;
- Use of the extension services offered by both the Coffee Industry Development Corporation and the Cocoa Industry Board;
- Ministry of Agriculture extension agents working in collaboration with either CIDCO or Cocoa Industry Board agents;
- Ministry of Agriculture extension agents utilizing a farming systems approach to research and extension -- this done in collaboration with IICA and includes some input from the commodity boards;
- Contracting of extension services with private individuals;
- Varying uses of the JAS branches, most often in support of one or more of the above approaches; and
- Use of purchasing cooperatives for input supply and farmer contact.

HAP subprojects are primarily concerned with either coffee or cocoa development. Thus the technology to extend comes from the respective board and their field personnel. Utilizing the same technology throughout most subprojects makes for few differences in content. In general, the content includes the furnishing of inputs -- plants, fertilizer, pesticides, and saws -- to participating farmers. Also provided is technical advice and demonstrations in farmers' fields. In only one case, RMCEP, are inputs provided on a loan basis, albeit with no interest.

None of the current extension approaches, with the possible exception of RMCEP and the mango top-working subproject, is sustainable. Since all inputs, except the farmer's labor, as well as the salaries and expenses associated with the commodity boards' extension personnel are underwritten by HAP, no sustainable extension approach is possible. What is sustainable is the knowledge gained by participating farmers and Ministry of Agriculture extension personnel along with greater production for at least several years. Beyond this, it is too early to say whether greater production of coffee,

cocoa, or other perennial tree crops will enable the commodity boards to retain extension personnel. Or whether increased production will lead to higher incomes for the farmers, a part of which could be used -- but will the farmer do so? -- to purchase inputs now given on a grant basis.

Evidence from several other perennial tree crop projects found in the Caribbean indicate that because return from production is not immediate, a grant (subsidy) approach is both appropriate and the only way to stimulate the cultivation of tree crops. The real impact becomes understood only when production or harvesting begins. In the case of HAP, this is at least a year away for resuscitated trees and more for any new plantings.

In the mango top-working project, the contractor has trained several local farmers in grafting and budding techniques. With little additional input, these farmers should be able to improve their mangoes (variety and marketability) by pruning, grafting, and budding additional trees in the area. However, it will be several years before trees that are currently being topped show results -- a serious lag time for interest to be maintained.

Because inputs, other than technical advice and demonstrations, are provided on a loan basis in the Rio Minho Cocoa Expansion Project, there appears to be a chance to sustain the use of certain inputs. This is because part of the loan, up to half in cases in which participating farmers have correctly followed and utilized technical suggestions, will be forgiven and most likely placed in an individual account at the cooperative store. Through this "enforced savings" approach, the farmer would have a certain amount of credit upon which to draw. Stimulating continued savings for crop investment will determine whether sustainability of inputs will occur. It is well worth watching to see if this approach succeeds over the next several years.

Another approach will be used in the IICA/MOA (R&D) subproject. This approach will send a team of trained people into part of a farmer's field to work with him in applying the technical package recommended by the commodity boards, whether for cocoa or coffee. The demonstration effect should be immediate. Whether the effect will be convincing enough for the farmer to begin paying for inputs to replicate what has been placed on his land will be seen only in several years.

An extension approach so far not tried -- although there may be similarities in the IICA farming systems project -- may be a substitute for the lack of Ministry of Agriculture extension agents in most subproject areas. This approach is based on the use of a special task force to carry out the skilled operations on a grower's holding. Each grower so served would take part in the work and learn in doing.

Members of the task force may be drawn from local HAP subproject participants and others who are able to spare time for simple training sessions conducted by extension officers. Part of the idea is to keep the farmer on the farm. In addition, unemployed youth of the neighborhood could be utilized. They should earn the going rate of pay whenever they do task force work and would contribute to development of farming in the community. There need be no firm arrangement with specific individuals who make themselves available for the task force. The task force should be a loosely knit group within which a number may be found free of pressing engagements, and willing on occasion to help a farmer needing services.

Organizing a task force may well be undertaken by the Local Management Committee of any HAP subproject. Appointment of a leader may be necessary, although he or she would be paid only when field work is done. In one subproject, cooperative effort to assist fellow-farmers without requiring pay is being considered. The value of such action can be appreciated when a sizable volume of work must be accomplished within a short time -- for example, planting out coffee seedlings.

The MOA/IICA subproject proposes to organize small groups of skilled workers for special activities on holdings of chosen participants. These groups will assist (in actual fact, lead) the owners to undertake nonfamiliar operations while the owners learn through hands-on experience.

A functioning task force of the type proposed here could be a boon to many participants of HAP subprojects and also an attraction to potential participants. The average age of farmers is over 50 years, and in RMCEP half of the participants are 60 years and over. As a consequence, physical work on the farms involves hiring outside labor that is largely unskilled and must be closely supervised. The task force would greatly simplify matters. In other subprojects -- Above Rocks, for instance -- several of the participants are women (often widows) who must rely on outside labor; here, too, the task force could render invaluable assistance. HAP need not be directly concerned with establishing a task force, but should encourage the subprojects to give the matter thought.

INFORMATION MANAGEMENT

Phase I activities are meant to provide practical demonstration and experience in various approaches and technical applications as a guide to planning future HAP activities. Thus the capture of adequate and important information concerning activities for all Phase I subprojects is critical, for measuring impact and providing solid empirical evidence for the expansion of successful or promising interventions. This is turn will contribute to the development of policies for assistance to hillside agriculture in Jamaica.

To date, the HAP has not established a systematic way of either collecting information or treating such information when it is available. This is not to say that information has not been generated, only that information is not available or treated in a manner useful to project management, subproject components, or other interested parties such as the Ministry of Agriculture or USAID.

The project paper indicates that the information system is to perform the following tasks:

- Provide data for compiling "financial and qualitative" reports to serve as the basis for annual PCC review to ensure that the grants are directed at meeting overall project goals;
- Provide the USAID Project Committee with data for conducting its assessment of the HAP on a semi-annual basis;
- Provide the USAID Project Committee with data for annual subproject reviews;
- Alert the PCC in a timely fashion of needs for technical assistance or training to improve the performance of any particular subproject; and
- Enable an assessment, at the beginning of the third year, of pilot schemes undertaken in Phase I based upon adoption rates and effectiveness of the technological packages for selection, modification, and dissemination to the entire watersheds in Phase II.

The greatest worry of the evaluators is the lack of adequate baseline data for most of the approved subprojects. These data are critical for sound assessments of project progress and impact.

Information management takes time and dedicated effort. To date, time and tremendous effort by project management have been focused on establishing the project as a viable entity. However, if information management within the project does not receive additional management time, valuable data for assessing impact and effectiveness of subprojects will simply not be available in the future.

The following information components require immediate attention:

- A simple proposal tracking system that contains basic data that relate the project to HAP objectives and allows HAP to follow the project on a periodic basis; and

- A standardized set of baseline information for each subproject in HAP's portfolio.

Much of the information for a proposal tracking system is already available from various sources -- such as the minutes of the PCC monthly meetings, USAID project review documents and project implementation letters, periodic reports received from the subprojects, and personal observations. However, the evaluation team had to create tables of basic information concerning all subprojects; such information simply was not a part of a discernible system nor was it readily available. The Proposal Tracking Form included in the DESFIL study in July 1988, entitled "A Management Information System for the Hillside Agriculture Project in Jamaica" remains appropriate and simple; it should be put into immediate use.

A suggestion was made through the DESFIL study that a Deputy Project Manager within HAP be hired with responsibility for information development and management. Such a position has regretfully not been filled; the information management within HAP would certainly be better had this been done.

For some time HAP has been attempting, without success, to hire a computer specialist. Such a hiring should receive high priority from both project management and the PCC. However, the emphasis should not be on creating a Deputy Project Manager for Information Management, but a manager for information within the project. Computer literacy is required, but as important is basic knowledge about information management. The person would be responsible to track all projects from proposal presentation through implementation. Emphasis would be on the subproject links to HAP objectives and the comparison of the different approaches and technologies being tried and tested.

HAP should approach the IICA/MOA (R&D) subproject to establish and carry out baseline surveys of all subprojects, current and future. This approach would entail the hiring of at least two qualified people by the IICA/MOA (R&D) project and the purchase of an additional vehicle. At the end of HAP's mandate, these experienced individuals could be absorbed elsewhere. This approach gives HAP the means to monitor subproject improvements at the individual, farm level while directly expanding the Jamaican capacity to follow hillside agriculture.

The baseline survey questionnaire being developed by IICA/MOA (R&D) would in all likelihood be sufficient for general use in all subprojects. This approach has the following advantages:

- The previous experience of IICA in baseline survey methodology and field use will mean that a standardized approach would be available to HAP; and

- Managerial responsibility for baseline work and comparison would rest outside of HAP, allowing for project management to concentrate on other issues.

With continued improvement in the financial tracking and reporting system currently in use by HAP, adequate financial information should be available on a timely basis to both project management and USAID. Efforts should continue to standardize all financial reports coming from the subprojects and require that this standard system be used in all new subprojects.

CHAPTER FOUR

IMPACT AND RELATED ISSUES

An explicit goal of HAP is the conservation of the island's natural hillside resources. This goal is important not so much as an end in itself, but as a means of ensuring equity between this and succeeding generations in the constant effort to extract from the environment that which can bring about reasonable levels of material well-being. The prevailing levels of material well-being, after all, largely determine the character and extent of the demands on the natural environment.

Four activities HAP is supporting are:

(A) Improvement in income and social and material well-being;

(B) Community development;

(C) Strengthening of the organizational capacities of the local community; and

(D) Participation by the community in the development initiatives being taken on its behalf.

Activities (C) and (D) above are important although not just as ends in themselves. These would be effective means of achieving goals (A) and (B). Also, if the improved knowledge, practices, and attitudes are to be maintained over the long run, and the economic improvements sustained, it is imperative that indigenous organizational capabilities and capacities be encouraged and strengthened.

This section of the report assesses the potential of the project from the viewpoint of its likely impact on the achievement of equity in benefits to be received and in participation in the design and implementation process. This section also analyzes the project's potential for community and organizational development.

At this point it should be reiterated that because all the subprojects under HAP have started only recently, are now being established, or have only just been approved, evaluating impact at this stage is hardly feasible or meaningful. At the moment, one can only look at processes and potential. In this respect, it is possible to indicate the likely outcomes of current practices and emerging tendencies and trends, and to make an informed judgment about the feasibility of the project and subprojects in the light of known constraints within the targeted community.

EQUITY IN THE DISTRIBUTION OF BENEFITS

This project seeks to focus on both the planting of new areas and the rehabilitation of existing ones. The approach is based on the provision of support to the farmer in input utilization; this support is to be in the form of subsidies in kind, rather than in cash. In this respect, this project parts company with many of the agricultural projects that preceded it. It is an important departure in that it is attempting (and will probably succeed) to avoid the welfarism and "illegitimate" expenditures usually associated with cash subsidies. Also, zeroing in on input supports, the project will address a long-standing weaknesses in the farm sector, namely, the shortage of working capital. This deficiency has been one factor responsible for the low standards of farm maintenance and the associated inadequacy in productivity levels.

Discussions with farmers in the project areas, as well as casual observation of some of the farms, reveal the early impact of this kind of support. For example, in the Blackwoods-Elgin-Windsor subproject area, there was general consensus with regard to the reality of support, although the farmers interviewed disagreed about the degree of improvement in production levels.

The provision of input support is designed to:

- Develop, through the utilization of correct cultivation practices, "model farms" or "model plots" that can then have a demonstration effect; and
- Assist with farm development and maintenance.

The expectation is that increased incomes arising from improved production levels will facilitate and maybe even ensure the effectiveness of correct cultivation practices. This is a hope, however, which is based on an assumption that increased farm incomes normally lead to improved cultivation practices. In the Jamaican economy, this might not necessarily be the case, and the effective implementation of HAP and its subprojects requires a more careful examination than has hitherto been done of those factors likely to affect that process. It is known, for example, that given the kind of agricultural environment and wider economic system in which the small farmer has traditionally had to operate, increased farm incomes have often resulted in migration out of the farm community.

FARM SIZE AND LAND TENURE

This project concentrates on farmers who show clear proof of ownership of the land cultivated and that is to fall under the project; it is thought that land ownership is a necessary prerequisite for the promotion of perennial tree crops. There will of course be some flexibility, and land held under long term and fairly secure leases, as well as reasonably stable arrangements for the use of family land, will not be excluded. At the same time, the clear intention is to include only those farmers who are willing, cooperative, and committed. Certainly this is a reasonable position. Nevertheless there is a tendency -- which was evident in almost all the interviews with the project's implementers at the field level -- for "willingness" and "commitment" to be defined in terms of size and status within the farm community. Preference would therefore be for the "outstanding" farmers who would also be the more economically advantaged farmer.

In this regard, almost all of the farmers interviewed had access to land whose total area ranged from three to 30 acres. Indeed, one subproject -- RMCEP -- explicitly restricted its attention to farmers producing six boxes or more of cocoa. Success with a tree crop program may well require restriction to those with more economic and social resources, and who have some visibility and status within the local community. But most of the farmers are found in the 0-2 acre size category and are producing fewer than six boxes of cocoa. The data given in the proposal for the RMCEP subproject show that approximately 74 percent of the farmers in the project area could be so classified. It is also well known and documented that the worst offenders on the matter of soil conservation tend to be located in these very categories. The argument has been made that there will be a trickle-down effect. But there is now abundant evidence from this and other societies that this does not happen, or that the time span is too long.

CLIENTELISM

The Jamaican nation-state has been characterized as clientelistic [Stone 1986]. That is, it is one in which individualistic, asymmetrical, instrumentalist patron-client relations dominate most areas of social life and action.

Field visits into the subproject areas revealed that project activities were not very successful in functioning outside of this kind of format. In those instances where some persons have already begun to benefit from a subproject, the preliminary indications are that the first to benefit are the officers and committee members of the commodity association, agricultural society, or church; those who had been involved in previous projects, such as the IRDP; and the relatives of any of the above. In most areas, the circle is even more circumscribed than might first appear in that a few individuals tend to wear many hats: thus, for example, the president and secretary of the local branches of the JAS are likely to hold similar positions in the commodity associations, as well as to serve as the buying agents for the commodity boards. To be sure, the reality and impact of this phenomenon will vary, and in some, such as Blackwoods-Elgin-Windsor, the personalities and long years of service to, and residence, in the community can have a counteracting effect.

At the same time, the inclusion of previous project beneficiaries may be good if in fact it means that succeeding development initiatives have a cumulative effect. Unfortunately this may not necessarily be the case, as was found, for example in both Moravia and the Blackwoods-Elgin-Windsor areas, where current project beneficiaries were sometimes previous project beneficiaries who had in fact abandoned the practices learned and to which they once adhered.

Two possible coping mechanisms suggest themselves for HAP. The first is that a project of this kind should intensify its efforts to work with more that one group within any one community. For example, given the divisive effect that churches are known to have on a community, the project should endeavor to embrace more than one, if the reach into the community is to be deepened and broadened. The other possible coping mechanism is that the process of beneficiary selection should not be allowed to be as disorganized and unsystematic as it is in some of the subprojects.

SELECTION PROCEDURES FOR PARTICIPANTS

The goal would seem to be that the local management committees (LMCs) select, on the basis of rational and objective criteria, the subproject's beneficiaries. The data that are to inform this selection process are to be generated out of surveys of either a given list of applicants, or the targeted communities as a whole. The names of applicants can be compiled from sources such as the church membership together with interested non-church members, as in the case of the UNITAS subproject; local branches of the JAS; public meetings held to publicize the project and solicit the participation of interested persons; and applications made directly to the project or extension officers of the Ministry of Agriculture. In several instances, it appeared that the procedures are much more ad hoc, personalized, and uneven.

At one end of the spectrum, UNITAS is proposing to conduct formal interviews of the suggested beneficiaries to determine suitability according to predetermined criteria. IICA is setting up an elaborate and highly systematic procedure involving informal pre-surveys; formal sample surveys for the collection of baseline data; and identification of panels for later project monitoring and evaluation, as well as the selection of beneficiaries on the basis of random numbers. At the other end of the spectrum, there is a subproject of the Manchester Land Authority. In this case, the project's management and management structure is so ill defined and the relationship between the

Ministry of Agriculture and the JAS so poor that the Ministry of Agriculture's field staff have made their own individual selections -- the basis of which is not at all obvious. Sixty persons have so far been identified, and farm plans have been done for about 12. At the present rate, one might assume that all will be selected before the LMC is properly constituted and able to make any selection!

Somewhere in the middle of this spectrum are the Blackwood, Elgin, and Windsor subprojects. Here, the local JAS branches appear to have been activated, the LMCs have been formed, and names of potential participants are sent in by the JAS branches. However, the JAS pre-selects before the LMC becomes involved, and once names are in, no farm plans are really ever done. The basis for selection therefore is neither generally known nor institutionalized, thereby reinforcing any tendencies toward privatization and patron-clientship. With the possible exception of the IICA/MOA subproject, the evaluators are concerned that there is little evidence that aggregate data, even at the community level, are being used to determine needs, establish priorities, or serve as a framework for the ranking and choice of participants.

This has a number of implications with respect to the long-term evaluation of the project. With this kind of informational infrastructure, it will be difficult to asses the general impact of the subprojects or their effect on equity as a whole. In addition, the absence of standardized data and data collection procedures means that the potentially valuable comparison of different subprojects and their approaches and techniques cannot really be done.

THE FARMING SYSTEM

One central output of HAP is to make a significant contribution to the development of appropriate technologies and techniques for hillside agriculture. The project document speaks of learning, training, innovation, and technology transfer. Yet, with the possible exception of the IICA/MINAG project, in which there is to be a deliberate attempt to discover and examine local farming systems with a view to determining appropriate and efficient crop mixes and cropping patterns, there is no reasonable attempt to look at the economics or management styles of the small hillside farm.

Certainly in some of the subprojects, farm models have been formulated and estimations have been made of potential increases in income as a result of involvement in the project. Except in several subproject proposals, nowhere did the evaluation team find any meaningful analysis of the economic feasibility or capabilities of particular farms or farm systems and operations with and without the inputs to be provided by the project.

There are two areas in which the problems arising from this failure have been, and will continue to be, particularly serious. The first has to do with the apparent lack of understanding and under calculation of the labor problem. It might be expected that the greater application of chemical inputs and the implementation of improved cultivation practices will result in higher production and labor utilization levels. However, there continues to be an erroneous assumption that family and hired labor are available to the small farm in adequate and affordable quantities. This problem, and that of transportation, have emerged as two of the most critical constraints on the farmers' production levels in general, and on the farmers' ability to benefit from the project, in particular.

Two of the subprojects (IICA and RMCEP) are, however, sufficiently aware of the seriousness of the labor bottleneck to introduce mechanisms for coping with it. Their experiments need to be closely monitored as a possible learning experience.

It was not clear to the evaluation team that real thought has been given to the function or meaning of the activities on the designated acre (or quarter-acre) within the context of the whole farm or overall farming system. One acre will have a different meaning for farmers in different farm-size categories. And how rational or feasible might attention to recommended practices on that quarter-acre be, in the light of what the farmer may be doing on other plots or the rest of his farm? It is known, for example, that a large proportion of the small farm population occupy lands under different forms of tenure and in different geographic locations. In circumstances such as these, time becomes a critical variable, to be used rationally.

The farmer will try to maximize his income in a given economic environment, and the most rational use may not necessarily be that which result in the most efficient cultivation practices. A farmer may not be able to fertilize his cocoa when he should, for example, because another important and more immediate income earner (yams) must be attended if it is not to wither on the vine. The productivity of the cocoa plot may be less, but it will not die.

THE GENDER QUESTION

One final factor was identified as a possible constraint on the equitable access to the project and its benefits -- the gender of the farmer. Farming has not traditionally been a female occupation. Available aggregate data suggest that somewhere between 25-30 percent of the farmer population are women. However, closer scrutiny of the data has shown that the large majority of them are to be found on micro-plots, that is the 0-1 acre farm-size category. A principal explanation for this is that female farmers tend to have taken over from deceased male partners. No data properly document the possible emergence of the substantial female farmer.

In this project, interviews with both project staff and beneficiaries do not reveal any particular problem with access on the basis of gender. However, previous analyses of the potential gender problem have found the difficulties faced by female farmers are essentially similar to those faced by men, and have more to do with the social and economic location of this group.

CHAPTER FIVE

ISSUES FOR THOUGHT

This chapter will present several issues of importance. It is included to round out the observations of the evaluation team.

THE CRISIS IN THE EXTENSION SERVICE

A good extension service can make a major difference to a project. Close monitoring of recommended cultivation practices, along with the dispersal of adequate numbers of extension agents to almost saturate a farm community, normally results in increases in production levels -- assuming, of course, adequate access to necessary farm inputs. Experience has shown that Jamaican small farmers are not resistant and non-innovative. Willingness to try a new idea is indeed very high.

Non-adoption can usually be explained rationally. Thus, the current deficiency of the Extension Service in Jamaica is particularly unfortunate. At present, the staff shortages are so critical, the support facilities so limited, and the level of available expertise so inadequate as to deny the Service real meaning or impact. The situation in Manchester is not an atypical one. There, one officer and a field assistant are expected to cover about 12 districts each having 150-200 farms. Not surprisingly, field staff become vulnerable to what has been called the "tarmac bias," and access beyond the roadside has to depend too much on these "contact" points. The limitations of this approach are obvious.

There are few specific attempts within HAP to strengthen the institutional capacities of the Ministry of Agriculture's extension services. Perhaps this should be so, but some projects in their current format will simply be absorbed into the Ministry's recurrent activities. On the brighter side, some of the Ministry of Agriculture extension personnel reported on the helpfulness of the project in providing material for use on the Ministry's normal training days.

THE JAMAICA AGRICULTURAL SOCIETY

The JAS does not now have much more than an interest articulation function -- its past history of involvement in the affairs of small farmers allows it to pursue this function without much contact with the farmer. The small farm community continues to be a large constituency, and anyone who professes to speak for it will in all probability gain the quick attention of the political directorate. Consequently, anyone attempting to enter the difficult terrain of small farmer development feels obliged to talk to the JAS.

The JAS has no implementation capabilities and weak mobilizational capabilities. The reasons for this include the disillusionment of farmers that followed its capture by the upwardly mobile, rural professional (and nonagricultural) groups, its cumbersome three-tiered representational structure, and the heavy bureaucratization of its processes and later politicization of its organization. Whether the JAS can be reactivated as a viable and vibrant farmers' organization is open to question. It should be said that it is risky to use the benefits and activities of a project or subprojects to activate an organization of this kind, while expecting it to be an independent instrument for interest mobilization and articulation.

ORGANIZATIONAL CAPABILITIES AT THE FARM LEVEL

As long as some farmers (for example, particular cocoa and/or coffee farmers) are able to increase their incomes so they can use labor and other inputs in the quantities desired, that may be all that is required for sustainability. However, the sustainability of hillside agriculture requires the involvement of small farmers. It will require not only an increase in incomes, but also a viable farm.

Much has been said about the debilitating effects of old age. Farmers do tend to be old men and women. They cannot always provide the labor required, and may not be interested in the development of permanent crops -- except as an old age pension. Such perceptions are risky. Certainly, the impact of the aging process cannot be denied. But the real challenge is to encourage a vision of expansion within the family as a potential economic unit. Not much progress will be made without a clearer focus on the concept of the hillside farm enterprise and the organizational capabilities at both the farm and community levels necessary for its development.

The evaluation team was struck, for example, by the almost total silence in HAP concerning livestock rearing and production, or the susceptibility of the small farmer to wage employment. The central importance of small livestock to the farm profoundly affects both the willingness and the capability of the farmer to utilize resources in particular ways.

Farms participating in the subprojects are too dispersed to allow for the development of these capabilities at the farm or community levels. Two points can be made here. First, all the subprojects, and especially those in Category 1, involve relatively small sums of money expended in kind over a number of communities. For example, in the Manchester Land Authority subproject, only 22 farmers per community are to be involved; in Moravia, the project will deal with only 200 out of a possible 1,570 farmers. The RMCEP plans to disburse loans valued at not more than J$3,500 to approximately 1,000 farmers (total number of farmers is about 4,000); and in the Blackwoods complex 200 per community are to be covered. There is a great deal to be said for concentrating the resources in Phase III to facilitate a more noticeable impact and have greater spinoff effect.

Although these are early days for HAP, no innovations or new techniques are being introduced. Rather, existing practices are being supported. Withdrawal of this support would likely result in curtailment or even collapse of the initiative. Rehabilitation of the fields may have occurred, and this is a project achievement. But the issue of the long-term maintenance of the rehabilitated fields remains; this should be a principal focus for Phase III.

SUPPORT FOR THE DEVELOPMENT OF PERENNIAL CROPS

The support of inputs -- such as seedlings, fertilizers, and pesticides -- is a key element in the overall approach of HAP. If such inputs are given on a purely grant or partial grant basis, the approach is not sustainable without continued outside assistance. This being so, the question of why follow or promote this approach is raised for HAP and other projects that have perennial tree crops as a major focus.

The distinction between perennial and annual crops is important in this discussion. In the case of perennials, return is not measured in months; it begins several years after the initial inputs are utilized and then continues for at least several more years. With annual crops, return to investment can be measured on a much shorter time scale. The greater time lapse for perennial crops often means inputs from a project such as HAP are not fully appreciated by the farmer until much later than is normally found in other types of production-oriented projects. Thus, projects based on the production of tree crops on hillside lands, and having soil conservation as an offshoot, should be judged differently than other production projects.

Several factors lead to this differentiation in the hillside setting:

- Hillside tree crops are most often not **cultivated**, as are annual crops;
- Tree crops are often viewed as insurance against the failure of other crops, and not as a primary source of either income or livelihood;
- Often the hillside farmer does not have the means to invest and then wait for several years until any return is realized;
- The labor constraint associated with Jamaican hillside farmers does not allow for real investment in paid labor for tree crop production;
- There is a fear of taking loans to support tree crop production when land or other assets -- vital to the farmer's livelihood -- must form the collateral; and
- Without clear title or long-term control of hillside lands, a farmer has little incentive to invest today for return several years in the future.

The HAP approach is to convince farmers that **a systematic cultivation effort** for tree crops is possible and financially rewarding. Helping to cover the up-front investment costs for the resuscitation of established trees and for new plantings, along with support for maintenance costs over several years, responds positively to the needs and constraints of the hillside farmer.

The grant system employed by HAP may well prove to be the most effective and efficient way to assist the development of hillside agriculture and at the same time have a positive impact on the production levels of crops that earn foreign exchange. It may also be that most efforts to foster perennial tree crop production on hillsides simply require assistance on a grant basis for a longer time than is now the norm for project assistance. HAP, as well as several other perennial tree crop projects in the Caribbean, should begin to provide good indications of both the effectiveness of the grant approach and the time period that such assistance is required to be meaningful and beneficial at the farm, regional, and national levels.

ANNEX A

SCOPE OF WORK

ANNEX A

SCOPE OF WORK

PROCESS EVALUATION OF THE HILLSIDE AGRICULTURE PROJECT

1. Activity to be Evaluated

A process evaluation is to be done of the Hillside Agriculture Project, USAID Project No. 532-0101. This project was authorized on February 26, 1987 for U.S. $10 million over a seven year period. The Project Assistance Completion Date is February 28, 1994.

2. Purpose of the Evaluation

The purpose of the evaluation is to assess the effectiveness of the implementation used under Phase I of the project, to determine whether the necessary systems are in place and functioning, and whether any changes in the implementation mechanism are advisable. The results of this evaluation should provide the Mission with the basis for making decisions, about activities to be undertaken in Phase II. The evaluation should look in-depth at the three functional areas, described below, and produce one unified evaluation document.

3. Background

The Project Agreement for the Hillside Agriculture Project was signed on February 28, 1987. The Project was set up as a grant funding mechanism to support self-managing subprojects that focus on the production and productivity of economically viable perennial tree crops. Since that time, core staff has been hired, operational procedures and mechanisms worked out, and nine field projects have been approved. By the time of the evaluation 5 or the 9 subprojects will have been on-going for one year.

The Project Paper (pp. 26-7) describes the Project in terms of two phases. Phase One should "focus on the gathering, pilot testing, and adaptation of technological packages directed at the profitable production of perennial crops by hillside farmers". Phase Two would then focus on "dissemination and refinement of the technological packages". Although the Project was authorized for a Life of Project funding level of U.S. $10 million, obligations to the Project may not exceed U.S. $3 million until an evaluation of Phase One is done.

The Project is implemented by a small Project Management Unit operating under the guidance of a Project Coordinating Committee chaired by the Permanent Secretary of the Ministry of Agriculture. This management unit solicits, evaluates and recommends subprojects for approval, provides a funding mechanism for rapid disbursement to subprojects (under the audit supervision of the Ministry of Agriculture), and monitors on-going subprojects. In addition, the management unit administers technical assistance and networking activities under the Project.

The implementation arrangements set up under this project are unique in the Jamaican context. The original intent was to rapidly and efficiency fund activities that would directly impact small farmers on the hillsides, and to avoid a top heavy bureaucratic arrangements that would interfere with this process.

4. Statement of Work

The evaluation should address the following questions:

A. Is the process whereby subprojects are identified and approved being done efficiently and effectively? Does this process conform with the original project intentions as stated in the Project Paper?

B. Is the present Management Information System adequate for the needs of the Project? What progress has been made towards establishing such a system, and what recommendations can be made for improving the system?

C. Is the present staffing pattern of the Project suitable in terms of the requirements of running this project? Identify areas of strengths and weaknesses, and make recommendations on future staffing levels.

D. What is the overall progress of the subprojects towards meeting stated goals of the Project? Is the project sustainable in terms of agricultural and environmental criteria?

E. Are the technologies being undertaken in subprojects appropriate for achieving overall project goals? What recommendations can be made on improving the process of technology generation and dissemination?

F. Are the subprojects being submitted and approved technically feasible in terms of achieving the goals and objectives of each? What recommendations can be made for improving the subproject approval process so as to ensure feasible proposals?

G. Are the extension approaches being undertaken under the subprojects appropriate and sustainable? What recommendations can be made on how to improve extension delivery and networking of information learned in subprojects?

H. Are farmers being involved in the design and implementation of subprojects? Are the types and degrees of participation by farmers suitable for achieving the overall Project goals? Can specific recommendations be made so as to improve this process?

I. Are the on-going subprojects feasible in terms of social and economic constraints experienced by small hillside farmers? What recommendations can be made on how to overcome these constraints?

J. What is the potential impact of the subprojects with respect to income generation and savings, equity, status of women, and community development? What constraints or risks can be identified underlying the design and implementation of subprojects? How can these be overcome?

K. Is the process and content of baseline data collection adequate for future evaluation of the project? What specific recommendations can be made towards an appropriate level of baseline data to be collected for the needs of the Project?

5. Methods and Procedures

The evaluation will be carried out over a three-week period beginning on or about October 2, 1989. The evaluation team is to conduct interviews with project staff, Ministry of Agriculture officials, USAID officials, Jamaica Agricultural Society officials, and subproject organizations and field staff. A series of in-depth qualitative interviews

will be conducted of farmers to assess impact and participation. Other relevant officials in the agriculture sector will be interviewed. Documentation relative to the Project, and approved and pending subprojects is to be examined and assessed.

The team will present an evaluation plan within two of starting the evaluation. Team members will be authorized to work a six-day week, and will not be compensated for U.S. and Jamaican holidays. Office space will be provided at the Project office, which will also assist with clerical and communications support. A representative of the Data Bank of the Ministry of Agriculture will be assigned to work with the team in an administrative capacity. The Project Manager and Project Coordinator will assist the team in the logistics of carrying out the evaluation.

6. **Evaluation Team Composition**

The evaluation team shall consist of the following individuals:

Team Leader:

Will be responsible to manage the team during the course of investigations, be accountable to HAP and USAID, and be responsible for presenting an acceptable final draft at the end of the assignment. The preferred candidate should have experience in tropical tree crops and watershed management from similar projects in Latin America, and at least 7 years experience in project design, management, and evaluation.

Agronomist:

This person will be responsible for analysis of technical feasibility of subprojects, and the technologies being used by the subprojects. The preferred candidate should have a background of at least 10 years experience in tropical agriculture with a specialty in commercial tree crops, and experience in project design, implementation, and evaluation.

Social Scientist:

This person will be responsible for analysis of impact and participation in the Project. The preferred candidate should be a practicing Jamaican social scientist with experience in the areas to be investigated.

In addition to the above duties, the team members will be expected to present generalized findings of their work in a half day seminar to be organized by the Project Manager.

7. **Reporting Requirements**

Weekly progress updates will be given to the Project Manager and Project Coordinator. Upon completion of investigations, the Contractor shall submit a draft report to the Agriculture and Rural Development Office. The Contractor will be expected to present this draft report in debriefing sessions with the Mission and the Ministry of Agriculture. A final report, incorporating the input from these sources will be presented to the Mission not later than one month after departure from Jamaica. The format of the report shall be in keeping with the guidelines contained in Attachment 3.

ANNEX B

EVALUATION METHODOLOGY

ANNEX B

EVALUATION METHODOLOGY

The evaluation undertaken was a process evaluation of the Hillside Agriculture Project. This evaluation occurred some two-and-a-half years after the project agreement was signed. At the time of the evaluation, the longest running subproject within the Hillside Agriculture Project portfolio was just over a year old. These two facts -- the length of time between the signing of the project agreement and subproject implementation, and the short length of time under which subprojects have been operational -- largely determined the scope of the evaluation. From this scope was developed the methodology followed by the evaluation team.

Two basic components of the methodolcgy were:

- The review of most pertinent documents; this included a review of the Project Paper, Project Implementation Letters, correspondence, financial records, subproject proposals (both approved and under consideration), and various reports produced by the management of HAP and the subprojects; and

- Visits and discussions with numerous people who were connected in one way or another with HAP.

Throughout the work, the evaluation team maintained a focus on reviewing the procedures, structural interaction between HAP and its partners, organizational makeup and linkages found within and external to HAP, and the effectiveness of the approaches followed by HAP. The evaluators put an emphasis on recommendations coming from assessment and potential as the best method to assist the project to have a greater impact over time. In several years, impact should become more important in viewing this project.

The first four cays were devoted to the reading of documents and discussions with various people in the Kingston area. These discussions included HAP management and staff, ADO and management staff of the USAID mission, and management staff of organizations that were grantees of funding for subprojects from HAP.

These four days were followed with six days of field visits. All nine of the subprojects were visited, with the exception of the Manchester Land Authority subproject. In this case, discussions were limited to Ministry of Agriculture officials who were responsible for the subproject's implementation. For all of the other subprojects, the evaluation team visited the project areas, talked with personnel of the grantee, and had discussions with farmers who were participating in the subproject. The list given in Annex C shows the extent of these contacts.

After the field visits, the evaluation team met several times to discuss the findings and the recommendations that were developed in the report. These findings and recommendations were also discussed with the project manager and USAID project coordinator. Discussions were also held with key individuals associated with the project that had not been possible before the field visits.

The team devoted basically three days to drafting the report. A draft of the executive summary was presented to HAP and USAID exactly two weeks from the beginning of the evaluation. A draft of the report was presented to the same parties the next day. The document was reviewed with officials of the Ministry of Agriculture, project management, and USAID. Their comments and observations were helpful in moving the report from the draft stage to its current content.

ANNEX C

PEOPLE CONTACTED

ANNEX C

PEOPLE CONTACTED

(October 17 - November 3, 1989)

Name	Affiliation/Organization
Allen, John	Manager of Cocoa Board Fermentery at Morgan's Pass
Ayton, Kenneth	Farmer/Elgin and Secretary of JAS Branch
Baker, Dr. R.	Director of Research & Development/MOA
Binns, Mr. J.	Mango Top-working specialist/Manchester
Black, Mr.	Farmer/Blackwoods
Blake, Euston	Farmer/Above Rocks
Bloomfield, Mr.	Farmer/UNITAS
Bonnick, Estelle	Farmer/RMCEP
Boothe, Novlette	HAP Accountant/Blackwoods
Broderick, Mr.	Farmer, member LMC/UNITAS, and President of JAS Branch
Brown, Castell	Extension Supervisor/RMCEP
Bryan, David	Farmer/Elgin and President of JAS Branch
Burrell, Charles	JAS Parrish Organizer/ Clarendon
Burton, Thomas	Executive Agriculture Officer/Mandeville
Cameron, Barrington	Manager of Extension, CIDCO
Campbell, P.A.	JAS Parrish Officer for Clarendon
Campbell, John	Project Manager, Rio Cobre IICA/RD
Chevalria, Ralphael	Secretary Elgin JAS
Chin, Vivian	IICA
Chung, Larry	Project Coordinator/RMCEP
Clarke, Steve	FISH/JAS Volunteer from UK
Crawford, Victor	FISH/JAS Project Manager/Above Rocks
Creary, Egbert	Farmer/Above Rocks
Day, Sylvanus	Farmer/Above Rocks

Dennis, Mr.	Crop Development Officer/RMCEP
Dunbar, Dr. Andrew	Co-ordinator, Growers Serive & Research Unit/Coco In Board
Edward, Michael	Farmer/RMCEP
Franklin, Clarence	Permanent Secretary/MOA and Chairman of the PCC
French, Steve	ADO, USAID/Jamaica
Garricks, Artnel	Coop Development Supervisor/RMCEP
Gordon, Clinton	Administrative Assistant to General Manager/Cocoa Industries Board
Gottshalk, Mr.	Area Supervisor for CIDCO/Clarendon
Grant, Rudolph	Dep. EAO/Mandeville
Greaves, Windsor	Divisional Extension Officer/Mandeville
Harris, Delroy	MOA Extension Agent/Blackwoods
Headingham, Mr.	Farmer/Windsor
Henry, Robert	IICA/MAO (R&D) Field Assistant
Henry, S.	Farmer/Blackwoods
Henry, L.	Regional Agriculture Director for Clarendon and Manchester
Irving, D. B.	Director of Production Extention/MOA
Joslin, William R.	Mission Director, USAID/Jamaica
Kerr, Gloria	FISH/JAS Field Assistant and JAS Secretary
Leakey, Desmond	Minster of State for Agriculture
Lee, Cecil	Farmer/RMCEP
Leonard, Bob	Controller, USAID/Jamaica
Levy, Ms. W.	Office Manager/RMCEP
Lewis, Florence	Accountant/Store Manager for FISH/JAS
Malcolm, Mr.	Farmer/UNITAS
Marriot, Lloyd	Farmer/Above Rocks
May, Ambrose	Member LMC/RMCEP
McKenzie, Mr.	Farmer/Windsor
McPherson, Mrs. Merle	Farmer and President of JAS/Above Rocks

Meikle, Lyndon	Farmer/Rio Cobre
Meredith, Donna	Accountant, HAP
Minnifee, Edward	Chairman of the UNITAS Project LMC
Morgan, William	Secretary, Jamaica Agriculture Society
Morgan, Ms.	North Clarendon Processing Company
Munn, Keble	Chairman, Coffee Industry Board
Newland, Pat	Secretary, HAP
Nolan, Mark	USAID/Jamaica HAP Project Officer
Owens, Richard	Deputy ADO, USAID/Jamaica
Parks, Carl	Soil Scientist/Mandeville
Pinnock, Ullit	IICA/MOA(R&D) Agronomist
Ramdatt, H.T.	Ministry of Agriculture
Reid, Dudley	Chairman, Manchester Land Authority
Reid, Charles	IICA Project Coordinator
Reid, Vin	UNITAS
Richards, Mr.	MOA Extension Agent/Elgin and Windsor
Russell, Ms.	Cooperative Officer/RMCEP
Samuels, Mr.	Crop Development Officer/RMCEP
Shand, Austin	Farmer/RMCEP
Sinclair, Derrick	Executive Agriculture Officer for Parrish of St. Catherines
Smith, Donovan	Computer Manager/Cocoa Industries Board
Strachan, Marie	Director for Planning and Policy/MOA
Suah, Joseph	Project Manager, HAP
Thames, S.D.	UNITAS Asst. Project Manager
Thompson, Rick	Deputy Manager, HAP
Tomlinson, Ivan	North Clarendon Processing Association and Citrus Growers Association
Webb, Sam	Treasurer, UNITAS
Webber, Bernard	UNITAS Project Manager/Christiana

Wellington, Estelle	Farmer/Above Rocks
Wellington, Wayne	Crop Development Supervisor/RMCEP
White, Mr.	Farmer/Windsor
Williams, Wilmet	CIDCO/Blackwoods, Elgin, Windsor
Wright, Kenneth	Extension Supervision/RMCEP
Zak, Marilyn	Deputy Mission Director, USAID/Jamaica

ANNEX D

SUBPROJECT MATRIX

INFORMATION ON SUBPROJECTS
11-3-1989
(In Jamaican Dollars)

SUB-PROJECT NAME	LOCATION	IMPLENENTATION ORGANIZATION	START DATE	END DATE	PROJECT BUDGET	HAP BUDGET	HAP - SPENT TO DATE	% SPENT	# DIRECT BENEFI
1. BLACKWOODS JAS	BLACKWOODS CLARENDON	JAS	7.18.88	7.17.92	486624	294954	167113	57%	250
2. WINDSOR JAS	WINDSOR CLARENDON	JAS	7.18.88	7.17.92	584881	326200	156701	48%	200
3. ELGIN JAS	ELGIN CLARENDON	JAS	8.24.88	8.23.92	518448	360500	158702	44%	200
4. COCOA I. BOARD	RIO MINHO CLARENDON	CIB	9.30.88	9.29.92	8653980	6486280	1686223	26%	1394
5. MANGO TOP-WORK	MOCHO CLARENDON	JAS	8.24.89	8.23.90	91000	74000	22812	31%	250
6. IICA/MOA/FSR/E	RIO COBRE ST. CATHRINE	IICA & RD(MOA)	11.15.88	12.31.93	6989627	5201808	625050	12%	2398
7. ABOVE ROCKS	ABOVE ROCKS ST. CATHRINE	FISH & JAS	3.8.89	3.9.93	778594	498245	114368	23%	200
8. MANCHESTER L/A	MANCHESTER CLARENDON	LAND AUTHOR.	4.18.89	3.31.93	554154	446027	50000	11%	200
9. UNITAS	MORAVIA ST. ANN	UNITAS	6.21.89	12.31.92	699165	498575	43500	9%	200
JAS SUPPORT*	JAS KINGSTON	JAS				60000	19888	33%	

* A funded activity but not considered a subproject.

ANNEX E

JOB DESCRIPTION:

INFORMATION MANAGER

ANNEX E

JOB DESCRIPTION:

INFORMATION MANAGER

Objective: To support continuous and effective monitoring of HAP subproject performance and to make monitoring information available to the HAP project manager and subproject management on a regular and sustained basis.

Duties:

1. Establish and manage the HAP proposal tracking system and subproject monitoring system.
2. Assist subproject holders with the establishment of monitoring systems appropriate to their needs.
3. Standardize HAP information requirements and see that the subprojects report on a regular basis against these requirements.
4. Prepare periodic reports of findings from project and subprojects and carry out special analyses requested by the project manager.
5. Manage HAP documentary resources for purposes of increasing public and professional awareness of hillside agriculture issues.

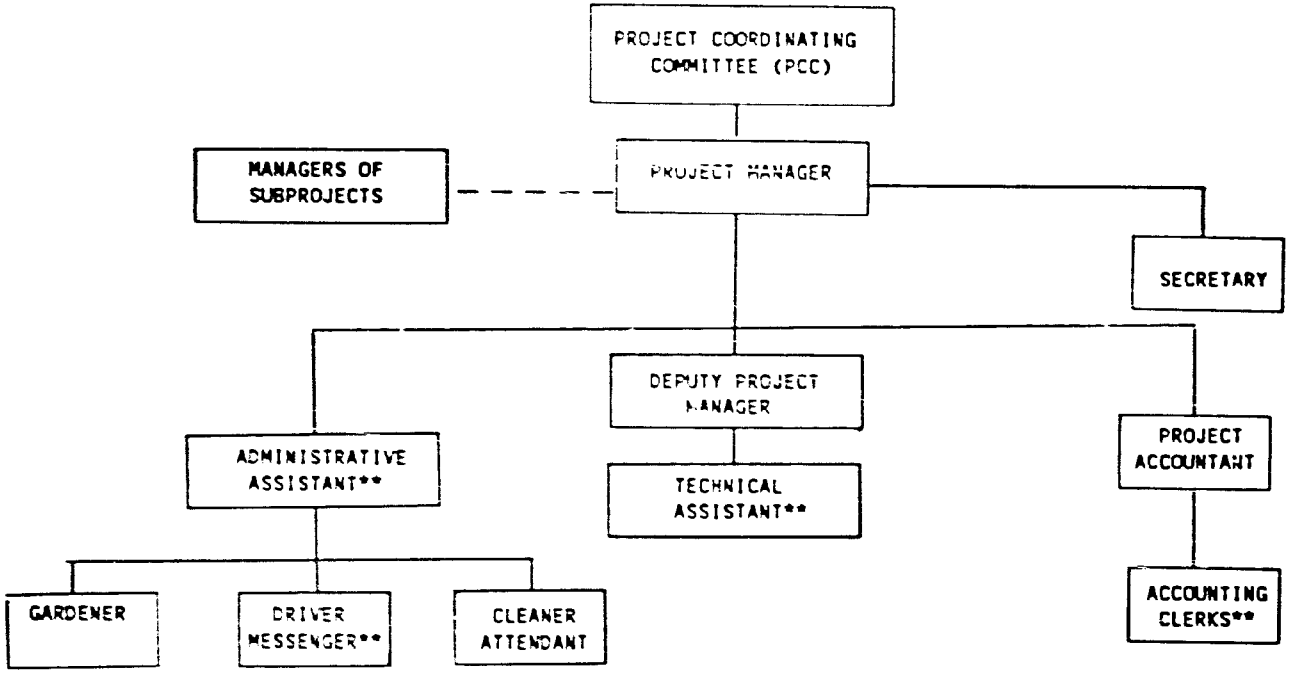
Qualifications:

1. Demonstrated skills in statistics, technical writing, research methods, and monitoring.
2. Familiarity with the use of microcomputers for data management and analysis.

ANNEX F

ORGANIZATIONAL CHART OF HAP

ORGANIZATION CHART OF THE HILLSIDE AGRICULTURE PROJECT



NOTE: This organization chart was established August 8, 1988.

** Positions not filled as of November 3, 1989

ANNEX G

COMPARISON MATRIX FOR HAP ACTIVITIES

MATRIX FOR COMPARING VARIOUS ACTIVITIES OF SUBPROJECTS

Type of Institution/ Organization Leading Subproject	Type of Activity: Ressucitation	Planting	FSR/E	Mango Top-Working	Material Inputs	Tech. Advice	Baseline Survey	Processing	Extension Approach	Soil Conservation Makeup	Type of Farmer Involvement
Farmer Organization											
--JAS											
Blackwoods	x	x			x	x					
Elgin	x	x			x	x					
Windsor	x	x			x	x					
Above Rocks	x	x									
--Producer Marketing Organizations											
Church-Based PVOs											
--CADEC											
--CVSS/United Way											
--UNITAS	x	x			x	x					
Commodity-Based Org.											
--CIDCO	x	x				x					
--Cocoa Ind. Board	x	x				x					
Agro-Processors											
--NCPC								x			
Governmental											
--Extension Service	x	x				x					
--Forest Service											
--RPPO											
--Land Authority				x							
--R&D			x								
Non-Gov. Org. (NGOs)											
--CARE											
--NCBA											
National Org.											
--JAS											
Int'l. Organizations											
--IICA	x	x	x		x	x	x				
--CARDI											