PN-AAS-193

AN EVALUATION OF THE POTENTIAL FOR

PEACE CORPS-USAID-HOST COUNTRY

COOPERATION IN SOCIAL FORESTRY PROJECTS

D O M I N I C A N R E P U B L I C

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Prepared for

Office of Programming & Training Coordination
PEACE CORPS
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by

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EXECUTIVE SUMMARY

D O M I N I C A N R E P U B L I C

HOST COUNTRY GOVERNMENT COMMITMENT/EXPERIENCE

Environmental degradation is serious. Although the Ministry of Agriculture is receiving increased support, additional organizations are forming to work in the natural resource area, and a country environmental profile has been completed, much remains to be done. FORESTA, the government agency in charge of forestry, is run by the military and has traditionally acted as a warden of the forests, monitoring the cutting of trees which are considered government property. The Soil and Water Department (Tierras y Aguas) is a relatively new agency that promotes soil conservation through resource protection of watersheds and improved farming techniques.

PEACE CORPS COMMITMENT/EXPERIENCE

PC/DR currently is not directly involved in any forestry projects. However, some PCVs are introducing trees, small nurseries, and improved cooking stoves into their communities through their efforts in agriculture and soil conservation. PC/DR staff are very interested in expanding the PC role in forestry.

In the DR, PC and AID linkages have been moderate with some collaboration in relief efforts after hurricanes. Additional collaboration has occurred in health and fishery projects.

USAID COMMITMENT/EXPERIENCE

AID is currently developing a project paper for a large natural resource conservation project that will include the protection of 2 watersheds and institutional development. PCVs are being considered for the protection phase which will focus on extension and research activities. The government agency, Tierras

y Aguas would supervise the PCVs' work. At the time of the assessment there was no forestry component in the project and AID was formulating strategy to work with FORESTA.

PLAN SIERRA

A recently formed organization under the Secretariat of Agriculture, this group promotes increased agricultural self-sufficiency and soil and water conservation. Its efforts have included establishing tree nurseries with emphasis on agro-forestry species, e.g., coffee, fruit trees. Plan Sierra has received permission from FORESTA to allow local landowners to use some forest products for local use which may improve responsible resource use. Plan Sierra is very interested in working with PCVs.

TRAINING

PC, AID and several host government agencies are supportive of skill-trained volunteers although they all see a need for BS foresters as well. There is a paucity of training resources in the Dominican Republic with the exception of the training center being developed by Plan Sierra. PC/DR is in favor of developing training facilities in Puerto Rico, Costa Rica, or Florida.

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LIST OF ACRONYMS

AID	U.S. Agency for International Development
AID/DR	AID Mission to the Dominican Republic
CARE	Cooperative for American Relief Everywhere
DNP	National Park Service
DR	Dominican Republic
PASA	Participating Agency Service Agreement
PC	Peace Corps
PCD	Peace Corps Director
PC/DR	Peace Corps Mission to the DR
PCV	Peace Corps Volunteer
PTO	Programming & Training Officer
SEA	Secretariat of Agriculture
SURENA	Sub-Secretariat of National Resources

ITINERARY

January 28th		
7:00 PM		Arrive in the Dominican Republic
7:30 - 10:30PM		Dinner with PCD Steve Honore
January 29th		
9:00 AM	Met with	Steve Honore, Dean Putman, Angel Ripol and the remainder of PC programming staff to discuss the scope and objectives of assessment team visit.
10:30 AM	Met with	AID forester consultant Gary Kemph to discuss forestry situation and AID natural resource programs.
2:30 PM	Met with	Merilio Morel, Eng., Director of National Parks in the DR.
4:30 PM	Met with	PCD, PTO, and Agriculture Program Manager to discuss strategy and calendar for visit.
January 30th		
8:00 AM	Met with	General Mota at FORESTA office
10:30 AM	Met with	Miguel Gomez of Aguas and Tierras
2:30 PM	Visited	CEDA training center outside of Santo Domingo
4:00 PM	Met with	AID energy officer Alan Merril to discuss energy projects in DR

January 31st
Day spent researching and writing report

February 1st		
6:30 AM - 5:00 PM	Field trip	to San Jose de Ocoa with Ripol and Putman to visit PCVs David Willmot and others to discuss potential of future forestry plans

February 2nd 6:30 AM - 8:00 PM		
	Field trip	to San Jose de las Matas to offices of Plan Sierra to discuss their approach and visit their nurseries and demonstration plots.
February 3rd 8:00 - 10:00 AM		
	Met with	FORESTA foresters Ramon Rodriguez and Guillermo Basilis
10:30 - Noon	Met with	AID officers Ken Ellis and John Cleary to discuss AID approach to forestry programs.
1:30 - 4:00 PM		Close-out meeting with PCD Honore' PTO Putman, and Program Manager Angel Ripol.
February 4th 7:30 AM		Departed the Dominican Republic.

INTRODUCTION

This report has been prepared for the Forestry Sector in the Office of Programming and Training Coordination of Peace Corps in conjunction with the PC/AID Forestry PASA (#936-5519). The report presents a brief overview of the institutions and activities concerned with forestry and natural resources projects in the Dominican Republic. The information will assist the Peace Corps and AID Washington staff in designing and implementing future forestry PASA activities through a better understanding of field operations and needs. Also, it is hoped that this report will provide in-country donor agency staff and government officials with an objective perception of current environmental projects, institutional capabilities and relationships, and possible areas of expansion.

The issues presented correspond to an outline (Appendix A) that Peace Corps Washington provided each assessment team. We suggest that the reader review this outline of issues prior to reading the report to facilitate understanding the format and content. The issues were chosen because they will influence future Peace Corps, AID, and host country agency collaborative forestry efforts.

During the 8-day assessment visit to the Dominican Republic, interviews were conducted with key personnel from Peace Corps, AID, and host country ministry institutions involved in forestry and natural resource activities. Site visits were also made to representative project areas and institutional facilities within the country.

The content of the report represents the authors' viewpoint resulting from the interviews, site visits, and review of available documents. The authors wish to express their appreciation to all who contributed time and energy to making the visit complete. It is hoped that the results represent a balanced and objective analysis of a complex series of activities.

HIGHLIGHTS

- The environmental situation is serious, and immediate reforestation efforts are critical.
- The official forestry organization in the DR, FORESTA, is administered by the army.
- FORESTA has a poor reputation for coordination with other government agencies.
- FORESTA does not have plans for major forestry developments until 1985.
- There is no foundation for extension work or community forestry projects in FORESTA.
- Plan Sierra is a regional soil conservation agricultural production commission working in an important ecosystem in the central mountains.
- Plan Sierra has a "well managed program utilizing modern nursery, soil conservation, and integrated crop management techniques".
- Plan Sierra has placed tremendous emphasis on training local villagers and continuing extension work.
- Peace Corps/DR appears to have a solid administrative base and a respected reputation in the DR.
- PC/DR has been building a forestry program in the past year but has not formulated its objectives or the specifics of its operation.
- PC relations with AID are generally good, and past relations have been positive.
- The timing of the PASA program and the DR's need is most favorable to the development of a forestry program there.

PREFACE

The Dominican Republic occupies the eastern two-thirds of the island of Hispaniola in the Caribbean Sea. The climate is tropical, except in the cooler mountain regions in the central and western portion of the country. The population is estimated to be around 5 million people, half of whom live in urban areas. The Dominican Republic has a common border of 193 miles with Haiti to the west. Most of the rural populace consists of subsistence farmers or laborers on larger plantations. It is estimated that over half of the rural population receives supplemental income from family members in the cities of the D.R. or from relatives in the United States.

The environmental situation in the D.R. has deteriorated rapidly over the past 10 years. Over 90% of the forest cover has been removed, and very little revegetation work has been initiated by public or private groups. An environmental profile performed by a team of scientists headed by Dr. Gary Hartshorn is in the final stages of editing. This profile, paid for by USAID/DR, has provided information on the severe situation in the Dominican Republic. Reactions to preliminary conclusions in the profile have focused attention on soil erosion, severe deforestation, reductions in water quality and shortened lifespans for recently constructed hydroelectric facilities. Mr. Hartshorn was able to brief President Antonio Guzman on their findings and it is hoped that this will be a catalyst for action in the near future.

I. HOST COUNTRY GOVERNMENT COMMITMENT/EXPERIENCE

The government of the Dominican Republic has shown only limited response through government programs to the perilous environmental situation. Development projects such as incentives to local industry, transportation, tourism, health and sanitation have received the highest priorities. This is not to say that the environment has been ignored. The Secretariat of Agriculture has grown significantly in prestige since the entrance of the Guzman government, and fledgling resource management agencies such as Tierras y Aguas (Soil & Water Department) and Plan Sierra (a regional resource protection and education agency) have risen. Also, the completion of the country environmental profile last year has established an outline for further work in the natural resource field. However, the gravity of the deteriorating environmental situation has not been fully grasped by the current government, for realistic forestry management or widespread incentives for forest development have not been offered to the Dominican people.

FORESTA

The official government agency in charge of forestry is FORESTA, an autonomous agency directly responsible to the Office of the President. Legislation was proposed and passed last year to remove FORESTA from the President's Office and put under the Secretariat of Agriculture, but the legislation was vetoed by President Guzman. The army of the DR administers FORESTA and

controls its top positions. However 95% of FORESTA's 1000 employees are civilians.

The head of FORESTA is General Mota, a career officer with only tangential training in the sciences. His office sets current law and establishes goals and objectives for forest development. Among the one hundred employees working in the central office, two are professional foresters, Ramon Rodriguez and Guillermo Basilis. The remaining 900 employees work from eight district offices governing the rest of the country. Work is concentrated in the central mountains. In the district offices, four are run by forestry technicians (peritos agronimos) and the other four are run by non-technical personnel. The vast majority of FORESTA employees act as wardens (vigilantes) whose major duty is to monitor the cutting of trees under the DR's strict forestry law (discussed below). Besides serving as protection agents, the vigilantes also act as fire supression personnel. They receive two weeks of training before being put on the job.

The 1980 budget of FORESTA was $4 million, but is expected to be reduced in 1981 because of a tightening of government spending in all sectors. The budget cuts should not adversely affect current programs in FORESTA because the agency has made a decision to defer major development of forestry projects until 1985. The reason for the delay is the current enrollment of five selected individuals in a forest management curriculum at Texas A & M University. They are targeted to graduate in 1985; upon their return, they will become the nucleus of forest project developments in the Dominican Republic. The proposed developments that General Mota outlined for the period 1985 - 2000 are ambitious, involving major projects in almost all areas of

forestry: inventory, silviculture, utilization, and so on.

The interim period leaves a vacuum in forest development during a very critical time of increasing environmental degradation. General Mota expressed a desire to start some kind of forestry project during this period, ostensibly because of public concern, but also as an attempt to justify the existence of the agency and its leadership. What the projects would be is still unclear, though the General seemed to be searching for a low risk, low investment project that could set the stage for future programs. Some of the conceptual projects he mentioned to the forestry assessment team were experimental eucalyptus woodlots, bare land revegetation experiments on 300-400 hectare parcels in several parts of the country, and expanded nursery development. (Currently, each district has a small nursery stocked almost entirely with ornamentals).

General Mota recognized that the lack of trained personnel in the country made implementation of new projects very difficult. He felt that having PCVs work in the central office to help plan and implement projects for the period before 1985 would be a very positive step. He thought that PCV-trained counterparts could work with FORESTA employees in the field, and that selection of counterparts could range from community leaders to FORESTA personnel with training as technicians. Currently, there are 15 Dominicans studying to be technicians in a forestry training school in Honduras. They are scheduled to be assistants to the returning Texas A & M foresters, but could also work with the PCVs. Rodriguez and the other staff foresters at FORESTA were less receptive to the idea of PCVs working in FORESTA. FORESTA

does not have extensive training for its employees, nor is there a forestry curriculum in any school in the DR. There are two courses in silviculture offered by the national university, but further training must be received off the island. FORESTA does maintain a training school for its low-level technicians, but much of its focus is in fire supression. There is no training offered by FORESTA to prepare forestry extension agents; consequently FORESTA does not have an extension program or offer educational outreach to the Dominican landowner.

FORESTA's position in government is quite strong because of its association with the military, and FORESTA's presence in the countryside is very real, particularly considering the large number of vigilantes. Yet current forestry laws and FORESTA's role in the countryside demonstrate a profound misunderstanding of the demand and necessity for the direct use of forest products by the Dominican population. The law dictates that all trees, on public or private property are owned wholly by the government. FORESTA's duty as the government's agent is to protect these trees from exploitation. The felling or utilization of trees therefore requires a permit, a subsequent levy by the party using the trees, and a requirement to plant five trees for every tree harvested. Since the mechanism for this process is unendurably slow, and there are no nurseries providing seedlings to replant the required trees, the government has created an unsolvable problem both for itself and for a population with an immediate need for wood.

To circumvent this problem, the public and FORESTA employees have developed a system of gratuities to allow the prompt and necessary use of trees. The person needing a tree for firewood

identifies the place to the FORESTA agent, and they agree on the amount of the bribe. The agent then turns his back and the individual goes and takes his tree. It is a simple system operating well for all parties except the environment. When this system does not function, trees are cut surreptitiously at night. Enforcement against this type of theft is almost impossible.

The primary reason for these activities outside the law is the intensity of the demand for fuelwood. Roughly 85% of the rural population of the DR cook their food with wood. Only a conversion to another energy source or an increase in fuelwood supply can reduce the rate of current deforestation. Conversion to another energy source presents a possibility, but energy from non-traditional sources is years away. The cost of non-traditional energy sources is prohibitive in the DR. An increased wood supply could produce very favorable environmental and social effects, but would require extensive organization and education to be feasible. The present problem in the forestry sector demonstrates the need for an extensive education program and major changes in forest policy.

At present, there is no incentive for an individual or group to plant trees, as the management and final utilization of the tree is out of the control of the landowner. FORESTA attempted a tree registry program of planted trees to identify trees by the species, location, and estimated harvest date. But the people did not accept the registry offer because of widespread belief that FORESTA would eventually revoke the right to harvest. Without demonstration that the trees will benefit the landowners, there is little reason to believe people will want to utilize land

for forest plantations.

The other, more important obstacle to increasing the fuelwood supply is the lack of disposable land for forest plantation. The overwhelming majority of land in the DR is either owned by large landowners or small subsistence farmers. These small farmers are the individuals who need wood for their families, but cannot give up the agricultural productivity of their plots to plant relatively slow growing trees. Perhaps the best way to induce subsistence farmers to grow trees on their land is to introduce trees integrated with other agricultural plants. The shorter rotation agricultural crops would provide food or income to the farmers while the trees are growing to a usable size. To do this requires commitment on the part of the farmers, which can be fostered by education and organization. Additionally, capital is needed to pay teachers, technicians, and the development of demonstration plots necessary to initiate this type of agro-forestry approach. Plan Sierra, as discussed later in this report, is attempting this type of effort on a regional basis. FORESTA, however, has not demonstrated any interest in this type of program, even though it may be the only option available to promote forestry in many parts of the country.

Tierras y Aguas

Tierras y Aguas (the Soil & Water Department) is a three year old agency under the Sub-Secretariat of Natural Resources (SURENA), Secretariat of Agriculture. The Director, Miguel Gomez, met with the assessment team and discussed at length his operations and future plans. The work of this agency is divided into two levels, the resource protection of watersheds and local

soil conservation measures for individual farmers. Under Sr. Gomez, there are 4 middle managers or sub-directors, and under them 35 technicians in various field locations throughout the country.

Tierras y Aguas' major work effort is to educate local farmers in the practices and benefits of soil conservation. Some farmers who demonstrate interest and ability are elevated to the status of a local advisor for Tierras y Aguas, and have the opportunity later to move into the hierarchy of the agency. As a part of this program, 21 farmers are currently being trained at the Tierras y Agua training center in soil conservation theory and practices, with the responsiblity of returning to their villages to introduce the techniques they have learned. Filmstrips, charts, and borrowed movies are used as part of the environmental education process.

Tierras y Aguas focuses on using local material and appropriate technology in the construction of its projects. The labor needed to complete the projects is drawn from the local communities to provide a sense of ownership on the projects and to help spread the information on soil conservation practices. To partially compensate the laborer's time and effort, the midday meal is offered without cost to the workers through an agreement with CARE.

The geographical areas of concentration in the work of Tierras y Aguas are regions demonstrating the greatest need for soil stabilization as evidenced by deteriorating water quality. The agency officials find that the people in these critically affected areas are quite willing to participate as they are aware of how soil loss is adversely affecting their agricultural

productivity.

Tierras y Aguas did mention that its previous attempts to work with FORESTA have been failures, and that they are not the only agency with a history of problems with FORESTA. They felt that promises of cooperation made by FORESTA never materialized, more through neglect of FORESTA's part than because of technical or logistical problems. Tierras y Agua does not see much potential for future cooperation with FORESTA without major policy and personnel changes.

II. PEACE CORPS COMMITMENT/EXPERIENCE

Peace Corps in the Dominican Republic (PC/DR) is a sound organization responding well to the needs of volunteers as well as to requests from the host government. PC/DR's leadership is both competent and dedicated. Dean Putman, the PTO, has a strong trust relationship with the volunteers and demonstrates very positive skills in programming. The program managers appear to have close relations with their volunteers and have responded well to their needs in the past. The program manager in charge of agriculture, Angel Ripol, deserves mention for his understanding of the nuances of the Dominican bureaucracy and his ability to communicate difficult issues in a non-threatening, positive manner. Angel's commitment to his job and his infectious energy and good humor make him a resource of incalculable value. The PC/DR staff have the combination of vision and experience to make significant contributions to the effectiveness of volunteers and the programs they are involved in.

Presently PC/DR has 94 volunteers working in three major program areas: agriculture, nutrition, and co-ops/small businesses. The agriculture sector includes gardens, animal husbandry, fertilization, and soil conservation, and has roughly 30 volunteers. The nutrition program has 25 volunteers, and the co-op/small businesses group has about 30 volunteers. There are also a few small programs with only two or three volunteers in each program: fisheries, health, appropriate technology, and women in development. The health program has volunteers from Switzerland and the Netherlands working in conjunction with the PCVs. The Rockefeller Foundation is participating in the program for women in development.

There are no volunteers working directly in forestry programs, but PC/DR has a desire to become involved in forestry because of the obvious need. Several PCVs, most notably David Willmot in San Jose de Ocoa, have started introducing trees and small nurseries into their communities as part of their agriculture and soil conservation work. The forestry assessment team met with a small group of volunteers at Willmot's house and discussed the potential for forestry projects in the rural areas. Also attending the meeting was the local priest, whose work in the community over many years offered valuable historical perspective to the discussion. All persons attending the meeting were in agreement that forestry work would face difficulties with the local populace because of the perception of trees as government property. However, the consensus was that local people may be willing to work with PCVs and counterparts in forestry because the fuelwood supply obviously would not improve without increased tree planting. Already, previously free organic waste is commanding a price. With some increased coordination with FORESTA officials (all civilians in this area), small nurseries and plantations seem to offer potential for future energy needs and immediate benefits in soil conservation. The people in the villages near San Jose de Ocoa have been quite responsive to the PCVs working in the areas. Much interest was shown in PCVs' experiments and demonstrations with Lorena stoves and lard-can rice chaff cookers. The PCVs felt there was much potential for counterparts to be trained as extensionists and to work with PCVs in community forestry projects.

The PC/DR leadership was also very receptive to having PCVs work in forestry projects. The major benefits PC/DR sees in

forestry projects aside from fuelwood would be the life support by-products of forest plantations: Clean water and stable soils. PC/DR felt that since forest development is a field that requires both technical expertise and extension work, PCVs were ideally suited in the DR where neither capacity is available. The idea of using skill-trained volunteers appeared perfectly acceptable to PC/DR, although they did express a desire to have at least a few BS foresters as part of a program to give more validity to the program's technical skills and to provide necessary backstopping. Also they felt the response of FORESTA or Plan Sierra to the need for foresters would be best fulfilled by at least BS foresters.

PC/DR demonstrated a very positive, team-building attitude about their participation in the PASA initiative. They mentioned several times how the assessment team's visit corresponded in a very timely manner to their own growing interest and desire to draw up a calendar for forestry programming. PC/DR wanted to be able to participate as much as possible in a programming workshop to further their budding efforts. The PC/DR leadership felt that even if the DR was not selected as a country in the pilot program, they would certainly benefit from the initial steps in the selection process under the PASA.

PC/DR has had only moderate linkage with AID in the DR, although the relationship between the two agencies is generally good. There has been cooperation in a few projects, but no joint programming. PC/DR administered $110,000 of AID relief money for for hurricane David. This money was used for small animal projects (rabbits, ducks, etc.) for nutrition and food supply after the hurricaine. PCVs also worked in a basic health delivery system which was financed by AID. Also, PCVs worked jointly with

Church World Service in a fisheries project funded by AID. PC/DR and AID did not have any major conflicts or coordination problems during these projects.

PC/DR also feels that initiating PC forestry projects in the DR may illustrate a potential for similar work in environmentally decimated Haiti. Ecologically, the problems of Haiti extend into the DR almost automatically because of the size of Hispaniola and the impossibility of maintaining an iron-clad border. Due to this exchange, PC/DR recognizes that successful environmental projects in the DR can have an impact on Haiti.

III. AID/DOMINICAN REPUBLIC COMMITMENT/EXPERIENCE

AID/Dominican Republic is currently developing a large natural resources conservation project. Gary Kemph, through a PASA agreement with the U.S. Department of Agriculture, has been working in-country on the project paper. This project is the largest natural resources project that AID has currently planned. It is divided into two sections. One section deals with the protection of two watersheds and the other section will focus on institutional development. The project is to be implemented over a 5-year time span.

The two watersheds to be protected are the Ocoa and the Rio Las Cuevas areas. In an effort to arrest erosion, the project will attempt to stabilize the upland areas through soil conservation techniques such as the planting of grasses, reforestation, terracing and contour ditches. The agricultural practices of hillside farmer are seen as the major causes of erosion. Because of this, AID/DR will undertake extension and research activities, focusing on the ways in which traditional farming methods could be altered so as to preserve soil, while at the same time, wherever possible, keeping the land in production. It is this phase of activities in which Peace Corps input will be considered. PCVs could assist in the development of extension programs with Tierras y Aguas. AID/DR has met with PC to discuss this possibility. Tierras y Aguas has indicated an interest in working with PCVs in soil conservation, forestry and agriculture.

The institutional development that AID will support is in the areas of natural resource information, watershed planning, national natural resource management planning, erosion and sediment monitoring, and training. The principal agency will be

SURENA which is the Subsecretariat for Natural Resources in the Secretariat of Agriculture. As the project plan is developed, it is hoped that the Peace Corps input will be carefully structured so that PCVs can work principally in the field. Training is an area that PC could coordinate with the help of consultants through AID and personnel from host country agencies such as the Tierras y Aguas.

The largest gap in AID's natural resources conservation project is forestry. At the time of the assessment visit, AID was still formulating a strategy to work with FORESTA so that there could be a forestry element in the project. If AID is successful in bringing FORESTA into the project, it could be the beginning of a new direction for forestry in the Dominican Republic. Clearly, FORESTA's inclusion in the project will be observed closely by many sectors.

There is considerable potential for PC involvement in the large natural resources conservation project. This work could be seen as the preliminary efforts which must be undertaken carefully in dealing with FORESTA and the Tierras y Aguas Department. Specific activities would be credit programs subsidizing soil conservation techniques on the individual farm level. If the initial relations with FORESTA prove positive, future AID funding for forestry projects might be available. Given FORESTA's unproven capability, speculation is difficult.

Another focus which AID has taken in forestry is in the production of electrical energy through biomass plantations. With a principal focus on energy, AID is now attempting to develop small-scale fuelwood plantations in the DR. AID/DR has come to the conclusion that a large-scale project would be very

difficult to manage, so they have opted for several smaller plantations. This project is still being studied. Helping to coordinate the effort is Alan Merril, at AID/DR in Santo Domingo.

Energy planning and development is the focus of another large ($5 - 10 million) project that AID is currently planning. This project would include:

- energy plantations
- industrial conservation
- management assistance to electricity corporations
- development of mini-hydroelectric facilities
- further assistance in energy planning

This work has grown out of other studies performed by Louis Berger, Inc., which produced an assessment of the national energy situation. This work also helped the CNPE (National Commission for Energy Policy) to establish an energy information system.

AID/DR has projects in other sectors such as rural health, agriculture, fisheries, rural roads, and employment. In all cases, basic human needs criteria have been applied.

The recent history of interactions between AID and Peace Corps is generally favorable. After hurricanes swept the island last year, PC and AID teamed up to help re-establish livestock programs for the small farmers. Over $100,000 of disaster relief was administered by three PCVs. As stated by both parties, this coordination is an example of the "spirit of cooperation" existing between PC and AID. AID's positive view of Peace Corps is enhanced by the presence of five ex-PCVs on staff.

The present staff at AID who are relevant to forestry programs include: Gary Kemph, who is writing the project paper for the natural resources conservation project; Ken Ellis,

who is attempting to work FORESTA into USAID programming; Phil Schwab, Director of Mission; John Cleary, an ex-PCV working on project development and, Alan Merrill, working in renewable energy projects. Staffing patterns are fairly stable; all of the above personnel will be in the DR for the next 1½ - 2 years. Gary Kemph's participation after completion of the project paper is unknown. Reactions to his work have been quite positive.

Generally, AID and PC should be able to work well together on a collaborative project in forestry. The major limitation lies in the identification of which host country government agency to support. Other resources which AID has at its disposal could be of significant value if such a project were developed. The atmosphere is open and the potential is quite high.

PLAN SIERRA

In the north central mountains of the Dominican Republic, Plan Sierra is a domestically funded rural development project encompassing roughly 2,400 square kilometers. The main focus of the program is increased agricultural self-sufficiency and the conservation of soil and water resources. Organized by the Secretariat of Agriculture (SEA), this program began in April 1979. Plan Sierra is a separate program under the SEA with a fair degree of autonomy in its management.

The administration of the project involves dividing the region into 34 sections, with each section having an agronomist, a home extensionist and a social worker/community development specialist. These extension workers have access to a credit program that enables individual farming families to incorporate soil conservation measures and improved agricultural methods at a reasonable cost. All crops cultivated must fufill three prerequisites:

1) the product fits the nutrition and/or economic needs of each family and the inputs for its production are suitable to the family's capability,
2) all crops will be viable on the long term,
3) the crops conserve natural resources.

The program has chosen to focus on fruit, nut and coffee trees, and wood products. By February 1981, farmers had begun soil conservation procedures on about 1,000 hectares.

The focus on forestry products has made this a very interesting project. The project has established 13 small nurseries throughout the Sierra region. Each nursery is primarily devoted to coffee, fruit trees and other tree seedlings. Average

production each year is over 30 million plants. They are now studying one test plot of 13 fast-growing trees species with the hope of selecting a few species for distribution later on. With the Swedish Forest Service, Plan Sierra is performing a forest inventory on 27,000 hectares. The purpose of these activities is three-fold:

1) to stabilize the watersheds which are the source of water for a large hydroelectric dam,
2) provide fuelwood for the people of the area,
3) develop forest products, such as charcoal and fence posts, which could provide long-term economic benefits.

Because much of the land has been expropriated from large farmers, most of the land is covered by second-growth forests of relatively poor quality. Last year alone, Plan Sierra received 30,000 hectares of expropriated land which it is now inventorying and distributing.

Plan Sierra has received permission from FORESTA to allow landowners to use thinnings and other by-products for local use. Plan Sierra has also helped FORESTA to control squatters in the national parks in a rather innovative way. Plan Sierra employs the worst offenders in the established nurseries. In all cases, this employment requires that the squatters move out of the forest.

These and other innovative actions establish Plan Sierra as a formidable model for integrated rural development. The staff in charge of forestry related projects include: Blas Santos, Director of Plan Sierra and a PhD in Agricultural economics from the University of California; Luis Bonilla, a horticulturalist with an MS from the University of Florida; and Victor Montero, a

forester with an MS from the University of Florida. The assessment tean was very impressed by these staff members. Mr. Montero is in charge of the main nursery in San Jose de las Matas, which is very productive and clearly the best in the Dominican Republic.

Plan Sierra has received technical assistance from the Rockefeller Foundation, CARE, the Irish government, and the Swedish Forest Service. They are very interested in Peace Corps involvement in appropriate technology (i.e., Lorena stoves and biogas), fisheries, home extension and forestry.

NATIONAL PARK SERVICE

The National Park Service is directed by Merilio Morel, a forester trained in Chile. The Park Service is in charge of managing the national parks in the Dominican Republic. Peace Corps has been working for a number of years with the National Park Service (Direccion Nacional de Parques - DNP). Of interest to the PASA is their relationship with FORESTA and ideas that the Director, Mr. Morel, has on forestry development in the DR.

The major difficulty that DNP is facing is the continual encroachment into the national parks by squatters and timber thieves. In particular, the park at Los Altices has suffered rampant wood cutting without permission. The Director of DNP has supported the work of Plan Sierra in discouraging these activities through incentives to employ and relocate trespassers.

The DNP differs with FORESTA on one major issue. FORESTA has referred to the national parks as "forest reserves" which could and should be harvested continually. It is DNP's contention that such cutting damages the integrity of each park and that such activities endanger the livelihood of the national parks system.

DNP is attempting to raise the environmental consciousness of leaders throughout the country. Because the demands on natural resources are so great, this task is very difficult. Mr. Morel would like to see Plan Sierra get more publicity and suggests other efforts should be directed at small agro-forestry projects in areas threatened by desertification (i.e., southwestern and northwestern Dominican Republic). The need is to relieve the pressure on the national parks. Mr. Morel would see Peace Corps attempting environmental education programs in conjunction with

the National Park Service and other agencies. He sees environmental education as a necessary part of any forestry project in the DR.

The National Park Service has 184 employees. Technical resources include: 1 agronomist (specializing in forestry), 3 agronomists, 2 forest technicians, and 2 soil technicians. Clearly, the best linkage with DNP would be in the rural areas near national parks. DNP staff could also be a valuable resource for training in environmental education.

VI. FORESTRY TRAINING

Forestry training capabilities within the Dominican Republic are fairly limited. FORESTA's sending its employees to the U.S., Honduras and Columbia for education exemplifies the paucity of training resources in the country.

In our opinion, there is one major exception to this virtual vacuum. That exception is the training center now being developed near San Jose de Ocoa by Plan Sierra. Its use for pre-service training seems possible. Even more favorable would be training that combines pre-service training outside the country, a three-week adaptation of those skills in-country, and continuing in-service training. The latter two phases could be conducted with Plan Sierra. This option would also take advantage of the two experts at Plan Sierra, Luis Bonilla and Victor Montero, who specialize in multi-story or integrated agriculture. The work they are doing is exceptional in its attempts to use sound horticultural and silvicultural techniques in combination with a credible approach to integrated rural development. Facilities at the very rural training center include sleeping places for 20 students, plus staff and cooking facilities.

The facility at CEDA near Santo Domingo would be able to handle some parts of the training, notably language and cross-cultural. It could also offer rudimentary forestry training. It would be able to capitalize on some of the forestry and natural resources personnel at Tierra y Aguas, FORESTA and USAID.

Peace Corps/DR. is, at present, in favor of developing facilities in Puerto Rico, Costa Rica, or Florida for pre-service training of forestry volunteers. In the future, the in-country

training capability of organizations such as Plan Sierra or FORESTA may improve enough to be able to handle most of the training requirements other than tropical forestry. Indeed, the PASA can offer the Dominican Republic great benefits for training of both PCVs and host country personnel. The shortage of trained Dominicans is such that all agencies would look favorably on efforts to conduct an in-service training format that incorporated PCVs and host country personnel.

APPENDIX A

ASSESSMENT TEAM BRIEFING ISSUES TO BE DISCUSSED WITH PEACE CORPS, AID AND HOST COUNTRY MINISTRY STAFF

The following topics should be discussed with Peace Corps staff and volunteers, AID mission staff and Host Country Ministry staff. The discussion on the topics should follow the outlines as closely as possible in order to obtain comparable data from each country. All information obtained should be cross referenced as much as possible from other sources for an objective viewpoint.

I. HOST COUNTRY MINISTRY COMMITMENT/EXPERIENCE

A. Host Country Government's priorities in development programs.

1. What have been Host Country Government's development priorities in the past 3 - 5 years: Forestry/Natural Resources, Education, Health, etc?
2. What types of programs (Education, Health, Water, etc.) has Host Country Government most actively pursued from donor agencies in the last 3 -5 years?
3. What are the current developmental priorities of the Host country Government? Give examples.
4. What are projected needs as perceived by Host Country Ministry?
5. What are the projected developmental priorities for the Host Country Government in the near future (1 - 3 years)? Give examples. To what extend are donor agencies involved in accomplishing those priorities?
6. If answer to 5 is different than 1 or 2, why?

B. Forestry Department or other Government supported forestry efforts

1. What is the institutional structure of the Department of Forestry? (Include an organizational chart.)
2. What type of support does the Forestry Department receive from the parent ministry and the Host Country Government in general?
3. What are the staff/material resources of the current Forestry Department?

    - o budget
    - o education of employees
    - o training of employees
    - o forestry schools in the country
    - o research capabilities/current research activities (involving whom, what is major thrust of research)?
    - o staff stability
    - o audio-visual, technical files/library, forestry equipment

4. What types of forestry programs and projects has the Department of Forestry focused on in the past 3 years? Currently involved in? (Anticipate next 3- 5 years.) Where are these located? List examples, e.g., village woodlots, watershed management.
5. How is the Forestry Department perceived by the general public? e.g., tax collector, enforcement officer, public servant?
6. Future plans.

C. Host Country Department of Forestry past/current experience in forestry projects with PC or AID (Separate response for each agency)

1. What type of forestry programs/projects has this arrangement usually entailed? Examples.
2. Is there a geographical focus/distribution of these projects?
3. What segment of society (ethnic, social, sex) have these programs/projects benefited the most? Is this going to change to any degree?
4. What type of support has the HCM provided PCVs in these projects?

   - o material
   - o labor
   - o office space/support
   - o technical support (use of labs, etc.)
   - o dollars
   - o transportation
   - o training

5. What are Host Country Department of Forestry's attitude and actual resource capability toward providing counterparts for PCVs?
6. Have PCV counterparts been used? Seldom, usually, almost always?
7. What is the institutional level of the PCVs' counterparts?
8. What type of qualifications does the Department of Forestry require of its PCV counterpart?

D. Host Country Department of Forestry past/current experience with private voluntary organizations and other international donor agencies

1. What are the organizations and key personnel that have been involved (past 3 years)?
2. What type of programs/projects have taken place/are taking place?
3. What are future expectations for programs/projects (within 5 years)?

II. PEACE CORPS INTEREST/EXPERIENCE

A. Personnel Resources

1. Are there currently staff members involved in forestry and/or related projects?
2. If so, what are their backgrounds and terms of service?
3. What plans exist for replacing them?
4. If there currently are no such staff members, what, if any, plans exist for responsibility for a forestry project?

5. What are the names and numbers of volunteers, by project, and their completion of service dates and replacement plans?

B. Material Resources

1. What type of project material support is available to volunteers from Peace Corps?
2. What type of audio-visual, technical files, library, support is easily accessible to PCVs from the Peace Corps office?

C. Peace Corps experience in forestry/natural resources projects

1. What types of forestry projects has Peace Corps been involved in in the last 3 years? Examples.
2. What are the current projects Peace Corps is involved in?

    - o are they progressing as planned? If not, what changes have been necessary?
    - o how many volunteers are involved in these projects?
    - o what degree of counterpart participation exists?
    - o what level of technical support do the PCVs/counterparts receive from PC/HCM?

3. Is there a geographical focus to PC forestry projects? If so, why?
4. To what degree does PC in-country see itself capable of programming/support for new project development or expansion of old projects?
5. What constraints do they see? What PC/Washington support will they need?

D. Peace Corps experience in collaborative projects, of any kind, with AID

1. Within the last 3 years, what type of programs/projects have been developed jointly by PC and AID?
2. Who initiated this activity and at what level (central, regional, local)?
3. What degree of involvement (money, labor, material) has existed from both parties?
4. What is Peace Corps' general perception of this type of activity?

E. Peace Corps' relationship with Host Country Ministry and AID

1. What has been Peace Corps' relationship with Host Country Ministry and AID in general?
2. Are there foreseeable changes in this relationship due to changes in budget, staff, or program priorities by any entity?

3. Are there specific issues in common/different?

F. Peace Corps' relationship with PVOs, NGOs, and other donor agencies.

1. What is Peace Corps' current relationship and past experience with PVOs, NGOs, and other donor agencies (including key personnel)?
2. Has Peace Corps been able to effectively utilize PVOs, NGOs, and other donor agency personnel/material resources?
3. What is future potential for material/technical support from these agencies?

III. AID INTEREST/EXPERIENCE

A. Staff Resources

1. Does AID currently have staff dealing with forestry?
2. If so, what is their background and terms of service?
3. What, if any, plans for replacing or adding forestry related staff exist?

B. Technical Resources

1. What technical resources (e.g., libraries, connections with research organizations, private consultant resources) does AID have that could assist PASA related activities?
2. Who has or does not have access to these technical resources?

C. AID experience in forestry/natural resources projects

1. What types for forestry/natural resources related programs/projects has AID been involved in in the last 3 years?

   - o degree of involvement
     - money
     - labor
     - material
   - o principle beneficiaries in society
   - o most important outcome

2. What type of forestry/natural resources related programs/projects is AID currently involved in?

   - o degree of involvement
     - money
     - labor
     - material
   - o principle beneficiaries in society
   - o anticipated outcomes

3. Is there a general philosophical orientation of these programs/projects?
4. Is there a common development strategy to these programs/projects (e.g., institution building)? Give examples.
5. Who is primarily undertaking program/project activities? Give examples.
6. What is AID's philosophical orientation toward the use of counterparts?
7. Is the orientation reflected in the actual projects?
8. With what priority does AID view future/expanded efforts in the forestry area? How is that commitment evidenced?
9. Is there a geographical focus to AID activities?

D. AID experience in collaborative projects, of any kind, with PC, PVOs, and NGOs

1. What types of programs/projects have taken place?
2. What organization initiated this collaborative effort and at what level (i.e., central, regional, mission)?
3. What was the degree of involvement by each participating organization (i.e., money, labor, material)?
4. What were/are the outcomes of these activities (e.g., primary beneficiaries in society)?
5. What is AID general perception of this type of activity?

E. AID's relationship with HCM and Peace Corps

1. What has been AID's relationship with PC and HCM in general (e.g., assess AID's attitude and understanding of 3 goals of Peace Corps)?
2. Are there foreseeable changes in this relationship due to change in budget, staff, or program priorities by any entity?
3. Are there specific issues in common/disagreement?

F. AID's relationship with PVOs

1. What is AID's current relationship and past experience with PVOs, NGOs and other donor agencies?
2. What type of contributions have existed in these efforts (e.g., key personnel, material, dollars, technical resources)?

IV. TRAINING

A. Peace Corps Volunteer Training

1. What is the attitude of PC, HCM, and AID staff toward skill trained volunteers in Forestry/Natural Resources programs/projects?

2. Have PC,HCM, and AID worked with trained volunteers? If yes, what type of project, if no, why not?
3. If Peace Corps has used skill-trained volunteers in any sector, where has the skill-training taken place (i.e., SST or in-country)?
4. What suggestions do PC staff and volunteers, HCM and AID have for pre-service and in-service PCV training (especially skill training) for forestry programs/projects (e.g., skill areas)?
5. What type of in-service forestry training could be provided for PCVs currently working in other programs?

B. Peace Corps volunteer counterpart training

1. What degree of involvement do counterparts have in current or projected PC, AID, or other PVO or donor agency forestry projects?
2. What is the attitude of PC, HCM, and AID toward PCV counterpart involvement in PCV pre-service and in-service training?
3. What are each entity's principal concerns about this issue, such as financial, support, technical material presented, language, travel, time away from work, etc.?
4. Are there appropriate training facilities, either Peace Corps, AID, HCM, or private, in-country or within the geographical region?

V. FORESTRY PROJECT PROGRAMMING

1. What are the tentative forestry programming issues that PC, HCM, and AID perceive as needing to be addressed before an actual new or expanded project could be implemented?
2. Which entities need to address which of these issues?
3. What further information does each of these entities feel it needs from Peace Corps/Washington, in order to determine the feasibility of further participation in the PASA?

APPPENDIX B

UNA VISION DE PROYECTOS POSIBLES DEL CUERPO DE PAZ EN FORESTA

TIPO DE PROYECTO

Bosques de las aldeas

(Basado en la forestacion de la comunidad para alcanazar las necesidades locales para productos de combustible y madera)

Reforestacion de tierras deforestadas

(Plantando arboles en tierras deforestadas para protejer el medio ambiente fragil, tales como las vertientes de las montanas y para proveerlo a los productos de la madera.)

Rehabilitacion de la tierra

(Conservacion del suelo y los recursos de agua, o la reclamacion de la tierra degradada, de trabajo por extension usando metodos vegetativos y mecanicos.)

Agroforesta

(Sistema de uso de la tierra que combina o alterna la produccion de ganado y cosecha con el crecimiento de arboles.)

Manejo de recursos vegetativos en las zonas aridas

(Manejo y explotacion de la vegetacion para detener y devolver la degeneracion de los recursos, protejer los campos de cultivo y suplir productos de madera para la poblacion local.)

Manejo de Recursos Forestales

(Manejar los bosques existentes para aumentar la produccion obtenida e iniciar un programa de produccion sustentada.)

OBJETIVOS DEL PROYECTO

Desarrollar bosques comunitarios para suplir combustible y productos de madera.
Generar entradas adicionales.
Aumentar la conciencia local.
Transferir proyectos de tecnología apropiada
Desarrollar proyectos similares.

Hacer las forestas mas productivas
Protejer las áreas de las vertientes
Aumentar el abastecimiento de combustible.
Detener la erosión de la tierra.
Aumentar la conciencia local.
Transferir proyectos de tecnología apropiada.
Desarrollar proyectos similares.

Controlar la erosión del suelo.
Aumentar la calidad del agua.
Aumentar la producción de la cosecha y el follaje.
Aumentar la conciencia local.
Transferir proyectos de tecnología apropiada
Desarrollar proyectos similares.

Aumentar el foyaje y combustible.
Parar la degradación del suelo.
Lograr sustancial sistema agrícola.
Dar ingreso adicional
Aumentar la conciencia local.
Transferir adecuados proyectos tecnólogicos.
Desarrollar proyectos similares

Protejer terrenos y construcciones de fincas desde vientos de arena.
Protejer contra ventarrones y estabilizar las dunas.
Aumentar el suplimiento del combustible.
Conocer los lugares de pozos.
Aumentar la conciencia local.
Transferir de proyectos tecnológicos similares
Desarrollar proyectos similares.

Planear el manejo de los bosques para un rendimiento mantenido.
Mejorar el manejo de los bosques y el entrenamiento técnico.
Mantener el suelo fértil.
Aumentar la conciencia local.
Transferir proyectos técnicos adecuados.
Desarrollar proyectos similares.

TAREA DEL VOLUNTARIO

1. Establecer/dirigir viveros
   Organizar y entrenar personas de la localidad en el establecimiento/dirección de pequeñas arboledas.
   Entrenar el personal contraparte.

2. Establecer/dirigir vivieros
   Organizar y entrenar grupos de trabajo locales en la reforestación y manejo de tierras de bosques talados.
   Entrenar el personal contraparte.

3. Establecer/dirigir viveros
   Organizar y entrenar grupos de trabajo locales en las faenas vegetativas y mecánicas para combatir la erosión de los suelos.
   Entrenar el personal contraparte.

4. Establecer/dirigir viveros.
   Ayudar y enseñar a los agricultores a cultivar árboles para alimentación/forraje/combustible y para proteger o mejorar los cultivos/suelos.
   Entrenar el personal contraparte.

5. Establecer/dirigir viveros
   Ayudar y enseñar a las personas rurales a sembrar "cercas vivas" o rompevientos, o estabilizar dunas con medios vegetativos/mecánicos.
   Entrenar personal contraparte.

6. Llevar a cabo estudios forestales y sociológicos/económicos.
   Planear e implementar los esquemas apropiados para el manejo forestal.
   Instalar carreteras y veredas secundarias.
   Entrenar personal contraparte.

PRINCIPALES HABILIDADES REQUERIDAS DEL VOLUNTARIO

1. Conocimiento de vivero
   Conocimiento de técnicas de reforestación.
   Conocimiento del lenguaje y cultura local.
   Habilidad en programas de extensión comunitaria con enfoque especial sobre el desarrollo.

2. Conocimiento de vivero.
   Conocimiento de reforestación y técnicas para la conservación de suelo.
   Conocimiento del lenguaje y cultura local.
   Habilidad en programas de extensión de la comunidad con enfoque especial sobre el desarrollo.

3. Conocimiento de viveros.
   Conocimiento de reforestación y de técnicas para la conservación del suelo.
   Identificación de plantas y árboles y propaganda de habilidades relacionadas.
   Conocimiento del lenguaje y la cultura local.
   Habilidad en programas de extensión de la comunidad con enfoque especial sobre el desarrollo.

4. Conocimiento de viveros.
   Conocimiento de reforestación y técnicas de conservar el suelo.
   Familiaridad en el manejo de frutas, frutas secas y foyaje de árboles.
   Conocimiento de la cultura y lenguaje local.
   Habilidad en programas de extensión de la comunidad con enfoque especial sobre el desarrollo.

5. Conocimiento de viveros
   Conocimientos ecológicos de las tierras áridas.
   Identificar árboles/plantas y propaganda de conocimiento.
   Conocimiento de la cultura y lenguaje local.
   Habilidad en programas de extensión de la comunidad con enfoque especial sobre el desarrollo.

6. Planeamiento de recursos naturales y técnicas gerenciales.
   Inventario de habilidades forestales.
   Conocimiento de técnicas de reforestación.
   Conocimiento del lenguaje y cultura local.
   Habilidad en programas de extensión de la comunidad con enfoque especial sobre el desarrollo.

APPENDIX C

Key People in D. R.

GARY KEMPH -- works for AID and Secretaria de Estado de Agricultura, Departamento de Planificacion, Sistema de Inventario y Evaluacion de los Recursos Agropecuarios.
Telephone number at AID Mission -- 682-2171, extension 434
home -- 567-1617
at Agricultura -- 533-0049

Office at Centro de los Heroes, Santo Domingo
(Edificio Oeste, Primero Piso)
Gary has good technical abilities, is a range-grazing expert (Ph.D.), also land use planning--national using LANDSTAT, he has a lot of influence with AID regarding project planning and evaluation. You must thoroughly justify any proposals.

RONALD G. TROSTLE -- AID mission chief, may have already left, easy to talk with, very accessible.
Av. Leopoldo Navarro #12
S. D.
Telephone number -- 682-2171, extension 434, 464

NORBERTO A. QUEZADA -- Head of ISA (Instituto Superior de Agricultura), important, respected high school/technical college near Santiago. School supported establishment of Plan Sierra, works cooperatively on some projects. Norberto is easy to talk to, will be supportive if proposals are interesting to him. Peace Corps worked at ISA until late 1979, Penny Jennings made big impact, teaching curriculum, etc.
ISA Apartado 166
Santiago, D. R.
Telephone number -- 582-6621

In Florida, check with Dr. Gustavo Antonini at University of Florida. He's very interested in D. R., has worked there on natural resource problems, knows very well my friend, Victor Monterro.
c/o CLAS
Grinter Hall
University of Florida
Gainesville, FL 32611

VICTOR MONTERRO - Contact Victor as soon as you arrive, if possible; he can be of tremendous help. Not extensive experience, but down-to-earth, field-oriented. Has M. S. from University of Florida in forestry. Call him at Plan Sierra, San Jose de las Matas, 237-0249 (if you're lucky--bad phone service) or write Apartado 1152, Santiago or try Calle 4 #21, INGLO, Santiago on weekends.

BLAS SANTOS -- Director, Plan Sierra, agricultural economist, University of California, Ph.D. Expert in field, but somewhat questionable director of Plan Sierra. You must impress him, have a good proposal, Plan Sierra can use the P. C. help.
Same telephone number and address as for Victor Monterro.

I have more information and names, but am limited in time; I wanted to get this off today. Give me a call. I want the enclosed map back.

APPENDIX D

RESUMEN DE LAS ACTIVIDADES DEL "PLAN SIERRA" DEL 1° DE 1979 AL 30 DE JULIO DE 1980

PROGRAMA DE ORGANIZACION

-	Nuevos grupos organizados	203
-	Grupos asesorados	395
-	Reuniones con grupos, charlas y cursillos	3124

PROGRAMA DE EDUCACION

- Dos cursos para maestros con 324 participantes (sobre tecnicas de ensenanza y conservacion de Recursos Naturales).
- Reparto de 15 mil libros para formar un sistema de prestamos que abarca a 14 mil ninos de 1° a 4° grado.
- Reparacion de 70 escuelas.
- Suministro de pizarras y material de ensenanza para las escuelas de la Sierra.
- Entrega de 54 maquinas de coser a grupos de amas de casa para clases de costura, ofrecidas por las mejoradoras del Plan Sierra.

PROGRAMA DE ARTESANIA

- Construccion de 4 escuelas de artesania (2 en San Jose de las Matas, 1 en Janico y 1 en Juncalito.

- Instalación y operación de un sinfín para suministro de madera a los ebanistas.
- Financiamiento y asesoramiento a 8 grupos de mujeres fabricantes de esteras.
- Financiamiento y asesoramiento a 70 talleres de ebanistería.

PROGRAMA DE DEPORTES

- Entrega de material deportivo a 38 comunidades.
- Construcción de 8 canchas y "Plays".

PROGRAMA DE SALUD

- Construcción de 5 clínicas rurales (En La Leonor, Manaclas, El Rubio, Las Placetas y Juncalito).
- Asistencia médica (Consulta y mecicinas) a 8,408 pacientes.
- Asistencia dental a 5,290 pacientes.
- Investigación para determinar las causas de la alta incidencia de problemas dentales en La Sierra.
- Investigación para determinar la situación nutricional de los habitantes de la Sierra.
- 1,000 exámenes a habitantes de la Sierra para determinar enfermedades y parásitos que son suceptibles de ser eliminados con una labor de saneamiento.
- Elaboración de un plan global de salud para la Sierra.

PROGRAMA DE CAMINOS VECINALES

Hasta ahora se han mejorado, ampliado o construído 172 Km. de caminos vecinales, de acuerdo al detalle en el anexo I.

PROGRAMA DE AGROINDUSTRIAS

- Construcción de un edificio para instalar una planta enlatadora de guandules y frutales (61 mil pesos) en Monción.
- Construcción de un efificio para elaborar casabe (19 mil pesos) en Monción.
- Financiamiento de la instalación de una procesadora de condimentos picantes en Monción.
- Financiamiento de una granja cooperativa para 13 mil pollos en Monción.
- Instalación de 13 pequeñas máquinas desfibradoras de cabuya.
- Financiamiento de una fábrica de sogas.
- Estudio para la instalación en Jánico de una planta procesadora de café.

PROGRAMA DE CREDITOS

(Detalles en el anexo II).

Solicitudes Aprobadas	Monto Aprobado	Monto Entregado
2,409	2,363,552	845,451.00

PROGRAMA DE VIVEROS (Excluyendo café)

Número de viveros	15
Tarcaje	200
Empleados	216
Plantas en existencia	882,699
Plantas entregadas a la fecha	102,188

PROGRAMA DE CONSERVACION DE SUELOS

- Construcción de acequías de ladera en 7,914 tareas.
- Construcción de 2 Km. de canales.
- Construcción de 3145 metros de terrazas. (257 tareas).
- 85 reuniones de promoción de la conservación de suelos con participación de 3224 agricultores.

PROGRAMA DE GANADERIA

- Vacunas administradas (Broucelosis, septicemia, newcastle)	20320
- Pruebas coprológicas y sangrías	4708
- Desparasitación	12,671
- Otras consultas y asistencia veterinaria	1102
- 100 charlas, reuniones y películas con participantes .	4285

(Los subprogramas de mejoramiento genético y mejoramiento de pastos no han funcionado hasta ahora).

PROGRAMA DE FOMENTO DE CAFE

- Plantas distribuídas	6,064,890
- Fundas distribuídas (Vendidas a 1 ¢)	6,574,650
- Plántulas en existencia	880,723
- Créditos aprobados	700
- Tareas (créditos aprobados)	16,410
- Monto aprobado	1,785,860
- Monto entregado	323,349.30

PROGRAMA DE CULTIVOS DIVERSOS

- El programa comprende cabuya, yuca, guandul, bija , higuereta, papa, hortalizas, habichuelas, etc.
- Se han repartido material de siembra y semillas, se ha dado asistencia técnica y créditos que han cubierto un total de 33264 tareas.

ANEXO I

PROGRAMA DE CAMINOS VECINALES . (DETALLES)

- Camino de los Montones-La Piedra

  Con un ancho de 6 mts. y longitud de 8 kms., 200 mts.

- Camino Rincón de Piedra-Mata Grande

  Con un ancho de 6 mts, y longitud de 9 kms., 300 mts.

- Camino San José de las Matas-Sui

  Con un ancho de 6 mts, y longitud de 9 kms., 5.00 mts.

- Camino la Laguna Arriba

  Con un ancho de 5 mts, y longitud de 4 kms.

- Camino los Limones-Loma de los Ríos

  Con un ancho de 5 mts, y longitud de 4 kms., 300 mts.

- Camino entrada de las Placetas-Puente Bao

  Con un anco de 6 mts, y longitud de 4 kms,

- Camino la Villa-Damajagua

  Con un ancho de 6 mts, y longitud de 7 kms., 400 mts.

- Camino el Manaclal

  Con un ancho de 5 mts, y longitud de 6 kms., 100 mts.

- Camino Desvío Carretera Juncalito-Jánico

  Con un ancho de 5 mts, y longitud de 5 kms.

- Camino Laguna Abajo

  Con un ancho de 6 mts. y longitud de 8 kms.

- Camino el Rubio-Manacla

  Con un ancho de 6 mts. y longitud de 12 kms., 500 mts.

- Camino Manacla-Los Ramones

  Con un ancho de 6 mts. y longitud de 13 kms.

- Camino Las Brujas

  Con un ancho de 5 mts. y longitud de 4 kms.

- Camino El Cacique al Cerrazo

  Con una longitud aproximadamente de 12 kms., (ejecutado en un 70%.)

- Camino Franco Bidé-Janey
  con una longitud de 4 kms. y 800 mts.

- Construcción del Camino del Vivero de la Guama

- Trabajo de ampliación y limpieza:

  Limpieza camimo Llano Grande-Cebú - 5.7 Kms.
  " " Gurabo - 5 Kms.
  " " La Cidra, Caimito, el Aguacate 16,5 Kms.
  Jánico - Sabana Iglesia 5 Kms.

- Limpieza y ampliación del Camino Cepillo-Gurabo
  Con una longitud de 13 kms. (apertura de cunetas longitudinales y transversales y colocación de algunas alcantarillas.

- Cepillo-Mata Grande, construcción total
  con una longitud de 10 kms. (apertura de cunetas longitudinales y transversales).

a) Camino Mata Grande-Los Calabazos, longitud 3 kms.
b) Mata Grande-Monte Higüerito, longitud 2.5 kms.

- Durán-Los Cacaos

  Longitud de 3 kms. (Cunetas longitudinales y transversales).

a) Los Cacaos-Arroyo Dajao, 1 km.

- Carretera San José de las Matas, Monción - Naranjo Bajón, con una longitud de 8 kms.

- Naranjo Bajón-Los Bao, con una longitud de 1,5 kms.

- Celestina-Sierrecita

  Con una longitud de 10 kms. (Nivelación de la superficie de rodadura y construcción de cunetas longitudinales y transversales).

ANEXO II

RELACION DE LOS PRESTAMOS OTORGADOS POR EL "PLAN SIERRA": PLAN 29 - AGRICOLA

RUBROS	TAREAS	MONTO APROBADO ($)	MONTO ENTREGADO ($)	MONTO POR ENTREGAR	Nº BENEFICIARIOS
Café	16,410.00	1.785,860.00	323,349.30	1.462,510.70	700
Cabuya	4,640.00	141,730.00	86,041.08	55,685.92	95
Guandul	709,00	12,094.00	5,883.40	6,212.00	32
Aguacate	167,00	10,623.00	4,645.70	5,977.30	20
Yuca	2,987,00	53,016.00	24,844.00	28,172.00	143
Naranja	275.00	19,060.00	7,487.00	11,573.00	18
Bija	279.00	10,570.00	6,157.01	4,412.99	5
Higuera	176.00	2,554.00	1,945.00	609.00	4
Papa	135.00	9,016.00	2,373.82	6,642.18	25
Tomate	15.00	1,250.00	877.00	373.00	1
Tabaco	55.00	1,438.00	618.75	819.25	10
Habichuela	376.00	28,688.00	2,507.81	26,180.19	20
Cajuiles	40.00	2,114.00	689.60	1,424.40	1
Bueyes		9,150.00	8,665.65	484.35	10
Ganaderos		4,600.00	3,700.00	900.00	2
Agroindustrial		17,855.27	113,625.57	58,229.70	278
Equipo Agrícola		15,640.00	13,746.58	1,893.42	8
Sub-Total	26,264.00	2.125,258.27	607,157.27	1.672,099.40	1,372

RELACION DE LOS PRESTAMOS OTORGADOS POR EL "PLAN SIERRA" A COOPERATIVAS Y ASOCIACIONES

COOPERATIVAS Y ASOCIACIONES	ACTIVIDAD	MONTO APROBADO ($)	MONTO ENTREGADO ($)	MONTO POR ENTREGAR	Nº BENEFICIARIOS
Coop. Mamoncito	Siembra Cabuya	87,528.80	87,528.80	-	172
Coop. San José	Artesanía	65,990.00	65,990.00	-	70
Asoc. Agric. Mamoncito		44,194.00	44,194.00	-	45
Federación A. Guaraguanó	Granjas Pollos	40,581.75	40,581.75	-	750
Sub-Total		238,294.55	238,294.55		1,037
T O T A L		2.363,552.82	845,451.82	1.672,099.40	2,409