

Belize

May 30, 1989

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Project Assistance Completion Report - Accelerated Cocoa
Production Project No. 505-0023

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PD-AN-2-556

SUMMARY DATAImplementation

Sponsoring Agency	Ministry of Agriculture
Technical Assistance Contractors	Operational Program Grant (OPG) \$615,000 - Pan American Development Foundation (PADF)
Final Evaluation	October 1987

Financial

Date of Authorization: July 31, 1984
Amount Authorized: \$615,000
PACD (Original) December 31, 1987
(Amended) June 30, 1988
Date of Initial Obligation: July 31, 1984
Cumulative Obligations: \$615,000
Cumulative Accrued Expenditure: \$614,887

Planned A.I.D. Inputs

Technical Assistance	\$410,000
Training	9,500
Commodities	5,000
Other Costs	144,000

Best Available Document

Note: All foreign exchange funds provided by USAID were under a Federal Letter of Credit (FLOC) to PADP. Accountability for these funds were with PFM/FM/CMPD. A memorandum dated 3/16/89 from PFM/FM/CMPD states that final payment under OPG-505-0023 (FLOC) was made and the FLOC was reduced by \$162.00 (-\$49.00 an additional reduction) to a final reduction of \$113.00, i.e., the total foreign exchange disbursements for this Grant was \$614,887.

Planned Outputs

- 600 acres of improved cocoa established
- 60 farmers trained in improved cocoa practices
- 6 Government extension officers trained in improved cocoa practices and extension methods
- 20 additional extension officers trained in improved cocoa practices
- develop, test, adapt, document and replenish the methodology developed for improved cocoa practices under Belizean conditions.

Project Description/Purpose

The Government of Belize (GOB) requested assistance from PADP and Volunteers in Technical Assistance (VITA), two PVOs, to develop a small farmer cocoa production technique project in cooperation with the Hershey Foods Corporation or its corporate farm (Hummingbird farm) near Belmopan, Belize. The purpose of the project was to institutionalize improved cocoa production and process technology through training and extension using government extension officers, Peace Corps Volunteers and selected employees of the Hummingbird farm. The goal of the project was to further develop and refine the improved cocoa production and processing technology for easy replication and transfer to small farmers to assist in increasing their income.

Project Accomplishments

Accomplishment

At the completion of the project the following outputs have been reached:

- 415 acres of cocoa have been established (planned 600 acres)
- 217 small farmers trained in improved cocoa technology (planned 60)

- 8 GOB extension agents trained in improved cocoa technology and extension methods (planned 6)
- 14 additional GOB extension agents trained in improved cocoa technology (planned 20); additionally, 36 private sector extension agents were trained (not planned for)
- A methodology has been developed that provides for the accelerated establishment of cocoa under Belizean conditions. The accelerated technology has been adopted by cocoa farmers in Toledo and Stann Creek Districts, locations outside the immediate project area.

At project completion, all planned outputs were reached with the exception of number of acres of cocoa established. The project was successful in establishing 415 acres, which is approximately 200 acres short of the planned goal. Two factors contributed to this goal not being met. They were (1) fire damage to crops in 1987; and (2) establishment of unrealistic expectations of farmer capabilities in planting/production time frame of project implementation.

Data/Studies/Other Accomplishments

In addition to the training program for extension agents and farmers, a technical package including three major publications were developed. The 133-page Cocoa Guidebook And Training Guide is a manual for extension officers and trainers. It is moderately technical and suitable for persons with a basic understanding of agricultural principles. Chapters cover high and low input management practices, shade, pest management, pruning, rehabilitation, post-harvest processing, and economics. The training section provides ready-to-use lesson plans for workshops and field demonstrations for extensionists.

Growing Cocoa in Belize is a 26-page basic field reference for small-scale commercial cocoa growers. It covers the same materials as the Guidebook but is much briefer. Illustrations, charts, tables, and farm record forms complement the text. Both Growing Cocoa and the Guidebook are available throughout Belize from the Ministry of Agriculture and the Toledo Cocoa Growers Association.

The third publication is the Cocoa Farm Economic Report And Development Models that provides a detailed analysis of cocoa establishment and management costs and returns under high and low input systems. Tables include specific labor requirements, cash flow projections and two development models.

Community development was a major aspect of the work at Ringtail Village including community information resources, economic activities for women, social infrastructure (e.g., housing, roads, water, and community center), and institutional support for self-reliance. In conjunction with numerous contributions from HML, a village association and credit union were established, elected officers trained, and relevant inter-organizational linkages made. Housing and community center funds and technical assistance were obtained from Cooperative Housing Foundation (CHF) and HML. Combined with existing resources for schooling, transportation, and health care, these accomplishments made Ringtail Village, under its own leadership, a dynamic, self-reliant agricultural community.

Upon request by the farmers of Toledo District and in cooperation with the MOA, the project also assisted in the formation and initial funding of the Toledo Cocoa Growers Association. This has grown so that by the end of 1987 it had over 100 dues paying members, participated in project and HML training, opened a small input supply store, and was benefitting from a series of Belize Institute of Management (BIM) courses in management and marketing sponsored by the cocoa project.

The cocoa project concluded field work in October 1987, (the project was extended to June 30, 1988 to provide for an international cocoa forum to be held in Belize in June 1988) confident that cocoa development in Belize can now continue with support from the Ministry of Agriculture and Development Finance Corporation. The capability for improved cocoa production, centered at Hummingbird Hershey Limited, also exists within the Ministry of Agriculture, Toledo Cocoa Growers Association, several local NGOs, and most critically, within the diverse farming groups of Cayo, Stann Creek, and Toledo districts.

Past Project Monitoring

The model(s) developed for improved cocoa production under the Accelerated Cocoa Project are being used in the implementation of the Toledo Agriculture Marketing Project (TAMP) No. 505-0016. Under this project (in which VITA is providing technical assistance) the accelerated cocoa technology is continuously being updated as new information is developed.

Lessons Learned

1. There were significant advantages in combining the interests and resources of private sector corporation with public and non-profit development efforts.

The corporate interests of Hummingbird Hershey were compatible with the government's in cocoa development and the implementing PVOs were able to facilitate and enhance the resources of both to strengthen the project. To support the project's infrastructure established by the PVOs, HHL generously contributed use of its facilities, equipment, and personnel to aid project beneficiaries. Similar relationships with other projects clearly would improve development capabilities.

2. The creativity allowed under an Operating Program Grant (OPG) was responsible for several successful inter-organizational linkages that significantly expanded the benefits and assured the sustainability of the project initiatives.

Funding and technical assistance for roads, housing, a community center, a cocoa growers association, and the credit union were not included in the project budget but are major accomplishments. Vigorous exploration of resources with USAID, Cooperative Housing Foundation, and Peace Corps led to creative solutions which were important to project success.

3. The original project design and expectations were unrealistic in terms of the rate at which participants could establish intensive cocoa farms, housing, and community infrastructure while working full-time jobs.

At Ringtail Village farmers faced with labor requirements of 167 man-hours/acre to establish cocoa could not reasonably be expected to plant 10 acres of cocoa plus subsistence crops, build a family residence, and assist with constructing the new road and community center in evenings and weekends after their regular work at HHL. Project plans to establish 10 acres per participant will be realized in four or five years rather than three as became the pattern for the DFC loan program as well.

Valley of Peace (VOP) farmers generally lack off-farm income and capital to establish cocoa at the same rate. A more realistic program for VOP would have been for them to do a total of five acres in four years.

4. Government capabilities in the key roles of land acquisition and provision of extension personnel were over-estimated and caused basic changes in project strategy. Ministry of Agriculture personnel from all levels should have been much more involved in initial project design and development to assure clarity of roles and interests.

Although project design was sound, Ministry of Agriculture personnel below the Permanent Secretary level did not participate or contribute in its development. Government resources are very limited and the project tended to be perceived as external to the MOA and the responsibility of other parties. Misunderstandings regarding objectives and resource allocations could have been avoided with a better initial integration in government's activities.

5. The innovation of a continuous evaluation process provided valuable support and criticism when it was needed rather than after project completion.

Final evaluations provide good hindsight and the basis for "lessons learned". The continuous evaluation, performed every six months with annual retreats, provided fresh insights, mid-course corrections, and facilitated project management when and where it was needed.

6. Resolution of the political difficulties in VOP were outside the scope of the project, directly constrained cocoa development efforts, and should have disqualified VOP from participation.

The lack of a clear public policy on refugees/aliens, inconsistent representations by government officials about immigration, land rights, and local organizations, and the erratic development of the local village council out of the UNHCR refugee project proved to be too disruptive to allow long-term agricultural activities to proceed. It should have been apparent in the beginning that, as refugees, VOP people would require more time and support than were available within the scope of this project.

7. Local leadership capabilities were critical to the success of both agricultural and community development components as demonstrated in the contrasts between Ringtail Village and Valley of Peace.

Ringtail Village began with the recognized dynamic leadership of the HHL Farm Manager, and with a working comradery that immediately facilitated cooperation and mutual confidence on their farms.

Valley of Peace, which had cultural tensions between Belizeans and Salvadorans, divided leadership, and little community direction, could not work well in easy times, much less well in difficult situations. Despite sincere efforts by numerous hard-working, well intended individuals, VOP clearly

illustrated the need for community cooperation with local leadership.

8. Land assessments for Ringtail Village and Valley of Peace suitability were unsatisfactory, limited the number of farmers that could participate, and burdened the project with the major responsibility to acquire alternative sites.

The criteria for land selection was not well defined and allowed the Ringtail site to be accepted before it was completely assessed. The services of the Land and Survey Department and Central Farm technicians were not properly included in site identification. The consequences adversely affected the number of farms available, the percentage of land that could be cultivated, and required extensive time to be spent searching for but not obtaining alternative land.

Soils in Valley of Peace proved to be marginally suitable for cocoa with shallow topsoils over heavy clay or marl subsoils.

9. Seasonal training with an emphasis on practical field demonstrations is superior for farmers, while more intensive short courses combining cocoa technology and extension methods is most effective for extension workers.

Technical training in improved practices for a long-term crop such as cocoa includes a lot of new information for farmers used to working on a seasonal basis. Organization of training into seasonal packets gave the farmer manageable amounts of fresh information about relevant activities at times when field demonstrations could show actual materials and examples.

Extension officers who must guide farmers in planning must have, on the other hand, a comprehensive understanding of cocoa technology and require more extensive training including the principles of field practices and special extension methods for tree crops.

10. The incompatibility of permanent tree crops and annual slash and burn cropping systems dictates that fire-free areas be established either by farmers or the government to avoid the unacceptable risk to long-term crops.

Fire damage at Ringtail Village, Valley of Peace, and elsewhere in Belize illustrated the incompatibility of slash and burn agriculture with any kind of permanent crops including cocoa. Separation of land uses must precede establishment of trees and can be accomplished by the farmers such as was done in Stann Creek, or by enforcement of government restrictions on

burning. The risk of lost capital and labor invested is simply unacceptable and should not be borne by farmers pursuing productive, sustainable agriculture that is in the nations and environments interest.

11. The overall economics of small-scale commercial cocoa production are excellent, but proven recommendations for short-term cash crops during the four year establishment period and for multipurpose intercrops for long-term diversification are limited and need further development.

Preliminary information developed by Hummingbird Hershey and in the project's Cocoa Farm Economic Report indicate that over a 20 year period a very good economic return in cocoa is possible. This, however, assumes the resources to endure the first four years of establishment in which there is no return on labor or capital. Full-time farmers need better recommendations for interim cash crops that can be interplanted with young cocoa and for permanent shade tolerant intercrops to diversify production.

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