RAISE PLUS-LIMITED SCOPE OF WORK

FINAL REPORT

Technical Evaluation of the Ecuador Northern Border Income and Employment Project Implemented by ARD, Inc.

June 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by Weidemann Associates, Inc.

Technical Evaluation of the Ecuador Northern Border Income and Employment Project

IMPLEMENTED BY ASSOCIATES IN RURAL DEVELOPMENT, INC.

FINAL REPORT

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LIST OF ACRONYMS

ANECACAO	Asociación Nacional de Exportadores de Cacao
ATPDEA	Andean Trade Promotion and Drug Eradication Act
ARD	Associates in Rural Development
COP	Chief of Party
C&D	Conservación y Desarrollo
DCA	Development Credit Authority
FFS	Farmer Field School
GOE	Government of Ecuador
GTT	Group Technology Transfer
INIAP	Instituto Nacional Autónomo de Investigaciones Agropecuarias
IOM	International Organization for Migration
NB	Northern Border Region including the provinces Esmeraldas, Carchi, Imbabura, Sucumbios, Orellana and Napo
NGO	Non-government organization
PROEXANT	Promoción de Exportaciones Agrícolas no Tradicionales
PRONORTE	Proyecto de Generación de Ingresos y Empleo para la Frontera Norte del Ecuador
RAISE	Rural and Agricultural Incomes with a Sustainable Environment
USAID	United States Agency for International Development
UDENOR	Unidad de Desarrollo del Norte

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The evaluation team would like to express its appreciation to the Cognizant Technical Officer, Dr. Hugo Ramos and others at USAID/Ecuador for the briefings and de-briefing comments and their arrangements and participation on the evaluation findings' seminar.

The ARD, Inc. project leadership and staff went to extraordinary lengths to facilitate the team's work by the provision of documents and other information, and by arranging and participating in the field visits.

Arvin Bunker

Veronica Letelier

Victor Hugo Cardoso

EXECUTIVE SUMMARY

Northern Ecuador's proximity to Colombia's coca/cocaine producing areas makes it particularly vulnerable to spillover impacts of the narco-fueled Colombian conflict including increased trafficking in precursors and narcotics; coca cultivation; paramilitary-guerilla violence; narcotics-related crime; and flows of refugees and displaced persons. Through the Northern Border (NB) program USAID supports the government of Ecuador (GOE), coordinated through the Unidad de Desarrollo del Norte (UDENOR), to deliver a range of projects to support community development, infrastructure improvements and production support that will increase employment and income for poor families in the region.

The component for production support is implemented by Associates in Rural Development (ARD-ProNorte) and began in September 2003. Activities are being implemented in six northern provinces; Sucumbios, Orellana, Napo, Carchi, Imbabura, and Esmeraldas. The objective of ProNorte was to increase income and employment for small and medium farmers in Ecuador's northern border provinces. The approach was market-led cluster development and the contractor was expected to have drawn on state of the art research and data related to strengthening competitiveness through more productive clusters.

In addition, the contractor was expected to draw upon a range of technical assistance, training, and financial resources through sub contracts, grants, and Development Credit Authority deals. Once sub sector analysis was complete and an understanding of opportunities and constraints acquired, the contractor was expected to overcome constraints to improve competitiveness and business linkages.

Purpose of the evaluation

The purpose of the technical evaluation was five fold:

1. Evaluate the project's approach and methodology to achieve project objectives and to respond to Ecuador's Northern Border region needs;
2. Assess the effectiveness and impact of the technical assistance, training, and small grants activities as well as ARD management of resources and investments;
3. Assess project accomplishments as per those outputs established in the contract with ARD;
4. Evaluate and validate the accuracy of achieved results as reported by ARD and its partners to USAID.
5. Identify lessons learned that USAID might use to define future activities and its next long-term strategy, especially in terms of local economic development focus;

Two international specialists and one local specialist were on the evaluation team. Dr. Arvin Bunker served as the team leader and senior agricultural economist, agribusiness development strategist and agricultural finance specialist. Veronica Letelier, M.S. served as agribusiness development specialist and Victor Hugo Cardoso, M.S. as the Ecuadorian agribusiness development specialist.

The evaluation focused primarily on the contractor's ability to achieve contracted/planned results. Special attention was given to the approaches that the implementer had taken to achieve the proposed results. The team reviewed selected related project literature within and without USAID.

Team members interviewed selected USAID personnel related to the project, interviewed project leadership and key personnel, including field staff. In addition, the team interviewed private companies, NGO´s, associations and buyers of the products supported by ProNorte. The team identified and interviewed donors working the NB region on related crops.

The team traveled to Guayas (Guayaquil), Sucumbios (Lago Agrio), Orellana (El Coca, Sacha, Loreto), Esmeraldas (San Lorenzo, Esmeraldas, Los Bancos) and Imbabura (Ibarra). The purpose of the field trips were: a) to verify and supplement information in the documents reviewed; b) to understand the activities and views of local stakeholders; c) to assess project achievements and shortfalls; and, d) to gather views on project sustainability and needed follow-up.

The team reviewed data reporting processes developed and utilized by ProNorte to report accomplishments related to the seven indicators specified in the contract. This report describes the data collection processes and assesses data reliability.

The team met regularly throughout the travel period to share and debate its findings and potential evaluation conclusions and recommendations, including discussions with ProNorte staff and USAID personnel. ProNorte prepared various reports describing project activities on key issues. Finalizing the in-country sojourn the evaluation team presented the preliminary findings to a variety of USAID/Quito and ProNorte staff.

Findings

The presentation of the findings follow the order of the purpose of the evaluation described above.

APPROACH AND METHODOLOGY

The market-led approach and cluster implementation methodology of ProNorte worked. Five sectors were ultimately selected for support. One sector, potatoes, was implemented but discontinued because ProNorte was not able to motivate producers to adopt the production standards required for the identified market, not because of a faulty approach and methodology.

The approach was to identify sectors for which a market existed and for which Ecuador had a competitive advantage to supply product. All of the five sectors selected had an available market and competitive ability to supply that market. The competitiveness analysis showed that production was the greatest obstacle to increased income, followed by post-harvest handling. Most of the needed improvements in post-harvest handling were at the first stage of delivery and processing.

The methodology for implementation was to train producers to increase yields through improved cultural practices and genetic material. Once production improvements were underway, ProNorte also helped producers associate to form or strengthen existing collection centers. A total of 19 centers were supported by ProNorte, of which four aspire to become regional marketing centers.

In the four sectors supported at project's end, the approach and implementation methodology had improved production sufficient to raise income of beneficiaries, started post-harvest improvements on farm and in the collection centers, and established improved linkages to commercial markets.

EFFECTIVENESS OF PROJECT ACTIVITIES

Once the sectors to support were selected and the implementation teams in place the administration of the project was effective. Not only were producers trained in new technologies, they were motivated to implement their new skills including improved post-harvest handling. Because at project's end less than 10 percent of producers have adequate on farm drying and post-harvest handling facilities, the producers were motivated through ProNorte's support to establish collection centers that provide post-harvest handling services. Plus these centers attract more buyers, helping the producers negotiate better prices.

Grants and sub contracts were a critical support to the technical assistance and training. Grants provided small tools so the producers could practice in the field what they were taught. Grants to the associations provided materials to support construction and/or improvements to collection centers. Much of the market analysis and later training of producers was accomplished through sub contracts with local institutions.

The market and competitiveness assessments of sectors and sub sectors took more time than anticipated. The contract specifically directed the contractor to implement support for cacao. Because most cacao producers also have coffee trees the selection of coffee should have come quickly. Even so it took the contractor nearly a year to select these sectors, obtain approval from USAID and implement significant training for producers. A large number of studies were commissioned by ProNorte despite instructions in the contract to rely on existing market evaluations. At least for cacao and coffee the decisions to support the sectors should have been quick and implementation of training initiated within a few months.

PROJECT ACCOMPLISHMENTS AND TARGETS

Seven indicators were required for each sector supported making a total of 28 indicators. The seven indicators are: 1) number of beneficiaries; 2) annual sales; 3) yield per hectare; 4) new investments; 5) gross annual income per family; 6) net annual income per family; and 7) employment generation.

As of March 31, 2006 ProNorte had met the established end of project targets for 17 of the 28 indicators. By project's end ProNorte estimates that it will have met the targets for 21 of the 28 indicators. For each sector the number targets met are:

1. For cacao in March 2006, 7 of 7; estimate for September 2006, 7 of 7.
2. For coffee in March 2006, 5 of 7; estimate for September 2006, 7 of 7.
3. For avocado in March 2006, 5 of 7; estimate for September 2006, 5 of 7.
4. For broccoli in March 2006, 0 or 7; estimate for September 2006, 2 of 7.

The bright spots are cacao and coffee where the estimated number of producers trained by project end is 9,480 for cacao (131 % of the target) and 2,700 for coffee (113 % of the target). In addition there is now enthusiasm among producers to implement the training they received to improve yields, to expand their areas of production, and to improve post-harvest handling. Increasing prices paid by buyers for improved product and increasing yields are bringing new income to producers.

Avocado producers met their targets for sales, income and employment, but missed their targets on number of beneficiaries and the yield per hectare.

Broccoli was successful for the 35 beneficiaries as of March 2006, but the target was 150. Each beneficiary earned $2,714 per year, up from the baseline estimate of $250 per year, but less than the target of $3,872 per year.

For potatoes a market existed through an Ecuadorian supermarket chain for a specific variety of fresh potatoes and the technology existed to produce the required product. ProNorte was not successful in motivating producers to follow the production and delivery requirements for that market, and the supermarket chain rejected the deliveries.

ACCURACY AND RELIABILITY OF DATA

Gathering data on 28 indicators for more than 12,000 small producers in the NB region is a daunting task. To control data collection costs a mix of census and sampling is used. The samples drawn are not completely random, therefore setting confidence intervals of statistical inferences cannot be done. The sample size however is relatively large, about 20 percent of the population, and so large differences between estimates generated from the sample compared with what the data would have shown with a census of the total population are less likely. Where non random sample selection is used the evaluation team did not identify processes that would likely to lead to data derived from samples being systematically biased positively or negatively.

For all indicators only information for direct beneficiaries is reported; no secondary beneficiaries are included or multipliers used. For all products the number of beneficiaries only includes those that completed the producer training, with the exception of avocados, which includes a few truckers, buyers and other interested persons that are members of the association. In nearly all cases there is only one beneficiary per family.

For all four sectors the data on the number of beneficiaries is based on a census of producers. The employment generation is derived mathematically from the number of beneficiaries using technical coefficients of labor required for certain production practices.

For cacao and coffee the remaining five indicators are based on a sample of producers. The sample is drawn from the training groups, selecting 5 or 6 persons from the group of about 25 producers. Selections are typically grouped by regions to reduce the travel time. For avocado and broccoli the data for the remaining five indicators is a census.

Conclusions

Despite a slower than anticipated start up the ProNorte team was able to recover and effectively deliver training to more than 12,000 producers. The project met nearly all of the established targets for three of the four sectors. For broccoli only one of the targets was met, though for those 35 participants their incomes were significantly increased.

The slow startup did have its impact. Most beneficiaries have only seen project personnel in the field for at most 18 to 20 months. Consequently the most frequent comment from stakeholders is that the project is too short and it is unrealistic to expect a sustainable impact in the project's allocated time frame. Not only was this comment frequent it was always first mentioned when asked what ProNorte could do better.

With support of ProNorte came the identification of high yielding trees of cacao and coffee in the Amazon region. According to the international cacao specialist assisting ProNorte, the identified

cacao trees appear to hold sufficient genetic potential to help Ecuador become a world class producer of cacao. For coffee Ecuadorian production costs could decline to become much closer to costs in Brazil. USAID may want to document this result for possible future reference on the impacts of their support for the cacao sector in Ecuador.

The Farmer Field Schools training was excellent; it delivered technical skills to improve production, but also generated excitement among producers because they learned how to work together, and to effectively participate in a group. This community spirit carried over into the desire to build producer owned first stage collection centers. Improved post-harvest handling, both on farm and in the collection centers, is critical to higher prices received by producers.

While the collection centers now exist physically they are very weak organizations and probably few will survive as producer controlled institutions without continued support. Most centers are weak primarily because they have little or no experience, most receiving their first product in 2006. Limited working capital is also a significant handicap.

All four of the sectors supported at project's end provide sufficient income to producers that follow their recommendations to discourage production of illicit crops.

Until mid 2005 ProNorte leadership continued to consume project resources looking for additional sectors to support in the high valleys, even though the contract requirements to support three to five sectors were met and even though the numbers of beneficiaries were projected to be significantly lower than for cacao and coffee. These activities were apparently pursued, in part, because of verbally expressed preferences from USAID. In follow on projects USAID may want to clarify if support must be provided in all regions of the NB region.

Recommendations

ProNorte specialists for cacao and coffee estimate that only about 1/4 of the coffee producers and 1/3 of the cacao producers have been trained. We suggest that USAID move quickly to put in place the transition year funding to minimize loss of skilled personnel to carry on sector support. With the transition from ARD to a new implementer there is a hazard that the vision for leading a relatively complex project may not be fully transferred.

USAID may want to consider extending the Farmer Field School technology to train additional coffee producers and to train collection center personnel on management and business skills. For highland crops the smaller number of producer beneficiaries may not justify the cost of preparing the training materials. Because most cacao growers also produce coffee, combining both crops in the Farmer Field Schools may result in more efficient and effective training.

Technical Evaluation of the Ecuador Northern Border Income and Employment Project

INTRODUCTION

USAID/Ecuador is currently considering continuing support for productive activities in the Northern Border (NB) region with a one-year transition program that will support most of the ProNorte initiated activities followed by a longer term development project yet to be designed. The results of this evaluation will identify lessons learned from this project and will help to shape the activities to be supported in the transition program and possibly for the following longer-term activity.

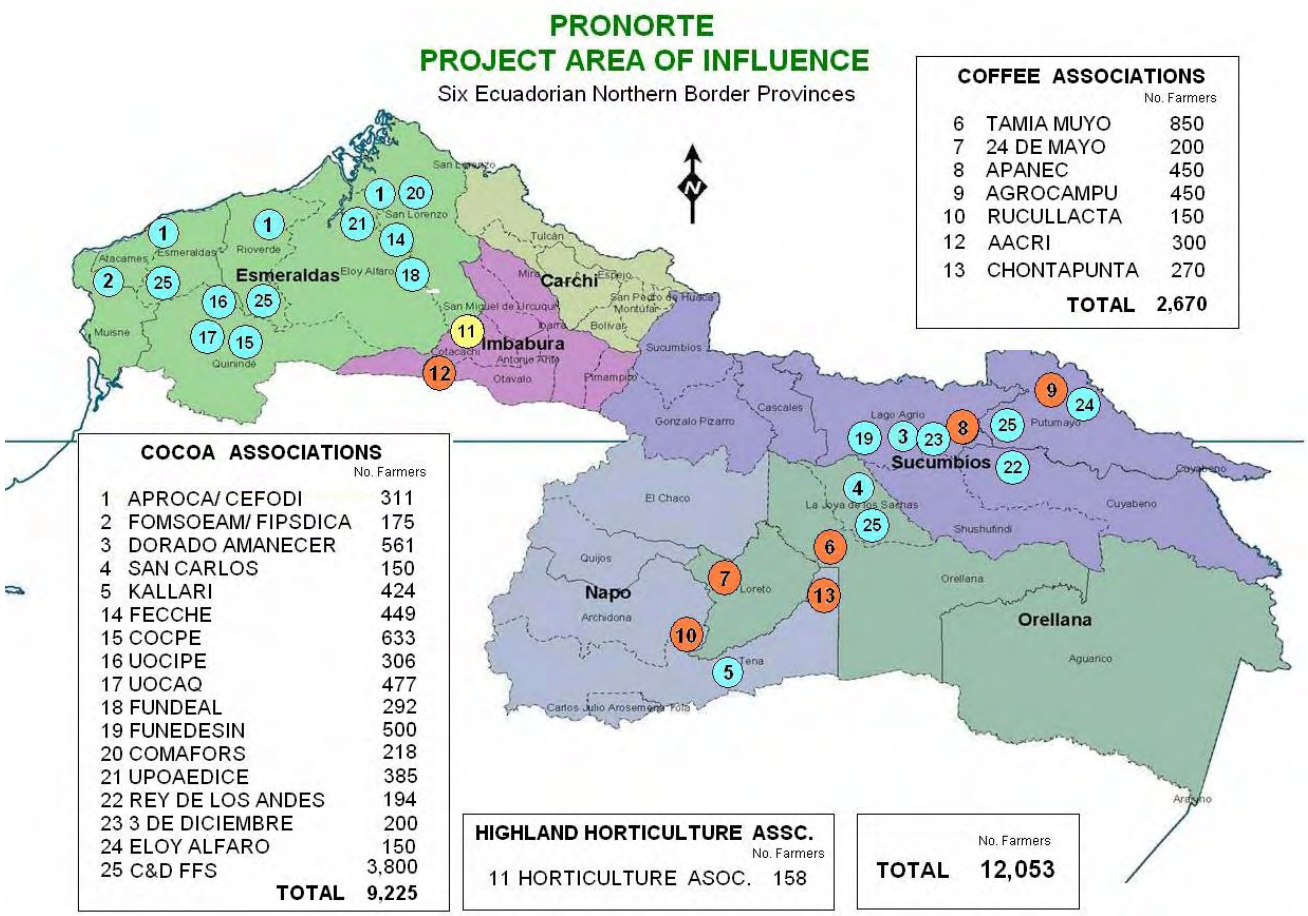
DESCRIPTION OF THE PROJECT

Ecuador's northern border includes 6 geographically and ethnically diverse provinces; Esmeraldas, Carchi, Imbabura, Sucumbíos, Orellana, and Napo, with a combined population of about 1.2 million people, including various indigenous groups, *mestizos*, and Ecuadorians of African and European descent. Northern Ecuador shares about 340 km of border territory with Colombia, currently in the throes of a longstanding civil conflict fueled by a strongly developed coca-cocaine economy (Figure 1). Northern Ecuador's proximity to Colombia makes it particularly vulnerable to spillover impacts of the narco-fueled Colombian conflict.

From 2001 to the present, USAID has supported projects that are highly visible, have rapid-impact on community social and productive infrastructure, and that increase of the employment and income for poor families thru the improvement of traditional crops such as cacao and coffee, as well as the strengthening of local governments, thru a $78 million Northern Border Development Program. This program, designed to show state presence and commitment in the north, is closely coordinated with the Government of Ecuador (GOE) *Unidad de Desarrollo del Norte* (UDENOR) and implemented mainly by two separate implementers: the International Organization for Migration (IOM), and the Associates in Rural Development firm (ARD-ProNorte). The ARD ProNorte component was initiated in September 2003.

ProNorte is a three-year US$8 million project implemented under a USAID/ Ecuador funded Task Order contract with ARD, Inc., of Burlington, Vermont, USA, under the RAISE Indefinite Quantity Contract. One of the NB Development Program objectives is to reduce Ecuador’s vulnerability to cultivation of coca and other illicit crops. ProNorte’s role is to increase licit income and employment for small and medium farmers and other producers in Ecuador’s northern border provinces by strengthening the competitiveness of rural enterprises through improved farm-to-market linkages in selected sectors. ProNorte activities are being implemented in all 6 provinces of the USAID NB program following the original project design as a market-led, cluster development project.

Figure 1.



The activities to carry out its goal, objectives and approach were within the context of:

1. Strengthening the competitiveness of the agricultural/rural economy by building linkages with local, regional and international markets;
2. Strengthening the competitiveness of agricultural producers through improved productivity, quality and timeliness of production as needed by the market; and
3. Developing and strengthening agri-business enterprises.

ProNorte is implemented through an inclusive process that incorporates the considerations of a range of stakeholders including USAID; UDENOR for the Government of Ecuador (GOE); stakeholders from the project target regions, those representing market participants and related industry institutions, national and international; and all levels of ProNorte's staff and institutional subcontractors including Conservation and Development (C&D), PROEXANT, World Cocoa Foundation and Pacific Advisors.

ARD, Inc. explored on-farm and off-farm productive activities as both offered important potential sources of income and employment for small and medium sized producers. The project

provided technical assistance, training, and small grants to poor farmers, processors and traders along the various phases of each value chain/cluster[1].

TEAM COMPOSITION AND EVALUATION METHODS

Two international specialists and one local specialist were on the evaluation team. Dr. Arvin Bunker served as the team leader and senior agricultural economist and agricultural finance specialist. Veronica Letelier, M.S. served as an agribusiness development specialist and Victor Hugo Cardoso, M.S. as the Ecuadorian agribusiness development specialist.

The evaluation focused primarily on the contractor's ability to achieve contracted/planned results. Special attention was given to the approaches that the implementer took to achieve the proposed results. The team reviewed selected literature of the project and literature of related activities within and without USAID. Team members interviewed selected USAID personnel related to the project, ARD project leadership and key personnel including field staff. In addition producers, private companies, NGO´s, associations, commodity groups, and buyers of the products supported by ProNorte. The team identified and interviewed donors working the NB region on the same or related crops.

The team traveled to Guayas (Guayaquil), Sucumbios (Lago Agrio), Orellana (El Coca, Sacha, Loreto), Esmeraldas (San Lorenzo, Esmeraldas, Los Bancos) and Imbabura (Ibarra). The purpose of the field trips were: a) to verify and supplement information in the documents reviewed; b) to understand the activities and views of local stakeholders; c) to assess project achievements and shortfalls; and, d) to gather views on project sustainability and needed follow-up.

The team reviewed data reporting processes developed and utilized by ProNorte to report accomplishments related to the seven indications specified in the contract.

The team met regularly throughout the travel period to share and debate its thinking about the evaluation conclusions and recommendations, including discussions with ProNorte staff. ProNorte prepared data for the team describing project activities.

The evaluation team presented the preliminary findings in a PowerPoint presentation at USAID/Quito. The presentation was well attended by mission personnel and ProNorte staff.

DESCRIPTION OF THE SECTORS SUPPORTED BY PRONORTE

The ProNorte project explored on-farm and off-farm activities as both offered potential sources of income and employment for small and medium sized producers and finally selected cacao, coffee, broccoli, avocados and potatoes. Cacao was strongly suggested in the contract as one of the clusters the ProNorte project should strengthen. ProNorte undertook activities to strengthen the competitiveness of those sectors by identifying constraints along the value chain. The single most important identified weakness was production technology. ProNorte applied technical assistance, training and grants to address the identified weaknesses.

[1] Task Order Contract scope of work to conduct ProNorte project technical evaluation.

Cacao

Ecuador has produced cacao for generations. Many buyers of cacao specify Ecuadorian cacao in their blends because of its high proportion of flavor and aroma. According to cacao buyer-Bloomers Chocolate, the largest U.S. importer of chocolate, the demand for chocolate products is projected to increase faster than the projected increase in production, resulting in increasing amounts of shortfalls and declining stocks.

The evaluation team interviewed producers in Orellana, Sucumbios and Esmeraldas providences and visited collection centers and marketing associations. The team also interviewed cacao buyers and processors in the region, exporters in Guayaquil and importers from the US.

Some Ecuadorian cacao specialists consider that cacao production should focus on the traditional "fino de aroma," variety, which is especially high in the flavor and aroma components. Other specialists suggest production should focus on the CCN51, a higher yielding variety developed more than a decade ago by the Instituto Nacional Autónomo de Investigaciones Agropecuarios (INIAP). CCN51 has greater yields but less flavor and aroma components.

ProNorte lets producers choose the variety they would like to plant, but supports the CCN51 due to its higher productivity and better disease resistance. Until now the Ecuadorian market did not distinguish price wise between the two varieties. They both were mixed and sold as cacao. Thus having a highly productive variety translates into higher incomes for the producers. In addition there is market demand for CCN51 to be used to produce other cacao products.

Super Yielding Cacao Tree

As a result of ProNorte activities, export buyers are beginning to differentiate between the two varieties and to price them separately, and to price mixed cacao beans even lower.

In general cacao is grown by small and medium size farms and sold to intermediaries. Production is constrained by outdated technology with few inputs. Most producers would more correctly be characterized as gatherers of cacao, rather than cultivators. As a result yields are very low, in the range of 2 quintals per hectare. ProNorte has promoted active cultivation of cacao and renovation of older trees which has resulted in yields increasing by two to four times the prior yields with existing trees. As pruned trees become larger and improved varieties are introduced yields are expected to increase further.

A typical cacao producer in the NB region may have up to two hectares of cacao. Producers harvest a few pods at a time and offer the cacao beans a few pounds or quintals at a time to buyers. Because of the small volume and scarcity of buyers, producers have little bargaining power when selling their cacao beans. Most sell in "baba" or without fermenting and drying the beans thus receiving lower prices.

At the producer level, the evaluation team visited several groups. They were applying information learned at the Farmer Field Schools (FFS) to generate cloned plants, increase density per hectare, renovate older cacao trees, and protect the plants by pruning and removing infected pods from the plants. In addition the FFS is teaching them how to ferment and dry their cacao beans. A few farmers now have their own fermentation and drying infrastructure and many that don't are able to use the services of collection centers. The farmers demonstrated their grafting abilities and felt empowered by what they learned at the FFS. The FFS proved very effective not only because of the transfer of applicable information to the farmers but because of its outreach.

At the intermediary level, the ProNorte project has supported the creation of or strengthening of existing collection centers. These centers have had several important effects; the reduction in the power of middlemen to exercise monopsonistic pricing, the assembly of larger quantities of homogeneous product to sell to buyers, which attracts more buyers and tends to increase prices to producers and providing fermenting and drying services to farmers who do not have on farm facilities.

The results are that in the regions where producers have been trained they can now receive better prices. Those producers that sell their cacao without further processing (fermenting and drying) are now paid about $40 per quintal, whereas reports of prices a year earlier were in the range of $28 to $35 per quintal. If producers properly ferment and dry their cacao they can receive about $60 per quintal. Most farmers the evaluation team interviewed were fermenting and drying their production to take advantage of the higher prices. However, to date only about ten percent of the producers that have been trained have installed on-farm solar dryers.

Some collection centers can sell at higher prices depending on the markets they serve. The team visited one marketing center that currently was offering producers $75 per quintal for organic cacao and $65 per quintal for conventional cacao, of course when properly fermented and dried. Fortunately the increasing world wide demand for chocolate combined with the work of ProNorte has had the effect of increasing prices for those producers that implement the technology transferred to them by the project.

The producer owned collection centers are at different development stages, although all are very young and inexperienced. Four years is the longest a collection marketing center has been in business. All of the centers currently receive some type of donor support.

The evaluation team met with cacao buyers from Guayaquil and from the United States. They were happy with the export quality cacao beans they now buy from ProNorte producers. One cacao export association visited the Amazon area during the evaluation team's visit and told producers there is a market for all the CCN51 cacao beans they produce and encouraged producers to export their cacao through the association.

Coffee

Coffee producers in the NB area are much like cacao producers, they are small farmers with low productivity, and served poorly by existing market linkages. Due to the coffee price collapse from 2000 to 2002 most producers neglected their plantations or uprooted them to use the land for other crops. While coffee prices began to rise in 2003, ProNorte still had a difficult time trying to encourage farmers to resume coffee cultivation. By mid 2004 coffee prices had

increased slightly but it wasn't until 2005 that coffee prices moved up enough to convince many coffee producers to once again produce coffee.

Like cacao, coffee beans are better quality when appropriate post-harvest handling is used. Both cacao and coffee can use the same warehouses and drying facilities, both benefiting from the same collection centers and marketing associations. Their peak harvest seasons fall in different seasons allowing greater utilization of fixed facilities.

The evaluation team visited producers in the Amazon and Ibarra areas. In the Amazon the coffee is of the *robusta* variety. The producers in Ibarra are at a higher altitude and produce the *arabica* variety. Producers were trained using the Grupo de Transferencia de Tecnología (GTT) methodology. Although production knowledge was transferred to the producers and producers were applying their training, the GTT methodology delivered less of the community cooperation activities and outreach that were so successful in the FFS methodology.

At the intermediary level, the team visited collection centers and marketing associations. Like the cacao centers, they still need knowledge on marketing, financing and management issues. Working capital is a major constraint as well if they want to buy and sell product.

Ecuador is currently importing robusta coffee from Vietnam. At least one Ecuadorian coffee buyer is interested in buying locally if the quality and quantity of the coffee are comparable to the Vietnamese coffee, which it is if the production and post-harvest recommendation of ProNorte are followed. Fortunately for the NB coffee growers, the prices are higher and the coffee produced in the region is primarily exported to Colombia. Should production in the NB region increase beyond the demand of Colombian importers, there is a ready market in Guayaquil to substitute for imported coffee, albeit at a slightly lower prices. In addition, there is market potential in niche markets like coffee with organic, ethnic or rainforest certifications.

Avocado

The team visited the Ibarra area where avocado is produced. Producers created a marketing association after a South African company visited the area and offered to buy all of the avocados of the variety Hass that they could produce. Most of the avocado currently produced in the region is of the "fuerte" or "Guatemanteco" variety. Although it has excellent organoleptic qualities it does not transport as well as the Hass variety.

Avocado producers vary from 0.75 hectares up to 20 hectares of orchards. Establishment of plantations requires a higher initial investment and producers will only see returns in the third or fourth year. While the trees are young the land can be intercropped to generate additional income.

Producers are introducing the Hass variety. The trees will start production in about another 2 years. In the meantime the avocado association is marketing the "fuerte" variety primarily to Colombian importers and will market both varieties when they are available. There are currently buyers for each variety, though Haas has about 85 percent of the international market for avocados.

Broccoli[2]

Also in the Ibarra area, the team visited broccoli producers. Like avocado, broccoli requires higher initial investments. Broccoli is a very intensive crop that requires inputs and ongoing technical assistance, even after most producers have learned the basics of broccoli production. To help the producers acquire the needed inputs ProNorte worked with a local credit union to provide limited loans to producers. While this financing is helpful it does not meet the total financial needs of most growers and according to producers is not always available at the moment of need. Financing needs are incremented because the buyer pays producers from 30 to 50 days after delivery.

Broccoli producer (Inbabura)

The producers sell to a processing (frozen) and exporting company. They receive a fixed price for all of their broccoli that meets the minimum quality standards, but they do not receive bonuses for broccoli even if it is of a higher quality. The processing company provides the plants and some of the inputs. The producers would like to expand their production capacity, but unfortunately the processing facility is already working at full capacity. Providing broccoli to the fresh market is not a viable option for this region, because it pays lower prices and transport costs to urban markets.

Today there are fewer broccoli producers participating in the program than previously. Some have dropped out because disease has entered their plots and they do not have other plots in which they can grow broccoli. The production plots and/or cultural practices of a few producers did not produce the same size and quality of broccoli and sometimes not meeting the projected delivery dates. These factors led to quality variation in the shipments of product to the processing facility, complicating the processing processes. Some producers reported dropping out because of the lack of adequate financing.

Producers leaving broccoli production have returned to their traditional crops and to the same income levels they had before. They are mainly planting beans, peas, blackberry and corn, which all represent traditional crops in the region. They do not produce broccoli for the local fresh market.

The second and third quarters of 2006 have been an especially difficult season for the broccoli growers. Disease problems (club root) continue to plague some farmers and several more dropped out of production. Then a general strike disrupted scheduled deliveries by the growers to the processing plant, further reducing their total revenues.

[2] For budget reasons the evaluation team did not schedule visits to broccoli producers that no longer participated in the ProNorte project. Therefore the comments provided here about the reasons for broccoli producers dropping out of the project and their subsequent activities may colored through the lens of still active broccoli growers and also through the lens of project personnel.

Until the processing plant expands production capacity there is not a viable option for increasing broccoli production for these communities. The processing plant has exited from its bankruptcy process and is now owned by a commercial bank, which is looking for a buyer. Expansion of the plant will probably come only after the new owners are in place.

Potatoes[3]

One of the principal crops in the Carchi Province is potato. ProNorte proposed to work with a small group of potato producers to supply fresh potatoes to the grocery chain SuperMaxi. The agreement with the chain required the delivery of quantities of a specific variety of potatoes at specified times. Support for this cluster was discontinued when the producers failed on several occasions to meet the delivery conditions required by the agreement.

ProNorte staff found it difficult to motivate the producers to follow production recommendations including meeting the delivery requirements of the buyer. According to ProNorte personnel many potato producers are part-time farmers, with other work obligations. Changing the traditional habit of selling all of their production at the same time rather than weekly deliveries as required by the agreement was more difficult than anticipated. Price fluctuations in the potato market motivated some growers to sell the product designated for the grocery chain to other buyers at a higher price. There was also resistance by the producers to introduce other potato varieties that would have allowed them to sell to the frozen food industry.

These farmers are continuing with their traditional potato production and marketing methods, selling their products at the traditional wholesale and retail markets in the cities. Had the project lasted longer it is unlikely that support for the potato sector would have been restarted.

OBSERVATIONS AND COMMENTS

This evaluation assessed the ProNorte project from five viewpoints, which were:

1. the project's approach and methodology to achieve project objectives and to respond to Ecuador's NB region needs;
2. the effectiveness and impact of the technical assistance, training, and small grants activities as well as ARD management of resources and investments;
3. the project accomplishments as per those outputs established in the contract with ARD;
4. the accuracy of achieved results as reported by ARD and its partners to USAID.
5. Identify lessons learned that USAID might use to define future activities and its next long-term strategy, especially in terms of local economic development focus;

Within each section are discussed findings and conclusions. A brief section then summarizes conclusions and offers comments for future activities.

[3] For budget reasons the evaluation team did not attempt to interview potato producers that had participated in the ProNorte program. Therefore the comments provided here about the reasons for potato producers not meeting the production and delivery requirements may be colored through the lens of project personnel.

Project approach and methodology

The contract between USAID and ARD required ProNorte to "increase income and employment for small and medium farmers in Ecuador's northern border provinces, by strengthening the competitiveness of rural enterprises through improved farm-to-market linkages in selected sectors."[4] The initial task was to identify three to five promising sectors to be supported through the project, and to secure the approval of USAID to work in these sectors. "Once the three to five sectors have been identified and approved by USAID, the contractor shall complete competitiveness assessments by sector, to be undertaken in close collaboration with sector actors and firms."[5]

The contract further named six promising sectors for interventions, including cacao, coffee, potatoes, fresh vegetables with irrigation, bamboo, and textile exports under ATPDEA. A reasonable interpretation of the contract would be that cacao was a required sector to support, effectively leaving ProNorte to evaluate and suggest to USAID two to four additional sectors to be supported by the project.

ProNorte's approach consisted of three major steps:

1) Identify promising markets and determine Ecuadorian competitiveness;
2) Identify constraints to increasing production and sales, and
3) Establish market linkages with private sector buyers.

To implement the contract requirements ProNorte conducted initial assessments of about 14 productive sub sectors and used a methodology to rank the products. (See Annex D for list of selected reports).

In addition to commissioning these studies the ProNorte team adopted a consultative approach to identify promising sectors. This included consultations with many persons, groups and institutions in Ecuador and a few outside of Ecuador. Complementing these consultations was a workshop to encourage submittal of suggestions for promising sectors to receive project support. According to ProNorte staff, many suggestions were received from which a few studies were commissioned.

The consultative process to identify and then recommend to USAID the sectors to be supported by the project was a valid approach, though the implementation process took much longer than the evaluation team considers was needed at least for the cacao and coffee sectors. Comments received say that this period included many meetings, discussions, document generation, but with few concrete on-the-ground activities in support of any of the sectors, and even delaying start up of support for cacao that was strongly suggested in the contract to ARD. USAID personnel also expressed frustration at the apparent slow pace for ProNorte to respond to their suggestions of getting actual activities supporting producers and marketing/processing institutions implemented on the ground.

While the above consultative process was in process, an employee of ProNorte initiated a more direct, and perhaps more effective market evaluation process, that of direct contacts with key cacao industry companies and specialists that were buyers of Ecuadorian cacao, including seven

[4] Contract USAID and ARD no. PCE-I-823-99-00001-0, task order 823, p. 6.
[5] Ibid. p. 7. The implementation timetable on page 20 includes space for a 6th cluster to be determined.

exporters, five international cacao buyers, two local chocolate processors, and four government agencies or other institutions supporting the chocolate sector. [6] Contacts with these companies and institutions gave ProNorte sufficient confidence that a market existed, that buyers were searching for more product, that the amount of production needed to increase, that the quality delivered by producers needed improvement, and that the prices offered by buyers was adequate to motivate producers to rehabilitate their cacao plantations and to plant new plots. The list of companies contacted by ProNorte for cacao is in Annex C.

A similar process took place in coffee. A key ProNorte staffer contacted most of the principal Ecuadorian coffee buyers, processors, exporters, coffee industry institutions, and industry specialists to determine the quantity, variety, quality of coffee needed by the market with reference prices that would be paid to farmers should they deliver product meeting the requirements. While it appears that the actions by ProNorte staff of direct contact with buyers were later than hoped for at project initiation, those actions were implemented and in the case of coffee resulted in an agreement for delivery.

These actions by ProNorte staff provided a solid base from which to recommend to USAID that cacao and coffee sectors be selected. USAID approved those selections in approximately May of 2004.

The contacts with coffee buyers ultimately resulted in an agreement for producers in the Sucumbios region to ship coffee to a processor in Guayaquil, at a price comparable to that paid for imported coffee. When the time came to deliver the coffee the price offered by the Guayaquil processor was below prices offered in the northern border region by local buyers exporting to Columbia. We understand some coffee was shipped at a lower price, and the advanced funds provided by the buyer were returned for the coffee not shipped.

With the approval of the sectors by USAID, ProNorte began the process of recruiting field staff. Because of a change in leadership of ProNorte and delays in decisions on how to hire the field staff, the trainers for coffee and cacao were not in place and ready to begin full scale training until July and August of 2004 respectively.

With the response by the cacao and coffee buyers and exporters to ProNorte and the competitiveness evaluations gave the understanding that the greatest bottleneck for increased income to producers was the existing production technology, followed by current practices of post-harvest handling. Consequently ProNorte embarked on a program first to train and motivate producers to improve their production methods, thereby increasing the volume of product.

Producer training was conducted using methodologies called Farmer Field School (FFS) for cacao and Group Technology Transfer (GTT) for coffee. Both were effective. The Farmer Field School presented some unexpected positive response from participants and is discussed in a separate section. The FFS technology was considered for use with coffee growers, but was not adopted because of the need for immediate technology transfer to producers because of the seasonality of coffee production. The GTT offered a faster technology transfer to producers than the FFS but generated less enthusiasm for producers to work together as a community and offers less outreach. For both cacao and coffee ProNorte staff trained producers and utilized them to

[6] Of these contacts three Ecuadorian exporters, three foreign chocolate manufacturing companies and one local processing company eventually did business with producers and/or companies supported by ProNorte.

help with training of other producers. The producer/trainers received a small stipend for their training activities.

To complement the training in production technology ProNorte also introduced post-harvest handling, also a major obstacle to higher prices for producers. Post-harvest handling improvements for cacao included fermenting and drying beans, keeping different varieties and qualities of beans separated, and delivering beans to a collection or marketing centers. Because of the simple equipment needed for fermenting, drying and separation of beans, nearly all producers could do excellent post-harvest handling, once trained.

Post-harvest handling improvements for coffee included de-pulping and drying of beans. De-pulping equipment is more costly and no producers the evaluation team visited had such equipment, relying on the collection centers for the coffee beans to de-pulp and dry the beans. [7]

ProNorte technicians recruited producers for avocados and broccoli and worked directly with producers to train them on how to improve their production capacity. Some of the trained producers assisted in training and helping other producers.

Avocado producers made improvements in handling harvested fruit and in grading of the fruit they delivered to the association for marketing. From that point the association conducted all or most of the sales for the producers.

For broccoli the buyer (IQF) specified the product quality standards and the delivery requirements. Producers did the initial product selection and packed the broccoli in containers suitable for transport to the quick freeze IQF plant.

In the process of improving production and post-harvest processing there were identified high yielding trees, both for cacao and for coffee. ProNorte is assisting in the multiplication of high yielding germplasm and delivery to other producers, both those that were trained by ProNorte and to other area producers.

In the case of cacao, coffee and avocado ProNorte supported establishment of producer owned collection and/or marketing centers. In the case of potato and broccoli ProNorte helped to establish an agreement with buyers (SuperMaxi through Green Garden in the case of potatoes and IQF in the case of broccoli) to purchase all the production that met the standards required by the buyer.

Producer owned first-level collection centers are common in agriculture. ProNorte helped the producers to organize these centers, contributed materials for their construction, helped to write business plans, partially covered initial wages to center administrators, and provided technical assistance in administration of the center. Producers provided most of the labor for the construction of the centers and for administration and operations of the centers. Because of the short time available in the project most centers are just beginning to function. Most centers are weak organizations and may not remain in the control of a broad cross section of producers without continued donor support.

Having the centers that assemble greater quantities of product attracts buyers and creates competition to acquire the producer's products, usually increasing prices to producers, even after covering operating costs of the centers. If the center can assure better quality product, or at least uniform quality for each grade of product, the center can extract even higher prices from buyers.

[7] Farmers can depulp small quantities by hand and dry on farms. Some coffee farmers had solar drying facilities.

If the buyers retain control of their producer owned collection centers a few additional dollars will end up in the pockets of the producers.

Conclusions: The approach adopted by ProNorte for identifying sectors to be supported and the bottlenecks to be removed was appropriate, correctly identifying the sectors to support and which links in the value chain most needed improvements. Decisions on the first three sectors to support were not forthcoming in the timeframe anticipated in the contract and the initial work plan. The consultative process adopted by ProNorte appears to be a contributor to the slow startup of the project for at least cacao and possibly coffee.

In every sector selected the analysis identified the most limiting factor to greater income and employment growth was productivity on farm, followed by post-harvest handling. While the contribution of producers to post-harvest handling was different for each sector, the ProNorte team applied a reasonable approach, helping producers do those activities that could be done on farm, and helping to organize first level collection and/or marketing centers for those activities best done off farm. For broccoli and potatoes there needed to be negotiated advance delivery agreements between producers and the buyers, which was done. For broccoli additional financing was needed, with ProNorte working out arrangements with a local institution to provide credit for a portion of the producers' needs.

While the contract does not specify that activities be supported in each of the six provinces, or even in each of the three major regions, the North Eastern Amazon, the Highlands and the West Coast, clearly ProNorte leadership believed that was a requirement of USAID and that focus did influence the consideration of promising sectors. The evaluation team observed comments by USAID personnel during its visit to Ecuador that suggests the USAID may still support a policy of implementation of activities in each province in the Northern Border region. In the follow on activities USAID may want to clarify for the implementation partner(s) their policy on geographic coverage of supported activities.

Effectiveness of Implementation

METHODOLOGY

The methodology adopted for improving production was first training and motivating producers to increase production by using improved technology. Then as producers adopted the improved technology the ProNorte staff added training for improved post-harvest handling. This step helped producers deliver higher quality products to buyers, significantly increasing farm gate prices. With their new found confidence from their training and with encouragement from the ProNorte trainers, many groups of producers organized into associations to establish their own collection centers.

The training and technical assistance processes by ProNorte were called "participatory", that is, all producers were welcome to join the training, although some had to wait for space in future classes. The participatory approach is contrasted with the "exclusive" approach adopted by many donor projects, when a donor selects a group and works with them exclusively, excluding others from the benefits received by group members.

Once the product sectors were selected and the training and technical assistance teams were in place, the implementation phase progressed rapidly. The staff of ProNorte and the sub contractors implemented this phase effectively.

ProNorte began farmer training for broccoli during the second quarter calendar year 2004. For cacao and coffee farmer training on a limited schedule began during the third quarter of 2004, and got into full swing during the last quarter of calendar year 2004. Throughout 2005 and the first two quarters of 2006 the FFS and GTT training sessions were in full implementation, training more than 12,000 producers before the project's end.

Training clusters of producers was effective and successful not only in building production skills but also, in the case of the FFS, in helping producers learn to work together. Working together included getting to know better their neighbors, building community awareness, building analytical and leadership skills, and in strengthening efforts to join in associations to build and operate first-stage collection centers for farm products.

These collection centers will provide important services for farmers such as drying, fermenting, and de-pulping. With continued support some may grow into marketing centers, buying producers output and selling to exporters, processors or other buyers. The post-harvest, collection and marketing centers are just beginning to appear and to conduct business. For most centers the harvest of the year 2006 will be their first.

Some of the most frequently heard comments by producers participating in the Farmer Field Schools included:

- "We learned how to work together."
- "I left my job away from home and returned to work the farm and to be with my family."
- "I now know/talk to my neighbors."
- "I can speak in front of others."

Just over 400 solar dryers (marquesinas) have been constructed, nearly all on farms. Marquesinas are wood framed sheds covered with plastic that speed the drying of coffee, cacao and other farm products. The Bloomers Company contributed plastic to build an additional 500 marquesinas in the Amazon region, for a total of about 900, representing about 10 percent of the 8,937 producers trained.

There are still no sustainable institutions in the area that are capable, in the evaluation team's view, of continuing aggressive expansion of the new production technologies to new areas without additional donor or government resources. Limited expansion may occur through normal interaction of people in the zone, but the commercial sector does not yet perceive they can capture sufficient revenue growth to justify an investment in producer training.

The market collection centers have had little time to demonstrate to the producers that they can provide additional producer income. Following in the pattern developed in the FFS where the group decides the most important task to tackle next, the issue of improved post-harvest handling only comes up when the producers realize they will have a significant increase in production to handle post harvest and move to market. As a consequence, the collection centers are just now being constructed and made operational.

In the view of the evaluation team none of the producer association collection centers that have been supported by the project are yet sustainable without outside support. Several of the centers

helped by ProNorte have support from other donors, which greatly increases their chances of becoming a sustainable producer owned collection and marketing center. In the case of cacao there is sufficient interest by the commercial sector that some or most of the collection centers would continue to be utilized even without additional outside support, though controlled by the buyers and traders, or a dominate producer, and not by the producer associations. To establish sustainable producer controlled collection centers and/or first stage marketing centers will require several years of continued support.[8]

While the process is just beginning for most of the trained producers, the potential for increased income will be substantial in coming years. For tree crops the rehabilitation of existing trees and the planting of new trees mean significantly higher yields begin to appear after two and more years from when the improvements were introduced. Future income increases are expected to be significantly higher than the income increases reported below.

Available project funding means many production areas remain unaffected. The census data quoted in the ARD contract states there are 82,000 farmer families in the region. As of March 2006, the project has reached to date 11,293 or 14 %. ProNorte technicians consider that the Amazon and Esmeraldas regions have fewer family production units for cacao and coffee. Those technicians consider that approximately 1/4th of the producers in the Amazon region have been trained, and about 1/3rd of the producers in the Esmeraldas region have been trained. Much work remains to be done to more widely distribute the potential for income gains.

Contract and Open Market Selling by Producers: Coffee, cacao and avocado producers are not using signed agreements for delivery of products, except in some cases contracts may be used for producers who are preparing to deliver rain forest certified products. Broccoli producers have signed agreements. In each case the marketing system is working.

In Ecuador coffee and cacao are commodities, traded in large volumes by many sellers and buyers. Quality standards are known and delivered product can be quickly evaluated. In these cases advance delivery agreements are seldom used because they are costly to implement and if market prices at delivery are different than anticipated they are often not honored. If the product quality is differentiated, such as for rain forest or organic certified and there are only a few sellers or buyers then advance delivery agreements may be used and honored. This is the case for broccoli, where the buyer needs assurance there will be product to run the plant and growers need to be assured their production will be sold, because broccoli prices in alternative markets are lower.

Conclusions: The approach and methodology have achieved two important factors: First they have shown they can reach large number of beneficiaries with cacao and coffee. Second, for all the groups the approach has shown producers they can substantially increase their income if they apply the technology transferred.

Based on comments by beneficiaries that reflected their excitement about their new skills, plus reports by the trainers that additional producers are requesting to receive training, the evaluation team believes a relatively large percentage of the trained persons implemented the changes and

[8] The terms used here are as follows: Collection centers receive and may provide post harvest services as drying, short term storage and other services, preparing the product to be purchased from farmers and picked up by buyers. A marketing center provides the services of a collection center plus buys and sells products, either on consignment or for their own account.

increased their income. The evaluation team did not attempt to calculate if the income increase reported by ProNorte would raise them above the poverty indicators.

The value added for producers are threefold:

1. They have gained new skills on production of cacao, coffee, avocado and broccoli, and have learned that applying those skills increases their income.
2. They have learned to work together to achieve common objectives that result in increased income. Being able to work together may yield additional benefits as they tackle other community problems.
3. Through establishment of the collection centers the way has been initiated for producers to participate in the first stage of the post-harvest processing and marketing of their products, retaining a few dollars per quintal of the marketing margin in their pockets, and perhaps just as important, they receive feedback and gain a greater understanding of how price signals from the buyers are translated back to the producer.

Producers that implemented the training for cacao and for coffee increased their yield per hectare from two to four times. In addition, when following improved on-farm post-harvest handling technology producers increased prices for their products. For example in the case of cacao producers received about $40 per quintal for traditional delivery quality or about $60 per quintal for product when using improved handling technology. The improved yields and higher prices mostly require family labor and require only limited cash investments by producers. Consequently net family income rises rapidly.

The cluster approach has been effective for all products currently supported. The clustering of farmers for all the sectors facilitates the prior and following stages in the value chain.

TECHNICAL ASSISTANCE AND TRAINING

Support to producers was primarily by combining training with occasional technical assistance with specific issues related to production and post-harvest handling. Technical assistance was the primary delivery mode to support establishment and administration of the collection centers. Both producer groups and collection centers received also donations of materials.

ProNorte staff and local sub contractors, supported by international consultants provided most technical assistance. Avocado growers benefited significantly from the donated support of Dr. Benito Fouche, on a 6-month sabbatical from the University of California. Cacao producers received excellent support from B.K. Matlick of the World Cacao Foundation, and the coffee growers received new insights in production of robusta coffee from a Brazilian specialist Mr. Leopoldino Figueiredo. ProNorte is working with coffee companies and industry support groups to fund future technical

Cacao Farmer Field School in El Coca

assistance trips for Mr. Figueiredo to continue support for robusta coffee producers.

As training was progressing producers began considering improvements needed in post-harvest handling including the need for product collection centers. ProNorte provided support for building on-farm facilities to prepare products for sales to commercial buyers, primarily in cacao and occasionally in coffee.

Technical assistance was also provided to collection centers and included support for how to organize post harvest handling, support for development of business plans, search for financing support, and association governance and management assistance. Collection centers attract more buyers and will provide the services to prepare products for sales to commercial buyers for those farmers that do not yet have adequate on-farm post-harvest handling facilities.

The technical staff of ProNorte and their sub contractors was knowledgeable, dedicated, and effective, in the view of the evaluation team. They are the key implementing personnel for the FFS training for cacao producers and the GTT training for coffee producers, and for technical assistance for all sectors. The training was effective and motivated producers to implement their new skills.

As of March 31, 2006 a total of 8,937 persons were trained using the FFS methodology (Table 1). The persons trained were nearly all heads of households, so the number trained reflects very closely the number of rural families trained. Women were 23 percent of the trainees.

Table 1. Number of producers trained in cacao production by zone

Esmeraldas	**5,106**	**57 %**
Male	76 %	
Female	24 %	
Amazon	**3,831**	**43 %**
Male	70 %	
Female	30 %	
Total	**8,937**	**100 %**
Male	74 %	
Female	26 %	

Conclusions: Producers, trainers and other observers cited several reasons why the training was successful. Probably the most important reason was the increasing yield and price received by producers that implemented the skills they learned. Net income increases are estimated from two to four times the current income within 18 months of finishing their training. Two producers proudly showed the evaluation team their new motorcycles, replacing bicycles as their primary transport mode. Fortunately in the case of cacao and coffee product prices increased throughout the period of the project, thus bringing an unanticipated incentive for producers to implement their training.

Second, producers got to know their neighbors, and worked together with them to resolve production problems in their farms. They seemed genuinely enthused about the closer relations they developed. Broccoli growers often worked in groups. Avocado growers were in close contact through their marketing association.

Third, leadership skills were developed. In a four to five hour training session the trainers delivered training for about one hour or less. The remaining time was in practicing their new skill on one of the producer's farm (about an hour), then breaking into small groups to diagnose the problems they found during the practice session, and analyzing and recommending solutions, which were then presented to the full group. Along with receiving new information and

technology during the school session the trainees practiced working together to solve a problem, they also became trainers explaining to their school recommendations to solve a problem.

GRANTS MANAGEMENT

Twenty four small grants were approved by the ProNorte Ecuador office as of May 31, 2006 with obligated amounts totaling $961,685, with $40,308 (4 %) going to support avocados, $714,742 (74 %) to support cacao and $206,635 (21 %) to support coffee (Table 2). The first two grants were approved on October 28, 2004, just over 13 months after startup. Half of the grants were approved in the period from October to December 2004.

Table 2 also shows the number of families that were expected to be impacted by the grant at the time the grant was approved and is not necessarily the same as the number of families trained or number of beneficiaries reported elsewhere in this report. Based on the grant obligation amount and the number of families expected to be impacted, the grant amount per family was $127 for all sectors, and specifically $202 for avocado, $116 for cacao, $170 for coffee.

Comuna 24 de Mayo (coffee)

ProNorte estimated sales for each group for the year before the grant was approved and for the last year of the project. The change in sales during that period divided by the obligated amount of the grant shows that for each dollar of grant a family generated $1.12 of product sales. Avocado producers generated $1.19 dollars of increased sales for each one dollar of grant, cacao producers $1.90 of increased sales for every dollar of grant, and coffee growers $2.94 of increased sales for every dollar of grant. The coffee numbers are higher due to the effect from Tamia Muyo, which is transforming into a coffee processing and marketing institution. Tamia Muyo also benefited from sub contracts to bring coffee processing equipment from another location and install it in their facilities. ProNorte also supported improvements to the building and other facilities, plus Tamia Muyo benefits from use of land and buildings owned by INIAP.

Conclusions: The small grants turned out to be an effective tool to facilitate program operations. Most grants went to support the training of producers, providing them with inexpensive hand tools that are used in implementing the technology taught to producers, such as pruning tools and saws and plastic for the construction of on-farm solar dryers.

Another frequent use of grant funds was to start up or strengthen 19 collection and marketing centers. ProNorte purchased most of the materials through the grants with the agreement that the producers would provide most of the labor for establishing the centers. That has happened and it appears that most if not all of the collection centers will begin handling producer deliveries in 2006. Only a few centers received producer deliveries in 2005.

Table 2. Grants by ProNorte from ARD Ecuador office

Recipient	Begin date	Estimated end date	Amount Obligated	Amount Disbursed /1	Balance	No. families /3	Estimated sales $ Before grant /4	Estimated sales $ At end of project /5	Change sales / grant /2	$ Grant / family
Avocado										
ASOAGUACATE	10/1/05	8/31/06	40,308	22,044	18,264	200	-	76,832	1.91	202
Cocoa										
Ass. Productores Cacao de los Andes	11/11/04	11/11/05	22,309	20,383	1,926	130	21,450	50,050	1.28	172
Ass. Productores Cacao 3 de Diciembre	11/11/04	11/11/05	21,803	20,377	1,426	100	16,500	38,500	1.01	218
Ass. Productores Cacao Eloy Alfaro	11/11/04	11/11/05	21,800	21,101	699	130	21,450	50,050	1.31	168
Ass. Productores Cacao San Carlos	11/11/04	11/11/05	30,964	27,164	3,800	125	20,625	48,125	0.89	248
CEFODI	12/3/04	3/15/06	37,538	37,535	3	300	49,500	115,500	1.76	125
FONMSOEAM	10/28/04	2/25/06	48,947	48,947	0	200	33,000	77,000	0.90	245
COCPE	12/20/04	2/15/06	49,540	49,539	1	432	71,280	166,320	1.92	115
UOCIPE	12/3/04	2/25/06	45,948	45,947	1	242	39,930	93,170	1.16	190
UOCAQ	12/26/04	2/25/06	25,357	25,356	1	400	66,000	154,000	3.47	63
Asociacion Kallari	12/10/04	1/13/06	49,845	44,145	5,700	328	54,087	126,203	1.45	152
FECCHE (Federacion Carchi)	8/8/05	8/8/06	49,919	44,108	5,811	400	66,000	154,000	1.76	125
FUNDEAL	8/8/05	8/8/06	49,900	41,561	8,339	300	49,500	115,500	1.32	166
FUNEDESIN	12/13/05	8/13/06	49,500	49,454	46	527	87,021	203,049	2.34	94
Cacao groups with C&D FFS (7 grants)	11/1/05	5/1/06	74,378	74,370	8	1,300	214,500	500,500	3.85	57
Comite de Gestion Dorado Amanecer	12/2/04	4/28/06	37,425	37,413	12	650	107,250	250,250	3.82	58
COMAFORS	8/11/05	3/31/06	49,690	49,690	0	200	33,000	77,000	0.89	248
UPOAEDICE	8/10/05	8/8/06	49,879	44,194	5,685	400	66,000	154,000	1.76	125
Total for cacao			**714,742**	**681,284**	**33,458**	**6,164**	**1,017,093**	**2,373,217**	1.90	116
Coffee										
COFENAC (first donation)	10/28/04	10/29/05	38,000	37,883	117	6/	6/			
COFENAC (second donation)	1/15/05	3/31/06	50,000	50,000	0	500	75,000	367,500	3.32	176
AACR (Ass. Agroart. Caficultores Rio Intag)	3/10/05	3/10/06	47,710	47,709	1	7/	7/			
Ass. Agro. Caficultores Rio Intag (AACR) 2	5/22/06	8/22/06	7,500	550	6,950	300	27,600	62,800	0.64	184
Comuna 24 de mayo	8/15/05	7/31/06	44,500	35,398	9,102	200	75,000	105,000	0.67	223
Tamia Muyo	3/9/06	8/31/06	18,925	3,000	15,925	215	250,000	500,000	13.21	88
Total for coffee			**206,635**	**174,540**	**32,095**	**1,215**	**427,600**	**1,035,300**	**2.94**	**170**
Total for avocado, cacoa, coffee			**961,685**	**877,868**	**83,817**	**7,579**	**1,444,693**	**3,485,349**	**2.12**	**127**

1/ Disbursed as of May 31, 2006.
2/ Change in sales from the year before the grant to the year to the end of project divided by amount obligated for the grant.
3/ Goal for number of families to benefit.
4/ Data provided by ProNorte field agents.
5/ Estimated annual sales for the final year of the project.
6/ Two donations to COFENAC, combined estimates appear on the line for the second donation
7/ Two donations to Rio Intag, combined estimates appear on the line for the second donation

SUBCONTRACTS

Twenty sub contacts were issued by the project for a total value of $1,676,359 (see Table 3). Five subcontracts were issued from the Vermont office for a value of $502,802 and 15 from ProNorte's offices in Ecuador. Three sub contracts benefited the cacao sector for a value of $488,084, five sub contracts benefited the coffee sector for a value of $502,722, and seven sub contracts benefited the highlands for a value of $182,751.

Conclusions: subcontracts were an effective implementation tool. Local subcontractors have the experience and knowledge to continue to work on the sectors after contract ends.

ESTIMATED COSTS BY SECTOR

The ProNorte staff allocated as directly as possible the costs associated with each of the sectors supported, cacao, coffee and highland horticulture (see Table 4). It was not feasible to attempt to separate costs by the several crops supported in the highland horticulture.

Of the total program expenditures to March 31, 2006 of $6,639,837, 37 % were allocated to cacao, 23 % to coffee, 13 % to highland crops, and 27 % to overhead and administrative functions. The share spent on administration is overstated as much of the time of administrative staff was spent working with specific sectors, but the exact portion

Table 3. Sub contracts by ARD Vermont and by ProNorte from Ecuador office

Recipient	Amount Obligated	Disbursed /1	Balance
US Recorded Sub Contracts			
1 World Cocoa Foundation	2,500	2,500	0
2 Tulilia	16,571	16,571	0
3 LFD & Assoc (Ecuador)	204,594	204,594	0
4 FECD (Ecuador)	121,862	121,862	0
5 PA (Ecuador)	157,275	157,275	0
Total for US recorded subcontracts	**502,802**	**502,802**	**0**
ProNorte Office Recorded sub contracts			
Cacao			
1 C&D (Farmer Field Schools)	453,568	390,419	63,149
2 LIFTEX S.A. (Workshop on cacao)	19,444	19,444	0
3 C&D (Diagnostic cacao sector)	15,072	15,072	0
Total for cacao	**488,084**	**424,935**	**63,149**
Coffee			
1 Industria Metalurgica Tecnifi. (Tamia Muyo)	57,008	57,008	0
2 Proexant (TA coffee cluster)	96,854	96,854	0
3 Proexant (TA coffee cluster, 2nd phase)	97,492	85,526	11,966
4 Fundacion Nanpaz	111,283	111,283	0
5 Proexant Coffee Napo	140,085	117,265	22,820
Total for coffee	**502,722**	**467,936**	**34,786**
Highland Agriculture			
1 Proexant (Sector diagnostic 5 sectors)	16,806	16,806	0
2 Van Kerr Brothers	23,296	23,296	0
3 Van Kerr Brothers	18,760	18,760	0
4 Maqui Manachi	100,553	100,553	0
5 LIFTEX S.A. (Diagnostic 3 sectors)	4,704	4,704	0
6 Pacific Software, S.A.	10,232	10,232	0
7 Turin Americas Ltd. (Diagnosis 3 sectors)	8,400	8,400	0
Total for highland agriculture	**182,751**	**182,751**	**-**
Total for ProNorte office sub contracts	**1,173,557**	**1,075,622**	**97,935**
Total for all sub contracts	**1,676,359**	**1,578,424**	**97,935**

1/ Disbursed as of May 31, 2006.

for each sector is not available.

For those costs that can reasonably be assigned to a sector, estimated expenditures per cacao producer that directly benefited from the project was $271 (see Table 5). This compares to an estimated $699 in net income in the final year of the project for the participating cacao producer.

Estimated expenditures for a coffee producer that directly benefited from the project were $572, with an estimated net income for the final year of the project of $613.

Table 4. Cost per Beneficiary Allocated by Sector

Category	Cacao	Coffee	Horticulture	Administration	Total
Labor					
US Long term	0	0	0	1,047,606	1,047,606
Local long term	196,578	125,307	46,786	39,670	408,341
US Short term TA	278,814	167,288	174,742	46,018	666,862
Local short term TA	85,805	27,104	160,382	42,780	316,071
Local fringe benefits	58,249	34,950	23,300	24,952	141,451
Sub-total	**619,446**	**354,649**	**405,210**	**1,201,026**	**2,580,331**
Travel, allowances					
Travel, transport, per diem	253,332	151,999	101,333	6,604	**513,268**
Allowances	139,174	83,504	55,669	0	**278,347**
Sub-total	**392,506**	**235,503**	**157,002**	**6,604**	**791,615**
Equipment					
Equipment local	83,322	49,993	33,329	-	**166,644**
Equipment Vermont	-	-	-	81,139	**81,139**
Sub-total	**83,322**	**49,993**	**33,329**	**81,139**	**247,783**
Other direct costs					
Local	218,528	131,117	87,411	96,236	**533,292**
Vermont				57,525	**57,525**
Sub-total	**218,528**	**131,117**	**87,411**	**153,761**	**590,817**
Grants & sub-contracts					
Sub-contracts Vermont	162,056	217,596	63,822	55,852	**499,326**
Sub-contracts local	343,588	389,536	112,816	34,882	**880,822**
Grants local	606,030	154,790	5,573	7,341	**773,734**
Sub-total	**1,111,674**	**761,922**	**182,211**	**98,075**	**2,153,882**
Indirects				275,409	**275,409**
Total project Expenses	**2,425,476**	**1,533,184**	**865,163**	**1,816,014**	**6,639,837**
Percent of total	37%	23%	13%	27%	100%
Target no. of beneficiaries	8,031	2,400	326	10,757	10,757
Actual no. of beneficiaries*	8,937	2,680	98	11,715	11,715
Estimated end of project beneficiaries	9,000	2,500	152	11,652	11,652
Percent women**	26%	12%	not avail.	not avail.	not avail.
Cost / beneficiary to date	**271**	**572**	**8,828**	**155**	**567**

In the highlands the project estimated expenditures of $8,828 for each direct beneficiary. Only avocado and broccoli beneficiaries are considered in this calculation; potato beneficiaries were not included. Net income for avocado producers in the final year of the project are estimated at $514, and for broccoli producers at $6,251. Administrative costs were $155 per beneficiary. Overall the total project expenditures yielded a cost per direct beneficiary of $567.

Multiplying the estimated net annual income by the number of beneficiaries yields an estimated total annual income generated by the project beneficiaries of $8,140,970. This estimate of income is for direct beneficiaries only; no multipliers are applied for secondary income impacts.

Table 5. Estimated cost and net income per beneficiary

	Cost per Beneficiary	Net Income	Number of Beneficiaries	Total Annual Income Generated
Cacao	$271	$699	8,937	6,246,963
Coffee	$572	$613	2,680	1,642,840
Horticulture	$8,828	N/A	N/A	
Avocado	N/A	514	63	32,382
Broccoli	N/A	6,251	35	218,785
Administration	$155	N/A	N/A	
Total	$567	N/A	11,715	8,140,970

Conclusions: Project costs per beneficiary were quite different by sector, ranging from $271 per beneficiary for cacao, to $572 for coffee and $8,828 for highland crops (avocado, potatoes and broccoli). The small number of beneficiaries in the highlands made the per beneficiary costs very high.

ADMINISTRATION

The contract documents called for the contractor to identify three to five promising sectors to support, with inclusion of the cacao sector, which was essentially mandated by the agreement.[9] Furthermore, to avoid additional costs and a lengthy start up period, the contact stipulates that the contractor should rely primarily on the existing body of knowledge on markets for the more traditional crops or emerging crops, and not pursue market analysis of a wide range of possible alternatives.[10] A few pages later the contract states, "Based on initial assessments, promising sectors for interventions to improve competitiveness, income and employment include: cacao (Sucumbios, Orellana, Napo, and Esmeraldas); coffee (Sucumbios, Orellana, and Napo); potatoes (Carchi); fresh vegetables with irrigation (Carchi); Bambu (Sucumbios, Orellana, Napo, and Esmeraldas); textile exports under ATPDEA (Imbabura)."[11]

[9] The contractor's first activity shall be to complete an analytical exercise to identify three to five promising sector to which the contractor shall subsequently provide competitiveness support under this contract. The contractor shall focus on traditional and emerging sectors, and should avoid new and/or experimental products. The contractor should also focus on sectors where the potential to impact upon employment and incomes to small and medium sized producers is significant." (Contract p. 7)

[10] In carrying out this exercise, it is absolutely critical that the contractor draw upon, and not re-create Ecuador's existing body of knowledge and data on competitiveness and related factors in the sectors analyzed. . . . While it may be necessary to commission limited new analysis as part of this exercise, ample primary source information currently exists and the contractor is expected to show initiative in identifying and taking advantage of these resources to the fullest, to both reduce costs and avoid lengthy project time frames. USAID is not interested in committing resources to a contract for undertaking a wide range of studies that have already been done. (contract p. 7)

[11] Contract p. 12.

The contractor eventually initially selected five crops to support: cacao, coffee, avocado, broccoli and potatoes. Support to potato producers was dropped after it became apparent that the producers were not motivated to follow the technical recommendations for production and marketing and did not deliver products in accordance with the buyers' requirements. ProNorte was actively considering other crops or activities when the reduction in project funding ended such considerations.

To identify the additional two to four sectors the contractor conducted many market and competitiveness studies for a variety of products such as tourism, wood products, crafts, papyrus, pineapple, passion fruit, papaya, oranges, tropical fruits, jams and fruit packs, and knitwear, in addition to the studies for the five products actually supported (See Annex D).

At the end of the consultative process the resulting sector selections did not differ appreciably from those suggested in the contract (Table 6.)

In the view of the evaluation team, ProNorte was slow in initiating fieldwork for cacao and coffee. There were obstacles for ProNorte to overcome, but those that caused the most delay appear to be related to project administration, specifically information gathering and decision-making on which clusters to support and getting the sub contracts done and the field staff hired and focused on the training.

Table 6. Sectors suggested in the contract compared with sectors actually selected

Sectors Suggested in Contract	Sectors Implemented
Cacao	Cacao
Coffee	Coffee
Potatoes	Potatoes (discontinued)
Fresh vegetables with irrigation	Avocados
Bambu	Broccoli
Textiles	

In the case of cacao, for which the contract essentially mandated support by ProNorte it is difficult to understand why nearly one year passed before intensive farmer training began.[12] The World Coco Foundation was part of ARD's proposal and was available to come within the first few months of the project to get the field training started. While ANECACAO, the Ecuadorian government agency promoting cacao, did not approve of ProNorte's approach their approval was not required to proceed, and indeed was not in hand before starting the farmer field schools.[13]

Once it was decided which sectors to support and the staff hired the contractor appears to have effectively selected and managed the training, technical assistance and the small grants.

The first sub-contract from the Ecuador office was initiated on August 17, 2004, eleven months after the project start. The first grant was initiated on October 28, 2004, nearly 13 months after the project start. These periods are longer than envisioned in the contract, although in the case of a small grants program not all that much different than often occurs in similar situations. In the case of grants, even after approval the grant process required significant amount of effort and

[12] A Cocoa Workshop was held in Naranjal, Ecuador on January 28-30, 2004, but significant amounts of farmer training began in the second half of calendar year 2004. Coffee Extension Agent producer training began in August of 2004.

[13] ProNorte officials report that by the time of this evaluation ANECACAO did support ProNorte's approach and methodology and was beginning to include the Amazon region in their support for the sector.

time to support grantees to effectively manage the grant reporting process so that money could be disbursed.

The selection of the World Cocoa Foundation with their FFS model was especially helpful to the project, because it started and guided the FFS. Other local sub-contractors appear to the evaluation team to have been effective in carrying out their assignments. The farmers have been universal in their appreciation for the trainers, whether they are with ProNorte or with sub-contract organizations. The technical staff has worked together effectively regardless of their institutional representation.

The proposal to support coffee was delivered to USAID on March 12, 2004, six months after start up. The approval from USAID arrived in early April. Implementation on the ground began about July/August of 2004. Between April and August came the change of the COP of ProNorte, several changes in direction on how to hire field staff (direct with ProNorte or through sub-contractors) and then actually hiring the staff and getting them in place.

The evaluation team observed that by early May 2004 ProNorte had recommended supporting the sectors of cacao, potatoes, broccoli and coffee, and that USAID had responded favorably to the selection of sectors and to most, but not all of the proposed targets.[14]

Once the sectors to support were selected, the sub contracts signed and the personnel hired, the implementation of services to producers appears to the design team to have been effective in transferring technology and in motivating producers to implement the skills learned. The persons selected to develop the tactical operations and to supervise the field teams were capable, motivated and effective in selecting their teams and supervising their training and work. In every case the beneficiaries reported excellent rapport with and appreciation for the field staff, which coincided with the observations by members of the design team when watching the interaction between the staff and beneficiaries.

During their stay in Ecuador the evaluation team observed identification of a problem or need by beneficiaries that the ProNorte team passed along to project administration, which resulted in steps being taken to resolve the problems. This involved the need for power saws to speed the pruning of very old cacao trees that had branches of from 6 to 8 inches in diameter. During the time the team was there the need was identified by beneficiaries, the request evaluated by the ProNorte team and a request to USAID was in preparation for authorization to gift power saws to those associations that were capable of managing effectively a chain saw and could charge fees to producers sufficient to maintain and replace the asset when needed.

Conclusions: ProNorte startup process was slow, especially for support for cacao that was required by the contract, requiring about a year to get in the field. The evaluation team considers the selection of coffee as a sector to support could have been made much quicker and support activities begun several months sooner. Selection of sectors in the high valleys was more complex and the time taken for the evaluation and selection of broccoli, potatoes and avocado appears to be reasonable.

[14] Email from Hugo Ramos to Mr. Kamal Dow of ARD and others on May 3, 2004.

RESULTS COMPARED TO TARGETS

The contract establishes seven indicators to be applied to each sector selected to work on; or 28 indicators for the four sectors active at the end of the project. As of March 31, 2006 the contractor had met or exceeded the established end of project targets for 17 of the 28 indicators as follows:

- Cacao: 7 of 7 indicators
- Coffee: 5 of 7 indicators
- Broccoli: 0 of 7 indicators
- Avocado: 5 of 7 indicators.

See Annex E for detailed data on each indicator for each sector. Indicators for potatoes are not included because support for the potatoes was discontinued.

By project end in September of 2006 the ProNorte staff estimates that they will have met established targets for 21 of the 28 indicators as follows:

- Cacao: 7 of 7 indicators
- Coffee: 7 of 7 indicators
- Broccoli: 2 of 7 indicators
- Avocado: 5 of 7 indicators.

Cacao

By far the largest number of beneficiaries came from the cacao sector, a total of 8,937 as of March 31, 2006 (see Table 7). These are the number trained and in nearly all of the cases a beneficiary is a family. Do not subtract the baseline number because all 8,937 beneficiaries were trained in new technology of cacao production. Net beneficiary (family) annual income for the last year of the project is estimated to be $699, nearly three times the estimated baseline annual income. As of March 31 ProNorte had achieved end of project targets for all seven indicators.

Table 7. Targets and actual performance for cacao

Indicator	Base-line	Target EOP	Actual Mar 06	% of Target	% of Baseline
1. Number of beneficiaries	5,144	7,237	8,937	123 %	174 %
2. Annual sales ($ million)	2.32	5.974	7.186	120 %	310 %
3. Yield / hectare (kg.)	190	295	316	103 %	166 %
4. New investment ($ million)	0	2.450	5.028	337 %	N/A
5. Gross annual income per family ($)	495	777	795	102 %	161 %
6. Net annual income per family ($)	242	449	699	157 %	289 %
7. Employment	4,382	6,480	9,178	142 %	209 %

Coffee

Second in the number of beneficiaries are the coffee producers that have been trained at 2,680, or 92 percent of the end of project target. As in cacao, all these have been trained in the new technology of coffee production. Because several farmer training sessions are to end the last two quarters of the project, ProNorte estimates that the target of 2,400 will be exceeded by project's end. Annual net family income is more than double the target for end of project and more than three times the estimated net annual base line income. Overall by March 2006 five of seven of the end of project targets have been achieved and the ProNorte staff estimates all of the targets will have been reached by the end of the project (See Table 8).

Table 8. Targets and actual performance for coffee

Indicator	Base-line	Target EOP	Actual Mar 06	% of Target	% of Baseline
1. Number of beneficiaries	1,139	2,400	2,680	92 %	135 %
2. Annual sales ($ million)	0.126	1.625	1.223	75 %	871 %
3. Yield / hectare (kg.)	180	320	331	103 %	184 %
4. New investment ($ million)	0	0.356	1,205	337 %	NA
5. Gross annual income per family ($)	446	632	881	128 %	198 %
6. Net annual income per family	196	270	613	227 %	313 %
7. Employment	1,863	2,875	5,546	193 %	298 %

Avocado

Avocado has reached 59 % of the intended number of beneficiaries, though the annual sales of those 117 producers exceed the annual sales set for the target 200 beneficiaries (see Table 9). Net annual family income per producer is double the target set for the end of project. Overall ProNorte has met their targets for the end of project for five of the seven indicators.

Broccoli

For the few producers participating the broccoli program is a success, with average gross annual income increasing from an estimated $250 baseline to $2,714 actual (see Table 10). From the overall project perspective, however, the results are less than anticipated, with fewer producers participating and lower sales, income and employment creation than targeted. None of the end of project indicators had been met by March 31, and ProNorte staff projects that only one of the five indicators will be met by project's end.

Table 9. Targets and actual performance for avocado

Indicator	Base-line	Target EOP	Actual Mar 06	% of Target
1. Number of beneficiaries	0	200	117	59 %
2. Annual sales ($ million)	0	0.750	0.866	115 %
3. Yield / hectare (kg.)	0	12,000	8,000	67 %
4. New investment ($ million)	0	0.370	0.439	119 %
5. Gross annual income per family ($)	0	3,750	7,273	194 %
6. Net annual income per family	0	3,000	6,251	205 %
7. Employment	0	149	189	127 %

Table 10. Targets and actual performance for broccoli

Indicator	Base-line	Target EOP	Actual Mar 06	% of Target	% of Baseline
1. Number of beneficiaries	76	150	35	23 %	46 %
2. Annual sales ($ million)	0.019	0.562	0.128	23 %	674 %
3. Yield / hectare (kg.)	0	13,500	12,950	96 %	NA
4. New investment ($ million)	0	0.558	0.529	95 %	NA
5. Gross annual income per family ($)	250	3,872	2,714	70 %	1,086 %
6. Net annual income per family	0	1,472	514	35 %	NA
7. Employment	240	200	124	62 %	52 %

VALIDATE ACCURACY OF DATA AND REPORTS

The contract with ProNorte established targets by year for each of seven indicators, which are:

Under Intermediate Result 1: Developed and strengthened business linkages

Indicator 1.1: Number of primary project beneficiaries

Under Intermediate Result 2: Increased trade flows in selected products
Indicator 2.1: Small and Medium Enterprise (SME) annual sales volume
Under Intermediate Result 3: Increased productivity and quality
Indicator 3.1: Yield per hectare per year
Under Intermediate Result 4: Investment
Indicator 4.1: Value of annual new investment in Northern Border SME
Under Project Objective: Income increase
Indicator 01: Gross annual income per family in Northern Border region
Indicator 01.A: Net annual income per family in Northern Border region
Under Project Objective: Employment increase
Indicator 02: Employment Increase

These indicators attempt to reflect the variety of factors that will define success for the ProNorte project. ProNorte chose to apply these indicators to each of the sectors supported, with the results reported for cacao, coffee, avocado and broccoli in the following section, "Results compared to targets." This section discusses the methodology for data collection for each of the indicators, identifying differences for each of the sectors as they apply. For all of the indicators only direct beneficiaries are tracked. No estimates are made of secondary beneficiaries; no multipliers are applied to estimate the total impact of the project on the local, regional or national economy.

Sample selection methodology

While not offering the capability of rigorous statistical inferences, the methodology for data gathering by ProNorte for five of the seven performance indicators for cacao and coffee does not appear to systematically bias the results. A complete census was used for two of the indicators for cacao and coffee (number of primary beneficiaries and employment generated) and for all the indicators for avocado and broccoli. ProNorte developed the sampling procedures for five of the seven indicators for the cacao and coffee sectors to hold down data collection costs. A complete census for these five indicators in cacao and coffee would have cost more and may not have appreciably improved the accuracy of the data, because of many instances of missing data.

To draw a sample five or six producers are selected out of each training group of about 25 persons, approximately a 20 percent sample – a relatively large sample. Selected producers are then visited in person and requested to provide data on crops produced, area for each crop, sales and other data. The selection of the participating producers is not entirely random. Field agents are instructed to be as random as possible in selecting producers to complete questionnaires. But if one producer is not at home, another producer nearby may be selected, rather than attempt to return another time to find the original intended respondent. Some producers that are particularly difficult to find home, or are much more time consuming to physically reach may be sampled less frequently. The ProNorte staff does not believe that less frequent sample rates for those not at home or those with more difficult access materially affects the results. The evaluation team concurs with this assessment. Each quarter a different group of producers is sampled and visited.

1. NUMBER OF PRIMARY BENEFICIARIES

For all sectors the number of primary beneficiaries is a census that is updated quarterly. Each quarter the field staff review the number of persons who have benefited from the program, adding in those newly receiving benefits, and dropping those that are not following through with

the program of training. ProNorte staff reports that there are only a few dropouts. In the case of cacao and coffee a producer may start training but may drop out before completion, in which case he/she is removed as a primary beneficiary. Once a producer has received his/her certificate of completion of the training they are permanently counted as a primary beneficiary. In the case of broccoli and avocado a producer is included as a beneficiary if they continue participating in the program. Particularly in broccoli we see the number of primary beneficiaries change as producers enter or leave. ProNorte technicians report that about 80 persons have produced broccoli at one time or another, but as of March 2006 only 35 were producing under ProNorte's support. The team was told by producers that many dropped out because of the lack of adequate financing – the plant where they delivered their product paid them from 30 to 50 days after delivery. ProNorte staff informed the team that disease problems on their plots were also important reasons for producers to discontinue production.

For avocado the number of primary beneficiaries is listed as 117 as of March 2006, all of which are members of the producers association AsoAguacate of which 63 are producers or persons in the process of planting their orchards. Fifty four persons are engaged in activities related to avocado production and marketing, such as buying and selling, transport, and providing inputs supplies.

The ProNorte field staff report that nearly all primary beneficiaries represent separate families, and that seldom do husband and wife both attend the training. ProNorte does not prevent husband and wife from attending training and it does not eliminate them from their list of primary beneficiaries if it occurs. The evaluation team encountered several examples of parents and adult children attending training, but in all cases the adult children considered that they operated their "farm" separately from their parents, so they clearly represented another "family." The team has no data to suggest that the number of beneficiaries is significantly double counted or overstated.

2. ANNUAL SALES VALUE

Annual sales data is generated by a survey for cacao and coffee producers and by a census for avocado and broccoli producers. The methodology for selecting survey participants is presented just below this section on annual sales value.

ProNorte personally visits each of the producers selected for participation in the survey and requests sales data for the prior three months. This data is then combined with sales data for the prior three quarters to arrive at an annual sales volume required by the indicator. For avocado and broccoli the field agent attempts to visit all beneficiaries. Missing data for one quarter is estimated from data of prior quarters. For avocado growers the sales reported are sales through the association, which is believed to be nearly all sales.

3. YIELD PER HECTARE

Yield per hectare is generated by a survey for cacao and coffee producers and by a census for avocado and broccoli producers. Quarterly ProNorte field agents visit selected farmers and ask them to provide data on the amount of product harvested in the prior quarter. That sample data is expanded to represent all producers, and is then averaged with yields for the prior three quarters to arrive at an annualized yield estimate.

4. VALUE OF ANNUAL NEW INVESTMENT

The value of annual new investment is determined by a census of avocado and broccoli producers and a sample of cacao and coffee producers. Producers are personally visited by the ProNorte field staff or staff from participating institutions. The questionnaire identifies the surface area of the crops supported by ProNorte, and notes if the area is a rehabilitated planting or a new planting. Based on crop area for new or rehabilitated crops, a pre-established formula is applied to determine the investment. For example a hectare of cacao is estimated to require a fixed amount of labor for rehabilitation of crops, and a different amount of labor for new plantings. The value of labor is included in the new investment estimates.

In addition the field agent estimates the value of new on-farm investments, such as for solar driers, fermenting bins, de-pulpers, hand tools, but not counting those provided through the training, and other investments.

5. GROSS ANNUAL INCOME PER FAMILY

Gross annual income per family is calculated from the annual sales divided by the number of beneficiaries, and therefore is derived by census data for avocado and broccoli producers and a combination of census and sample data for of cacao and coffee producers. Here ProNorte agents request sales data from the producers, except in the case of avocado in which case the data comes from the association sales data for producer members. Non producer sales are not included in the avocado data. Data for the prior three quarters is added to the current quarter to arrive at an annual estimate.

6. NET ANNUAL INCOME PER FAMILY

Net income is gross income for the quarter less cash expenses for production and post-harvest handling and marketing. Because many farmers do not keep good records and may not recall accurately expenses for the prior quarter, average cash expenditures per hectare were developed by ProNorte and are used to estimate the cash costs per area of production. Estimated depreciation on producer assets that are used for production of the crop in question is included as a cost. The term “net annual income per family” is applied to the net income from that particular crop, not to all family income.

7. DIRECT EMPLOYMENT

Direct employment is calculated from the amount of labor required by producers and others to improve, maintain, or expand plantings of the supported crops. The database maintained by ProNorte contains the name of every beneficiary, the size of his farm, the area planted to the supported crops, and other detail. ProNorte estimated the level of effort for each crop supported by the project, differentiated by whether the producer was rehabilitating existing plantings or establishing new plantings. The amount of direct employment is estimated by adding up the number of hours a producer is estimated to consume tending those crops supported by ProNorte and dividing by 220, to arrive at a person year of labor, or one job.

The number of hours does not include employment required in off-farm marketing or processing of crops by non-producers. It does include on farm post-harvest handling such as for fermenting, drying, and transport to the first level buyer.

Conclusions: For the four indicators that can be summed over the four product sectors, by March 31, 2006 all four have met or exceeded the sum of the targets set for end of project. These indicators are:

- Number of primary beneficiaries,
- Annual sales volume of beneficiaries,
- Value of new investments, and
- Employment increase.

Cacao and coffee have been especially successful in meeting the objectives as stated in the ARD contract. Especially cacao and coffee have reached many beneficiaries and provided them with a reliable source of increased income. Cacao and broccoli producers are generally located in the regions along the northern border that might attract plantations of coca. The potential income from cocoa and coffee appear to be sufficient to lessen the attractiveness of coca production in the region.

Avocado and broccoli have introduced significant new income in the mountain regions, but only for a limited number of growers. All of the broccoli producers are indigenous people and those met by the evaluation team were excited about their new income source.

LESSONS LEARNED

- **Three years are too few** for a development project that focused on production of agricultural crops by small producers, and especially for tree crops that accounted for three of the five sectors supported. From the producers point of view the project was a mere two years in length, having consumed one year in startup and preparations. While the producers are currently excited by what ProNorte has done, they are also leery of lack of continued support.
- The **Farmer Field Schools** generated learning by the producers and more; they created excitement for working together in their community to achieve common objectives. The approach developed for the cacao producers should be considered for the coffee producers, and may even be appropriate to adapt for training of the broccoli producers and for the training of key persons of the producer controlled collection and marketing centers. The cost of adapting FFS style training for these groups will have to be weighed against the number of potential beneficiaries and the benefits they will receive.
- Farmer Field School and Group Technology Transfer, the training methods both emphasized the social interaction of the trainees. Both generated enthusiasm in the participants for learning. Learning included social skills as working with neighbors to resolve problems, learning from the mistakes of others, and talking in front of a group. This in addition to the agricultural production skill learned. Training clusters of producers was effective and reduced costs. It also served in strengthening efforts to join in associations to build and operate first-stage collection centers for farm products.
- The **training and technical assistance** processes by ProNorte were called **"participatory"**, that is, all producers were welcome to join the training, although some had to wait for space in future classes. The participatory approach is contrasted with the "exclusive" approach adopted by many donor projects, as when a donor selects a group

and works with them exclusively, excluding others from the benefits received by group members.

- The **approach that identified the limitations in the value chain worked correctly**, and the key limitations were identified and addressed. The key limitations were production technologies and post-harvest handling, including collections of products from farms.
- In the view of the evaluation team **more direction and less consultation should have shortened the elapsed time to put people in the field by several months.**
- The number of **beneficiaries in avocado and broccoli were small** compared to those of cacao and coffee. That the expected number of beneficiaries would be limited was known to USAID when they approved the request by ProNorte to work with these sectors.
- There appears to have been a requirement by USAID to work in each region or Province, even though that would reduce the total number of beneficiaries. Although it does not appear to have been a contentious issue in this case, **USAID may want to consider including in writing the requirement to look for beneficiaries in each region**.**The requirement to support activities in each region (Province) appears to have been a factor in a longer than anticipated start up time**, that may have delayed support from reaching the farmers not only in the regions of Carchi and Imbabura, but also the products for other Provinces.
- In the case of broccoli the beneficiaries are previously very low-income producers, who now have a much higher income, probably sufficient to prevent them from migrating to coca production regions. The same applies to avocado producers; they now have prospects for a greater income. Income has increased because their association now exports directly their existing production to Colombia, rather than through intermediaries. When their trees with the Haas variety come into production they should have even higher earnings. However, in the view of the evaluation team few if any of the avocado growers would have migrated to the coca growing regions, even without support from ProNorte. It is possible the avocado growers will eventually provide additional employment for other low-income people that might have migrated to coca production regions.
- For all 5 selected sectors the market was available.
- **Lower post-harvest costs by utilizing the cacao infrastructure for the post-harvest of coffee**. Cacao and coffee have similar post-harvest and marketing activities and their harvest seasons complement each other. The same infrastructure could be used for both crops. In fact, the evaluation team noticed that Mr. Julio Lama, a coffee trader was starting to use the coffee infrastructure for processing/marketing cacao as well.

SUMMARY OF CONCLUSIONS

- Even though USAID wanted to minimize the level of effort on **market and competitiveness studies,** that process plus sub contracting and hiring staff dominated the first year of the project; little training occurred. In this case USAID perceptions of the sectors to support were largely correct, as verified by the sectors finally selected by ProNorte.

- ProNorte **startup process was slow** for cacao and coffee, requiring about a year start producer training in the field. Selection of these sectors could have come much earlier. Selection of clusters to support in the high valleys required evaluation of more options.
- **The approach** adopted by ProNorte for identifying sectors to be supported and the methodology for supporting those sectors worked. The sectors selected all had available markets and Ecuadorian producers were capable of meeting the needs of those markets if they followed the technologies taught by ProNorte. The cluster approach to training was effective in transferring technology, and also motivated producers to work together to resolve common problems. This is most clearly demonstrated in producers contributing labor and other support to establish producer controlled collection centers.
- The **approach and methodology** has achieved two important factors: First it has shown it can reach large number of beneficiaries with cacao and coffee. Second, for all the groups the approach combined with the current market situation in Ecuador has shown producers they can substantially increase their income if they apply the technology transferred.
- **The farmer training was effective** and the technology transfer combined with improving prices created great interest by producers to improve their production.
- The **small grants** were an effective tool to facilitate program operations. Most grants went to support the training of producers, providing them in inexpensive hand tools that are used in implementing the technology taught to producers, such as pruning tools and saws and plastic for the construction of on-farm solar dryers.
- **Subcontracts** were an effective implementation tool. Local subcontractors have the experience and knowledge to continue supporting a follow on project.
- **Project costs per beneficiary** were very different by sector, ranging from $271 per beneficiary for cacao, to $572 for coffee and $8,828 for highland crops (avocado, potatoes and broccoli). The small number of beneficiaries in the highlands made the per beneficiary costs very high.
- For the **four indicators** that can be summed over the four product sectors, by March 31, 2006 all four have met or exceeded the sum of the targets set for end of project. These indicators are:
  - Number of primary beneficiaries,
  - Annual sales volume of beneficiaries,
  - Value of new investments, and
  - Employment increase.
- **Cacao** and **coffee** have been especially successful in meeting the objectives as stated in the ARD contract.
- In all four sectors ProNorte project personnel have **worked closely with partner institutions**, with institutions supported by other USAID or other donor funds, and private institutions and companies to help with identification of value chain restraints and to establish training, technical assistance and grants to remove or lessen the impact of those restraints.

- Beyond achieving the targets specified, ProNorte has created for cacao producers and to a lesser extent for coffee producers an excitement in the NB region for improving their plantations, and an expectation that they can improve their income significantly.
- **The identification of the "super yielding trees"**. This project identified high yielding cacao trees apparently also resident to disease, providing an excellent source of germ plasm to help increase yields. High yielding coffee trees were also identified, precluding the need to import improved germ plasm from Brazil.

COMMENTS FOR FUTURE ACTIVITIES

- The ProNorte project ends on August 31, 2006. USAID/Ecuador anticipates providing transitional funding between 2006 and 2007 to support some of the associations and farmers now working with ProNorte. A new contract is anticipated for 2007 and beyond, aligned with Ecuador's new strategic objective.
- A capable training team is in place that can continue the effective training exhibited during the last two years of ProNorte. USAID will need to act quickly to retain this team. The transfer of leadership from ARD to another contractor risks loosing the vision and administrative skills that has kept the many components of ProNorte functioning effectively.
- The identification of high-yielding "super" trees for cacao and coffee are important finds and can be credited to the support of ProNorte and USAID. The coffee trees produce as much as high-yielding robusta coffee cultivars in Brazil, and have the potential to make Ecuadorian producers more competitive in world markets.
- Production data for the high yielding cacao trees shows yields 8 to 10 times a typical cacao tree, with beans that have favorable aroma and flavor characteristics. If those yields are repeated in other locations and conditions, Ecuadorian producers have the potential to be world class producers of cacao. USAID may want to document now the support provided for the cacao and coffee sectors to assess the results a few years from now. USAID may want to work with Ecuadorian and other agencies to help Ecuadorian coffee and cacao producers, especially those in the NB region benefit from this exciting development.
- The 19 producer owned collection/marketing centers are very weak institutions. Most will receive their first product from producers in 2006. All now receive donor support and all require continued support if a project goal is for them, or most of them, to remain as producer controlled institutions.
- Continue to work on the cacao and coffee clusters. These two clusters had the largest number of beneficiaries, and were located in the most potentially dangerous areas that could be used for the cultivation of illicit crops. The evaluation team identified a strong demand for more work in those clusters, especially in the Putumayo areas in Sucumbios. The income generated by cacao and coffee production is sufficient, in the view of the Evaluation Team, to discourage these producers from producing illicit crops.
- The follow on project may want to consider a pilot test to consolidate the Farmer Field School and the Group Transfer Technology training into a common series of training

sessions, because most producers grow both crops and some of the technology transferred is nearly the same for each group.

ANNEXES

Annex A: Contacts by the Evaluation Team

INSTITUTION	NAME	ADDRESS
USAID	Alexandria Panehal Director	Phone: 593-2-2232100 Ext.504 apanehal@usaid.gov
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PRONORTE	Alfredo Dueñas Coordinador Escuelas de Campo	Phone: 593-2-2262611 aduenas@ardpronorte.or
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Rainforest Alliance	Thomas K. Divney	tdivney@ra.org

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	Lorena Solórzano Directora Tec.Programa Formin Cacao	Phone: 593-4-2681550 isolorza@corpei.org.ec
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COFINA	Julio Zambrano Gerente General	Phone: 593-4-2513420 jzg@cofinacocoa.com
ÑANPAZ	Fausto Herrera	Phone: 098397682
Coffee-Trader	Julio Lama	
ASOAGUACATE	Rommel Alarcon Benny Fouche Juan Cardenas Mario Muñoz (Brócoli) Luis Moran	Phone: 094325142 092612219
PRONORTE	Fredy Bermeo Coordinador Amazonía Cristóbal Rodas	Phone: 093147842

	Agro-business	
	Silvio Ortiz Coordinador Esmeraldas	
	Daysi Rodríguez Monitoreo y Seguimiento Esmeraldas	
	Natacha Ramírez Monotoreo y Seguimiento Amazonía	
COFENAC	Fabián Fernández Darío Shiguango	
TAMIA MUYO	Bolívar Godoy Gerente Comercial	
APROCAFA	Fernando Crespo President	Phone: 099618872
	Sergio Cedeño Amador	sceden@ersa.com.ec
VINTAGE Plantation Chocolates	Pierrich Chward	908-359-9304
CONSULTANT	Robert Flick	093924376
TULICORP	Eduardo Marquez de la Plata	emarquez@tulicorp. com
GTZ	Sonia Lehmann Juan Rodríguez	593-2-2546724 593-2-2546724
Bloomer Chocolate	Peter W. Bloomer Chief Operating Officer	(215) 679 4472 pbloomer@eg.bloomer.com
FARMERS	More than 100 farmers were interviewed	

Annex B. Evaluation team scope of work

1. **Preliminary Research:** The evaluation team shall review at least the following documents/tools to familiarize itself with the Project activities:

   - Contract No. PCE - I - 823-99-00001-00, Task Order 823
   - USAID/Ecuador's Performance Monitoring Plan for the Northern Border Program
   - Sub-contracts and sub-grant agreements signed by ARD with major counterparts and sub-grantees, as appropriate
   - ARD Annual Work Plans and quarterly reports
   - ARD handbooks, policies, and manuals
   - ARD (1) management information system, and (2) M&E system (including M&E of environmental assessment conclusions and recommendations)
   - Technical reports generated by short-term consultants and Project staff
   - Final Report – Northern Ecuador Assessment – 2002, Robert Gersony
   - Informe Técnico para la Identificación de Alternativas de Producción en el Norte del Ecuador, prepared by Development Alternatives, Inc. (DAI) under contract with International Organization for Migration (IOM), March, 2002.
   - "El cluster de brócoli", report prepared by IICA and CORPEI

   Additionally and according to ADS 203.3.6 language, some specific evaluation purposes are the following:

   - Explain unexpected results (positive or negative), and unintended impacts;
   - Determine if target beneficiaries needs are being met;
   - Assess net impacts of USAID activities in the NB;
   - Explore special issues such as sustainability, cost effectiveness, relevance;
   - Make action recommendations for program improvement;
   - Distill lessons for application in other settings;
   - Test validity of hypotheses and assumptions underlying results frameworks.

   Based on work plans, progress reports, and field visits and interviews to key informants, the contractor should assess how this program has been implemented and if planned results were met, and identify lessons learned for future USAID Mission activities. The evaluation team is expected to go beyond the simple examination of

inputs, outputs/results and the design document to explore these broader issues. This evaluation may therefore provide valuable information for more effective implementation of productive, alternative development programs in the coming years.

The evaluation team is expected to effectively assess performance data submitted by ProNorte thru revision of the quarterly reports and annual work plans. The goal is to ensure that USAID/Ecuador is aware of data strengths and weaknesses, and the extent to which the data can be trusted when making management decisions.

2. Illustrative Issues and Questions to be Addressed: This evaluation shall consider, but not necessary restrict itself to, the following issues/questions:

a. General:

The evaluation shall focus primarily on the Contractor's ability to achieve contracted/planned results. Special attention should be given to the approaches that the implementer has taken to achieve the proposed results, mainly the market-driven and the cluster ones. The findings from this evaluation shall provide recommendations to design new interventions in the coca threatening regions of the country.

- How effective has been the cluster approach to help small producers to increase their income and to generate licit employment?
- Has the approach been adequate to alleviate and reduce the situation of poverty of the NB region? What has been the "value added" that the activities have contributed to improve the living standards of vulnerable groups?
- How well and to what extent has the project met goals and objectives?
- Has the project reached effectively the target population and achieved expected benefits?
- How effective has been the Contractor in managing major sub-contracts and sub-grant agreements e.g. have high-quality organizations been selected consistently for implementation of activities?
- Cost-benefit assessment: do the achieved results appear to justify the investment made by USAID/Ecuador in this program?
- What have been the major impacts of the program, a) on target beneficiaries (not only in terms of income increase and employment generation); and b) on the producers associations?

- What have been the major lessons learned through the program in terms of, a) implementation of the strategies; b) sustainability; c) cost-effectiveness; d) reducing the vulnerability of poor producers?

b. Specific Project Components:

The evaluation shall assess the accomplishments and impact of developed activities, technical assistance, training, and small grants, and expected results/outputs in general and for each cluster. Questions to guide the evaluation may include but are not limited to:

- How ARD's management of the technical assistance, training, and small grants contributed to the project goal and objectives? How the income increase and employment generation can be quantitatively attributed to each one of these project activities?
- How each one of these activities contributed to the sustainability of the clusters participants?
- What are the lessons learned from the implementation of these activities?
- How the proposed disposition of project assets and goods will strengthen/support the sustainability of recipient farmers associations?

Annex C. Cacao: Iniciativas comerciales

Mediante el desarrollo de eventos de calidad, mesas de negociación, visitas de campo, mejoramiento de infraestructura, participación en ferias, acuerdos y alianzas estratégicas con empresas locales y externas; PRONORTE ha catalizado la consecución de las siguientes iniciativas comerciales.

Empresa	Actividades	Grupos involucrados
Cofina Exportador de Cacao Ecuatoriano	Comercialización de cacao para exportación. Apoyo al desarrollo de mercados especializados a través de alianzas estratégicas. Requerimiento: Ilimitado Modalidad: Compromisos de entrega	Grupos de productores de Esmeraldas y la Amazonía. Fonmsoeam, Fipsdica, Aproca, Eco Cacao. Kallari.
Kraft. Transnacional de la industria alimenticia a nivel mundial	Apertura de mercado para la elaboración de chocolate con cacao certificado mediante el programa Raiforest Alliance Requerimiento: hasta 1500 primera etapa 5000 TM segunda etapa. Modalidad: Compromisos de entrega	Grupos de productores de Esmeraldas y la Amazonía. Aroma Amazónico, Aproca, Fonmsoeam, Aprocane. Eco Cacao, San Carlos,
Blommers USA Importador de Cacao Ecuatoriano, maneja el 40% de la industria de semielaborados de cacao en USA	Apertura de Cento de acopio en Sacha a través de la empresa exportadora local Inmobiliaria Guangala. Requerimiento: Ilimitado Modalidad: Mercado Libre	Grupos de productores de la zona de Sacha. Asociaciones San Carlos, y Pimampiro
HCCH Mayor Exportador de Cacao Ecuatoriano	Comercialización de cacao para exportación. Apoyo al desarrollo de mercados especializados a través de alianzas estratégicas con grupos locales. Requerimiento: cacao nacional, orgánico y convencional. Cantidad requerida Ilimitada Modalidad: Compromisos de entrega	Grupos de productores de Esmeraldas. Cocpe y Uocipe.
SKS Exportador de Cacao Ecuatoriano especial al mercado europeo	Comercialización de cacao para exportación. Apoyo al desarrollo de mercados especializados de chocolate medicinal. Requerimiento: cacao en baba	Grupos de productores de Esmeraldas. Aproca-Cefodi

	Modalidad: Compromisos de entrega	
Ecuatoriana de Chocolates Industrial local que se encuentra instalando una planta para la producción de chocolate fino.	Comercialización de cacao para exportación. Apoyo al desarrollo de mercados especializados a través de alianzas estratégicas. Requerimiento: No definido Modalidad: Compromisos de entrega	Grupos de productores de Esmeraldas y la Amazonía. Aroma Amazónico, Aproca, Fonmsoeam, Aprocane. Eco Cacao.
Felchlin Industria Chocolatera Fina de Suiza	Compra de cacao proveniente de grupos indígenas. Requerimiento: No definido Modalidad: Compromisos de entrega	Grupos de productores pertenecientes a la Asociación Kallari

Otras iniciativas con el sector privado

Empresa	**Actividades**	**Grupos involucrados**
Equibusiness Exportador de productos certificados a Europa	Análisis y Envío de Muestras de cacao de grupos de productores para apertura de mercados	Aproca, Fonmsoeam, Eco Cacao.
Guittar Chocolates Manufacturador de Chocolates finos para el mercado Norte Americano	Envío de Muestras de cacao proveniente de súper árboles para análisis físico y de sabores.	Colección de súper árboles localizada en San Carlos
USDA. Instituto de Investigación de los Estados Unidos	Envío de material vegetativo cacao proveniente de súper árboles para análisis genético.	Colección de súper árboles localizada en San Carlos
INIAP Instituto Nacional de Investigación Agrícola de Ecuador	Envío de material vegetativo cacao proveniente de súper árboles para estudios de desempeño.	Colección de súper árboles localizada en San Carlos
Corigins Importador de Cacao para el Mercado Norte Americano	Retroalimentación de la experiencia de PRONORTE en la construcción de Secadores Solares a otros grupos de productores en África.	Grupos locales
Agrotropical Empresa productora de cacao de la variedad CCN51	Provisión de mazorcas y semillas de cacao seleccionadas para el establecimiento de viveros	Agricultores participantes en el programa de Escuelas de Campo que desarrollaron viveros para la generación de nuevas áreas.

REPEC Broker y exportador de Cacao y Café Ecuatoriano	Apoyo a Mesas de Cacao y retroalimentación de información relativa al mercado de cacao, participación en eventos organizados por PRONORTE	Agricultores participantes de las diferentes organizaciones de productores de Frontera Norte,
ECOLOGICAL VENTURES	Estudios de factibilidad con grupos de productores involucrados en el programa de certificación para apertura de lineas de crédito dirigidas a fortalecer el capital de operación.	FUNEDESIN, PRODES CEFODI, APROCANE AROMA AMAZONICO
APROCAFA Instituto Nacional de Investigación Agrícola de Ecuador	Apertura de participación de grupos de productores de la Amazonia dentro del grupo comercial para futuras exportaciones conjuntas.	Asociaciones de productores de Cacao en el sector de Sacha. San Carlos.

Otros grupos contactados: Masterfoods. Transmar Commodity Group.

Annex D Partial list of assessment reports

Estudios de Mercadeo

- ✓ Estudio Rápido de Mercado (Thumbnail Market Assessment) / Philip Bardet – Europa / Enero 2004
- ✓ Análisis del Mercado de Productos Tropicales / AGROANDINA – Daniel Faita / Febrero 2004
- ✓ Información para la preselección de productos para el Mercado de los EUA / Plans and Solutions Inc. – Kenneth Weiss / Marzo 2004
- ✓ Evaluación del Potencial de Comercio Exterior del Ecuador hacia mercados regionales del Cono Sur / Gonzalo Mirando / Febrero 2004
- ✓ Estudio de Mercado América Latina / Daniel Faita – AGROANDINA / Febrero 2004
- ✓ Marketing Contracts for Cocoa and other Clusters in Europe / Philippe Bardet / November 2004
- ✓ An Analysis of the Potential Impact of a U.S. Andean Free Trade Agreement (AFTA) on Six Northern Provinces of Ecuador / Susan B. Hester & Thomas Andrew O´Keefe / April 2005

Estudios de Subsectores

- ✓ Diagnóstico Rápido de 5 Sub- sectores en las Provincias de Esmeraldas, Carchi, Imbabura, Sucumbíos, Orellana y Napo / Corporación PROEXANT / Enero 2004.
- ✓ Diagnóstico Rápido del Cluster de Cacao en las provincias de Napo, Sucumbíos y Orellana / C&D –Conservación y Desarrollo / Febrero 2004.
- ✓ Diagnóstico rápido de Sub-sectores en la Región Fronteriza Norte del Ecuador / LIFTEX S.A. / Febrero y Marzo 2004.
- ✓ Sub-sector Artesanal / Turín Americas Cia. Ltda. / Febrero 2004.
- ✓ Sub-sector Frutas de la Sierra / Turín Americas Cia. Ltda. / Febrero 2004.
- ✓ Productos Forestales no maderables & Productos Forestales no madereros / TURIN AMERICAS / Febrero 2004.
- ✓ Competitive profile Cocoa Subsector – Technical Assistance Report / Thomas Becker / March 2004.

Annex E: Targets versus actual accomplishments

Targets versus actual accomplishments as of March 31, 2006 and estimated for September 2006

Indicator		Cacao	Coffee	Broccoli	Avocado	Total
IR 1.1 Number of primary beneficiaries	Target for Sep 06	7,237	2,400	150	200	9,987
	Actual Mar 06	8,937	2,204	35	117	11,293
	% Complete	**123%**	**92%**	**23%**	**59%**	**113%**
	Estimated Actual Sep 06	9,480	2,700	32	141	12,353
	% Complete	**131%**	**113%**	**21%**	**70%**	**124%**
IR 2.1 Annual sales volume	Target for Sep 06	5,974,421	1,543,500	562,050	750,000	8,829,971
	Actual Mar 06	7,186,054	1,223,061	128,340	865,751	9,403,206
	% Complete	**120%**	**79%**	**23%**	**115%**	**106%**
	Estimated Actual Sep 06	7,811,054	2,110,944	114,422	1,108,059	11,067,299
	% Complete	**131%**	**137%**	**15%**	**148%**	**125%**
IR 3.1 Yield (Kg) / hectare	Target for Sep 06	295	320	13,500	12,000	
	Actual Mar 06	316	331	12,950	8,000	
	% Complete	**107%**	**103%**	**96%**	**67%**	
	Estimated Actual Sep 06	357	363	13,872	8,000	
	% Complete	**121%**	**113%**	**103%**	**67%**	
IR 4.1 Value of new Investment	Target for Sep 06	2,450,000	306,000	558,000	370,000	3,684,000
	Actual Mar 06	5,028,113	1,205,103	529,036	438,657	7,200,909
	% Complete	**205%**	**394%**	**95%**	**119%**	**195%**
	Estimated Actual Sep 06	5,163,113	1,255,103	576,102	586,514	7,030,193
	% Complete	**211%**	**410%**	**103%**	**158%**	**191%**
IR 01 Gross annual income / family	Target for Sep 06	777	632	3,872	3,750	
	Actual Mar 06	795	811	2,714	7,273	
	% Complete	**102%**	**128%**	**70%**	**194%**	
	Estimated Actual Sep 06	815	1,092	3,134	10,365	
	% Complete	**105%**	**173%**	**81%**	**275%**	
IR 01A Net annual income per family	Target for Sep 06	449	270	1,472	3,000	
	Actual Mar 06	699	613	514	6,251	
	% Complete	**156**	**227%**	**35%**	**208%**	
	Estimated Actual Sep 06	719	819	622	8,888	
	% Complete	**110%**	**303%**	**42%**	**296%**	
IR 02 Employment increase	Target for Sep 06	6,480	2,875	200	149	9,704
	Actual Mar 06	9,178	5,546	124	189	15,037
	% Complete	**142%**	**193%**	**62%**	**127%**	**155%**
	Estimated Actual Sep 06	10,079	5,673	146	214	15,978
	% Complete	**156%**	**197%**	**73%**	**144%**	**165%**

Annex F: Preliminary Findings, PowerPoint presentation at USAID/Quito

Technical Evaluation

Contract #AEG-I-00-04-00010-00 TO# 553

Income and Employment Project under the Northern Border Development Program (2003-2006)

USAID | ECUADOR

Weidemann Associates Team

Arvin Bunker, Veronica Leteller, Victor Hugo Cardoso

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Objective of the Evaluation

1. Evaluate the project approach and methodology
2. Assess effectiveness and impact of TA, training, small grants, management
3. Assess results compared to targets
4. Validate accuracy of data and reports
5. Identify lessons learned

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Activities of The Evaluation Team

- Review selected literature of the project and literature of related activities within and without USAID
- Consult with selected USAID personnel related to the project and evaluations
- Interview project leadership and key personnel, including field staff
- Visit selected project implementation sites and interview participants
- Interview beneficiaries of the project

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Activities of The Evaluation Team (cont.)

- Interview participating private companies, NGOs, associations, and buyers of the products supported by ProNorte
- Identify and interview donors working in the NB region on the same or related crops
- Review data reporting processes and validate data reliability
- Work with ProNorte staff to prepare reports describing project activities on key issues

Raise Plus Small Business Set Aside IQC www.Weidemann.org

ProNorte Staff Provided

- Background information
- Data on project activities
- Arranged visits and provided travel to evaluation team
- Responded candidly to questions and concerns of the evaluation team

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Cacao

- Number of beneficiaries receiving certificate from Farmers Field School (FFS) is 8,937 (baseline is 5,144)
- Actual 14 collection/marketing centers
- Price increase to farmers from $40 per quintal for ordinary cacao to $80 for export quality cacao
- Yield increase 2x to 4x by following recommendations of the FFS
- Average area per farm = 2 hec.
- Employment is 9,178 (baseline is 4,382)

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Cacao (Super Trees)

- USAID restarted the industry in Ecuador – Document actions, plan for 5 year review of results
- The ESS* cultivar – has the potential to make Ecuador a world leader in cost of production

* ESS=Edwin Sanchez Sacha

"This is the most significant technical event in Ecuadorian cacao since CCN 51." B.K. Mallick of World Cocoa Foundation

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Coffee

- Number beneficiaries is 2,680 (baseline is 0)
- Average yields improved in first year from 2 to 8-10 qq/hectare
- Average area per farm = 1.05 hectares
- High yielding trees identified in the zone
- Employment is 5,548 (baseline is 1,883)

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Avocado

- 117 members including producers, buyers, transportation, etc
- 63 producers, half small producers (baseline is 0)
- Introducing Haas variety – has 85 % of world market
- Entry of larger growers make cluster sustainable
- Few avocado growers would have migrated to produce cocaine
- Average area per farm = 0.75 hec
- Small donor cost for outreach to small growers
- ProNorte opened local and export markets
- Employment is 189 (baseline is 0)

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Broccoli

- 35 active producers, all indigenous (baseline is 240)
- High TA cost to start, may be reduced TA cost going forward but still higher than other crops
- ProNorte helped establish limited credit to producers through local coop
- Producers need to double production to make association sustainable
- IQF plant at full capacity
- Long-term sustainability outlook doubtful without continued donor support
- Average area per farm is 0.57 hec
- Employment is 124 (baseline is 240)

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Status of Potatoes

- Lack of producer compliance with technical assistance
- Delivered products to buyer that did not meet specifications
- Association had difficulty working together
- ProNorte discontinued – no apparent impact

Raise Plus Small Business Set Aside IQC www.Weidemann.org

Farmer Field Schools - Actions

- 25 producers meet bi-weekly for 6 months.
- Training includes:
  - Technology transfer by Trainer or Master Trainer
  - In field practice
  - Peer group learning, analysis, recommendations
  - Ice breaker activities
- Producers decide topics to learn
- Certificate of completion (average 85 % receive)
- % women: Cacao = 23, coffee = 15

FFS for cacao = 332
FFS for coffee = 98

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Farmer Field Schools - Results

- Left other jobs and returned to work the farm and to be with the family
- "We learned how to work together"
- "I now know/talk to my neighbors"
- Groups were inclusive

- Most groups continue meeting after graduation
- "I can speak in front of others"

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Training Topics for FFS - Cacao

1. Value of cacao production
2. Monitoring cacao farms
3. Analysis of the agricultural ecosystem for cacao
4. Grafting chupones on mature trees
5. Pruning methods (for seeded trees over 5 years old)
6. Impact of shade and moisture in a cacao farm
7. Preparation of plant fertilizer
8. Experiments in fertilization
9. Zoology of cacao insects – biological control
10. Zoology of cacao insects – developing symptoms
11. Zoology of cacao insects – observing life cycles
12. Diseases of cacao – Infections
13. Diseases of cacao – Development of symptoms
14. Role of the soil is spreading disease
15. Exercise of colorant in aerosol
16. Specifications of pesticides
17. Game of resistance to pesticides
18. Game of resistance to diseases
19. Game of the water brigade
20. Dispersion of virus by insects
21. Using measuring units
22. Economic analysis of the cacao company
23. Lateral grafting in mature trees
24. Post harvest practices – Fermentation
25. Post harvest practices – storing wet and dry cacao

Obligatory topics

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Objective of the Evaluation

1. Evaluate the project approach and methodology
2. Assess effectiveness and impact of TA, training, small grants, management
3. Assess results compared to targets
4. Validate accuracy of data and reports
5. Identify lessons learned

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1. Project Approach and Methodology

- ProNorte project approach and methodology was appropriate
  - Verify market
  - Identify which components in the value chain to strengthen
  - Production support, then post harvest handling, then collection center strengthening
- Using clusters of producers worked well
- Linking producers to collection centers and then with exporters/commercial buyers is just beginning

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2a. Effectiveness and Impact of TA, Training

- Farmer Field Schools (FFS) lowered production costs, changing a gathering methodology into a production system
- Producers learned by practicing, teaching peers
- FFS groups taught farmers to work collaborative
- FFS created sufficient community awareness to emergence of producer owned first-stage marketing
- TA to producer collection centers was effective, little remaining time on project, this area needs continuing support
- Effective producer/first-stage linkages to commercial buyers/sellers

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2b. Effectiveness and Impact of Grants

- Start up time to disburse small grants about 12 months
- Interim processes developed to deliver essential materials prior to grant regulations being in place
- Small grants were an effective tool, a relatively small cost for equipment, tools and supplies that motivated contribution of much labor by beneficiaries
- On farm solar dryers = 402

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2c. Effectiveness and Impact of Administration

- In hindsight initial project management took much time to select sectors – Too much discussion, not enough action soon enough, especially in cacao and coffee
- Consultative approach to select product sectors took additional time – the benefits are illusive
- Implementation phase used participatory approach – successful
- Implementation team is knowledgeable, motivated, effective, have good relations with beneficiaries, market participants, other donors

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2c. Effectiveness and Impact of Administration (Cont.)

	Cost/Beneficiary	Net Income	No. Beneficiaries
Cacao	$271	$699	8,937
Coffee	$572	$613	2,680
Horticulture	$8,828	N/A	N/A
Avocado	N/A	514	35
Broccoli	N/A	6,251	63
Administration	$155	N/A	N/A
Total	$567	N/A	11,715

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3. Validity of Data

For reporting on Intermediate Results

1. Number of beneficiaries is a census, updated quarterly and adjusted for dropouts (reliable)
2. Annual sales volume is a 20 % sample (sample selections not completely random, but with a reasonable expectation of reliability)
3. Yield / hectare is a sample (sample selections not completely random, but with a reasonable expectation of reliability)
4. Investment is an estimate derived from number of beneficiaries and other data (reliable)

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3. Validity of Data (Cont.)

5. Gross annual income increase is a 20 % sample (sample selections not completely random but reasonable expectation of reliability)
6. Net income increase with reductions for estimated expenses (sample selections not completely random but reasonable expectation of reliability)
7. Employment increase is calculated from number of beneficiaries and other data (reliable)

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4. Targets versus Actual

(March 31, 2006)

17 of 28 indicators met

- Cacao = 7 of 7
- Coffee = 5 of 7
- Avocado = 5 of 7
- Broccoli = 0 of 7

No indicator to measure community cohesiveness developed through FFS

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Targets and Actual for Cacao

Indicator	Base-line	Target EOP	Actual Mar 06	% Compete
1. No. beneficiaries	5,144	7,237	8,937	123 %
2. Annual sales ($ million)	2.32	5.974	7.186	120 %
3. Yield / hectare (kg.)	190	295	316	103 %
4. New investment ($ million)	0	2.450	5.028	337 %
5. Gross annual income per family ($)	495	777	795	102 %
6. Net annual income per family ($)	242	449	699	157 %
7. Employment	4,382	6,480	9,178	142 %

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Targets and Actual for Coffee

Indicator	Base-line	Target EOP	Actual Mar 06	% Compete
1. No. beneficiaries	0	2,700	2,680	92 %
2. Annual sales ($ million)	0.126	1.625	1.223	75 %
3. Yield / hectare (kg.)	180	320	331	103 %
4. New investment ($ million)	0	0.356	1.205	337 %
5. Gross annual income per family ($)	446	632	881	128 %
6. Net annual income per family	196	270	613	227 %
7. Employment	1,863	2,875	5,546	193 %

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Targets and Actual for Avocado

Indicator	Base-line	Target EOP	Actual Mar 06	% Compete
1. No. beneficiaries	0	200	117	59 %
2. Annual sales ($ million)	0	0.750	0.866	115 %
3. Yield / hectare (kg.)	0	12,000	8,000	67 %
4. New investment ($ million)	0	0.370	0.439	119 %
5. Gross annual income per family ($)	0	3,750	7,273	194 %
6. Net annual income per family	0	3,000	6,251	205 %
7. Employment	0	149	189	127 %

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Targets and Actual for Broccoli

Indicator	Base-line	Target EOP	Actual Mar 06	% Compete
1. No. beneficiaries	76	150	35	23 %
2. Annual sales ($ million)	0.019	0.562	0.128	23 %
3. Yield / hectare (kg.)	0	13,500	12,950	96 %
4. New investment ($ million)	0	0.558	0.529	95 %
5. Gross annual income per family ($)	250	3,872	2,714	70 %
6. Net annual income per family	0	1,472	514	35 %
7. Employment	240	200	124	62 %

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Collection/Marketing Centers

- 19 first level marketing facilities
- Collection centers gather products, prepare for sale or transport (15)
- Marketing centers buy and sell product (4)

Few will survive as producer controlled institutions without continued support

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5. Lessons Learned

Focus on local economic development environment

- Three years too short, especially for tree crops
- Farmer Field Schools methodology was effective in attracting and motivating producers
- Approach to identify limitations in the value chain was correct
- For all five sectors selected a market was available - identification of production as the most limiting factor was correct
- Lower post-harvest costs by combining cacao and coffee

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5. Lessons Learned (Cont.)

- Consultative process for sector identification took much time
- Many market studies – ultimate results mirror suggestions of project design
- Lack of early startup on known or quick to select clusters (cacao, coffee)
- Why 3 COPs in three years? First two had little business experience in a project heavily dependent on commercial market linkages
- Customized information System for Monitoring Evaluation was not used: Too late, too complex, person guiding left by time delivered

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5. Lessons Learned (Cont.)

Sectors Suggested in Contract	Sectors Implemented
• Cacao	-Cacao
• Coffee	-Coffee
• Potatoes	-Potatoes (discontinued)
• Fresh vegetables with irrigation	-Avocados
• Bambu	-Broccoli
• Textiles	

Much discussion and analysis for little apparent adjustments from the design

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Correct Sequence for Key Focus Areas

After determining markets were available

1. Most limiting component is production technology
2. Second limiting component is post harvest handling
3. Then promote linkages with commercial buyers

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Comments on Transition Year Activities

- Continue support to producer associations
- Support trained producers through their associations – How to support producers if their association is not among those selected for support?
- Strengthen market linkages
- Retain existing skilled professionals

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Suggested Transition Year Activities (Cont.)

- Who to provide the vision, the implementation coordination with local, national and international institutions, in multiple regions, with multiple products?
- Support development of super tree genetic materials for benefit of the producer, community and cacao farmers of Ecuador

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Suggested Future Activities

- Resume expansion of trained cacao, coffee, and other producers
  - o About 1/3 of producers trained in Esmeraldas
  - o About 1/4 of producers trained in Amazónica
- Target coffee and cacao clusters since they represent the majority of actual and future project beneficiaries
- Combine post harvest handling for cacao and coffee
- Apply the FFS method to other clusters
- Apply the FFS method to collection/marketing center management

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Thank you!
Cacao Master Trainer
Carlos Cadar and his family
"...The ProNorte FFS program is the best I have experienced and have set a new higher standard for farmer training programs."
B.K. Mallick

Annex G: Response to questions by USAID

Most of the information in this annex is incorporated into the text of the report. Answers are presented here to facilitate references to the questions.

1. What happened to the farmers that dropped out of the broccoli group? What are they doing now?
   ANSWER: Farmers dropping out of the broccoli group have resumed production of their traditional crops of beans, peas, blackberries and corn; and they have returned to the same income levels as before entering the broccoli program.

2. What happened to the potato farmers?
   ANSWER: The potato farmers have continued to produce on a small scale to sell to local markets r.

3. Are potato and/or broccoli farmers selling their crops as fresh produce in urban markets?
   ANSWER: Yes, the farmers sell their fresh produce in local urban markets such as the wholesale market in Ibarra, Jatun Cen in Cotacachi, and the municipal markets in Atuntaqui and Otavalo. The potato farmers sell in local markets in Carchi and when the price is convenient they will sell in markets as far away as Tungurahua, Chimborazo, and Machala.

4. What was the most important constraint that limited farmer's ability (or willingness) to produce potatoes and broccoli?
   ANSWER FOR POTATOES: The potato farmers were reluctant to sign a contract with a dedicated buyer because fixed prices might deprive them of revenue during peak price episodes. Potato price fluctuations in the informal market range from $1 to $20 per quintal (100 pounds). It appears that at least one of the obligatory delivery date to the super market coincided with higher prices in the spot market, encouraging the growers to sell their product elsewhere. In addition the potato farmers also must pass strict quality standards in order to access the dedicated buyer's market, while sales to more informal local markets do not require equivalent standards.

   One analyst suggested that part-time farming was a contributing factor. Urban dwellers the also own farm produce crops both for income and to reduce the risk of loosing the land to squatters or to land redistribution. Producing a specialized crop requiring frequent product deliveries requires staggered plantings and constant on-farm labor, difficult to supply for those farmers with full-time urban jobs.

   ANSWER FOR BROCCOLI: The most frequently cited reasons for farmers not continuing in the broccoli production were disease in their production plots and lack of working capital. Working capital was a problem because the processing plant paid farmers from 30 to 50 days after delivery and the local cooperative that provided production loans did not lend sufficient for the farmers' needs and at times was short of funds. Other factors cited for discontinuing production include the high price of inputs such as fumigation sprayers and scales, high product standards, transportation

limitations and the lack of established collection and distribution centers. Some of the smaller farmers considered the credit to be too expensive for their production levels.

5. Is there a technological solution to the constraints that limited potato and broccoli production in this project?

   ANSWER FOR BROCCOLI: Technology inputs that could help provide a solution to the constraints that the Broccoli project has faced include establishing more collection and distribution centers, stationary fumigation pumps, and dispersion irrigation systems. The producers are searching for a large common plot on which several farmers can produce cooperatively. Joint production, they believe, would allow more consistent quality of product delivered to the processing plant and reduce production costs.

   ANSWER FOR POTATO: The technology for producing for the super markets or the frozen french fry plant is known and available in Ecuador. ProNorte was not successful in motivating small farmers to make those changes for these specialized markets. Changes introduced by ProNorte included different potato varieties, increased crop density, more aggressive pest and disease control and frequent deliveries of specified quantities and qualities of product.

6. Could the potato and/or the broccoli groups have been more successful if the project had lasted three or four years instead of two years?

   ANSWER: ProNorte provided farmers with new information and production technology and helped them to practice and implement their new production skills. There was little time for an essential third step, that of helping the farm business become sustainable using the new technology.

   SPECIFIC ANSWER FOR BROCCOLI: Yes. Additional producers want to grow broccoli, but they need to be close by existing producers to share in technical assistance, receiving inputs and shipping product. Some existing farmers want to produce more but additional land is scarce. These factors are motivating a search for a large common plot nearby for cooperative production. Increasing production significantly will probably require expansion of support to additional communities. Finally to expand production requires the plant to install additional equipment, an event that will probably occur only after a new owner is found.

   SPECIFIC ANSWER FOR POTATO: For potato producers the answer is not clear, in part because for the time limitations the evaluation team did not interview directly the potato farmers. From ProNorte's point of view the potato farmers were given several opportunities to fulfill a known demand for their products (a supply contract) and they were unable to meet the delivery terms on each of these occasions, so three or four years probably would have made no difference.

7. Are there other highland vegetables with important income and employment potential that could be produced by farmers in northern Ecuador?

   ANSWER: ProNorte staff suggests other potential vegetables are Panamanian Beans, Castle Blackberry, Snow Peas and Uvilla.

Annex H: Spanish Translation of Executive Summary and Findings

RESUMEN EJECUTIVO

La proximidad del norte de Ecuador a las áreas productoras de coca/cocaína de Colombia hace que sea particularmente vulnerable a conflictos patrocinados por los narcos Colombianos que incluyen incremento del trafico en precursores y drogas; cultivo de coca; violencia paramilitar de guerrillas, crímenes relacionados con drogas; y movimiento de refugiados y desplazo de personas. Por medio Pro Norte, USAID apoya al gobierno de Ecuador, coordinado a través de la Unidad de Desarrollo del Norte (UDENOR), a implementar diversos proyectos en apoyo a comunidades, mejoras en infraestructura y apoyo a la producción que a la vez incrementara la oportunidad de empleo e ingresos para las familias de la región.

El componente para apoyar la producción es implementada por Associates in Rural Development (ARD- Pro-Norte) y comenzó en Septiembre del 2003. Las actividades están siendo implementadas en seis provincias; Sucumbíos, Orellana, Napo, Carchi, Imbabura, y Esmeraldas. El objetivo de Pro-Norte fue incrementar el ingreso y el empleo de pequeños y medianos agricultores en las provincias del borde norte de Ecuador. El enfoque fue el desarrollo de cadenas productivas dirigidos a un mercado y el contratista debía obtener los datos mas actuales y relacionados a fortalecer la competitividad a través de cadenas más productivas.

Además el contratista debía utilizar una gran variedad de asistencia técnica, entrenamiento, y recursos financieros a través de sub contratos, donaciones, y desarrollo de Tratos de créditos Autorizados. Una vez que el análisis de subsectores se completo y se adquirió un entendimiento de las oportunidades y obstáculos, se esperaba que el contratista venciera los obstáculos y mejorara la competitividad y contactos comerciales.

Propósito de la Evaluación

El propósito de la evaluación técnica incluyo:

1. Evaluar la forma y metodologías propuestas en el proyecto para alcanzar los objetivos del proyecto y responder a las necesidades de la región Norte de Ecuador.
2. Cuantificar la efectividad y el impacto de la asistencia técnica, entrenamiento, y donaciones así como el manejo de los recursos y las inversiones de ARD;
3. Cuantificar los logros del proyecto según los resultados establecidos en el contrato con ARD.;
4. Evaluar y validar la exactitud de los resultados obtenidos y reportados por ARD y los socios de USAID.
5. Identificar las lecciones aprendidas que USAID puede usar para definir actividades futuras y sus estrategias a largo plazo, especialmente enfocado en términos de desarrollo económico local;

Dos especialistas internacionales y un especialista local formaron parte del equipo de evaluación. Dr. Arvin Bunker fue el líder del equipo y economista agrícola, estratega en desarrollo de agronegocios y especialista agrícola en finanzas. Verónica Letelier, M.S. como especialista en desarrollo de agronegocios y Victor Hugo Cardoso, M.S. como el especialista ecuatoriano en desarrollo de agronegocios.

La evaluación se enfoco primeramente en la habilidad del contratista para alcanzar los resultados planeados contratados. Atención especial fue puesta en el método que el contratista utilizo para alcanzar los resultados propuestos. El equipo reviso literatura relacionada al proyecto proveída o no por USAID.

Los miembros del equipo entrevistaron a personal seleccionado por USAID relacionado con el proyecto, lideres del proyecto y personal clave, incluyendo personal de campo. Además el equipo entrevisto compañías privadas, asociaciones ONG y compradores de productos apoyados por PRO NORTE. El equipo identifico y entrevisto a otros donantes que trabajan en la región del Borde Norte en cultivos similares.

El equipo viajo al Guayas (Guayaquil), Sucumbíos (Lago Agrio), Orellana(El Coca, Sacha, Loreto), Esmeraldas (San Lorenzo, Esmeraldas, Los Bancos) y a Imbabura (Ibarra). El propósito del viaje de campo fue : a.) verificar y suplementar información encontrada en los documentos revisados; b.) entender las actividades y las perspectivas de los beneficiarios principales locales ; c) cuantificar los logros y fracasos del proyecto; y; d) reunir perspectivas sobre la sostenibilidad del proyecto y de lo que se tiene que continuar haciendo.

El equipo reviso los procesos del sistema informático utilizado para reportar la información recolectada y utilizada por Pro Norte para reportar los logros relacionados a los siete indicadores especificados en el contrato. Este reporte describe el proceso de recolección de información y cuantifica la credibilidad de la información.

El equipo se reunió regularmente durante el periodo de viaje para compartir y discutir los resultados y conclusiones preliminares de la evaluación y para hacer recomendaciones, incluyendo discusiones con el personal de Pro Norte y de USAID. Pro Norte preparo varios reportes describiendo las actividades del proyecto en temas claves. Al finalizar el viaje de evaluación dentro del país , el equipo presento sus hallazgos preliminares a una variedad de personas de USAID/Quito y Pro Norte.

Resultados

La presentación de los resultados sigue el orden establecido en el propósito de la evaluación descrita arriba.

Enfoque y Metodología

El enfoque al mercado y la implementación de metodologías de cadenas productivas de Pro Norte, funciono. Por ultimo, cinco sectores fueron seleccionados para ser apoyados.

Un sector; el de papas, fue implementado pero luego descontinuado porque Pro Norte no fue capaz de motivar a los productores a adoptar los estándares de producción requeridos por el mercado identificado, no por enfoques y metodologías equivocadas.

El enfoque fue identificar sectores para los cuales ya existe un mercado y para los cuales Ecuador tiene una ventaja competitiva para suplir dicho producto. Todos, los cinco sectores seleccionados tienen un mercado disponible y habilidad competitiva para suplir ese mercado. El análisis de competitividad demostró que la producción fue el obstáculo más grande para aumentar el ingreso, seguido por el manejo de post cosecha. La mayoría de las mejoras necesarias en manejo de post cosecha fueron en los primeras etapas de entrega y procesamiento.

La metodología usada para la implementación se concentro en entrenar a los productores a incrementar sus rendimientos a través de prácticas culturales y material genético mejorado. Una vez que el mejoramiento de la producción se estaba llevando a cabo, Pro Norte ayudo a los productores a asociarse para formar o fortalecer los centros de recolección. Un total de 19 centros fueron apoyados por Pro Norte, de los cuales cuatro aspiran a convertirse en centros de mercadeo regionales.

Los cuatro sectores apoyados al final del proyecto, el enfoque y la implementación de la metodología mejoraron la producción lo suficiente para aumentar el ingreso de los beneficiarios, comenzaron a mejorar la post cosecha en fincas y centros de recolección y establecieron mejores lazos comerciales con los mercados.

Efectividad de las Actividades del proyecto.

Una vez que los sectores a apoyar fueron seleccionados y los equipos de implementación establecidos, la administración del proyecto fue efectiva. No solamente los productores fueron entrenados en nuevas tecnologías, ellos fueron motivados a implementar sus nuevas habilidades incluyendo el manejo de post cosecha. Debido a que al final del proyecto menos del 10% de los productores tenían en sus fincas facilidades adecuadas para secado y post-cosecha, ellos fueron motivados a través del apoyo de Pro-Norte a establecer centros recolectores que dieran servicios de post cosecha. Además estos centros atraen a más compradores, ayudando así a los productores a negociar mejores precios.

Donaciones y subcontratos fueron apoyo crítico para la asistencia técnica y entrenamiento. Las donaciones proporcionaron herramientas pequeñas de manera que los productores pudieron practicar en el campo lo que se enseñaba durante las escuelas de campo. Las donaciones a las asociaciones proporcionaron materiales para apoyar la construcción o para la mejora de los de centros de recolección. La mayoría de los análisis de mercado y entrenamientos posteriores a los productores fue lograda a través de sub contratos con instituciones locales.

El cuantificar el mercado y la competitividad de los sectores y sub sectores tomo más tiempo del anticipado. El contrato específicamente dirigió al contratista a dar apoyo para

cacao; porque la mayoría de los productores de cacao tenían además árboles de café; la selección de café pudo haber sido rápida. Aun si al contratista le tomo casi un año en seleccionar estos sectores, obtener aprobación de USAID e implementar entrenamientos significativos para los productores. Una gran cantidad de estudios fueron comisionados por Pro Norte a pesar de que las instrucciones en el contrato decían contar solamente con las evaluaciones de mercados ya existentes. Por lo menos para apoyar a los sectores de cacao y café las decisiones pudieron haber sido tomadas mas rápido y el entrenamiento ser implementado en pocos meses.

Logros del Proyecto y Metas

Siete indicadores fueron requeridos para cada sector apoyado, haciendo un total de 28 indicadores. Los siete indicadores son: 1.) Numero de beneficiarios; 2.) Ventas anuales, 3.) Rendimiento por hectárea, 4.) Nuevas inversiones, 5.) Ingreso bruto anual por familia, 6.) Ingreso neto anual por familia; y 7.) Generación de empleo.

Hasta el 31 de Marzo del 2006 Pro-Norte había alcanzado 17 de los 28 indicadores. Para el final del proyecto Pro-Norte estima que va a alcanzar 21 de los 28 indicadores. Para cada sector el número de metas alcanzadas son:

1. Para cacao en Marzo del 2006, 7 de 7; estimando para Septiembre del 2006, 7 de 7.
2. Para café en Marzo del 2006, 5 de 7; estimando para Septiembre del 2006, 7 de 7.
3. Para aguacate en Marzo del 2006, 5 de 7; estimando para Septiembre del 2006, 5 de 7.
4. Para brócoli en Marzo del 2006, 0 de 7; estimando para Septiembre del 2006, 2 de 7.

Los mejores sectores fueron el cacao y café donde el número estimado de productores entrenados para el final del proyecto es de 9,480 para cacao (131% de la meta) y 2,700 para café (113 % de la meta). Además ahora hay entusiasmo entre los productores por implementar el entrenamiento que ellos recibieron para mejorar rendimientos, aumentar sus áreas de producción , y mejorar su manejo de post cosecha. Mayores precios pagados por compradores por productos mejorados y los mayores rendimientos están trayendo nuevos ingreso a los productores.

Los productores de aguacate alcanzaron sus metas de ventas, ingreso y empleo, pero fallaron sus metas en números de beneficiarios y rendimientos por hectárea.

Brócoli fue exitoso para los 35 beneficiarios hasta Marzo del 2006, pero la meta era de 150 beneficiarios. Cada beneficiario gano US $2,714 por año, sobre del estimado base de US $250 por año, pero menos que la meta anual de US $3,872.

Para papas existía un mercado a través de una cadena de Supermercados Ecuatorianos para una variedad especifica de papas frescas y la tecnología ya existía para producir el producto requerido. Pro Norte no tuvo éxito motivando a productores a seguir los requerimientos de producción y envíos para ese mercado, y la cadena de supermercados devolvió los envíos.

Exactitud y Confiabilidad de la Información

Recopilar información de 28 indicadores para más de 12,000 pequeños productores en el Borde Note es un reto complicado. Para controlar los costos de recolección de la información una mezcla de censos y muestras fue usado. Las muestras sacadas no son completamente al azar, por lo tanto fijar intervalos de seguridad por inferencias estadísticas no se puede hacer. Sin embargo el tamaño de la muestra es relativamente grande, cerca del 20% de la población, así que grandes diferencias entre los estimados generados por la muestra comparados con lo que la información hubiera mostrado con un censo de la población total son menos probables. Donde se usaron muestras seleccionadas al azar el equipo evaluador no identifico procesos que seguramente conducirían a datos derivados de muestras marcadas sistemáticamente positiva o negativamente.

Para todos los indicadores solo información de beneficiarios directos es reportada; no son incluidos beneficiarios secundarios o multiplicadores. Para todos los productos el número de beneficiarios únicamente incluye aquellos que completaron el entrenamiento sobre productor, con la excepción del aguacate, el cual incluye a transportistas, compradores y otras personas interesadas y que son miembros de la asociación. En casi todos los casos solo hay un beneficiario por familia.

Para los cuatro sectores la información en el número de beneficiarios es basada en un censo de los productores. La generación de empleos se deriva matemáticamente del número de beneficiarios usando coeficientes técnicos de trabajo requeridos para ciertas prácticas de producción.

Para cacao y café los 5 indicadores restantes están basados en una muestra de productores. La muestra se extrajo de los grupos de entrenamiento, seleccionando 5 o 6 personas de un grupo de 25 productores. Las selecciones están típicamente agrupadas por regiones para reducir el tiempo de viaje. Para aguacate y brócoli la información de los 5 indicadores es basada en un censo.

Conclusiones

A pesar de el lento comienzo el equipo de Pro Norte fue capaz de recuperar y dar entrenamiento efectivo a más de 12,000 productores. El proyecto alcanzo casi todas las metas establecidas para tres de los cuatro sectores. Para brócoli solamente una de las metas fue alcanzada, pero para los 35 participantes sus ingresos aumentaron significativamente.

La lenta iniciación del proyecto tuvo su impacto. La mayoría de los beneficiarios vieron el personal del proyecto en el campo por solo 18 a 20 meses. Consecuentemente el comentario mas frecuente sobre el proyecto fue que este fue muy corto y que era irreal esperar un impacto sostenido en el tiempo proporcionado al proyecto. Este comentario no solamente fue frecuente, fue siempre mencionado de primero cuando se preguntaban que podía haberse hecho mejor en Pro Norte.

Con el apoyo de Pro Norte se identificaron árboles de cacao y café de altos rendimientos en la región del Amazonas. De acuerdo al especialista internacional de cacao que dio asistencia a Pro Norte, los árboles identificados de cacao parecen tener suficiente potencial genético para ayudar a Ecuador a convertirse en un productor de cacao de clase mundial. Para el café los costos de producción podrían ser más parecidos a los costos de Brasil. USAID debería documentar estos resultados como posibles referencias futuras en el impacto de su apoyo para el sector de cacao en Ecuador.

Las Escuelas de entrenamiento de campo para los productores fueron excelentes; proporcionaron habilidades técnicas para mejorar la producción, pero además generaron entusiasmo entre los productores porque aprendieron a trabajar juntos y a participar efectivamente en grupo. Este espíritu de comunidad los condujo a desear construir centros de recolección en sus primeras etapas. Mejorar el manejo de post cosecha, en finca y en los centros recolectores, es critico para que precios mas altos sean recibidos por los productores.

Mientras los centros de recolección existen ahora físicamente estos son organizaciones muy débiles y probablemente pocas van a sobrevivir como instituciones controladas por los productores sin un apoyo continuo. Muchos centros son débiles primeramente porque tienen poca o ninguna experiencia, la mayoría han recibido su primer producto en el 2006. Limitado capital de trabajo es también un impedimento significativo.

Todos los cuatro sectores apoyados por el proyecto proveen suficiente ingreso a los productores, para desmotivar la producción de cultivos ilícitos.

Hasta mediados del 2005 el liderazgo de Pro Norte continuo consumiendo recursos del proyecto buscando sectores adicionales para apoyar en los valles altos, a pesar de que los requerimientos de contrato de apoyar de tres a cinco sectores se cumplieron y a pesar de que el numero de beneficiarios fue proyectado a ser significativamente menor que para cacao y café. Estas actividades fueron aparentemente perseguidas, en parte, por preferencia verbalmente expresadas por USAID. En proyectos siguientes USAID debería aclarar si el apoyo se debe proporcionar a todas las regiones de la región del Borde Norte.

Recomendaciones

Los especialistas de Pro Note para cacao y café estiman que únicamente 1/4 de los productores de café y un 1/3 de los productores de cacao han sido entrenados. Nosotros sugerimos que USAID se mueva rápidamente para poner en su lugar los fondos de traspaso de año para minimizar la perdida de personal hábil que apoyan los sectores. Con la transición de ARD a un nuevo implementador existe el peligro de que la visión de dirigir un proyecto relativamente complejo no sea completamente transferida.

USAID debería considerar extender la tecnología de las Escuelas de entrenamiento de campo para entrenar a más productores de café y para entrenar al personal de los centros de recolección en gerencia y habilidades de negocios. Para los cultivos de tierras altas el

pequeño número de productores beneficiarios puede no justificar el costo de preparar el material de entrenamiento. Debido a que la mayoría de productores de cacao también producen café, combinando ambos cultivos en las Escuelas de entrenamiento de campo para los productores puede resultar en un entrenamiento más eficiente y efectivo.

Lecciones Aprendidas

- **Tres años son muy poco tiempo** para el desarrollo de un proyecto enfocado en la producción de cultivos agrícolas por pequeños productores y especialmente para cultivos de árboles incluidos en tres de los cinco sectores apoyados. Desde el punto de vista de los productores el proyecto fue de solo dos años de duración , ya que consumió un año en comenzar y prepararse. Mientras los productores están actualmente entusiasmados por lo que Pro Norte ha hecho, ellos están sospechosos por la falta de apoyo continuo.

- **Las Escuelas de entrenamiento de campo para productores** generaron aprendizaje para los productores y tuvieron otros efectos; crearon entusiasmo por trabajar juntos en su comunidad y alcanzar objetivos comunes. El entrenamiento desarrollado para los productores de cacao debe ser considerado para los productores de café, y hasta puede ser apropiado para adoptarlo para el entrenamiento de los productores de brócoli y para el entrenamiento de personas claves de los centros de recolección y mercadeo controlados por productores. El costo de adoptar este estilo de entrenamiento de las **Escuelas de entrenamiento de campo para productores** para estos grupos tiene que ser pesado contra el numero potencial de beneficiarios y los beneficios que ellos reciben

- Las Escuelas de entrenamiento de campo para los productores y el Grupo de Transferencia de Tecnología, ambos métodos de entrenamiento enfatizaron la interacción social de los participantes. Ambos generaron entusiasmo por aprender. El aprendizaje incluía habilidades sociales como ser el trabajar con sus vecinos para resolver problemas, aprender de los errores de otros, y hablar frente a un grupo. Esto es además de las habilidades de producción agrícola aprendidas. Entrenando agrupaciones de productores fue efectivo y de costos reducidos. También sirvió para fortalecer los esfuerzos para unirse en asociaciones para construir y operar las primeras etapas de los centros de recolección para los productos de sus fincas.

- **El entrenamiento y la asistencia técnica** de Pro Note fueron llamados **"participatorios" ,** esto es, todos los productores fueron bienvenidos a unirse al entrenamiento, a pesar de que unos tuvieron que esperar por espacio en clases futuras. El método participatorio contrasta con el método exclusivo adoptado por muchos proyectos donantes, como cuando un donante selecciona a un grupo y trabaja con el exclusivamente, excluyendo a otros de los beneficios recibidos por los miembros del grupo.

- **El método que identifico las limitaciones en la cadena productiva funciono correctamente,** y las limitaciones claves fueron identificadas y atendidas. Las limitaciones claves fueron tecnologías de producción y manejo de post cosecha, incluyendo recolección de productos de las fincas.

- En la opinión del equipo evaluador **mas dirección y menos consulta pudo haber disminuido por varios meses el tiempo transcurrido en poner a la gente en el campo.**

- El numero de **beneficiarios en aguacate y brócoli fue pequeño** comparado con aquellos de cacao y café. Que el número esperado de beneficiarios era limitado fue dado a conocer a USAID cuando ellos aprobaron la petición de Pro Norte de trabajar en estos sectores.

- Aparentemente había un requisito de USAID para trabajar en cada región o provincia, a pesar de que reduciría el número total de beneficiarios. Sin embargo no parece haber controversia en este caso, **USAID podría considerar incluir en forma escrita los requisitos para buscar beneficiarios de cada región. El requisito de apoyar actividades en cada región (Provincia) parece que fue un factor decisivo en un comienzo más largo de lo anticipado,** esto puede haber atrasado el apoyo para alcanzar a los agricultores no solamente en las regiones de Carchi e Imbabura, pero también a productos de otras provincias.

- En el caso de brócoli los beneficiarios eran previamente productores de muy bajos ingresos, quienes ahora tienen un ingreso mucho mayor. Lo mismo se aplica a productores de aguacate, ellos ahora tienen prospectos para mayores ingresos. El ingreso ha aumentado porque su asociación ahora exporta directamente la producción existente a Colombia, en vez de venderla a intermediarios. Cuando sus árboles con la variedad Haas salgan a producción ellos deberían tener ingresos aun más altos. Sin embargo en la opinión del equipo evaluador pocos o ninguno de los productores de aguacate hubieran migrado a las regiones de cultivo de coca, aun sin tener el apoyo de Pro Norte. Es posible que los productores de aguacate eventualmente proveerán empleo adicional para otra gente de bajos ingresos que pueden haber migrado a las regiones de producción de coca.

- Para los cinco sectores seleccionados había mercado disponible.

- **Los costos de post cosecha podrían ser mas bajos si se utiliza la infraestructura de cacao para la post cosecha de café.** Cacao y café tienen actividades de post cosecha y mercadeo similares y sus épocas de cosecha se complementan una con la otra. La misma infraestructura puede ser usada para ambos cultivos. En efecto, el equipo evaluador se dio cuenta que el Señor Julio Lama, vendedor de café, había comenzado a utilizar su infraestructura de café para procesar/mercadear cacao.

RESUMEN DE CONCLUSIONES

- A pesar de que USAID quiso minimizar el nivel de esfuerzo en **estudios de mercado y competitividad ,** ese proceso además de subcontratar y contratar personal domino el primer año del proyecto; y poco entrenamiento ocurrió. En este caso las percepciones de USAID de los sectores a apoyar fueron principalmente correctas, como se ve en los sectores finalmente seleccionados por Pro Norte.

- **El comienzo del proyecto fue lento** para cacao y café; fue necesario casi un año para comenzar el entrenamiento del productor en el campo. La selección de estos sectores pudo haber sido más temprano. La selección de las agrupaciones a apoyar en los valles altos requirió evaluación de mas opciones.

- **El método** adoptado por Pro Norte para identificar sectores a ser apoyados y la metodología para apoyar estos sectores funciono. Todos los sectores seleccionados tenían mercados disponibles y los productores Ecuatorianos fueron capaces de satisfacer las necesidades de esos mercados si ellos seguían las tecnologías enseñadas por Pro Norte. El método para entrenar en grupos fue efectivo en transferir la tecnología , y también motivo a productores a trabajar juntos para resolver problemas comunes. Esto esta más claramente demostrado en el hecho de que productores contribuyeron con trabajo y otro tipo de apoyo para establecer los centros de recolección controlados por ellos.

- El **acercamiento y la metodología** alcanzaron dos factores importantes: Primero ha demostrado que puede alcanzar un gran número de beneficiarios con cacao y café. Segundo, para todos los grupos el acercamiento combinado con la situación actual de mercado en Ecuador ha demostrado a los productores que ellos pueden incrementar substancialmente sus ingresos si ellos aplican la tecnología transferida.

- **El entrenamiento de productores fue efectivo** y la tecnología transferida combinada con mejores precios crearon gran interés en los productores por mejorar sus producciones.

- **Las donaciones** fueron una herramienta efectiva para facilitar las operaciones del programa. La mayoría de las donaciones apoyaron el entrenamiento de productores, proporcionándoles herramientas manuales baratas que son usadas en implementar la tecnología enseñada a productores, así como herramientas para podar, palas y plásticos para la construcción en las fincas de deshidratadores solares.

- **Los sub contratos** fueron una herramienta muy efectiva**.** Sub contratistas locales tienen la experiencia y el conocimiento para continuar apoyando un proyecto siguiente.

- **Los costos del proyecto por beneficiario** fueron muy diferentes por sector, variaron de US $ 271 por beneficiario para cacao, a US $ 572 para café y US $ 8,828 para cultivos de tierras altas (aguacate, papas, y brócoli) El pequeño numero de beneficiarios en las tierras altas hizo que el costo por beneficiario fuera muy alto.

- **Para los cuatro indicadores** que pueden ser sumados en todos los sectores de productos, para el 31 de Marzo del 2006 todos los cuatro habían alcanzado o excedido la suma de las metas para el final del proyecto. Estos indicadores son:

    - Numero de beneficiarios primarios,
    - Volumen anual de ventas de los beneficiarios
    - Valor de nuevas inversiones, y el
    - Incremento de empleo.

- **Cacao y café** han sido especialmente exitosos en cumplir con los objetivos estipulados en el contrato.

- Para los cuatro sectores el personal del proyecto de Pro Norte **trabajo muy de cerca con las instituciones socias**, con instituciones apoyadas por USAID u otros fondos donados, e instituciones privadas y compañías para ayudar a la identificación de las limitaciones en la cadena productiva y establecer entrenamiento, asistencia técnica y donaciones para quitar o disminuir el impacto de esas restricciones.

- Mas allá de haber alcanzado las metas especificas, Pro Norte ha creado para los productores de cacao y en menor grado para los productores de café un entusiasmo en la región del Borde Norte por mejorar sus plantaciones, y la expectativa de que pueden mejorar sus ingresos significativamente.

- **La identificación de los árboles de "súper altos rendimientos"**. Este proyecto identifico árboles de cacao de altos rendimientos aparentemente también libres de enfermedades, proporcionando una excelente fuente de germoplasma para ayudar a aumentar los rendimientos. También árboles de café de altos rendimientos fueron identificados, excluyendo así la necesidad de importar germoplasma mejorado de Brasil.

COMENTARIOS PARA ACTIVIDADES FUTURAS

- El proyecto Pro Norte termina en Agosto del 2006. USAID/Ecuador anticipa proveer fondos de transición entre 2006 y 2007 para apoyar algunas de las asociaciones y agricultores que trabajan ahora con Pro Norte. Un nuevo contrato es programado para el 2007 y más allá, alineado con los nuevos objetivos estratégicos de Ecuador.

- Un equipo de instructores capaces esta disponible en este momento y que puede continuar el entrenamiento efectivo realizado durante los dos años pasados de Pro Norte. USAID tiene que actuar rápido para retener a este equipo .El traspaso de liderazgo de ARD a otro contratista pone en riesgo perder la visión y las habilidades administrativas que han mantenido todos los componentes de Pro Norte funcionando efectivamente.

- La identificación de árboles de "súper" altos rendimientos de cacao y café son hallazgos importantes y pueden ser acreditados al apoyo de Pro Norte y USAID. Los árboles de café producen tanto como los cultivares de altos rendimientos de café robusta en Brasil, y tienen el potencial de hacer a los productores ecuatorianos más competitivos en los mercados mundiales.

- Los datos de producción para los árboles de cacao de "súper" altos rendimientos muestran rendimientos 8 a 10 veces más que un árbol típico de cacao, con semillas que tienen características favorables de aroma y sabor. Si esos rendimientos se repiten en otras localidades y condiciones, los productores ecuatorianos tienen el potencial de ser productores de clase mundial de cacao. USAID puede querer documentar ahora el apoyo proporcionado por los sectores de cacao y café para cuantificar los resultados en unos cuantos años. USAID puede querer trabajar con ecuatorianos y otras agencias para

ayudar a productores de café y cacao, especialmente aquellos en la región del Borde Norte a que se beneficien de este nuevo descubrimiento.

- Los 19 centros de recolección y mercadeo propiedad de los productores son instituciones muy débiles. La mayoría van a recibir su primer producto en el 2006. Todos reciben ahora apoyo de donantes y todos necesitan un apoyo continuo si para ellos la meta es permanecer como instituciones controladas por los productores.

- Continuar trabajando en las agrupaciones de cacao y café. Estas dos agrupaciones tienen el mayor número de beneficiarios, y están localizadas en las áreas potencialmente mas peligrosas que pueden ser usadas para el desarrollo de cultivos ilícitos. El equipo evaluador identifico una fuerte demanda para más trabajo en esas agrupaciones, especialmente en las áreas de Putumayo y Sucumbíos. El ingreso generado por la producción de cacao y café es suficiente, en la opinión del equipo evaluador, para desmotivar estos productores de producir cultivos ilícitos.

- El siguiente proyecto puede querer considerar una prueba piloto para consolidar las **Escuelas de Entrenamiento de Campo para Productores** y el **Grupo de entrenamiento de Transferencia de Tecnología** en una serie de sesiones de entrenamientos, porque la mayoría de los productores siembran ambos cultivos y alguna de la tecnología transferida es casi la misma para cada grupo.