EVALUATION OF THE MARKET ACCESS AND POVERTY ALLEVIATION (MAPA) PROJECT IN BOLIVIA

Prepared for
USAID/Bolivia

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TABLE OF CONTENTS

Acronyms

AD	Alternative Development
ACEB	Bolivian Specialty Coffee Association
AFRUTAR	Fruit Producers' Association of Tarija
ASPROCOM	Association of Producers and Marketers of Mizque
CAPEC	Agro-industrial Complex for Spices and Condiments
CENAPROC	National Center of Coffee Producers
CENCOOP	Central Cooperative
CFI	Competitive Fund for Innovation
CTO	Cognizant Technical Officer
DFID	Department for International Development
EIA	Environmental Impact Analysis
EO	Economic Opportunities
FCI	Competitive Fund for Innovation
FDTA	Foundation for the Development of Agricultural Technologies
FOCAS	Common Fund for Support to SIBTA
IBTA	Bolivian Institute for Agricultural Technologies
IDB	Inter-American Development Bank
IQC	Indefinite Quantity Contract
IR	Intermediate Result
JICA	Japanese International Cooperation Agency
LOE	Level of Effort
MAPA	Market Access and Poverty Alleviation Project
NGO	Non-Governmental Organization
PEIT	Special Projects for Technological Innovation
PIEN	National Programs for Strategic Innovation
PITA	Innovative Applied Technology Projects
PMP	Performance Monitoring Plan
RAISE	Rural Agricultural Incomes with a Sustainable Environment (IQC)
SCAA	Specialty Coffee Association of America
SOCODEVI	Cooperation Society for International Development (Quebec, Canada)
SENASAG	National Service for Plant and Animal Health
SIBTA	Bolivian System for Agricultural Technologies
SO	Strategic Objective
SOAG	Strategic Object Agreement
SOT	Strategic Objective Team
UCPSA	Coordination Unit for Agricultural Services Program
UPDT	Policy Unit for Technological Development
USAID	United States Agency for International Development
YDI	Yungas Development Initiative

Executive Summary

I. Introduction

The following assessment of the Market Access and Poverty Alleviation (MAPA) project was conducted during the months of May to July 2003. The MAPA project was initiated under a Task Order to Chemonics International Inc. (Chemonics) under the Rural Agricultural Incomes with a Sustainable Environment (RAISE) Indefinite Quantity Contract (IQC PCE-I-00-99-00003-00) on October 1, 2000. This original Task Order (806) contained a Statement of Work focused on the Valleys region of Bolivia through the creation of the Foundation for the Development of Agricultural Technologies (FDTA-Valleys). It was written for the base period that ran through November 23, 2003, the end date for the RAISE IQC, with an optional period of two additional years. This Task Order was amended on August 15, 2001 changing its LOE and scope of activities to include the Yungas region under the Yungas Development Initiative (YDI). This modification is being funded through the Mission's Alternative Development program as a result of supplemental financing made available through the Andean Regional Initiative. The modification maintained both the original termination date and the option period.

The MAPA-Valleys activity falls within the Mission's Strategic Objective 2 (SO2) "Increased income for Bolivia's poor." In addition, it falls within the new (2004-2008) Economic Opportunities Office's second Intermediate Result (IR2) "Increased Access to Agriculture Technology and Marketing Services".

The MAPA-Yungas activities are designed to fall completely within the YDI objective of creating or improving licit economic opportunities for potential or actual coca farmers, either on or off-farm. To date, MAPA/Yungas activities have included support to coffee growers in the areas of harvesting, post-harvest processing, and marketing, the identification and design of various community planning and infrastructural projects required for tourism development in the Coroico area, and most recently, the exploration of ways in which to revive the tea industry in the Caranavi area through improved production, post-harvest and processing technologies, and marketing.

II. Background

Beginning in the late 1980s Bolivia began a lengthy process of disbanding its extension and research apparatus while searching for a more adequate model to replace it. In the mid to late 1990s, while many countries in the developing world choose to completely privatize their agricultural research and extension services, Bolivia choose to adopt a quasi-public/private model embodying the concept of agricultural foundations privately owned and managed but authorized to use public funds to carry out agricultural research, extension, and marketing activities. This link to the government includes access to financial and technical foreign assistance by way of international cooperation from the community of donors that have bilateral agreements with Bolivia.

The outcome of this lengthy process came about in March 2000 with the issuing of Supreme Decree 25717 which created the *Sistema Boliviano de Tecnología Agropecuaria* (SIBTA) and its

four foundations (FDTAs) based on the country's four major agro-climatic zones: the high plains *(altiplano)*, dry land savanna *(chaco)*, humid tropics *(trópico húmedo),* and valleys *(valles)*. In addition to USAID's direct support to FDTA-Valleys through the MAPA project, the overall SIBTA system is also supported by the Inter-American Development Bank (IDB), German Technical Assistance (GTZ), the Japanese International Cooperation Agency (JICA), and an association of European donors including Great Britain (DFID), the Netherlands Embassy, and Switzerland (COSUDE) under the name of the *Fondo Común de Apoyo al SIBTA* (FOCAS). Over the life of the MAPA-Valleys project, the annual operating costs of the foundation are paid out of the MAPA/Chemonics contract, as are the costs of long and short-term technical assistance and training services.

Sustainability is addressed in the MAPA-Valleys project through various technical, procedural, and financial mechanisms including the establishment of an $8.4 million trust fund using PL-480 Title III relows. MAPA/FDTA-Valleys also places emphasis on the sustainability of the various agricultural commodity chains that it supports rather than on the Foundation, which will always be dependent on some level of public support, as is the case of agricultural research and extension in most developed countries. Furthermore, in order to engender ownership on the part of PITA beneficiaries, a minimum of 15 percent of the value of each PITA must be paid to the FDTA-Valleys, in cash, by the beneficiary group, the municipality in which the beneficiary group resides, or a combination of both.

The process begins with the Competitive Fund for Innovation (FCI), which is made up of contributions from the Government of Bolivia (GOB) donations in various amounts from the FOCAS group mentioned above, the MAPA project based on an annually approved projected work plan, the IDB, and any other potential donations or loans that may be obtained in the future. The FCI is used to finance Innovative Applied Technology Projects (PITAs), which are the consequence of a prioritization process of agricultural commodity chains and the determination of the need for improvement in the various, normally post-harvest and marketing, links in those chains. The PITAs are the result of a competitive bidding process that combines farmer groups or organizations (*demandantes*) with technical assistance providers (*oferentes*), usually local or international NGOs, although local consulting firms are also encouraged to submit bids. A committee of agricultural experts paid by MAPA, known as the Analysis Committee, then evaluates the various proposals for technical feasibility and scores and ranks those proposals for funding that meet specific criteria.

III. Conclusions

A. MAPA/FDTA-Valleys

- Progress to date shows that this is a good project. The creation of a combined public sector/private sector agricultural research and extension foundation was well conceived. The concept is also being well implemented and the FDTA-Valleys is well on its way towards maturing into a viable and sustainable research and extension organization. Its strengths and potential depend on a series of factors including: its market and profitability oriented methodology combined with its commodity chain approach, its ability to hire permanent, highly qualified staff, its flexibility in its operating procedures, its agile

funding mechanisms, and its results-based orientation. This conclusion is valid in its own right and in comparison to the other foundations within SIBTA. It can also be concluded that the Intermediate Results and expectations of the EO office of the Mission are being met, as are the Performance Indicators and Expected End of Project Results.

- Nevertheless, a few issues need to be addressed in order to "make a good thing better". The first is that the lack of certainty in the USAID's exercising of its two-year option period inhibits project management in its planning process. Others include the need to streamline the PITA/PEIT/PIEN proposal, analysis, and approval processes to: 1) elicit more private sector or unsubsidized NGOs (*oferentes*) in the service delivery process through a lowering of transaction costs, and 2) shorten the response time between the requests made by farmers and actual service delivery so as to maintain the interest of farmers. There is also a lack of understanding as to the precise definition of sustainability among the GOB, USAID, other donors, and potential *demandantes* and *oferentes*.

- Municipalities have played an important role in supporting PITAs by contributing all or a portion of the required 15 percent to the Foundation's Patrimony Fund. They do not consider this excessive and believe this to be part of their responsibility to facilitate economic growth in their areas.

B. MAPA/Yungas

- The MAPA-Yungas component of the project is also making good progress towards the achievement of its goals, especially given the region where it is working and the unique challenges that this region presents. As this component matures, the need for a Performance Monitoring Plan will become more critical for component managers. The lack of sufficient funding for all of its planned activities will also become an important issue in the future. As is the case with MAPA/FDTA-Valleys, it can also be concluded that the Intermediate Results and expectations of the AD office of the Mission are being met, as are the Performance Indicators and Expected End of Project Results.

- In collaboration with growers, processors, and exporters, the project has succeeded in securing international markets for specialty and fair trade coffee which has contributed to a doubling of cherry coffee prices paid to the growers in the Yungas. It is too premature to quantifiably measure the results of either the tourism development or the tea components.

IV. Recommendations

A. MAPA/FDTA-Valleys

- USAID should exercise its two-year option period and extend the MAPA project for at least two years. The contractor should be apprised of this as soon as possible.

- The transactions costs of submitting a proposal for a PITA should be reduced in order to attract a wider range of bidders, especially those that are not subsidized from other

sources. The request-proposal-approval-implementation chain needs to be made even more efficient through a careful analysis of the number of days required in each step of the chain. Both of these could be accomplished by: 1) standardizing the documentation and validation process; 2) MAPA/FDTA-Valleys staff could actually write its own proposals in response to farmer organization requests and simply ask bidders to respond with budgets and key staff qualifications to implement them; 3) the indirect costs and fees of potential bidders could be set at attractive levels based on the representative costs of current bidders/implementers; 4) the covering of pre-award proposal preparation costs for the winning proposal by FDTA-Valleys should be considered; and, 5) an IQC-type short listing of potential bidders (*oferentes*) should also be considered.

- The use of the term sustainability needs to be clearly defined in the following way: 1) the highest priority in terms of sustainability needs to be given to the commodity chains—only then will future evaluators be able to say that the activities supported by the project have become sustainable; and, 2) the sustainability of the FDTA-Valleys needs to be disaggregated with sustainability of the operating costs of the Foundation being the goal as opposed to its "investment costs" in the PITAs, which will always have to be underwritten by the GOB or the donor community.

- Increased emphasis needs to be placed by the project on institutional strengthening of beneficiary organizations to ensure that there is adequate participation, that the organizations fully comprehend and apply the market-based approach, and that there is appropriate administrative capability for these organizations to become self-sufficient. During the two-year option period, MAPA/FDTA-Valleys should hire an institutional development specialist to cover the organizations receiving assistance from both FDTA-Valleys and the Yungas.

- Even though the first phase of the onion, *ají* and *locoto* PITAs did not provide financial support to assist growers in their production, harvest, and post-harvest activities, the follow-on phase needs to consider this option, since many growers cannot adopt the recommended technologies for lack of financial resources. This can be accomplished by the project establishing its own rotating fund or by accessing the USAID Rural Financial Services project.

B. MAPA/Yungas

- A Performance Monitoring Plan needs to be prepared for this activity in order that there be one centralized information source concerning progress towards goal achievements.

- Funding during the two-year option period needs to finance from three to six of the ten approved tourism development projects. Priority should be given to the urban and zoning plans, the bus terminal, the municipal market, the by-pass road, the sewerage waste and treatment facility, and the potable water system in that order. This ranking has been determined based on a combination of popular participation in decision making, relative cost, immediate impact, and the potential for assistance from other sources.

- Given the results to date and the large potential of the specialty coffee program (2001-2005), sufficient funding and time need to be ensured to complete the five-year program, thereby consolidating the Yungas' position of high-quality, specialty coffee in international markets, increasing the incomes of a large number of small coffee producers, and containing surplus coca production.

I. Introduction

The following assessment of the Market Access and Poverty Alleviation (MAPA) project was conducted during the months of May to July 2003 by two consultants with many years of experience in developing countries, much of which has been in Andean countries including Bolivia. As is stated in the Task Order for the assessment, the MAPA project was initiated under a Task Order to Chemonics International Inc. (Chemonics) under the Rural Agricultural Incomes with a Sustainable Environment (RAISE) Indefinite Quantity Contract (IQC PCE-I-00-99-00003-00) on October 1, 2000. This original Task Order (806) contained a Statement of Work focused on the Valleys region of Bolivia through the creation of the Foundation for the Development of Agricultural Technologies (FDTA-Valleys). It was written for the base period that ran through November 23, 2003, the end date for the RAISE IQC, with an optional period of two additional years. This Task Order was amended on August 15, 2001 (Modification 1) changing its LOE and scope of activities to include the Yungas region under the Yungas Development Initiative (YDI). This modification is being funded through the Mission's Alternative Development program as a result of supplemental financing made available through the Andean Regional Initiative, often referred to as "Plan Colombia". The modification maintained both the original termination date and the option period.

The MAPA-Valleys activity falls within the Mission's Strategic Objective 2 (SO2) "Increased income for Bolivia's poor with emphasis on targeted communities directly and indirectly assisted by USAID." Additionally, during its first three years of implementation it fell within Intermediate Result 2 (IR2) "Sustainable sub-sectors for specific agricultural products established or improved.", and does so even more now that IR2 has recently been changed as part of the Mission's overall five-year strategy adjustment 2004-2008 to read, "Increased Access to Agriculture Technology and Marketing Services". Furthermore, IR2 contains four Sub Intermediate Results, two of which MAPA addresses directly:, Sub-IR2.2 "Improved access by agro-entrepreneurs (read, farmers) to technology", and Sub-IR2.3 "Improved access to markets by agro-entrepreneurs." Sub-IR2.1 "Improved access to basic infrastructure and other factors of production" is specific to Title II activities and Sub-IR, 2.4 "Improved policy and regulatory environment", mentioned in the original MAPA Results Package, was dropped from the Strategic Objective Agreement (SOAG) with the GOB as well as from the Chemonics/MAPA contract. Finally, the project's implementation is being monitored and assisted by the Mission's Economic Opportunities (EO) Strategic Objectives Team (SOT).

The MAPA-Yungas activity, on the other hand, as mentioned above, falls within the YDI which has three main objectives including: the eradication of illegal coca in the Yungas, the prevention of new coca plantings, and the creation of licit economic alternatives in the region for coca and other farmers through the development of additional/alternative income earning opportunities. The MAPA-Yungas activities are therefore designed to fall completely within the YDI and to specifically address the third objective of creating or improving licit economic opportunities for potential or actual coca farmers, either on or off-farm. To date, MAPA/Yungas activities have included support to coffee growers in the areas of harvesting, post-harvest processing, and marketing, the identification and design of various community planning and infrastructural projects required for tourism development in the Coroico area, and most recently, the exploration

of ways in which to revive the tea industry in the Caranavi area through improved production, post-harvest and processing technologies, and marketing.

While these two activities, with separate funding sources, might be seen as being two unrelated development projects, they are linked through their primary focus on developing market-driven commodity chains through a common philosophy of generating economically sustainable alternatives for poor rural farm families, as well as the sharing of joint management and the provision of technical assistance through the Chemonics and, at times, the FDTA-Valleys staff.

II. Methodology

The methodology followed for this assessment is similar to that of most assessments and evaluations. This included initial briefings by the assessment's Cognizant Technical Officer (CTO), the EO/SOT chairperson, the Vice-Ministers of both Agriculture and Alternative Development, and the National Coordinator of Coordination Unit for Agricultural Services Program (UCPSA) of the Vice-Ministry of Agriculture, an initial review of documents related to both the Valleys and Yungas portions of the project, and field visits to the MAPA/FDTA-Valleys offices in Cochabamba and the MAPA/Yungas offices in Coroico where additional interviews with key staff were also held. Of even greater importance, however, the assessment team also made extensive field trips to a multitude of farmer organizations to interview farmer beneficiaries being assisted by the MAPA project. In all cases, these field visits were made in the company of MAPA/FDTA-Valleys sub-contractor technicians (*oferentes*, see next chapter.) who explained their activities, presented the team to the farmer groups, and then left the team alone to interview the farmer/beneficiaries.

Additionally, wherever possible municipal authorities were also interviewed. Lastly, meetings were also held with FDTA-Valleys Board members in Cochabamba and Tarija, the Board President and its Executive Director. (See Annexes A and B for lists of persons and organizations visited and a bibliography of documents consulted, respectively.)

The assessment and the assessment team also benefited greatly from the interaction with, and the findings of, two other assessment teams. The role of one of these teams was to evaluate the progress of all four SIBTA-related agricultural foundations, pointing out the differences in the operating procedures of the MAPA-supported FDTA-Valleys as compared to the other three foundations not receiving MAPA support. The second other team was charged with conducting a survey of MAPA beneficiaries (both FDTA-Valleys and YDI) to determine actual impact on their family income due to MAPA activities. The outcome of the work of these two teams proved to be an invaluable input into the results provided in this assessment.

Lastly, the MAPA assessment team produced an initial draft that was presented verbally and in written form to the EO/SOT and other interested Mission staff for their comments and corrections. These were then incorporated into the final draft assessment document.

III. Background

From the early 1950s until the early 1990s, Bolivia attempted to promote and improve its agricultural sector through a traditional model of research and extension using the *Instituto Boliviano de Tecnología Agropecuario* (IBTA). However, as has been the case in many developing countries in the region, the model proved to be costly, ineffective, and, at best, directed at production issues related to large-scale agriculture rather than the vast majority of small-scale *campesino* farmers and their subsistence crops.

As a result, beginning in the late 1980s Bolivia began a lengthy process of disbanding its extension and research apparatus while searching for a more adequate model to replace it. In the mid to late 1990s, while many countries in the developing world chose to completely privatize their agricultural research and extension services, Bolivia chose to adopt a quasi-public/private model embodying the concept of agricultural foundations privately owned and managed but authorized to use public funds to carry out agricultural research, extension, and marketing activities.[1] This link to the government includes access to financial and technical foreign assistance by way of international cooperation from the community of donors that have bilateral agreements with Bolivia. Additionally, according to the by-laws of each foundation, one-third of the members of the boards of directors are to come from the public sector, while two-thirds are to come from the private sector.

The outcome of this lengthy process came about in March 2000 with the issuing of Supreme Decree 25717 which created the *Sistema Boliviana de Tecnología Agropecuaria* (SIBTA) and its four foundations (FDTAs) based on the country's four major agro-climatic zones: the high plains *(altiplano)*, dry land savanna *(chaco)*, humid tropics *(trópico húmedo),* and valleys *(valles)*. In addition to USAID's direct support to FDTA-Valleys through the MAPA project, the overall SIBTA system is also supported by the Inter-American Development Bank (IDB), German Technical Assistance (GTZ), the Japanese International Cooperation Agency (JICA), and an association of European donors (often referred to as the Basket Fund), including Great Britain (DFID), Denmark (DANIDA, which has recently requested that the FDTA-Valleys prepare a proposal for $1.4 million to cover both the operating costs of the Foundation and PITA/PEIT funding.), the Netherlands Embassy, and Switzerland (COSUDE) under the name of the *Fondo Común de Apoyo al SIBTA* (FOCAS). It should be pointed out that this level of cooperation among donors is extremely rare and represents in itself a success for those who developed and continue to promote the SIBTA concept.

In relative contrast to many development projects, while the MAPA-Valleys project is fully integrated into the FDTA-Valleys organization, it is being implemented as a Valleys' Foundation project. Technical assistance and training are being provided by MAPA-Valleys staff remaining for the most part in the background, supporting, promoting, and prompting on an as-needed basis, and normally at the request of the Foundation's president or board of directors, while remaining highly proactive. Indeed, the Chemonics logo and the names of its staff rarely appear on anything other than annual work plans and quarterly reports sent to the USAID Mission. Nevertheless, over the life of the MAPA-Valleys project, the annual operating costs of the

[1] According to Willy Soria, President of the FDTA-Valleys, the primary promoters of this model included forward thinking Bolivian agriculturalists such as Osvaldo Antezana, Jorge Calvo, and Walter Nuñez.

foundation are paid out of the MAPA/Chemonics contract, as are the costs of long and short-term technical assistance and training services.

Sustainability, a critical issue in most development projects, is addressed in the MAPA-Valleys project through various technical, procedural, and financial mechanisms, which in reality are an essential element of the project's operational procedures as well as the overall SIBTA concept. This concept places emphasis on the sustainability of the various commodity chains rather than the foundations, which will always be dependent on some level of public support, as is the case of agricultural research and extension in most developed countries.

The process begins with the Competitive Fund for Innovation (FCI), which is made up of contributions from the Government of Bolivia (GOB) including an original $ 8.4 million endowment stemming from PL-480, Title III reflows and any interest earned on that amount[2], donations in various amounts from the FOCAS group mentioned above, the MAPA project based on an annually approved projected work plan, the IDB[3], and any other potential donations or loans that may be obtained in the future.

The FCI is used to finance Innovative Applied Technology Projects (PITAs), which are the consequence of a prioritization process of agricultural commodity chains and the determination of the need for improvement in the various, normally post-harvest and marketing, links in those chains.[4] The PITAs are the result of a competitive bidding process that combines farmer groups or organizations (*demandantes*) with technical assistance providers (*oferentes*), usually local or international NGOs although local consulting firms are also encouraged to submit bids. A committee of agricultural experts paid by MAPA known as the Analysis Committee (Whose membership is known only to the Executive Director of the FDTA-Valleys, the FDTA-Valleys Administrator and Accountant, the Mission's CTO, and the UCPSA Coordinator) then evaluates the various proposals for technical feasibility and scores and ranks those proposals for funding that meet specific criteria, such as the institutional basis of the farmer group requesting assistance, the number of potential beneficiaries, and environmental soundness. Technical and cost proposals are submitted separately with the latter being secondary in the selection process.

At present, there is a ceiling of $100,000 per PITA in FDTA-Valleys in order to coincide with current rules being applied by the FCI, but if a PITA is MAPA-funded this ceiling is flexible depending on the individual case. Furthermore, in order to engender ownership on the part of PITA beneficiaries, a minimum of 15 percent of the value of each PITA must be paid to the FDTA-Valleys, in cash, by the beneficiary group, the municipality in which the beneficiary group resides, or a combination of both. This 15 percent contribution is paid into either an Endowment Fund if the PITA is partially funded with IDB money, or a Patrimony Fund if the PITA is funded entirely with MAPA resources. While the difference between the two funds is slight, only the interest earnings from the Endowment Fund may be used to finance the operating budget of the FDTA-Valleys, while both the interest earnings and the principal of the Patrimony

[2] This amount is reserved for the FDTA-Valleys to be used by that foundation when the MAPA project ends or if and when extraordinary needs arise, which ever comes first.
[3] The original loan amount for SIBTA was calculated at $ 14.0 million for all four foundations, however, it is currently estimated that only $ 7.0 million of this amount will be disbursed by 2005.
[4] Loosely translated from the *FDTA-Valles, Memoria 2002,* page 4.

Fund may be used for such purposes, the ultimate impact of this difference can be potentially great in terms of the foundation's future ability to cover its operating costs.

Two other funding mechanisms round out the research and extension mechanisms operating within the SIBTA framework; Special Projects for Technological Innovation (PEITs), and Strategic Innovative National Programs (PIENs). While the former can involve the introduction of new crops and the entire production, harvest, post-harvest, and marketing chain (To date, only two have only been funded by the Valleys Foundation and none by the other foundations.), the latter can involve cross-cutting research and extension activities involving a single crop such as the appropriateness of onion seed varieties to different agro-climatic zones.[5] To date, PIENs can only be implemented by the Policy Unit for Technological Development (UPDT) of the Vice-Ministry of Agriculture and none have been implemented to date. In terms of the FDTA-Valleys, a PEIT is a PITA that falls outside of the FCI guidelines. Both the PEITs and the PIENs have their own selection criteria, and implementation methodologies.

[5] To date, none have been officially funded by any of the foundations, although onion seed trials were funded by the FDTA-Valleys as a PITA before the concept of a PIEN was developed.

IV. Findings Related to the Market Access and Poverty Alleviation Project

A. MAPA/FDTA-Valleys, the Objectives of the Results Package and the Chemonics Contract

1. The Results Package

The original MAPA Results Package and Chemonics contract directly support USAID/Bolivia's Strategic Objective No. 2 "Increased income for Bolivia's poor with emphasis on targeted communities directly or indirectly assisted by USAID." In order to achieve this strategic objective the MAPA Results Package identified four sub-intermediate results to be undertaken by the Mission's Title II cooperating sponsors and a future institutional contractor: Sub-IR 2.1 "Improved access to basic infrastructure and other factors of production" which is being implemented by the cooperating sponsors, Sub-IR 2.2 "Improved access to technology by agro-entrepreneurs", Sub-IR 2.3 "Improved access to markets by agro-entrepreneurs", and Sub-IR 2.4 "Improved policy and regulatory environment".

The intention of the second and third Sub-IRs was to create a non-governmental pool of private sector firms or NGOs (*oferentes*) capable of filling the vacuum of agricultural research and technical assistance providers created by the demise of IBTA. It was thought that a "fee for service", competitive and market-oriented concept of research and technology transfer would better suit the needs of poor, small-scale farmers better than a "free", production-oriented one.

Nevertheless, of the 18 PITAs/PEITs that have been undertaken by the MAPA/Valleys Foundation only two (BIOSIS and AGRIBOL) have been private firms, and the latter did not perform up to expectations according to MAPA/Valleys Foundation staff. All of the rest are being implemented by either domestic or international NGOs, all of which are subsidized in one form or another. The principal reason cited is the relatively high costs of preparing and presenting proposals ($3,000 to $5,000 according to some sources) compared to the economic returns that can be gained in implementing a PITA/PEIT. This is especially the case if the $100,000 ceiling level for PITAs, imposed by the FCI, is followed. Not-for-profit NGOs, as a result of their subsidization or tax exempt status, can afford to bear these costs while private firms cannot.

Sub-IRs 2 and 3 comply with the Results Framework and will be dealt with on a PITA/PEIT basis in Annex C.

Sub-IR 4, Improved policy and regulatory environment, was removed from the MAPA project by the Mission as it moved from the Results Package stage to the Strategic Objective Agreement (SOAG) stage with the GOB and the contract with Chemonics. Nevertheless, phytosanitary issues and regulations involving the importation of improved planting material into Bolivia have been the principal policy/regulatory constraint faced by the MAPA/Valleys Foundation project. The project has tried vigorously without much success to confront this constraint through a continuing dialogue with the Plant and Animal Health Service (SENASAG). This organization is relatively new and is the subject of the same IDB loan as SIBTA. It initially received technical assistance in its establishment from a joint IDB, DFID, and USAID team. However, it

is said to be without a national developmental focus, has an unstable workforce (read, political cronyism), a lack of internal communication between its departmental offices and its main office in Trinidad, excessive centralized decision-making, and political influence by departmental prefects.[6] Whether the technical assistance currently being provided will result in SENASAG becoming more efficient, less bureaucratic, and less politicized will not be known for some time.

2. The Chemonics Contract: Objectives

Moving to the Chemonics MAPA contract, the document[7] specifies six objectives:

- Getting commercial agriculture moving in Bolivia's Valley's Region;
- Supporting the Valleys' Foundation, municipalities, Title II cooperating sponsors, and farmers' groups;
- Making the FDTA-Valleys an effective, efficient, and sustainable foundation within SIBTA;
- Establishing and managing the Competitive Fund for Innovation (FCI) initially;
- Providing training in response to opportunities and needs identified during implementation; and,
- Designing and implementing a similar program to rehabilitate and commercialize agriculture and related economic development activities in the Yungas region, if so required.

The achievement of the first Objective will be addressed in detail in Annex C. Nevertheless, as a general statement, it can be asserted that both farmer income and the amount of produce being sold in the PITA-supported crops that have experienced one full crop cycle (onions, *locoto*, and *aji*), and among the farmer groups being assisted by the MAPA/Valleys project, have increased significantly and the Results Indicators (See Section 3, below.) have been, or will have been surpassed by November 2003. Of further interest and not specifically contemplated in either the Results Package nor the Chemonics contract, which concentrated primarily on increased production, is that post-harvest losses have been greatly reduced and the harvest seasons lengthened in all three crops. These last two achievements have also significantly reduced farmer's costs per production unit and expanded the "marketable window", thereby increasing farmer income as well.

Another MAPA activity that merits mention here and which is targeted at getting agriculture moving is the Agricultural Markets Information Service (SIMA), which collects price data on over 100 agricultural commodities in seven departmental capitals and broadcasts this information throughout the country. In conducting the companion survey to this evaluation in the Valleys and Yungas areas of the country, several questions were asked concerning SIMA. Depending on the municipality, and the availability of radio signals, between 66 and 100 percent, with an average of 72 percent, of MAPA farmers listened to these broadcasts. Furthermore, of these listeners an average 85 percent responded that the information they received was beneficial to them, especially in negotiating prices with buyers, either at the farmgate or at market towns. As

[6] "Bolivia, Programa de Servicios Agropecuarios (1057/SF-BO), Informe de la Misión de Administración, Banco Interamericano de Desarrollo", 20 al 24 de Enero de 2003.
[7] Paraphrased from Chemonics International, PCE-00-99-00003-00, Task Order No. 806, pages 4 and 12.

with market information systems in many developing and developed countries, this service is almost totally subsidized and will most likely have to be into the future.

Regarding the second objective, support to the FDTA-Valleys has also been substantial and significant. Perhaps the best indicator of this is that the project is known principally as *FDTA-Valles* and at times as *MAPA/FDTA-Valles,* but never as "the Chemonics project". Indeed, the institutionalization of the project in the minds of beneficiaries and the public at large is that it is a Valleys-Foundation project. An additional indication of the support being provided by MAPA/Valleys to the FDTA-Valleys is the level of integration between the staffs of each organization. Indeed, unless specifically asked as to the source of their salaries, it was virtually impossible for the evaluation team to distinguish between those that are directly hired by MAPA-Valleys and those that are hired by the Foundation.

Municipalities are also involved in the activities of the project. Over 50 percent of them participate financially in the 15 percent counterpart contribution required by the project in one way or another. Both mayors of Comarapa (onions) and Padilla (*aji*) stated that their municipal councils had agreed to contribute towards the 15 percent because it would not only lead to increases in income among their constituents, but that it would also improve the tax base in the long run upon which their municipalities partially depend.[8] In the Yungas, the mayor of Coroico echoed this view in terms of MAPA achievements in both post-harvest coffee processing and increased prices, and in making steps towards improving tourism planning and infrastructure.[9]

The MAPA project has not worked directly with the Title II cooperating sponsors, either through the FDTA-Valleys or in the Yungas, at least as providers of technical assistance (*oferentes*), which was the original intent of the MAPA Results Framework and the Chemonics contract. In fact, none of the cooperating sponsors have ever submitted a proposal regarding the implementation of a PITA, nor have any of the organizations with which the cooperating sponsors work requested assistance. The reason appears to be one of misunderstandings, misperceptions, differing developmental philosophies, or a combination of all three. While the cooperating sponsors tend to have a welfare or "help the poor" philosophy, MAPA/FDTA-Valleys is implementing a philosophy that is both market and profit driven. Nevertheless, their target beneficiaries are the same; the poor farmers of the country.

However, MAPA has indirectly assisted at least some of the cooperating sponsors. For example, the Baseline Survey[10] conducted by MAPA included the *Altiplano* region specifically to make this information available to those cooperating sponsors working there. In addition, FDTA-Valleys technicians have informally worked with ADRA beneficiaries concerning improved onion technologies.

Finally, to be eligible for assistance under the project all farmer beneficiaries must belong to an organized and legally recognized group, thus satisfying this objective related to farmer groups.

[8] HAM David Quiróz in Comarapa and HAM Carlos Salazar in Padilla.
[9] Enrique Huanca, Mayor of Coroico.
[10] Eduardo Velarde, "Encuesta de Línea de Base, Características de los Hogares Rurales en Bolivia, Valles, Altiplano y Yungas, Año Agrícola 2001-2002" Marzo, 2003.

Moving to the third objective, the FDTA-Valleys is well on its way to becoming an effective and efficient applied agricultural research and extension organization within the SIBTA structure. Its concept of a fusion between the private and public sectors in its management structure, combined with utilizing public and private funding for the public good, is sound and unique in the developing world. It has a highly qualified staff that is supported by a competent and effective Executive Director and Board of Directors. The Board is made up of 12 members with four coming from the public sector and eight from the private sector. Of critical importance, and in contrast to the other foundations within SIBTA, each member represents his/her sectoral area of expertise rather than a geographic area, or other type of constituency. This in practice has resulted in a rather unusual, albeit positive, phenomenon. In the three years of the Board's existence, they have never resorted to a vote, rather preferring to reach a unanimous consensus through apolitical, technical discussions ranging from the selection of new Board members to the approving of new PITAs/PEITs. Furthermore, this human capital is supported and guided by good, clearly written by-laws and enabling regulations that support its potential sustainability.

Regarding its sustainability, a careful and precise definition of the term must be noted. First, MAPA/FDTA-Valleys does not view the sustainability of the Foundation as an end in itself, and prefers to place sustainability of the various commodity chains in the forefront of this issue, i.e., as the newly adopted technologies become "institutionalized" in the minds of direct and indirect farmer beneficiaries, market linkages are cemented, and consumers become accustomed to purchasing a higher quality product, the commodity chain becomes sustainable. Secondly, a distinction must be made between the sustainability of the Foundation's operating costs and the sustainability of its research, technology transfer, and market linkages projects, be they PITAs, PEITs, or PIENs. While at this point in the Foundation's history it is difficult to predict if and when it will become operationally sustainable, the existence of the $8.5 million Trust Fund, the Endowment Fund, and the Patrimony Fund, and the regulations that govern each, would seem to indicate that it holds the potential to become so within the five-year life of the MAPA project, assuming that the two-year option period is exercised.

Sustainability of the Foundation's projects is a different matter. In the US, agricultural research and extension is carried out by both the public and private sectors with fully subsidized basic research and extension being carried out by the Land Grant Universities and the US Extension Service and applied research and extension being carried out by private companies whose cost is passed on to consumers.[11] The expectations for Bolivia should not be any different.

The FDTA-Valleys is part of a national system and will most likely remain so as long as the SIBTA model answers the needs of the Bolivian agricultural sector. As such, the objective of achieving sustainability of the Foundation's projects, in contrast to its operational costs places the issue on the wrong piece of a complicated equation. The former will most likely always require some level of GOB or international donor support, while the latter is most likely achievable.

The fourth objective, "establishing and managing a fully functioning Competitive Fund for Innovation while strengthening the Foundation to take it over," has already been accomplished in large measure with the exception of several constraining issues being applied by the IDB, i.e.,

[11] Public/private collaborative examples also exist, and this model is also the case in many European countries.

the $100,000 per PITA ceiling, a $5,000 ceiling on infrastructure investments per PITA, and an average 390 day PITA approval period (compared to an average 126 days when a PITA is funded with MAPA resources), among others. As was explained in the Background chapter, the FCI is a concept composed of financial contributions from the GOB, the IDB, and various donors including USAID through MAPA. In addition to this conceptual construct, there is also a tangible Competitive Fund for Innovation Trust. This Trust is composed of the original $ 8.4 million grant from the PL-480 Title III GOB Secretariat, plus any funds allocated to both the Endowment or Patrimony Funds. It was originally deposited with the Andean Development Corporation (CAF) as its financial manager, but was later moved to an "off shore" account of the Sun Trust Bank in Miami where lower commissions are charged. The evaluation team believes that the fourth objective in the Chemonics contract pertains to the later Trust, rather than to the former Fund that operates under the constraints, mentioned above, established by the IDB.

MAPA/FDTA-Valleys is currently seeking 501.c3 (non-profit) status in the US so as to avoid US federal income taxes and attract charitable donations from public and private sources in the US. To this end, the FDTA-Valleys, with assistance from a consultant specializing in fund raising, has developed a fund raising strategy that is currently under implementation.

As per the by-laws of the Trust, it is currently overseen by a board composed of up to five members including the President of the Valleys Foundation, a representative from the Vice-Ministry of Agriculture (currently the UCPSA National Coordinator), one or two people nominated by the FDTA-Valleys Board of Directors, and one or two people nominated by donors who have contributed in excess of US$ 1.0 million to the trust. This board can be expanded in the future to include up to two additional members representing the donor community, including USAID.

The fifth objective pertaining to training is also being addressed to the fullest extent possible, although there is no specific line item in the MAPA budget for it. Rather, it is being implemented through the PITA/PEIT process or in fulfillment of the third objective, Support to the Valley's Foundation. Training in this context consists of a myriad of types from the formal training of board members in their duties and responsibilities (Members of the boards of all four foundations are invited to attend.), to field trips within and outside of Bolivia, to "field days" where trainers provide practical demonstrations of improved agricultural technologies and the correct identification and use of agro-chemicals.

The sixth objective, designing and implementing a similar type program in the Yungas region, which was only a potential objective at the time of the signing of the Chemonics contract, became a reality three months later. While the Yungas geographically belongs to the FDTA-Humid Tropics, the Yungas Development Initiative is funded through the Mission's Alternative Development SOT with financing from the Andean Regional Initiative. Nevertheless, the same market-driven, participatory model is being used to generate incomes and employment in the area. In contrast to the MAPA/FDTA-Valleys segment of the project, the MAPA-Yungas segment does not involve the establishment or support of a foundation. Rather, it involves the development of licit income generating alternatives to coca production, both on-farm and off-farm. To date, this has involved the promotion of harvest and post-harvest coffee processing technologies, and the marketing of specialty coffee at premium prices in the Coroico and

Caranavi areas, the planning and design of tourism infrastructure in the Coroico area, and most recently, the revitalization of the tea industry in the Caranavi area. These three initiatives will be dealt with in greater detail in Annex C.

3. The Chemonics Contract: The Results Indicators

The expected results as specified in the contract have been revised over the course of the first two years of project implementation. These revised results as reflected in the Performance Monitoring Plan, September 2002 are as follows:[12] (These are similar to those in the Chemonics contract.)

1. 5,000 rural households having incomes increased by 5 percent per year;
2. 5 percent per year increase in the farm gate value of commodity sales (decreased from the original 25 percent);
3. 3 new/improved sustainable commodity chains;
4. 5,000 rural households benefiting from increased access to technology services;
5. 5,000 rural households benefiting from increased access to marketing services; and,
6. 5 strengthened producer organizations.

These six targets changed somewhat with the approval of the October 2002 to November 2003 FDTA-Valleys Annual Work Plan dated January 2003, which has seven five-year targets, some of which with revised performance indicators as follows:

1. 10,000 rural households having incomes increased by 5 percent per year;
2. 10,000 rural households benefiting from increased access to technology and marketing services;
3. 10,000 rural micro-enterprises strengthened through training;
4. 20 strengthened producer organizations;
5. 3 new sustainable commodity chains;
6. 25 percent per year increase in value of commodity sales; and,
7. Environmentally sound activities.

In the case of either list, the 5,000 or 10,000 figure has been, or will be reached by the end of the first three-year segment of the project depending on a careful dissection and definition of the indicators. The first issue to be pointed out is that neither MAPA/FDTA-Valleys nor MAPA/Yungas are micro-enterprise development projects unless farmers are defined as micro-entrepreneurs. If this is the case, then the micro-enterprise indicator in the second set of indicators is redundant.

As of June 25, 2003, 6,329 farmers among the 13 PITAs/PEITs in full implementation had received training in both technical and marketing assistance from the project. Of these, 3,297 had fully adopted the various technologies to which they had been exposed. Additionally, 2,800 new farmers are programmed to receive training and technical assistance by November 2003 through the five new onion PITAs that have recently been approved and have entered into their

[12] Revised from the original Chemonics contract as reflected in the "Performance Monitoring Plan", September 2002.

initial implementation stages.[13] Adding the actual number of beneficiaries to the programmed number results in approximately 9,200 beneficiaries, which approaches the higher 10,000 target.

Turning to increases in income, of the nine PITAs that have completed one full agricultural cycle beneficiaries report an average 40 percent increase in incomes related to the crop being supported by the PITA, and an average 8 percent increase in overall family income, also surpassing the goals in each group of indicators by an average of 3 percent. While the distinction between gross and net income is not made in any of the indicators, the additional costs to the farmers adopting the new technologies is said to be small involving primarily farm household labor, and at times relatively small amounts of hired labor.

Concerning sustainable, new or improved commodity chains, the MAPA/Valleys project and its 18 PITAs/PEITs are working with five previously existing commodity chains (onions, table tomatoes, table grapes, *ají*, and *locoto*), and two new ones (oregano and berries). As a proxy answer to the question as to whether the commodity chains are sustainable, 93 percent of farmers responded that they would continue to utilize the technologies/marketing channels learned from project technicians once project support was terminated.[14]

The increase in the value of commodity sales is a more difficult indicator to measure since it involves several factors such as the reduction in post harvest losses, the time of sale (at the harvest or several weeks later when prices rise), the relatively longer growing seasons (especially in the case of *locoto*), and the varieties and improved quality of the various crops. Therefore, in this case volume and the average number of farmers reporting increases in their incomes as a result of the crop being assisted by the PITAs/PEITs (81 percent) has been substituted for value as a proxy indicator. With onions, for example, post-harvest losses have been reduced by a range of from 43 to 80 percent, while in the case of *ají* post-harvest losses have been reduced by 60 percent. In the case of *locoto* the volume of production has increased by 50 percent due to a combination of reduced post-harvest losses and a lengthening of the harvest season by more than a month.[15]

As far as the number of organizations strengthened by the project, the answer depends on the definition of the word organization. Bolivians in general and Bolivian farmers specifically are highly organized. Organized groups are members of associations or cooperatives. These are often then organized into federations, *centrales,* or *sindicatos,* which are then organized into larger groups sometimes called confederations. Since one of the selection criteria for a PITA is that farmer groups be formally legalized, all PITAs work with farmer groups at some level. As such, and depending on the unit of analysis that one chooses, between 15 and 20 farmer "groups" are being strengthened through the assistance of MAPA/FDTA-Valleys. The future sustainability of these organizations cannot be answered at this time, since most are new and have only been receiving support from MAPA/Valleys for one crop cycle.

[13] On a PITA/PEIT basis, the variation between programmed and actual beneficiaries varies between plus or minus 10 percent.
[14] Field data collection performed by Gilberto Amaya and Eduardo Velarde as an input to this evaluation.
[15] Ibid.

The only significant shortfall in the expected results is in the level of new technological practices adopted by growers. Only 41 percent of farmer participants in the onion PITAS have adopted the recommended technological practices in their entirety, due principally to a lack of financial resources to finance the improved technologies. On the other hand, in terms of a significant demonstration or multiplier effect in the adoption of recommended technologies, almost half of participating farmers knew of other non-participating growers who were using technologies recommended by the project.

The environmental soundness of the various PITAs/PEITs is addressed in two ways. First, USAID approves each PITA/PEIT according to 22 CFR 216 guidelines. Second, since the MAPA/Valleys approach is to address the most salient, highest potential impact links in any commodity chain, these have in all cases dealt with harvest and post-harvest technologies concerning the existing crops. In the case of the new crops (oregano and berries) both are being grown utilizing organic methods that are deemed environmentally sound.

B. MAPA/Yungas

1. Overview of the Results Indicators

The MAPA/Yungas activity was subsequently added to the Chemonics Contract as a modification (Mod. 01). It falls within Intermediate Result 5: "Yungas Licit Net Household Resources Increased in Targeted Communities", and includes Sub-IR 5.2 "Increased volume and value of sustainably produced licit products marketed from targeted communities", and Sub-IR 5.3 "Increased non-farm employment opportunities on target communities". Within these are Sub-IR 5.2.1 "Improved Access to Markets", Sub-IR 5.2.2 "Improved Access to Agricultural Technology", Sub-IR 5.2.3 "Improved Access to Productive Infrastructure", Sub-IR 5.3.1 "Increased Number of Agricultural Processing Jobs", and Sub-IR 5.3.2 "Increased Number of Artisan, Cottage, Eco-tourism, and Micro-enterprises".

To date MAPA/Yungas has been concentrating on three areas that address the above mentioned Intermediate and Sub-Intermediate Results; specialty coffee in the Coroico and Caranavi areas, tourism planning and the development of tourism infrastructure in the Corioco area, and, most recently, tea in the Caranavi area. Based on the data available to the evaluation team, the quantifiable achievements for the above mentioned indicators were changed in the course of the approval process for the MAPA Yungas Annual Work Plan, October 2002-November 2003. For example, while the Modified Task Order specifies that only 500 coffee growers will be linked to and educated about specialty coffee markets, the Annual Work Plan sets the target at 5,000 growers improving their income by an average of 10 percent over the five year life of the project.

Since the MAPA segment of the overall project does not have a Performance Monitoring Plan (PMP), the evaluation has resorted to using the End of Project Anticipated Results from the Mission-approved MAPA/Yungas Annual Work Plan in order to measure project performance. These are divided into three programmatic areas: Specialty Coffee, Tourism, and Tea.

b. Results Indicators: Specialty Coffee

According to the MAPA/Yungas Annual Work Plan, the five-year End of Project Anticipated Results for Specialty Coffee are as follows:

- Improve income for 5,000 coffee growers by ten percent;
- Sign grant agreements with three additional project collaborators (coffee processors and marketers), with a total value estimated around $700,000;
- Sign grant agreements with three additional project collaborators (promoters of Bolivian specialty coffee), with a total value estimated around $200,000; and,
- Promote the establishment of the Bolivian Specialty Coffee Association (ACEB) by 2004.

As of mid-June 2003, the number of direct beneficiaries receiving MAPA/Yungas support was 1,308. Project staff estimates that by November 2003 an additional 2,000 beneficiaries will have been reached as word spreads concerning the benefits of the MAPA-promoted technological changes in harvest, post-harvest processing, and marketing. It is therefore most likely that the number of project beneficiaries in the specialty coffee component will reach approximately 3,300 by the end of the first three-year segment of the project. It is therefore safe to extrapolate that by the end of the two-year option period, the 5,000 beneficiary goal will have been met, and most likely surpassed by double that amount.

In terms of increases in coffee grower income, the results are variable although all are in excess of the ten percent target. In the Caranavi-Coroico area there are four project-supported *oferentes*, Anditrade, *Centro Nacional de Productores de Café* (CENAPROC), *Central de Cooperativas* (CENCOOP), and Ecogrez, which paid farmers 3.5 percent, 34.1 percent, 44.8 percent, and 21.2 percent respectively in excess of prevailing coffee prices in 2002 for an average increase of 16.3 percent. This was possible because project coffee was being sold as "specialty" and "fair trade" coffee, which receives premium prices in the international marketplace. These percentages, however, do not reflect the true impact of the project on increased income since all four organizations did not begin to purchase coffee until the harvest season had already begun, reportedly due to the timing of the Mission's approval to begin Yungas activities. Additionally, at the request of its "Fair Trade" buyer in Canada, Anditrade did not pay the bulk of the premium paid by the buyer to their farmer suppliers. Rather, the premium was paid into a fund for the college education of the children of the farmer suppliers. Using extrapolation indexes, if these two factors are taken into consideration, the real impact on coffee grower income would average a 41 percent increase in income derived from coffee.

The next two indicators can be combined for simplicity resulting in a five-year target of six project collaborators and grants totaling $900,000. As of June 2003, nine such agreements had been signed totaling approximately $600,000, which includes the four organizations mentioned above, the ACEB, and four others. Lastly, the ACEB was legally established in December 2002.

Lastly, the FAO/C-23 coffee quality improvement program in the Yungas, which is mostly funded by USAID, enables the YDI to extend its activities in this area, greatly expanding the number of beneficiaries that can be reached.

3. Results Indicators: Tourism

According to the MAPA/Yungas Annual Work Plan, the End of Project (five years) Anticipated Results for Tourism development in Coroico are as follows:

- Improve urban planning, including work to gain financing for the following projects:

    1. Urban Plan and Zoning, seek approval for both plans;
    2. Augmentation of the potable water system in Coroico, initiate construction;
    3. Construction of a wastewater treatment plant, initiate construction;
    4. Improvement of trash collection and disposal services, initiate service;
    5. Construction of a bus terminal and marketplace, initiate construction; and,
    6. Construction of a by-pass around Coroico.

- Improve tourist services, including work to implement the following projects:

    1. Conservation of Cerro Uchumachi;
    2. Promotion and Tourism Marketing;
    3. Revitalization of the Tourism industry; and,
    4. Tourism training.

- Increase number of tourist days spent in the Yungas.
- Finance two projects with a total value estimated around $300,000.

In terms of accomplishments to date, the urban plan and zoning plan were approved unofficially in a town meeting, and officially by the municipality and town Promotion Committee. The potable water system plan has been approved, there is a long-term consultant in place, and funding is currently being sought. The plans for the wastewater treatment plant have been completed and approved, and funding is being sought, possibly through the Mission's Alternative Development program. The town council has approved the trash collection and disposal service plan. Land is currently being sought for a landfill and a recycling program is being designed. The bus terminal and municipal market have been approved by the town council, designs have been presented and construction will begin by November at a cost of $300,000[16] The plan for the construction of a by-pass around Coroico has been approved and negotiations with *Caminos Vecinales* have been initiated.

Improvements in tourism services have also begun. The Cerro Uchumachi conservation plan has been approved by the Coroico town council and the communities surrounding the mountaintop. The promotion and tourism marketing and the revitalization of the tourism industry project can be taken as one. In this regard, an international coffee cupping competition is being planned for Coroico in September; steps have been taken for the Ministry of Tourism to declare Coroico as an official "Tourism Community"; two observatories/outlooks are being built, and members of the town council and the promotion committee have made field trips to San Juan Buenavista, Bolivia and Antigua, Guatemala to learn from the tourism experiences there. An increase in the number of tourist days spent in the Yungas is a very difficult indicator to measure, and to gauge

[16] At present, funds are not available within the current budget. The MAPA project will have to wait until the Option Period budget is approved before progressing on this activity.

attribution since it depends on many factors beyond the control of the project, including the completion of a new road between Cotapata and Santa Barbara.

4. Results Indicators: Tea

According to the MAPA/Yungas Annual Work Plan, the End of Project (five years) Anticipated Results for Tea development in the Caranavi region are as follows:

- Increase income for 200 families by 10 percent;
- Increase employment;
- Train at least 200 growers on improved post-harvest handling techniques;
- Introduce new and improved seed and plant varieties; and,
- Finance at least two projects with a total value estimated around $400,000.

The tea activity is too new to be able to report progress on any of the first four indicators. However, the fifth indicator has just recently been achieved with the signing of purchase agreements with the owners of two tea processing plants in the region for a total of approximately $395,000.

V. Conclusions

A. MAPA/FDTA-Valleys

- Progress to date shows that this is a good project. The creation of a combined public sector/private sector agricultural research and extension foundation was well conceived. The concept is also being well implemented and the FDTA-Valleys is well on its way towards maturing into a viable and sustainable research and extension organization. Its strengths and potential depend on a series of factors including: its market and profitability oriented methodology combined with its commodity chain approach, its ability to hire permanent, highly qualified staff, its flexibility in it's operating procedures, its agile funding mechanisms, and its results-based orientation. This conclusion is valid in its own right and in comparison to the other foundations within SIBTA. It can also be concluded that the Intermediate Results and expectations of the EO office of the Mission are being met, as are the Performance Indicators and Expected End of Project Results.[17]

- Nevertheless, a few issues need to be addressed in order to "make a good thing better". The first is that the lack of certainty in the USAID's exercising of its two-year option period inhibits project management in its planning process. Others include the need to streamline the PITA/PEIT/PIEN proposal, analysis, and approval processes to: 1) elicit more private sector or unsubsidized NGOs (*oferentes*) in the service delivery process through a lowering of transaction costs, and 2) shorten the response time between the requests made by farmers and actual service delivery so as to maintain the interest of farmers. There is also a lack of understanding as to the precise definition of sustainability among the GOB, USAID, other donors, and potential *demandantes* and *oferentes*.

- Title II Cooperating Sponsors have not been among the list of potential service providers (*oferentes*) that have submitted bids for the implementation of PITAs. This represents a missed opportunity in terms of synergies that could be mutually reinforcing within the EO office.

- Municipalities have played an important role in supporting PITAs by contributing all or a portion of the required 15 percent to the Foundation's Patrimony Fund. They do not consider this excessive and believe this to be part of their responsibility to facilitate economic growth in their areas.

- The current practice whereby PIENs can only be approved by the UPDT and funded by a combination of IDB and FOCAS resources is a major obstacle to the implementation of the PIEN concept.

- The oregano project is innovative, introducing a new crop into an extremely poor area of Bolivia. It has the potential to have a big impact on increases in income for participating growers. However, the investment in plant and equipment is large, resulting in high cost per beneficiary.

[17] Interviews with Michael Kaiser and Jorge Calvo of the EO office.

- SIMA is a valid and worthwhile activity for the MAPA project to have invested in as is demonstrated by its high percentage of listeners and, of those, who find the information useful.

B. MAPA/Yungas

- The MAPA-Yungas component of the project is also making good progress towards the achievement of its goals, especially given the region where it is working and the unique challenges that this region presents. As this component matures, the need for a Performance Monitoring Plan will become more critical for component managers. The lack of sufficient funding for all of its planned activities will also become an important issue in the future. As is the case with MAPA/FDTA-Valleys, it can also be concluded that the Intermediate Results and expectations of the AD office of the Mission are being met, as are the Performance Indicators and Expected End of Project Results.[18]

- In collaboration with growers, processors, and exporters, the project has succeeded in securing international markets for specialty and fair trade coffee which has contributed to a doubling of cherry coffee prices paid to the growers in the Yungas. Many coffee producers in the Yungas still operate as "extractors" of coffee at harvest time rather than as "coffee growers" who tend to every phase of their crop. This results in the application of few cultivation practices (fertilizing, pruning, protection against diseases and insects) that could easily increase productivity and the quality of coffee.

- Interviews by the evaluation team with municipal authorities and Promotion Committee members indicated that Coroico residents are convinced that greater tourism will result in increased employment and incomes arising from expanded services provided by local residents and fruits and vegetables produced in the area for the tourists.

- The tea activity, while offering less of a potential impact that specialty coffee offers, does hold the potential for offering farmers a viable licit alternative to coca production.

- The Mission funded FAO/C-23 program in coffee quality improvement helps to extend the reach of the of the MAPA/Yungas coffee program.

[18] Interview with Sergio Rivas of the AD office.

VI. Recommendations

A. MAPA/FDTA-Valleys

- USAID should exercise its two-year option period and extend the MAPA project for at least two years. The contractor should be apprised of this as soon as possible.

- The transactions costs of submitting a proposal for a PITA, PEIT, or PIEN should be reduced in order to attract a wider range of bidders, especially those that are not subsidized from other sources. The request-proposal-approval-implementation chain needs to be made even more efficient through a careful analysis of the number of days required in each step of the chain. Both of these could be accomplished by: a) standardizing the documentation and validation process; b) MAPA/FDTA-Valleys staff could actually write its own proposals in response to farmer organization requests and simply ask bidders to respond with budgets and key staff qualifications to implement them; c) the indirect costs and fees of potential bidders could be set at attractive levels based on the representative costs of current bidders/implementers; d) the covering of pre-award proposal preparation costs for the winning proposal by FDTA-Valleys should be considered; and, e) an IQC-type short listing of potential bidders (*oferantes*) should also be considered.

- The use of the term sustainability needs to be clearly defined in the following way: a) the highest priority in terms of sustainability needs to be given to the commodity chains—only then will future evaluators be able to say that the activities supported by the project have become sustainable; and, b) the sustainability of the FDTA-Valleys needs to be disaggregated with sustainability of the operating costs of the Foundation being the goal as opposed to its "investment costs" in the PITAs, PEITs, and PEINs, which will always have to be underwritten by the GOB or the donor community.

- Increased emphasis needs to be placed by the project on institutional strengthening of beneficiary organizations to ensure that there is adequate participation, that the organizations fully comprehend and apply the market-based approach, and that there is appropriate administrative capability for these organizations to become self-sufficient. During the two-year option period, MAPA/FDTA-Valleys should hire an institutional development specialist to cover the organizations receiving assistance from both FDTA-Valleys and the Yungas.

- Project implementers need to focus on achieving technology adoption by the vast majority (80-90 percent) of participants in order to realize the full potential of project interventions on beneficiary incomes and market participation.

- Even though the first phase of the onion, *ají* and *locoto* PITAs did not provide financial support to assist growers in their production, harvest, and post-harvest activities, the follow-on phase needs to consider this option, since many growers cannot adopt the recommended technologies for lack of financial resources. This can be accomplished by

the project establishing its own rotating fund or by accessing the USAID Rural Financial Services project.

- The CTOs for both the MAPA project and the Title II cooperating sponsors request a joint meeting between themselves, the MAPA/FDTA-Valleys staff and the cooperating sponsors to discuss ways in which they can work together. Of importance, however, is that the cooperating sponsors must agree to work within the current commodity chain, market-oriented philosophy of the MAPA project. The payment of the 15 percent by the project beneficiaries would be another issue to resolve.

- Since no PIENs have as yet been presented, much less approved by the UPDT, MAPA/FDTA-Valleys should consider their joint funding with Foundation and FOCAS resources.

- SIMA should continue to be funded through the MAPA project.

B. MAPA/Yungas

- A Performance Monitoring Plan needs to be prepared for this activity in order that there be one centralized information source concerning progress towards goal achievements.

- Funding during the two-year option period needs to finance from three to six of the ten approved tourism development projects. Priority should be given to the urban and zoning plans, the bus terminal, the municipal market, the by-pass road, the sewerage waste and treatment facility, and the potable water system, in that order. This ranking has been determined based on a combination of popular participation in decision making, relative cost, immediate impact, and the potential for assistance from other sources.

- Given the results to date and the large potential of the specialty coffee program (2001-2005), sufficient funding and time need to be ensured to complete the five-year program, thereby consolidating the Yungas' position of high-quality, specialty coffee in international markets, increasing the incomes of a large number of small coffee producers, and containing surplus coca production.

- The tea activity should be continued.

- Funding of the FAO/C-23 coffee quality improvement program should be continued.

VII. The Bolivian System for Agricultural Technology (SIBTA)[19]

A. Findings

The two most important findings based on the interviews conducted by the evaluation team and the appropriate documentation consulted are: 1) that of the 33 PITAs/PEITs funded and implemented to date, more than half of them (54 percent) belong to the FDTA-Valleys. There is also an issue, based on objective criteria, as to the quality and potential of the PITAs being implemented by the other three foundations compared to those being implemented by the FDTA-Valleys, and 2) the institutionalization of the other three foundations compared to the FDTA-Valleys is extremely weak.

The truly confounding finding about these differences is that the SIBTA system is largely affected by the rules, regulations, and procedures of the IDB. Furthermore, the other donors that participate in the FOCAS group and provide support to the other three foundations tend to follow these IDB practices. In often stark contrast, the MAPA/FDTA-Valleys project is not dependent on the IDB for it's funding. (Although two of its PITAS are partially funded by the IDB.) Rather, it is funded by USAID, which has far less rigid procedures that are based on results rather than funds obligated, as is the case with the IDB. Lastly, some of the defenders of the IDB and the other three foundations make the point that it is not fair to compare the four foundations because they began operations at different times; February 2001 for the FDTA-Valleys versus August 2002 for the other three. However, it must be pointed out that all four received their legal status (*personería jurídica*) within two months of each other, and it was the lengthy conditions precedent imposed by the IBD that held up the funding of the FCI and, in turn, the funding of the other three foundations.

The following table draws heavily on the work done by Amaya and Aranibar and divides the issues that differentiate FDTA-Valleys from the other three foundations into five areas: Vision, Human Resources, Methodology, Funding and Economic Resources, and Cross-cutting Themes.

[19] Most of the information in this section is based on interviews with the Executive Directors of the FDTA-Valleys and FDTA-Altiplano, Board members of the FDTA-Valleys, representatives of the IDB in Bolivia, a review of two documents, "Bolivia, Programa de Servicios Agropecuarios (1057/SF-BO), Informe de la Misión de Administración, 20 al 24 de Enero de 2003," IDB, and "SIBTA, Informe final de evaluación bajo la metodología de Asesoramiento Institucional Sectorial", Octubre 2002, and most importantly a verbal presentation by Gilberto Amaya and Ernesto Aranibar entitled, "Análisis Institucional Expedito de las Fundaciones para el Desarrollo Tecnológico Agropecuario (FDTAs) en el Marco del Sistema Boliviano de Tecnología Agropecuaria (SIBTA)".

Table 1: Analysis Matrix Comparing the FDTA-Valleys with the Other SIBTA Foundations

Issues	FDTA-Valleys: Mainly USAID Funded	Other Three Foundations: Totally IDB Funded
1) Vision	Market and Profit Oriented	Production Oriented
	Institutionalization of the System	Regionalization of the System
	Commodity Chains and Programs	Stand Alone Projects
	Systematic Approach	Supervisory Approach
2) Human Resources	Full-time, Permanent Employees	Consultants
	Stimulating Work Environment	Controlling Environment
	Flexible Structure	Rigid Structure
	Dynamic Working Relationship	Conflictive Working Relationships
3) Methodology	Prioritized Activities Based on Markets and Profitability	Activities Based on Producer Demands
	Agile, Proactive Procedures	Slow Procedures and Obstacles
	Capacity to develop/Adjust its own System	Dependency on Slow and Expensive Processes
4) Funding Sources	Accessibility, Flexibility, Confidence	Slow and Uncertain
	Approval Time: 126 days	Approval Time: 390 days
	Based on Results	Based on Processes
	Process is Supportive and Adequate	Slow and Inadequate
	Permanent Workforce	Consultant Workforce
	Funding is Responsive to Agricultural Cycle	Funding is not Responsive to Agricultural Cycle
5) Crosscutting Issues	Dependent on Government Policies that are Linked to IDB Policies	Same
	PEINs Not Being Funded Due to Tedious Procedures	Same
	Lack of Access to Credit	Same
	Access and Management of Water Resources Lacking	Same
	Lack of Clear, Secure Land Titles	Same

B. Conclusions

- There are vast differences between the successes to date of the FDTA-Valleys and the other three foundations. These differences can be traced in large part to the rules, regulations, and procedures of the IDB and the willingness of the FOCAS group donors that partially fund the FCI to go along with the IDB. Many of these limitations have been averted in the case of the FDTA-Valleys because it is supported by the MAPA project and the USAID Mission.

C. Recommendations

- While it would be easy, and perhaps more productive, for the FDTA-Valleys to simply withdraw from the FCI and implement its research and technical assistance activities on its own, this would most likely lead to the rapid demise of the entire SIBTA structure. Since it is recognized that the SIBTA model is a good one, and possibly unique in the developing world holding great potential, the evaluation team recommends that this not be done, at least at this time.

- The MAPA/FDTA-Valleys project in particular, and the USAID Mission in general, should attempt to "work within the system" serving as a model for the IDB, the GOB, and the other foundations. One way to assist in this process is for there to be increased interaction between the FDTA-Valleys and the other foundations. This can be accomplished by the FDTA-Valleys continuing to open its training programs to the other foundations. Likewise, the FDTA-Valleys could offer some of the time of its staff, and that of MAPA, to the other foundations for short periods (One to three days per month, for example.) or, perhaps more efficiently, members of the other foundations could travel to the FDTA-Valleys for Board meetings and/or visit FDTA-Valleys PITAs or PEITs.

- In order to improve the flexibility of the SIBTA system the possibility of joint funding of PITAs, PEITs, and PIENs by MAPA and the FOCAS group should be pursued.

VIII. Environmental Considerations

A. Findings

The Initial Environmental Examination (IEE) for the MAPA project was prepared and approved by USAID/Bolivia in December 1999 with two determinations: a Positive Determination for current crop production improvement, introduction of new crops, and infrastructure improvement, which will require a programmatic environmental assessment (PEA) to be arranged by the EOSOT, and a Negative Determination for training, technical assistance, research, and institutional strengthening. The IEE was subsequently submitted to the LAC Bureau Environmental Officer (BEO) Jeffrey Brokaw, who prepared and signed an Environmental Threshold Decision (LAC-IEE-00-17) on March 13, 2000. That decision concurred with USAID/Bolivia's recommendation of a Categorical Exclusion for "all activities involving training, technical assistance, capacity building, the preparation of studies and workshops, and other actions that will not have an impact on the environment" and a Positive Determination for "activities involving crop diversification, implementation of improved production technologies and other activities that may have a significant impact on the environment."

The EOSOT proceeded to prepare the PEA and submitted the first version to the Regional Environmental Officer (REO) in Bolivia in September 2001. It was returned to the EOSOT by the REO with a request for additional supporting documentation and subsequently resubmitted to the REO in April 2002. It was finally sent to the LAC BEO in January 2003; USAID/Bolivia has not yet received any notification from the BEO as to his review and/or approval.

To date the MAPA project has been supporting harvest and post-harvest, classification, marketing, and storage activities with coffee, onions, berries, peppers, and oregano. Only with the latter two commodities has the project worked with pest and disease control, employing integrated pest management (IPM) actions in both cases and promoting compost and worm castings as organic fertilizers. In no case has the MAPA project procured, promoted or used pesticides with its commodity programs. In the specific case of *locoto*, an environmental impact analysis (EIA) was undertaken with USAID/Bolivia participation, and mitigation measures are being employed, including forestation of land surrounding *locoto* production.

B. Conclusions

- Environmental issues related to commodity programs are being appropriately handled by the project

- The PEA for the project has not yet been approved by the LAC/BEO.

C. Recommendations

- USAID/Bolivia needs to quickly and insistently follow up with the BEO in Washington to secure his approval of the PEA for the MAPA project.

IX. Gender Considerations

A. Findings

The MAPA project does not contain specific programs that target women, either in the workplace or as recipients of technical assistance. Rather it follows a practice of equal access in both areas. In terms of employment, this has meant that approximately half of the professional staff of MAPA/FDTA-Valleys are women who were selected based on their professional qualifications. This is also true in the case of the implementing agencies (*oferentes*) that work with the Foundation, which also show a high number of women performing the jobs of extension agents. Additionally, two of the 24 Board members of the Foundation are women (sitting members, plus alternates).

In the case of project beneficiaries (*demandantes*), many are women and many women accompany their husbands when they attend field trial demonstrations or receive technical assistance on their farms. In terms of employment creation, a majority of new jobs created, be they in coffee processing, tourism development, onion selection and packaging, and others, tend to favor women.

B. Conclusion

- The MAPA project, including FDTA-Valleys and Yungas, appears to be an "equal opportunity employer/provider of technical assistance".

ANNEX A

List of Persons/Organizations Contacted

Coffee Exporters

Nadia Ascarrunz, Vicopex
Dennis Jaldin, Manager, Café y Calidad
Pedro Rodriquez, Anditrade
Carlos Zapata, Technician, Café y Calidad
Roberto Mendoza, Manager Ecogrez

FDTA-Altiplano

Eduardo Alfaro Ross-Executive Director
José Martín Rodgríguez-Board President

FDTA-Valleys

Ricardo Alem, Coordinator, Oregano Program
Lily Alvéstegui, Plant Propagation Specialist
Juan Arévalo, Coordinator, Onion Program
Alvaro Baldivieso Castellaños, Board Member, Tarija
Javier Bellot, Board Member, Cochabamba
Bruce Brower, Chief-of-Party, MAPA
Rodrigo Daza, Coordinator, Locoto Program
Edwin Durán, Board Member, Cochabamba
Freddy Espinoza, Board Member, Cochamba
Edgar Guardia G., Executive Director
Carlos Laserna, Planning Coordinator
Jorge Merino, Board Member, Cochabamba
Marcos Moreno, Agro-business Coordnator
Fernando Quiroga, Board Member, Cochabamba
Enrique Rivas, Coordinator Ají and Tea Program
Willy Soria, President of the Board
Eduardo Velarde, Monitoring and Evaluation
Juan Carlos Villazón, Board Member, Cochabamba
Ramiro Zenteno, Ex-Board Member, Tarija

FOCAS Group

Willi Graf-Swiss Embassy
Gary Montaño-Netherlands Embassy

Government of Bolivia

Ronald Nieme, Vice-Minister of Agriculture
Marco Antonio Oviedo Huerta, Vice-Minister of Alternative Development
Guillermo Ribera Cuellar, National Coordinator, UCPSA
Carlos Roca, Subcoodinator, Planning, Monitoring, and Evaluation, UCPSA

Inter-American Development Bank

Pedro Martel, Economist
Sybille Nünninghoff, Sectorial Specialist
Karin Steinbach, Consultant

MAPA/Yungas

Juan Alvárez, MAPA Coffee Consultant
Miguel Arias, Administrator
Willem J. Boot, MAPA Coffee Consultant
Ratibor Hartmann, MAPA Coffee Consultant
Marcelo Levy, Coordinator

Municipalities

Enrique Huanca, HAM Coroico
José Luis Gonzolez, Councilman, Coroico
Gonzolo Mandez, Municipal Planner, Coroico
David Quiróz C., HAM Comarapa
Carlos Salazar, HAM Padilla
Juana Lourdes Pinell, President, Mancomunidad Yungas

NGOs

Carlos Bajarano, PROIMPA, Padilla
Ernesto Calderon, Promotion Committee, Coroico
Felix Castro, President, CENAPROC
Dayzi Luna, Promotion Committee, Coroico
Victor Mattos, Promotion Committee, Coroico
Federico Magueño, Promotion Committee, Coroico
Oscar Navia, PROIMPA, Coranipampa
Juana Nuñez del Prado, Promotion Committee, Coroico
Pedro Patana, Marketing Specialist, CENAPROC
Mauricio Quintanilla, CAPEC, Tomina
Alvaro Reyes, Promotion Committee, Corioco
Mauricio Rojas, ACDI/VOCA, Comarapa
Gustavo Urquizo, ACDI/VOCA, Mizque

Others

Gilberto Amaya, Consultant, Chemonics International
Ernesto Aranibar Quiroga, Consultant, Chemonics International
Walter Nuñez R., Business and Investment Manager, BCCN
Edwin Ramos, Manager ETNO-ECO-TUR, Coroico
Clem Weber, Consultant AD

Producer Organizations

John Muggeridge, AFRUTAR
Victor Hugo Zamora, AFRUTAR

USAID/Bolivia

Liliana Ayalde, Mission Director
Jorge Calvo, EO/SOT, MAPA CTO
Michael Kaiser, EO/SOT Chair
Edward T. Landau, Deputy Director
Sergio Rivas, AD/SOT, YDI CTO
Angel Vasquez, Food Security, Title II CTO

ANNEX B

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ANNEX C

DETAILED PROJECT RESULTS AND IMPACTS

I. MAPA-Valleys Projects

As of May 31, 2003, FTDA-Valleys is financing 18 projects in the Valleys for a total of $1.9 million through its Competitive Fund for Innovation (FCI). Sixteen of these projects are PITAs and two are PEITs. Of the 16 PITAs funded to date by the FCI, five original PITAs for onions have received additional funding for a second stage, while the other 6 are still in their first stage. Presently, 6,329 farmers are participating in 13 ongoing projects. PITAs are presently financing activities with commodity chains in onions, peppers (*ají* and *locoto*), table tomatoes, and table grapes. The two PEITS are presently financing commodity chains in oregano and berries.

In determining the accomplishments and impacts of the PITAs and PEITs on project participants, the evaluation team took into account three sources of information: the latest quarterly reports for the 9 PITAs/PEITs that have been under implementation for at least one year to determine the degree of attainment of expected results, the consultants' field visits with beneficiaries and project technicians to determine results and identify constraints, and a recent sample survey of project technology adopters for the same 9 projects to measure perceived impact.

FINDINGS

A. Achievements of PITAs

The 5 PITAs with onions were the first to begin operations. One completed implementation in April 2003 (BIOSIS in Chuquisaca and Tarija), three are completing operations in June 2003, and the fifth finishes in August 2003. According to the quarterly reports, with the exception of the PITA in Mizque, they have achieved their expected results in most categories (reduction in post-harvest losses, increase in volume of onions stored and marketed, validation of onion varieties and planting practices, availability of improved onion seed, increase in price of onions paid to growers, establishment of marketing agreements, availability of storage facilities, farmers trained in technological practices, and strengthening of grower associations). The only significant shortfall of expected results is in technological practices adopted by growers. According to the quarterly reports, of the resulting 3,758 farmer participants in the five projects,[20] only 1,548, or 41 percent, adopted the recommended technological practices in their entirety.

There are various explanations for this phenomenon: insufficient mesh bags were available at harvest time for appropriate storage and marketing; in anticipation of the harvest, growers had already promised their crop to intermediaries who provided them inputs and credit during the production process; the use of day laborers to harvest onions required the grower to have cash available immediately, which forced growers to sell their onions at harvest rather than being able to store them for better prices later on; and the belief that increased cost and effort using recommended post-harvest technologies were not sufficiently compensated by higher onion prices.

[20] The original projection of farmer beneficiaries in onions was 3,150.

These reasons are especially true for the PITA in Mizque, where onion growers do not have a diversified source of income to cover increased production and harvesting costs as they occur.

The final report for PITA 001/A with onions implemented by BIOSIS points out the following interesting results:

- The multiplier effect of technology adoption by non-participating growers often occurs when project growers hire nearby non-project growers to assist them in harvesting, drying, classification, and bagging of onions; the hired growers thus learn by doing.
- Realizing the benefits of not selling their onions all at once at harvest, thereby glutting the market and lowering the price paid to growers due to excess supply, project growers are now keeping their onions off the market at harvest, thereby restricting supply and raising the price paid to all growers, even to those who must sell their onions at harvest.
- There are clear advantages to marketing selected and classified dry onions in woven 25 kg. bags instead of the traditional, larger hundredweight jute bags: easier handling by truckers and wholesalers, better storage, and lower post-harvest losses.

In terms of results of PITAs in peppers (both *ají* and *locoto*), they have achieved their expected results in most categories (increase in product quantity and quality, reduction in crop losses and costs of production through appropriate integrated pest management (IPM), increased value of sales of products, farmers trained in IPM, drying and processing products, processing plants constructed or reconditioned, and strengthening of grower organizations). The *locoto* project has also successfully undertaken an environmental impact analysis (EIA) with USAID participation, is implementing mitigation measures, and has forested part of the land surrounding *locoto* production.

As in the case of onions, the rate of adoption of recommended practices by *ají* and *locoto* growers is lower than expected. Of the resulting 1,292 participating farmers,[21] 941, or 73 percent, adopted the recommended technological practices in their entirety. This is due mainly to lack of resources to finance the improved technologies.

The results for the remaining active PITAs (5 for expansion of the onion program, 2 for table tomatoes, and one each for peppers and table grapes) cannot be analyzed as above, since they have less than seven months of implementation and it is too early in the production, processing, and marketing cycle to measure significant results.

B. Achievements of PEITs

The PEIT for oregano and other spices in Chuquisaca has four months remaining in its implementation. It is meeting its expected results in terms of number of participating families, number of hectares of oregano planted and irrigated, and installation of basic post-harvest infrastructure (dryers and essential oils extractors). However, it is behind in the quantity of dehydrated oregano produced and sold. The delays in reaching these goals appear to be caused mainly by the need to create a branch[22] of AGROCENTRAL that specifically deals with oregano and spice

[21] The original projection of farmer beneficiaries in *locoto* and *ají* was 1,200.
[22] Now a separate Complejo Agroindustrial de Procesamiento de Especies y Condimentos (CAPEC).

production, processing, and marketing, in addition to the installation of processing equipment. The quality of oregano grown in the area has tested at three times the content of essential oils as normal oregano, while CAPEC has 8 MT of dehydrated oregano in stock.

Created in March 2003, the CAPEC has two fully equipped and operating processing plants for industrial dehydration of oregano in Tomina and Sopachuy, plus a selection and packaging unit in the central office of AGROCENTRAL in Sucre. With the installation of the two industrial dryers, the drying of oregano has been reduced from 4 days to 1 day. The project has installed an additional 15 traditional dryers in rural areas with difficult access, as well as nine systems of mini-irrigation to grow oregano and other spices. Additionally, 80 percent of the participating growers are using compost and worm castings, which is important for organic production of these spices. Potential markets for dried oregano have been identified in Argentina, Canada, and the United States. With these recent improvements, there is reason to be guardedly optimistic that the PEIT will come close to meeting its expected results in production and marketing within the next four months.

Based on the evaluation team's field observations of the project, there are two concerns with the oregano activity. Although the project is be complimented for establishing what appears to be an efficient, high-technology oregano and spice operation in a poor, needy area of Chuquisaca, the value of the investment in the two dehydration plants (plus additional investment in the proposed essential oils extraction plant) results in very high fixed costs. Also, cost per project beneficiary as compared to the other PEIT and the PITAs is quite elevated. This implies (a) the need to market large quantities of dried oregano at high yet competitive prices in international markets in order to cover operating and investment costs and (b) the need to increase the number of project beneficiaries and resulting production for processing. The consultants understand that to access a profitable, international market in oregano, the product must be processed rather than sold in its original state, and this requires the appropriate processing plant and equipment. Still, there is some question as to the profitability and sustainability of this large investment.

The PEIT for berries and vegetables in Tarija has four more months of implementation before finishing. From the most recent quarterly report, this operation appears to be meeting its implementation expectations as to the number of beneficiaries, area planted to berries and vegetables, and rehabilitation of processing facilities. The experimental nature of the project, the need for adaptive trials on crops that have not been grown before in Tarija, and required propagation of planting materials to be provided the growers result in a low number of programmed and actual beneficiaries, thereby resulting in a high cost per beneficiary. However, the evaluation team was informed by international berry experts that the quality and size of berries being produced in small quantities in Tarija would make them fully competitive with berries produced in other parts of the world.

C. Quantitative Impact on Beneficiaries

From the 9 PITAs/PEITs that have been under implementation for at least one year in Valleys, a sample survey of 147 project participants of the 2,399[23] who were high adopters of

[23] A total of 4,498 beneficiaries were participating in these 9 projects in February 2003 when the sample was selected. The total number of beneficiaries programmed for these 9 projects is 4,830.

recommended technologies as of February 2003 was undertaken by MAPA-Valleys in April and May of 2003.
The following table indicates the situation of beneficiaries as of May 31, 2003.

Table 1. Programmed Participants, Actual Participants, and High Adopters of Technology, by PITA (May 31, 2003)

Nº	Code	Service Provider	Programmed Participants	Actual Participants[24]	High Adopters of Technology
1	001/A	BIOSIS	700	1,046	646
2	001/B	ACDI/VOCA SAIPINA-COMARAPA	250	522	196
3	001/D	ASAR/CNPSH	1,200	1,159	204
4	001/E	CEDES	500	504	427
5	001/F	ACDI/VOCA MIZQUE	500	527	105
6	002/A	PROINPA LOCOTO	400	412	350
7	003/A	PROINPA AJI	800	880	591
8	PEIT 001	AGROCENTRAL	400	333	266
9	PEIT 002	AFRUTAR	80	69	58
		TOTAL	**4,830**	**5,452**	**2,843**

It should be noted that as of May 31, 2003, the MAPA-Valleys project has achieved 113 percent of the programmed level of participants with these 9 PITAs/PEITs with five months remaining in implementation under Phase I of the project. However, only 52 percent of the participants are high adopters of the recommended technologies.

The purpose of the sample survey was to determine project impacts according to the perceptions of the beneficiaries. According to the information in the attached 8 tables, the following results are presented:

- 70 percent of high adopters harvested products with support from the project, ranging from a high of 100 percent with onions in Mizque (Cochabamba) and Saipina-Comarapa (Santa Cruz) and to a low of 33 percent with onions in Vinto-Sipe Sipe (Cochabamba).
- 81 percent of high adopters harvesting products with support from the project considered that their incomes had increased, ranging from a high of 100 percent with onions in Mizque and Vinto-Sipe Sipe to a low of 0 percent with berries in Tarija.
- High adopters considered that their gross incomes had increased an average of 8 percent as a result of all activities related their focus crop, ranging from a high of 30 percent with *locoto* in Colomi (Cochabamba) to a low of 0 percent with berries in Tarija.

[24] Farmers whose organizations have signed agreements with FTDA-Valleys to pay the required 15 percent and who participate in all project activities.

- High adopters considered that their net incomes had increased an average of 73 percent as a result of a specific technological innovation with their focus crop, ranging from a high of 172 percent with onions in Vinto-Sipe Sipe to a low of 10 percent with berries in Tarija.
- 88 percent of high adopters indicated that they are applying all of the recommended technologies, ranging from a high of 100 percent with onions in Mizque and berries in Tarija to a low of 75 percent with onions in Vinto-Sipe Sipe.
- Only 39 percent of high adopters considered that they had positively benefited in their relations with intermediaries/buyers due to better product quality as a result of the project, ranging from a high of 78 percent with onions in Mizque to a low of 0 percent with berries in Tarija.
- 93 percent of high adopters indicated that they would continue to employ the recommended new technologies when the project ends, ranging from a high of 100 percent with onions in Mizque and berries in Tarija to a low of 84 percent with onion seed in the 4 departments.
- 45 percent of high adopters indicated that they knew of other non-participating growers of their product who were using the technologies recommended by the project, ranging from a high of 75 percent with onions Saipina-Comarapa to a low of 11 percent with oregano in Tomina-Sopachuy (Chuquisaca).

These tables suggest that perhaps the most effective project intervention to date has been with onions in Mizque and Saipina-Comarapa and to a lesser extent in Vinto-Sipe Sipe in terms of increased incomes, adoption of recommended technologies, and greater influence over the price of onions because of a higher quality product. A significant demonstration or multiplier effect can also be seen with onions in Saipina-Comarapa, where almost half of the participating growers know of at least one other non-participant grower who is applying project-recommended technologies.

On the other hand, no measurable increase in incomes was noted in the case of berries in Tarija, since the project is still in the adaptive field trial and planting material propagation stage, with project beneficiaries marketing only small quantities of their production. Nevertheless, berry growers in Tarija have a high rate of adoption of the recommended technologies.

D. Future Potential

According to the above analysis, there is still ample room for improvement under the present and expanded PITAs and PEITs, especially in relation to adoption of technological improvements, access to processing, storage and marketing of products, and grower participation in their associations. Some projects (tomatoes, table grapes, berries and vegetables, and oregano) need additional time and project oversight to realize their full potential for increasing incomes.

The MAPA-Valleys project presently has under consideration the funding of 10 additional PITAs for a total of approximately $950,000 for peaches (4), peanuts (3), table grapes (2), and *ají* (1). These focus crops were identified earlier in the commodity chain selection process as crops that have reasonably good market potential and some serious production and marketing problems that can be resolved through appropriate technological improvements. With an extension of the MAPA-Valleys project, there is no reason for the evaluation team to believe that

these 10 PITAs are not appropriately selected and will not have a significant impact on the incomes of participating growers.

CONCLUSIONS

- The harvesting, post-harvest, drying, selection, classification, bagging, and storage innovations that the MAPA-Valleys project is inculcating among onion growers have clearly had a significant impact on the reduction of losses, increased value of onions, and increased quantities of onions marketed at improved prices.

- Municipalities have played an important role in supporting all PITAs by contributing all or a portion of the required 15 percent to the Foundation's Patrimony Fund. They do not consider this excessive and believe this to be part of their responsibility to facilitate economic growth in their areas.

- A number of the beneficiary organizations appear to be weak in terms of numbers of members and representivity, with extreme cases with ASPROCOM in Mizque and AFRUTAR in Tarija.

- The oregano project is innovative, introducing a new crop into an extremely poor area of Bolivia. It has the potential to have a big impact on increases in income for participating growers. However, investment in plant and equipment is large, resulting in high cost per beneficiary.

- The second phase of the MAPA-Valleys project is extremely important, not only to expand the number of commodity interventions, but also to provide more time and opportunity to increase the number of technology adopters, increase participant incomes, and strengthen grower associations and industry chains to become self-sufficient and independent of external assistance, which is not now the case.

RECOMMENDATIONS

- Increased emphasis needs to be placed by the project on institutional strengthening of beneficiary organizations to ensure that there is adequate participation, that the organizations fully comprehend and apply the market-based approach, and that there is appropriate administrative capability for these organizations to become self-sufficient.

- Project implementers need to focus on achieving technology adoption by the vast majority (80-90 percent) of participants in order to realize the full potential of project interventions on beneficiary incomes and market participation.

- Even though the first phase of the onion, *ají* and *locoto* PITAs did not provide financial support to assist growers in their production, harvest, and post-harvest activities, the follow-on phase needs to consider this option, since many growers cannot adopt the recommended technologies for lack of financial resources. This can be accomplished by

the project establishing its own rotating fund or by accessing the USAID micro-finance project.

II. MAPA-Yungas Projects

The MAPA-Yungas project is implementing three components: (a) specialty coffee, (b) support to other promising agricultural activities, especially tea, and (c) tourism. Since MAPA agricultural activities are within the SIBTA agricultural technology generation and dissemination model of commodity chains being implemented in Cochabamba through FTDA-Valleys, the MAPA-Yungas project is not required to subject farmers to coca reduction conditionality in order for them to receive project assistance. However, due to the lack of organizations with substantial and successful implementation experience in the Yungas, with which a competitive process can be undertaken (as is the case in Valleys), MAPA-Yungas has been allowed by USAID to select implementing entities that demonstrate capability and sole source criteria rather than on a purely competitive approach. Also, the MAPA project does not work through a foundation in the Yungas as it does in Valleys.

Expected results of this five-year project in the Yungas as presented in the MAPA-Yungas Work Plan for October 2002 – November 2003 are:

- Increase in household incomes of all project participants by an average of 10 percent
- Increase in the volume of specialty coffee produced and marketed of 5 percent
- Implementation of at least two promising sub-sector commodity chains
- Increase in tourism in Coroico of 10 percent

A. The Specialty Coffee Program

FINDINGS

In order to implement an organized and focused specialty coffee program, the MAPA project prepared a Master Plan for Specialty Coffee, which described the coffee sector, analyzed coffee conditions in Bolivia, analyzed strengths, weaknesses, opportunities, and threats to the Yungas coffee industry, and presented a short- and long-term approach to developing the coffee industry.

In order to determine the impact of the specialty coffee program during its first phase (August 2001-November 2003), the evaluation team has used four sources of information: a Coffee Compendium for 2002 prepared in April 2003; the MAPA-Yungas Annual Work Plan for FY 2003 prepared in January 2003; the consultants' field visits with beneficiaries, project technicians, and contractors of services to determine results and identify constraints; and a recent sample survey of program participants to measure perceived impact.

1. Actions and Achievements

Major efforts during FY 2002 were undertaken by the project in improving post-harvest handling practices, promoting efficient processing techniques, and strengthening local cooperatives and grower organizations. These achievements included:

- Short-term technical assistance to 3,000 growers on appropriate harvest techniques, coffee bean selection, wet and dry milling, and storage
- A study tour to Panama with 24 coffee growers, processors and buyers to observe production and processing of specialty coffee
- A summit meeting of Panama study tour participants in Coroico with other producers in the region to share experiences and infuse enthusiasm for the 2002 coffee harvest
- Attendance of 21 Bolivian coffee producers, buyers, roasters, and exporters to the Specialty Coffee Association of America's (SCAA) annual conference in California where the group met with other coffee specialists and became familiar with the international specialty coffee market
- Signed agreements with Anditrade[25] to modernize its processing facilities through the purchase of state-of-the-art depulping and drying machinery; with Vicopex[26] to move its wet-mill processing facility into the growing region in Caranavi and modernize its facility with a state-of-the-art depulping unit; with Café y Calidad[27] to establish a network of laboratories and coffee testers in the Yungas to control coffee quality; with Ecogrez[28] to expand its exports of free trade coffee from the Yungas to international markets; and with Yungas coffee cooperatives that belong to CENCOOP (Central de Cooperativas) in Coroico and CENAPROC (Centro Nacional de Productores de Café) in Caranavi to upgrade their physical facilities and purchase modern processing and drying equipment
- Implementation of a coffee cupping competition for Yungas coffees. Further discussion of this event will be presented under the future potential section below.

The project's Annual Work Plan for FY 2003 includes the following activities: continue to emphasize improved harvest and post-harvest handling of coffee, and refinement of processing techniques in order to ensure consistency in the quality of coffee; move the wet and dry milling processes of coffee into the Yungas and out of El Alto (La Paz); strengthen producer organizations in administrative, financial, and managerial systems to achieve quality control and better market position for the improved product; oversee the formation of the Bolivian Specialty Coffee Association (ACEB) and facilitate its participation in trade fairs, training, and promotion of specialty coffee from the Yungas; support current efforts to maintain and enhance participation in the specialty, organic and fair-trade coffee markets; introduce a system to collect, analyze, and disseminate market information on coffee; and undertake additional tours, conferences, and competitions on coffee. With three-quarters of FY 2003 now gone, results to date are the following:

- A long-term coffee expert (Ratibor Hartmann) was hired in November 2002 and has been providing continual technical assistance in the Yungas for improved post-harvest production and processing, and training cooperatives and producers groups in technical and administrative functions.

[25] Anditrade is a coffee purchaser, processor and exporter with milling facilities in Caranavi.
[26] Vicopex is a coffee processor with a coffee estate (more than 40 hectares of coffee) in the Yungas.
[27] Café y Calidad is an organization dedicated to coffee quality control and certification.
[28] Ecogrez is a coffee purchaser and exporter in La Paz.

- The ACEB was officially established in December 2002, with the project providing the Association with financing to cover its start-up costs.
- Follow-up study tours to principal coffee growing regions of Costa Rica and Panama were undertaken by growers, processors, and buyers in mid-February 2003 to observe first-hand harvest practices, purchase of cherry coffee at a central processing location, depulping, fermentation, washing, cement patio drying, the use of meshed dryers, dry milling, proper storage techniques, grading and classification, and preparation for export.
- A second group of Bolivian producers, buyers, roasters, and exporters attended SCAA's annual conference in Boston in April 2003.
- With newly installed plants and equipment in Anditrade, CENAPROC and CENCOOP financed by the project, wet and dry milling of Yungas coffee has been transferred to Coroico and Caranavi for the 2003 coffee harvest season.
- Small coffee growers[29] have been convinced to sell their ripe cherry coffee to project-supported coffee processors in the region, instead of trying to process and implement appropriate quality control measures themselves. This allows for consistent quality control, the grower earns more for his coffee, gets paid sooner, and does less work in the process.
- CENCOOP purchased traditional coffee from producers around Coroico for Bs.130/cwt. instead of the local market price of Bs.70/cwt. because the purchased coffee was sold as fair trade coffee; it exported 3 containers (60 MT) of fair trade coffee to Europe through Ecogrez.
- Anditrade purchased traditional coffee from producers around Caranavi for Bs.147/cwt. instead of Bs.80/cwt. as a result of coffee farmers delivering better, more uniform cherry coffee to the processing plant, as well as "social control" at the plant exercised by 40-60 women hired to undertake selection and quality control of the delivered coffee; Anditrade exported 6 containers (120 MT).
- CENAPROC produced and processed 11,000 cwt. of coffee; 3 containers (60 MT) were sold in Europe as specialty-organic coffee, which fetched a premium price of $141/cwt., and 2 containers (40 MT) were sold in the U.S. as fair trade coffee at high prices.
- Planning is underway for the upcoming 2nd Annual Cupping the Mountain's Peak coffee competition in Coroico in September 2003.
- Café y Calidad is training 24 young people from the Yungas in the techniques of coffee cupping; after three months of training they will return to their communities to facilitate quality control.
- The project is providing timely, well-qualified technical assistance to both grower organizations and processors in the Yungas.
- The project has succeeded in securing international markets for specialty and fair trade coffee, which has contributed to a doubling of cherry coffee prices from $10/cwt. to $20/cwt. paid to growers in the Yungas.

2. Quantitative Impact on Beneficiaries

A sample survey of 67 growers, representing 1,308 Yungas participating coffee producers, was designed and carried out by the project in April and May of 2003 to determine the impact of

[29] Those farmers who have 3 hectares or less of coffee.

project activities according to perceptions of the participating coffee growers. According to the attached 5 tables, the following results are presented:

- 78 percent of the growers who harvested coffee with the project considered that their incomes had increased, with a high of 86 percent with CENAPROC producers.
- The average increase in gross income of participating growers calculated by the survey team was 16.3 percent, with a high of 44.8 percent for CENCOOP producers.
- The average increase in net income of participating growers calculated by the survey team was 47.4 percent, with a high of 152.2 percent for CENCOOP producers.
- 46 percent of the growers experienced a positive effect in their relationship with buyers due to better product quality, with a high of 86 percent with CENAPROC producers.
- 82 percent of the growers were applying the technologies taught by the project, with a high of 100 percent with CENAPROC producers.
- 88 percent of the growers indicated that they would continue to use the new technology when the project ends, with a high of 100 percent with CENAPROC producers.

These tables indicate that the coffee growers who were most conscientious in the application of harvest and post-harvest technologies were those with CENAPROC. They also considered themselves to have benefited the most from the project, principally as a result of selling their coffee as specialty-organic and fair trade. This was confirmed by the consultants' interviews with project beneficiaries and by results of the coffee cupping competition, in which CENA-PROC samples were judged as the best and second best. CENCOOP producers also fared well in increased incomes according to survey team calculations. Likewise, it sold much of its coffee as fair trade, which provided it with high prices. Anditrade also exported specialty and fair trade coffee, but the increase in price for fair trade coffee sold in Canada was returned to the growers as scholar-ships for producers' children, which amounted to $19,000 per container. For this reason, the calculation in increased net incomes for Anditrade producers appears as the lowest of the four (only 9.2 percent).

3. Future Potential

Growing conditions for high-quality Arabica Typica coffee is ideal in the Yungas, where 90 percent of Bolivian coffee is grown. Since total Bolivian production is less than two-tenths of one percent of world production, there is little chance that any improvements, either in quality or quantity, will negatively affect world market prices. Although U.S. consumers are not drinking more coffee, they are drinking better coffee, with the specialty coffee market growing very rapidly and accounting for retail sales of $5.3 billion annually. Only 3,269 small coffee pro-ducers of about 20,000 in the Yungas have as yet participated in the project to improve coffee quality for international markets. Much of the traditional commercial Bolivian coffee is known as "surprise coffee" because of its inconsistent quality; this coffee presently receives a stiff price penalty of up to 20 percent in international markets.

However, the base is being laid by the project to reach at least 25 percent of small coffee pro-ducers directly with improved technology. At least as large a multiplier effect is expected on non-project producers using improved harvest and post-harvest technology as they are drawn into the high-quality market by more demanding processors and buyers. And through budding

quality coffee exports to specialty, organic, and fair trade markets, publicity campaigns by the ACEB, attendance at international coffee conferences with high-quality samples, and events such as Cupping the Mountain's Peak, the perception of inferior Bolivian coffee is rapidly changing.

The future potential of Yungas-grown coffee is demonstrated by the Cupping the Mountain's Peak 2002 coffee-cupping event carried out last year in Coroico. Five international cupping experts determined that six of the final ten samples from the Yungas qualified as "specialty coffee," with the head judge stating that CENAPROC's winning coffee[30] could "compare with the best specialty coffee in the world."

CONCLUSIONS

- The MAPA-Yungas project is providing timely, well-qualified technical assistance to grower organizations and processors in the Yungas in the installation and operation of processing equipment, and in selection and quality control of the coffee bean by growers.

- In collaboration with growers, processors, and exporters, the project has succeeded in securing international markets for specialty and fair trade coffee which has resulted in a doubling of coffee prices paid to the growers in the Yungas.

- International observational trips and attendance at coffee conferences financed by the project for participants in the coffee chain have been instrumental in showing how high quality coffee is grown, harvested, selected, and processed and in linking cooperatives and sellers to international markets.

- Growers have clearly experienced increases in prices received and in gross and net incomes from more careful harvest and selection of their coffee beans before delivery to processing plants.

- The Yungas coffee cupping competition has stimulated growers and processors to improve their coffee quality and is changing the concept of Bolivian coffee from that of a "surprise coffee" to one of specialty and high-quality.

- Many coffee producers in the Yungas still operate as "collectors" of coffee at harvest time rather than as "coffee growers" who tend to every phase of their crop. This results in the application of few cultivation practices (fertilizing, pruning, protection against diseases and plagues) that could easily increase productivity and quality of coffee.

- This specialty coffee intervention is likely to be one of the most important USAID activities in the Yungas to contain and/or reduce "surplus" coca production.

RECOMMENDATIONS

[30] CENAPROC's winning score was 85.35 out of 100 possible points; it's goal this 2003 coffee harvest is to surpass 90 points.

- The project should undertake an intensive training program in administration and business management with CENAPROC and CENCOOP directors and Board members in order to consolidate achievements to date and to ensure the institutional sustainability of these cooperatives.

- The project should insist that participating growers undertake necessary cultivation practices that would increase productivity and better quality coffee.

- Given the results to date and the large potential of this specialty coffee program, sufficient funding and time need to be ensured to complete this five-year program, thereby consolidating the Yungas' position of high-quality, specialty coffee in international markets, increasing the incomes of a large number of small coffee producers, and con-taining surplus coca production.

B. The Tourism and Urban Planning Program

FINDINGS

The objective of this component is to improve off-farm income and employment opportunities for people living in and around the Coroico area of the Yungas through increased tourism. According to the MAPA-Yungas Work Plan for October 2002 – November 2003, by the end of the project MAPA will:

- Improve urban planning and infrastructure in Coroico through:
  - Urban planning and zoning
  - Expansion of the potable water system
  - Construction of a waste-water treatment plant
  - Improvement of trash collection and disposal services
  - Construction of a bus terminal and marketplace
  - Construction of a by-pass around Coroico
- Improve tourist services through:
  - Creation and management of the Uchumachi municipal reserve
  - Promotion and tourism marketing
  - Revitalization of the tourism industry
  - Tourism training
- Increase the number of tourist days spent in the Yungas
- Finance two projects with a total value estimated around $300,000

1. Actions and Achievements

During the early months of the first year of operation (October 2001 – September 2002), the MAPA-Yungas team spent considerable effort in the identification of stakeholders and organi-zations that would be interested in collaborating with this program and determining the tourist potential of Coroico. Major actions included:

- Tourism Master Plan prepared by MAPA-Yungas project technicians in early FY 2002.

- A contract signed with Etno-Eco Tur in April 2002 to organize and facilitate meetings with government, private, and civic sectors of Coroico, arrive at a consensus of the priority projects, and then prepare the designs of these projects for review and approval of the various sectors in Coroico and USAID. This effort resulted in a series of transparent community meetings with local stakeholders, representatives of the tourism industry, and the municipal government, in which 50 project ideas were discussed and finally narrowed down to the above 10 priority projects.
- The creation of an ad hoc Coroico Promotion Committee composed of 8 representatives of the government, private, and civic sectors of Coroico to promote and coordinate activities and projects to improve Coroico and surrounding communities.
- An observational trip in August 2002 by a group of 24 local business and governmental leaders from Coroico to Buena Vista, Santa Cruz, to observe an example of community-based "destination tourism" similar to that which Coroico is proposing to undertake.
- A follow-up observational study tour to Antigua, Guatemala, in October 2002 to facilitate an interchange of ideas among Yungas' and Antigua' tourism operators and urban planners as to what has and has not worked in Guatemala, and what could be incorporated into Corcoico's urban process in 2003.

More recently, the MAPA-Yungas project sponsored a tourism and urban planning conference held in Coroico in March 2003 in which Etno-Eco Tur made a public presentation of the 10 priority tourism improvement projects and solicited feedback from the public. Simultaneously, architectural students from the Catholic University in La Paz exhibited their model plans and designs for public works in the town. Some of these created much interest among Coroico residents, especially the design of the bus station, a municipal market and dining area, and scenic overlooks in various key locations in Coroico.

The MAPA-Yungas team is presently assisting in guiding the GOB declaration of Coroico as a national tourist area through the public sector bureaucratic maze. It is hoped that this declaration will be forthcoming in the next 2-3 months. Six of the ten priority projects prepared by Etno-Eco Tur have been reviewed and approved by an external consultant hired by the project and by the Coroico Promotion Committee, with the remaining four to be approved during June. All 10 approved projects should be presented to USAID by the end of July for review and approval, followed by an effort to identify resources to finance them.

2. Future Potential

With the opening of the new road to Coroico some time in 2004, Etno-Eco Tur expects the population of Coroico to double to 4,000 inhabitants by 2013, with 80 percent providing services to tourists and weekend homeowners from La Paz. They estimate that for every tourist there is a need for four service persons, especially women. The GOB declaration of Coroico as a national tourist area[31] would provide it with increased opportunities to fund its priority projects, to train in handling tourists, and to increase publicity for Coroico for tourism at national and international

[31] Although other tourist areas of Bolivia are more frequented by national and international tourists, the formal declaration of a national tourist area requires certain conditions that only Coroico at the time meets. Therefore, it would be the first of its kind and a model for other areas of Bolivia.

levels. There also appears to be a good opportunity for increased tourism as a result of the up coming Cupping the Mountain's Peak coffee event in September 2003.

CONCLUSIONS

- Observational trips financed by the project for Coroico business and governmental leaders to tourist areas inside and outside Bolivia have been important in the conceptualization of what Coroico might be in the future in terms of tourism.

- At present there is a high level of enthusiasm and expectation among Coroico residents to implement some, if not all, of its priority projects, due mainly to the transparent and participatory process in the selection and prioritization of projects. Everyone feels as though each project is hers/his.

- Interviews by the consultants with municipal authorities Promotion Committee members indicated that Coroico residents are convinced that greater tourism will result in increased employment and incomes arising from expanded services provided by local residents and fruits and vegetables produced in the area for the tourists.

- It is important that the municipality of Coroico be officially recognized by the GOB as a priority tourist area, which should contribute to a considerable increase in tourism.

- Everyone interviewed by the consultants agreed that the project should be extended beyond the first phase expiration date of November 2003, since the process is just beginning to show results.

- There is a good opportunity to promote expanded tourism before, during, and after the Yungas coffee cupping event to be held in Coroico in September 2003.

RECOMMENDATIONS

- So as not to lose the enthusiasm of Coroico residents and demonstrate progress, the project should fund at least 2 of the more visible priority projects as soon as possible.

- The project should be extended to a second phase in order to facilitate the implementation of the 10 priority projects and should assist in the identification and securing of funding of these projects.

C. The Tea Program

FINDINGS

The third main program undertaken by the MAPA-Yungas project is supporting other promising commodity chains. In early 2002 the project undertook a series of studies to determine the crops that have the greatest potential in the Yungas. The result was a Master Plan for cash crops in the Yungas, which identified selected crops with potential for providing strong economic returns

over the 26-month duration of the MAPA-Yungas activity. In response to the Vice Minister of Agriculture's request, the project carried out a market feasibility study of stevia, a non-caloric sugar substitute used as a natural sweetener. It was determined that this product has a very limited market outside Japan and, therefore, limited economic feasibility for the Yungas. In August 2002 in collaboration with a local organization, Eco Caranavi, the project conducted a market study for locally grown tea, which indicated that there is a capacity to produce large quantities of high quality tea in the region that could be sold for domestic consumption.

The main purpose of the tea activity in the Yungas is to provide a legal productive alternative to possible coca expansion into the area of Caranavi, i.e., a preventative measure in the effort to limit surplus coca production in the Yungas. It involves the recuperation and expansion of tea production, processing, and marketing for the Bolivian market, which now imports the majority of its tea in bulk from Brazil and Argentina. As indicated in the MAPA-Yungas Annual Work Plan for FY 2003, project interventions strive to improve post harvest handling, packaging, marketing, and information exchange. By the end of year two (September 30, 2003), the project intends to have realized the following results:

- Increased income by 10 percent for 200 tea producing families
- Four workshops on post-harvest handling and management practices for tea implemented
- One grant/contract valued at $100,000 awarded

1. Actions and Achievements

Tea has been produced in Caranavi and Chimate since the 1970s, with two tea-processing plants installed, one in each of the areas. The one of largest tea marketers in Bolivia (Hansa Ltda.) with its Windsor quality tea brand has had difficulty operating its plant in Chimate at full capacity (300 MT annually) due to its own limited demand (30 MT annually), thereby suffering high operating costs. It is also not interested in marketing bulk tea locally. Consequently, Hansa is presently negotiating to sell its plant to the MAPA-Yungas project. The project plans on increasing tea production and productivity, operating the plant at capacity, selling 30 MT of bagged tea to Hansa, and marketing the remaining 270 MT of good quality bulk tea on the Bolivian market to local baggers and marketers. The present 250 tea producers with 400 has. in production for the Chimate plant will be incorporated into the productive aspects of the project.

Likewise, the project is presently negotiating the purchase of the plant in Caranavi with Eco Caranavi. The majority of the 300 has. of tea in Caranavi is of good quality, similar to that in Chimate. However, about 20 percent is grown at higher altitudes and produces a high-quality tea, which can be sold as specialty tea in international markets (Chile and Peru) for a price considerably higher than the local Bolivian price. The present 250 tea producers with 300 has. in production for the Caranavi plant will also be incorporated into the productive aspects of the project.

Since the processing equipment at the plants appears to be in good condition, the major focus of this $1.3 million effort will be on the productive aspects of tea. Yields need to be increased from the present level of 1 MT/ha. to at least 4 MT/ha. for production to be economical. Also, it will be important to attain plant processing efficiency and expand market outlets.

2. Future Potential

The tea activity appears to be a high-risk, high-gain intervention in terms of creating an industry that is viable, profitable, and sustainable, and can act as a deterrent to the expansion of coca production in the area. With efficient production and processing of good quality tea, and a Bolivian demand for tea of 1,000 MT annually, the product should be competitive in the Bolivian market and substitute the poorer quality bulk tea presently imported from Argentina and Brazil. It also appears as though the specialty, high-quality tea can capture some neighboring international markets.

CONCLUSIONS

- There appears to be an opportunity to revive the tea industry in Caranavi and replace inferior, imported bulk tea from Argentina and Brazil in the Bolivian market with local, higher-quality tea from the area, impacting on increased incomes of at least 500 tea producers in the Yungas.

- As the Vice Minister of Alternative Development expressed to the consultants, the main purpose of this tea program is to contain coca crop expansion in the Yungas by providing sustainable, productive alternatives to small farmers in the area.

RECOMMENDATIONS

- Because of the importance of this program in containing coca production expansion, it is imperative that the MAPA-Yungas project continue to provide the necessary technical assistance and financing to ensure that the chain becomes efficient and competitive.

ANNEX D

Statistical Annex

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la Calidad y el Valor de la Cebolla en Santa Cruz (PITA 001/B)

Información General	
Demandantes:	Productores de Cebolla de Saipina y Comarapa
Oferente:	Agricultural Cooperative Development International Volunteers in Overseas Cooperative Assistance (ACDI/VOCA)*
Financiador:	Proyecto MAPA, Municipio de Saipina y Municipio de Comarapa
Periodo:	Julio 2002 – Agosto 2003
Beneficiarios:	250 Familias
Ubicación:	La zona del proyecto está ubicada en los Municipios de Saipina y Comarapa del Departamento de Santa Cruz
Objetivo	El proyecto busca mejorar el ingreso proveniente del cultivo de cebolla en 25% de al menos 250 familias de productores tradicionales de cebolla en los valles de Saipina, Comarapa, Monte Grande y San Isidro, con intervenciones específicas en las áreas de cosecha y poscosecha, comercialización y fortalecimiento organizacional. Las actividades tendrán impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto			
	Programado	**Ejecutado**	**Porcentaje de Ejecución**
Aporte FDTA (Bs.)	690.684,71	453.224,00	65,6%
Aporte al Fondo Dotal (Bs.)	91.180,50	54.173,62	59,41%
Avance Cronológico (meses)	13	10	76,9%
N° de Beneficiarios	250	522	208,8%

Resultados por Componente

Componente	Resultados Esperados	Logros
Cosecha y Poscosecha Reducir 50% de la merma poscosecha de cebolla, que actualmente ascienden a 25% del volumen de producción.	• Incrementar el volumen ofertable de cebolla factible de ser almacenada de 12,5 a 14 t/ha. • 250 Agricultores capacitados en técnicas de cosecha y poscosecha • 156 Agricultores adoptan prácticas de cosecha y poscosecha recomendadas • 390 t de cebolla seca almacenada	• Se ha logrado reducir en promedio el 80% de la merma en poscosecha, incrementando la cantidad ofertable de cebolla a 15 t/ha. • Se ha capacitado a 522 productores en técnicas de cosecha y poscosecha • 196 agricultores han adoptado las técnicas de cosecha y poscosecha • Se han producido 336,12 t de cebolla seca almacenada
Comercialización Introducir y comercializar 15,600 bolsas de 25 kg de cebolla seca en mercados regionales y nacionales.	• Un centro de acopio reactivado y en funcionamiento • 30 actores de la cadena comercial capacitados y motivados • Establecer cuatro contratos de venta	• Se han producido 13.445 bolsas de 25 kg de cebolla seca, de las cuales 10.781 fueron comercializadas en mercados de Santa Cruz. • Se ha capacitado a 12 productores en temas de mercadeo y negociación de precios y a 55 productores en temas de normas de calidad. • Se han firmado cuatro contratos de venta con mayoristas y se ha establecido un convenio con la comercializadora Shadai • Se tiene disponible el ambiente de ASOHFRUT Central en Santa Cruz y un ambiente en San Isidro para almacenamiento de cebolla.
Fortalecimiento Organizacional Conformar y fortalecer una organización de productores	• 100 miembros activos en la organización • 25 socios capacitados y con habilidades mejoradas en negociación y administración • 12 socios capacitados en aspectos contables y financieros	• Se está fortaleciendo a ASOHFRUT filiales Saipina y San Isidro, las cuales cuentan con 33 y 23 socios nuevos, respectivamente, sumando 115 socios entre ambas filiales. • Se han capacitado a 8 socios de ASOHFRUT y 4 de la Cooperativa San Isidro sobre manejo contable y administración

* Este proyecto fue transferido para su ejecución a ACDI/VOCA, luego de haberse resuelto el contrato con AGROBOL S.R.L. que ejecutó el Proyecto desde diciembre/2001 a marzo/2002, ejecutando un gasto de Bs 162.985,79

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la Calidad y el Valor de la uva de mesa en Tarija (PEIT 006/A)

Información General	
Demandantes:	Cooperativa Vitícola La Angostura, Asociación de Productores Vitícolas de Calamuchita (APROVICA), Asociación de Productores Ecológicos APECO-Tarija
Oferente:	AGRO XXI
Colaboradores:	CENAVIT y SENASAG-Tarija
Financiador:	FDTA-Valles - Proyecto MAPA y Municipio de Uriondo
Periodo:	Enero 2003 a Septiembre 2003 (9 meses)
Beneficiarios:	779 Familias asociadas a los demandantes y 50 Comercializadores
Ubicación:	El proyecto abarca cinco zonas (La Angostura, Muturayo, Calamuchita, Concepción y Colón Norte) del Municipio de Uriondo de la Provincia Avilés del Departamento de Tarija
Objetivo	El presente trabajo busca introducir innovaciones tecnológicas en las fases de cosecha y poscosecha, así como el apoyo a la comercialización y fortalecimiento de organizaciones de productores y comercializadores de uva de mesa. Se pretende consolidar un sistema comercial formal y sincero. Se espera lograr un incremento del 20% en los ingresos en al menos el 80% de los beneficiarios.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	747.252,00	541.604,53	72,48%
Aporte al Fondo Dotal (Bs.)	112.087,80	29.418,00	26,25%
Avance Cronológico (meses)	9	5	55,55%
N° de Beneficiarios	829	673	81,18%

Resultados por Componente

Componente	Resultados Esperados	Logros
Cosecha y Poscosecha • Reducir las pérdidas poscosecha por concepto de cambio de empaque, transporte y manipuleo en 50% (calculado en función de la pérdida actual con la caja de 30 kg, que es de 5 kg, desde que sale de finca hasta el consumidor final)	• Capacitar 779 productores en tecnologías apropiadas de cosecha y poscosecha • Al menos 623 productores adoptan las técnicas • Disponer de un paquete tecnológico de cosecha y poscosecha para la uva de mesa	• Se han capacitado a 18 técnicos y 673 productores en aspectos de manejo de la uva durante la cosecha y poscosecha. Hubo apoyo de un experto chileno. • 400 productores reciben asistencia permanente y adoptan las técnicas de cosecha y poscosecha; además de fertilización, subsolado y riego poscosecha • Se dispone de una guía técnica y trípticos con el paquete tecnológico de cosecha y poscosecha. • Se han reducido las pérdidas totales en 53 y 56% con la caja de plástico y de transición, respectivamente, respecto a la caja tradicional.
Comercialización Incrementar el volumen de venta de uva de mesa en finca en al menos 10%, de 190 a 210 cajas/ha	• Introducir y posicionar un empaque apropiado (caja) • 50 comercializadores capacitados y apoyando la innovación • Comercializar 10.800 cajas de uva • Información sobre pérdidas poscosecha y costos de producción generada	• Se ha introducido una caja plástica con capacidad de 18 kg y una caja de madera de transición de 20 kg. • Se ha formalizado la venta de uva por kg y no por caja, con un precio mayor de 1,5 Bs/kg • Se han capacitado a 12 comerciantes en poscosecha. • Se ha generado información sobre producción y comportamiento del mercado a nivel de actores. • Se han comercializado 6.000 cajas de uva en caja plástica y más de 15.000 cajas de transición
Fortalecimiento Organizacional Fortalecer tres organizaciones de productores	• Apoyo en gestión administrativa y técnica en tres organizaciones • Vincular una agrupación de comercializadores con las de productores	• Se han conformado seis nuevas organizaciones comunales como, las cuales están en trámite de Personalidad Jurídica. • Se ha capacitado a dirigentes en gestión organizacional y administrativa.

Resumen Ejecutivo
(a mayo de 2003)

Proyecto de Mejoramiento de la Calidad y el Valor del Tomate de Mesa en el Municipio de Mairana (PITA 005/E)

Información General	
Demandantes:	ASOHFRUT – Filial Mairana
Oferente:	Asociación Menonita de Desarrollo Económico (MEDA)
Financiador:	FDTA-Valles – Proyecto MAPA, Municipio de Mairana
Periodo:	Diciembre 2002 – Noviembre 2003
Beneficiarios:	100 Familias
Ubicación:	El proyecto se desarrollará en las comunidades de Mairana, Tres Quebradas, Hierba Buena Militar, El Nogal, Venadillo, Las Cruces, Pozuelo, La Colpa, Bella Vista, Mandióla, del Municipio de Mairana
Objetivo	El presente proyecto de transferencia y adaptación de tecnología, apunta fundamentalmente al incremento de 20% en los ingresos de productores, principalmente atendiendo al eslabón de producción primaria de la cadena productiva del tomate de mesa, tocando algunos aspectos del eslabón de comercialización. El proyecto dirige su atención a la innovación y fortalecimiento de los conocimientos y prácticas agrícolas de los productores de tomate del Municipio de Mairana.

Avance del Proyecto			
	Programado	**Ejecutado**	**Porcentaje de Ejecución**
Aporte FDTA (Bs.)	731.512,00	239.467,65	32,74%
Aporte al Fondo Dotal (Bs.)	109.728,98	4.350,00	3,96%
Avance Cronológico (meses)	11	5	45,45%
N° de Beneficiarios	100	66	66,00%

*Corresponde al primer anticipo

Resultados por Componente

Componente	Resultados Esperados	Logros
Apoyo a la Producción Incrementar el rendimiento del cultivo en 50% (de 20 a 30 t/ha)	• 100 productores se capacitan en manejo integrado del cultivo de tomate de mesa • 80 productores adoptan las técnicas • Se cuenta con al menos una variedad de mesa difundida • Se reducen los costos de producción en 25% • Se reduce el número de aplicaciones de pesticidas de 18 a 13	• Se han registrado 66 productores para el proyecto a los cuales se capacitó en manejo y control de plagas y enfermedades en almaciguera y plantación (Trichograma, polilla, trips y pulgones) densidades y fertilización orgánica y mineral, poda y manejo de tutoraje. • 20 productores han adoptado las prácticas recomendadas. • Se han reducido dos aplicaciones de productos químicos. • Se ha incrementado en 10% la producción, lo que equivale a 2 t/ha
Cosecha y Poscosecha Reducir en 25% las pérdidas poscosecha	• 100 productores son capacitados en técnicas de selección, clasificación, empaque y transporte • Se introduce y posiciona un nuevo empaque	• 30 productores capacitados en prácticas de buena recolección y selección de frutos. • Se ha realizado un sondeo para el cambio de caja. • Se ha diseñado una caja de madera de 10 kg para el empaque del tomate, la cual se pondrá a prueba el siguiente periodo
Comercialización Incrementar el volumen y valor de venta de tomate de 15.000 a 18.000 Bs/ha	• Se cuenta con al menos tres canales comerciales de tomate de mesa • Se incrementa el precio de venta del tomate en al menos 10%	• Aún no se cuenta con resultados de comercialización. • Se ha contactado a ASOMEX, AFRUTAR y mayoristas para coordinar la comercialización. • No hubo aceptación de la caja plástica por parte de los productores
Fortalecimiento Organizacional Fortalecimiento de ASOHFRUT-Mairana, con 10 asociaciones comunales	• Se ha consolidado 10 organizaciones comunales vinculadas a ASOHFRUT-Mairana • Una red de información sobre la cadena tomate de mesa establecida a nivel de ASOHFRUT-Mairana	• Se han organizado siete asociaciones comunales. • Se ha activado y renovado el Directorio de ASOHFRUT - Mairana. • Se han reactivado 40 socios de ASOHFRUT - Mairana.

Resumen Ejecutivo
(a mayo de 2003)

Desarrollo Hortofrutícola de cultivos competitivos para el Valle Central de Tarija (PEIT 002)

Información General	
Demandantes:	Asociación de Fruticultores de Tarija, AFRUTAR
Oferente:	AFRUTAR
Financiador:	Proyecto MAPA
Periodo:	Julio 2002 a octubre 2003 (15 meses)
Beneficiarios:	80 Familias asociadas a AFRUTAR
Ubicación:	El proyecto abarca 11 comunidades del Municipio de San Lorenzo de la Provincia Méndez del Departamento de Tarija
Objetivo	Difundir cultivos competitivos con material vegetativo introducido de California, Estados Unidos, con el objeto de diversificar la producción de frutas (zarzamoras y frambuesas), hortalizas (espárragos, alcachofa y otros) y flores (calas), mejorando los ingresos de 80 familias y garantizando la comercialización de productos frescos y transformados de manera sostenible.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	466.274,00	308.347,82	66,13%
Aporte al Fondo Dotal (Bs.)	37.462,00	15.357,60*	41,00%
Avance Cronológico (meses)	15	11	73.33%
N° de Beneficiarios	80	47	58,75%

*Monto depositado a junio

Resultados por Componente		
Componente	**Resultados Esperados**	**Logros**
Apoyo a la Producción • Propagar en parcelas comunales plantines de frambuesa, zarzamora, espárrago, alcachofa y calas para difundir variedades mejoradas e híbridas • Introducir plantines de frambuesa, zarzamora de Argentina o EEUU para pruebas semi-comerciales • Fortalecer el manejo técnico hortofrutícola con la asistencia técnica, capacitación, y transferencia tecnológica. • Definir costos de producción y, destino del producto	• 80 Productores mejoran sus sistemas de producción de cultivos hortofrutícolas en una superficie total de 7,75 ha. • Multiplicar material vegetal de zarzamora, frambuesa, espárrago, alcachofa y calas • Establecer dos ha de Frambuesa con 1-2 variedades • Establecer una ha de zarzamora con 3 variedades • Establecer 1,5 ha de espárrago y 1 ha de alcachofa • Establecer 2 ha de frutilla • Establecer 0,25 ha con calas	• Se han capacitado a 69 productores en aspectos de manejo y sanidad vegetal de bayas y hortalizas, con el apoyo de expertos y actividades propias del proyecto • 58 productores reciben asistencia técnica. • Se ha establecido 6,61 ha con bayas y hortalizas. • Se ha establecido 2,5 ha de producción de frambuesa (3 variedades). • Se ha establecido 0,49 ha experimentales con 2 variedades de zarzamora • Se ha establecido 2,25 ha de frutilla • Se ha establecido 0,59 ha de espárrago. • Se ha establecido 0,75 ha de alcachofa. • Se ha implantado 300 m2 de calas
Cosecha y Poscosecha Capacitar en las técnicas de cosecha y poscosecha	• Adecuar las facilidades de enfriamiento en la planta para efectuar el uso de aire forzado • Capacitar 80 familias en técnicas de cosecha y poscosecha	• Se ha implementado el sistema de aire forzado en la planta de frío de AFRUTAR. • Se han diseñado, importado y producido clamshells y flats para la comercialización de berries, así como se ha puesto en circulación una marca para estos productos. • 50 productores capacitados en poscosecha de bayas
Fortalecimiento Organizacional Fortalecer las organizaciones comunales en su ente matriz, AFRUTAR	• Desarrollar 2 módulos de capacitación en organización para mejorar la capacidad de negociación	• Se ha realizado un taller con 33 representantes comunales para analizar Estatutos y Reglamentos de AFRUTAR. • Se ha elaborado el Plan Estratégico Quinquenal 2003-2008 de AFRUTAR.

Resumen Ejecutivo

(a mayo de 2003)

Apoyo a la Producción y Comercialización de Productos no Tradicionales en el Centro y Sud del Departamento de Chuquisaca (PEIT 001)

Información General	
Demandantes:	Agricultores asociados en las cooperativas del sistema de AGROCENTRAL.
Oferente:	Central Local de Cooperativas Agropecuarias de Chuquisaca AGROCENTRAL Ltda..
Colaboradores:	Sociedad de Cooperación para el Desarrollo Internacional, SOCODEVI
Financiador:	FDTA-Valles – Proyecto MAPA, SOCODEVI, AGROCENTRAL
Periodo:	Enero 2002 – Septiembre 2003
Beneficiarios:	400 Familias
Ubicación:	La zona del proyecto está ubicada en las provincias de Tomina, Belisario Boeto, Oropeza y Zudañez del Departamento de Chuquisaca.
Objetivo	El objetivo del Proyecto es contribuir al mejoramiento económico de las familias de 400 pequeños agricultores pobres, tradicionalmente productores con enfoque de subsistencia. El proyecto enfocará sus esfuerzos en introducir cultivos alternativos, con potencial de mercado, llegando hasta el procesamiento y la comercialización.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	1.803.481,00	889.844,63*	49,34%
Aporte al Fondo Dotal (Bs.)	270.522,12	40.578,00	15,00%
Avance Cronológico (meses)	21	17	80,95%
N° de Beneficiarios	400	333	83,25%

*Monto ejecutado a abril del 2003. No se presentó aún el informe de ejecución presupuestaria del mes de mayo 2003.

Resultados por Componente		
Componente	**Resultados Esperados**	**Logros**
Apoyo a la Producción Diversificar la producción agrícola con la producción de nuevos cultivos rentables orientados a mercado.	• 15 hectáreas con riego adaptado • 30 Has de orégano en producción • Producción de 60 TM/año de orégano deshidradato • 3 especies nuevas validadas	• Se cuenta con 23,98 ha de orégano implementadas y en producción. • Se ha concluido la construcción y mejoramiento de nueve sistemas de micro-riego, los cuales irrigan 15.08 ha de orégano (de las 23,98). • Se han incorporado 333 familias al Proyecto con el cultivo de orégano. 266 de ellas aplican las recomendaciones técnicas, como la elaboración de Compost y Biol, para la fertilización orgánica. • Se han producido más de 15 t de orégano deshidratado. • Se han establecido parcelas semi-comerciales de validación, con nuevas especies (comino y anís), en las cinco comunidades del proyecto.
Cosecha y Poscosecha Instalar infraestructura de poscosecha básica	• Dos secadores de campo instalados • Una planta acondicionadora	• Se han instalado dos plantas deshidratadoras de orégano a gas, (Secadores DeCloet) en las Cooperativas de Tomina y Sopachuy, constituyendo el Complejo de Procesamiento de Especias y Condimentos, CAPEC. • Se han efectuado análisis de aceites esenciales de orégano, con resultados muy promisorios. • Se ha dado inicio al contrato de construcción y equipamiento de una planta de extracción de aceites esenciales en la Cooperativa de Tomina.
Comercialización Comercializar productos agrícolas nuevos.	• Un sistema de mercadeo de orégano establecido • Facturación de US$ 100 mil por venta de orégano al año 2	• Se cuenta con un estudio de mercado y estrategia de comercialización. • Se ha facturado la venta de orégano por un monto mayor de US$ 1.200. • Se ha realizado una exportación de prueba de 300 kg de orégano en polvo al Canadá, a un valor de 1.8 US$/kg. • Se cuenta con cerca de 8 t de orégano deshidratado en stock.
Fortalecimiento Organizacional	• Fortalecer las cinco cooperativas de AGROCENTRAL	• Se consolidó la creación de la Unidad de Nogocios de Especias y Condimentos (UNEC) como instancia operativa del proyecto. • Se equiparon las Cooperativas con equipos computacionales, así como también se capacitó a su personal administrativo en el manejo de éstos.

Resumen Ejecutivo

(a mayo de 2003)

Mejoramiento de la rentabilidad del cultivo del Ají en Chuquisaca (PITA 003/A)

Información General	
Demandantes:	Productores de ají de los municipios de Tomina y Monteagudo
Oferente:	La Fundación para la Promoción e Investigación de Productos Andinos (PROINPA)
Colaboradores:	La Fundación Instituto de Tecnología de Alimentos (ITA)
Financiador:	FDTA-Valles – Proyecto MAPA, Municipios de Padilla, Alcalá y Monteagudo
Periodo:	Enero 2002 – Junio 2003
Beneficiarios:	800 Familias
Ubicación:	La zona del proyecto está ubicada en los municipios de Monteagudo, Padilla, Alcalá, Villa Serrano, El Villar concentrando a las principales comunidades productoras de ají del Departamento de Chuquisaca.
Objetivo	El objetivo de la propuesta es reducir las pérdidas de producción, cosecha y poscosecha de 800 productores de ají en la región central de Chuquisaca. La reducción de pérdidas incrementará el ingreso generado por el cultivo del ají en aproximadamente 30%, principalmente debido a un incremento sustancial en la cantidad de producto de calidad ofertado y, en menor medida, debido a ahorros en los costos de producción y poscosecha.

Avance del Proyecto			
	Programado	**Ejecutado**	**Porcentaje de Ejecución**
Aporte FDTA (Bs.)	666.364,00	602.413,20	90,40%
Aporte al Fondo Dotal (Bs.)	108.800,00	51.740,00	47,56%
Avance Cronológico (meses)	18	16	88,88%
N° de Beneficiarios	800	880	110,0%

Resultados por Componente

Componente	Resultados Esperados	Logros
Apoyo a la Producción Reducir de 28% a 14% las pérdidas ocasionadas por plagas y enfermedades del cultivo de ají (80% de los beneficiarios)	• 800 Agricultores capacitados en manejo integrado de plagas y enfermedades (MIP) • 640 agricultores adoptan prácticas MIP • Se reducen los costos de producción en 10% en etapa de cultivo	• Se cuenta con 25 Escuelas de Campo (ECAs) en Chuquisaca Centro y 13 en comunidades de Monteagudo. Se ha capacitado a un promotor por ECA, para apoyar el trabajo de asistencia técnica en control de plagas durante las fases del cultivo. • Se han capacitado a 222 mujeres y 658 varones en selección de semilla, manejo de almacigueras, control de Dumping off, conceptos MIP, precaución y cuidado en el uso y manejo de plaguicidas y en el control de la mosca del ají, roya y "chorrera". • 591 productores adoptan técnicas MIP. • Se ha reducido en 30% las pérdidas en almaciguera, provocadas por el Dumping off. • Se ha reducido entre el 80 al 90% el daño e incidencia de la mosca del ají, controlando la "chorrera", lo que significa un incremento en la producción de 244 kg de vaina/ha. • Se ha capacitado a 95 mujeres y 287 varones en elaboración de costos. • Se han introducido dos variedades de chile procedentes de México, para su validación.
Cosecha y Poscosecha Reducir de 23% a 10% las pérdidas en el proceso de deshidratado del ají a nivel del 80% de los agricultores beneficiarios	• Validación adaptativa y participativa de métodos de deshidratación • 800 agricultores capacitados en poscosecha • 540 agricultores adoptan	• Se han probado cinco técnicas artesanales de secado, apoyadas con análisis de laboratorio y se ha determinado la difusión de una de ellas, capacitando a 151 mujeres y 387 varones agricultores en poscosecha y secado • Se ha reducido el 60% de las pérdidas poscosecha, respecto de la tecnología tradicional. • Se han capacitado a 400 productores en transformación del ají, en pastas y salsas. • Se han elaborado, experimentalmente, con grupos de madres, 150 frascos de 200 g de pasta y salsa de ají, respectivamente • Se ha concluido la construcción de tres secador artesanales de ají, habiéndose realizado pruebas de secado controladas, en uno de ellos.
Fortalecimiento Organizacional Fortalecer a tres organizaciones de productores	• Líderes y socios de las organizaciones capacitados en gestión y mercadeo	• Se han aprobado los Estatutos y Reglamentos de la Asociación de Productores de Ají y Maní de Chuquisaca Centro APAJIMPA. Personalidad Jurídica en trámite. • Se han entregado equipos de computación para beneficiar a APAJIMPA y APAA (Alcalá). APAJIMPA ya cuenta con oficinas en la Sub-Prefectura de Padilla. En Chuquisaca Sud se viene trabajando en actividades de fortalecimiento con las Asociaciones APROMAJI de Sauces y Pedernal. • Se han capacitado a 175 socios de las asociaciones en aspectos de gestión organizacional, administrativos y de negociación. • Se ha realizado un viaje de captura tecnológica a Tampico, México

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la Calidad y el Valor de la Cebolla en Mizque (PITA 001/F)

Información General	
Demandantes:	Productores de Cebolla de Mizque
Oferente:	Agricultural Cooperative Development International Volunteers in Overseas Cooperative Assistance (ACDI/VOCA)
Financiador:	FDTA-Valles – Proyecto MAPA, Municipio de Mizque
Periodo:	Diciembre 2001 – Junio 2003
Beneficiarios:	500 Familias
Ubicación:	La zona del proyecto está ubicada en el Municipio de Mizque, Departamento de Cochabamba
Objetivo	El proyecto busca mejorar el ingreso proveniente del cultivo de cebolla en 25% de 500 familias de productores tradicionales de cebolla en el área de Mizque, con intervenciones específicas en las áreas de cosecha y poscosecha, comercialización y fortalecimiento organizacional. Las actividades tendrán un impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	698.000,00	383.900,00	55,0%
Aporte al Fondo Dotal (Bs.)	97.384,00	48.692,00	50,0%
Avance Cronológico (meses)	18	17*	94,44%
N° de Beneficiarios	500	527	105,4%

* A solicitud del oferente, los indicadores de adopción y un estudio de comercialización de cebolla seca seleccionada, serán medidos en octubre del 2003

Resultados por Componente

Componente	Resultados Esperados	Logros
Cosecha y Poscosecha Reducir 50% de la merma poscosecha de cebolla, que actualmente asciende a 40% del volumen de producción.	• Incrementar el volumen ofertable de cebolla factible de ser almacenada de 25 a 30 t/ha. • 500 Agricultores capacitados en técnicas de cosecha y poscosecha • 400 Agricultores adoptan prácticas de cosecha y poscosecha recomendadas • 625 t de cebolla seca almacenada	• Se ha logrado reducir 43% de las pérdidas; se incrementó el volumen a 29,25 t/ha • 527 Productores capacitados • 105 productores han aplicado totalmente las prácticas recomendadas. • Cerca del 60% de los capacitados adoptan parcialmente la tecnología, debido a la dinámica de precios y a la necesidad económica de cada productor • Se han producido 299 t de cebolla seca
Comercialización Introducir y comercializar 25.000 bolsas de 25 kg de cebolla seca en mercados regionales y nacionales.	• Un centro de acopio reactivado y en funcionamiento • 150 actores de la cadena comercial capacitados y motivados • Establecer cuatro contratos de venta	• Se han comercializado 12.992 bolsas de 25 kg de cebolla seca • Se han capacitado a 152 actores de la cadena en temas relacionados a comercialización y mercadeo • Un estudio y estrategia de comercialización de cebolla desarrollados • Se tienen tres contratos de venta de cebolla seca embolsada con mayoristas y un convenio con la empresa comercializadora Shadai
Fortalecimiento Organizacional Conformar y fortalecer una organización de productores de cebolla en Mizque	• 200 miembros activos en la organización • 25 socios capacitados y con habilidades mejoradas en negociación y administración • 30 socios capacitados en aspectos contables y financieros	• Se ha conformado la Asociación de Productores y Comercializadores de Mizque ASPROCOM. Actualmente en trámite de Personalidad Jurídica. • Se cuenta con 63 socios activos y 93 pasivos. • 35 socios han sido capacitados en temas administrativos y contables. • 37 socios capacitados en temas de negociación. • Un acuerdo comercial entre ASPROCOM y Shadai

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la Calidad y el Valor de la Cebolla en Santa Cruz (PITA 001/B)

Información General	
Demandantes:	Productores de Cebolla de Saipina y Comarapa
Oferente:	Agricultural Cooperative Development International Volunteers in Overseas Cooperative Assistance (ACDI/VOCA)*
Financiador:	Proyecto MAPA, Municipio de Saipina y Municipio de Comarapa
Periodo:	Julio 2002 – Agosto 2003
Beneficiarios:	250 Familias
Ubicación:	La zona del proyecto está ubicada en los Municipios de Saipina y Comarapa del Departamento de Santa Cruz
Objetivo	El proyecto busca mejorar el ingreso proveniente del cultivo de cebolla en 25% de al menos 250 familias de productores tradicionales de cebolla en los valles de Saipina, Comarapa, Monte Grande y San Isidro, con intervenciones específicas en las áreas de cosecha y poscosecha, comercialización y fortalecimiento organizacional. Las actividades tendrán impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	690.684,71	453.224,00	65,6%
Aporte al Fondo Dotal (Bs.)	91.180,50	54.173,62	59,41%
Avance Cronológico (meses)	13	10	76,9%
N° de Beneficiarios	250	522	208,8%

Resultados por Componente

Componente	Resultados Esperados	Logros
Cosecha y Poscosecha Reducir 50% de la merma poscosecha de cebolla, que actualmente ascienden a 25% del volumen de producción.	• Incrementar el volumen ofertable de cebolla factible de ser almacenada de 12,5 a 14 t/ha. • 250 Agricultores capacitados en técnicas de cosecha y poscosecha • 156 Agricultores adoptan prácticas de cosecha y poscosecha recomendadas • 390 t de cebolla seca almacenada	• Se ha logrado reducir en promedio el 80% de la merma en poscosecha, incrementando la cantidad ofertable de cebolla a 15 t/ha. • Se ha capacitado a 522 productores en técnicas de cosecha y poscosecha • 196 agricultores han adoptado las técnicas de cosecha y poscosecha • Se han producido 336,12 t de cebolla seca almacenada
Comercialización Introducir y comercializar 15,600 bolsas de 25 kg de cebolla seca en mercados regionales y nacionales.	• Un centro de acopio reactivado y en funcionamiento • 30 actores de la cadena comercial capacitados y motivados • Establecer cuatro contratos de venta	• Se han producido 13.445 bolsas de 25 kg de cebolla seca, de las cuales 10.781 fueron comercializadas en mercados de Santa Cruz. • Se ha capacitado a 12 productores en temas de mercadeo y negociación de precios y a 55 productores en temas de normas de calidad. • Se han firmado cuatro contratos de venta con mayoristas y se ha establecido un convenio con la comercializadora Shadai • Se tiene disponible el ambiente de ASOHFRUT Central en Santa Cruz y un ambiente en San Isidro para almacenamiento de cebolla.
Fortalecimiento Organizacional Conformar y fortalecer una organización de productores	• 100 miembros activos en la organización • 25 socios capacitados y con habilidades mejoradas en negociación y administración • 12 socios capacitados en aspectos contables y financieros	• Se está fortaleciendo a ASOHFRUT filiales Saipina y San Isidro, las cuales cuentan con 33 y 23 socios nuevos, respectivamente, sumando 115 socios entre ambas filiales. • Se han capacitado a 8 socios de ASOHFRUT y 4 de la Cooperativa San Isidro sobre manejo contable y administración

* Este proyecto fue transferido para su ejecución a ACDI/VOCA, luego de haberse resuelto el contrato con AGROBOL S.R.L. que ejecutó el Proyecto desde diciembre/2001 a marzo/2002, ejecutando un gasto de Bs 162.985,79

Resumen Ejecutivo

(a mayo de 2003)

Mejoramiento de la calidad y el valor del Locoto en Colomi (PITA 002/A)

Información General	
Demandantes:	Productores de Locoto de Colomi, Asociación Agropecuaria campesina CORACA-PROTAL
Oferente:	La Fundación para la Promoción e Investigación de Productos Andinos (PROINPA)
Colaboradores:	Centro de Promoción Bolivia, CPROBOL; SACI y Programa de Alimentos PAPNMA de la UMSS
Financiador:	FDTA-Valles – Proyecto MAPA, Municipio de Colomi
Periodo:	Diciembre 2001 – Junio 2003
Beneficiarios:	400 Familias
Ubicación:	La zona del proyecto está ubicada en el Municipio Colomi del Departamento de Cochabamba.
Objetivo	El proyecto busca mejorar el ingreso, proveniente del cultivo de locoto en 25% de 400 familias de productores tradicionales de locoto en más de 15 comunidades de los Cantones de San Julián y Tablas Monte del Municipio de Colomi, con intervenciones específicas en el Manejo Integrado del Cultivo (MIC), la mejora de las instalaciones y procesos de transformación de locoto en polvo, prospección del potencial comercial y fortalecimiento organizacional. Las actividades tendrán un impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	631.069,00	558.050,89	88,43%
Aporte al Fondo Dotal (Bs.)	94.600,00	20.600,00	21,76%
Avance Cronológico (meses)	18	17	94,44%
N° de Beneficiarios	400	412	103,0%

Resultados por Componente

Componente	Resultados Esperados	Logros
Apoyo a la Producción Mejorar la calidad y el volumen del locoto fresco y seco, con la aplicación de técnicas de Manejo Integrado del Cultivo (MIC)	• Incrementar el volumen de producción de 11,5 a 14,4 t/ha • Reducir los costos de producción del cultivo en al menos 10% • Capacitar a 400 productores en técnicas de manejo integrado • Al menos 80% de los productores capacitados adoptan las prácticas recomendadas • Validar prácticas de manejo integrado • Determinar costos de producción de locoto fresco y en polvo	• Se ha incrementado el volumen de producción promedio en 50% (hasta 17 t/ha); en parcelas demostrativas (22) se incrementó entre el 100 al 600% el rendimiento del cultivo. • Se ha reducido hasta el 50% en los costos de producción a través de la reducción de pesticidas, de 9.500 a 4.750 Bs/ha. • Se han incorporado y capacitado permanentemente a 412 productores en 15 Escuelas de Campo comunales. Adicionalmente se han capacitado a 150 productores ajenos a las ECAs • Existen 350 productores que adoptan las técnicas MIC • Se han evaluado los costos de producción y validado prácticas de manejo integral, en 22 parcelas demostrativas. • Se han caracterizado cerca de 200 ecotipos de locoto de la zona
Cosecha, Poscosecha y Transformación Mejorar los procesos de deshidratación del locoto	• Realizar un relevamiento y reacondicionamiento de dos plantas procesadoras de locoto • Capacitar a 50 socios en prácticas de deshidratado y buenas prácticas de manufactura	• Se han evaluado dos plantas procesadoras de locoto en polvo de CORACA-PROTAL, una de ellas fue refaccionada. • Se ha instalado y equipado un horno industrial a gas, donde se han realizado pruebas de deshidratado. • 412 participantes de las ECAs se capacitan en cosecha y poscosecha del locoto en fresco
Comercialización Gestionar la apertura de mercados para el locoto en fresco y en polvo	o Incrementar el valor de ventas de locoto fresco y en polvo en 15% o Realizar un estudio y estrategia comercial para el locoto fresco y en polvo o Contar con al menos un acuerdo o contrato comercial	• Se han comercializado 6.000 t de locoto fresco seleccionado y clasificado • Se ha realizado un estudio de comercialización y apertura de mercados para el locoto fresco y en polvo • Se ha realizado un viaje de captura tecnológica a Tampico, México con agricultores, industriales y comercializadores de locoto y técnicos del oferente
Fortalecimiento Organizacional Fortalecer cuatro organizaciones de productores	o Fortalecer a dos organizaciones existentes de CORACA-PROTAL Fortalecer a dos organizaciones nuevas	• Se viene trabajando en forma coordinada con CORACA-PROTAL y con la Asociación Central para la Producción de Locoto (ACEPLO), esta última constituida con apoyo del Proyecto. • Se ha dotado de equipos computacionales a CORACA-PROTAL

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la calidad de la semilla y el valor de la cebolla en los Valles (PITA 001/D)

Información General	
Demandantes:	Productores de Semilla de los Valles de Mizque, Saipina, Comarapa, Valle Bajo y Central
Oferente:	Asociación de Servicios Artesanales y Rurales (ASAR) y Centro Nacional de Producción de Semillas de Hortalizas (CNPSH)
Financiador:	FDTA-Valles – Proyecto MAPA, diferentes Municipios y CNPSH (gestiones de venta de semilla y manuales técnicos)
Periodo:	Diciembre 2001 – Junio 2003
Beneficiarios:	1200 Agricultores
Ubicación:	La zona del proyecto está ubicada en los Municipios de Capinota, Sipe Sipe, Mizque, Departamento de Cochabamba; El Puente, Departamento Tarija; Las Carreras y Culpina, Departamento de Chuquisaca; Saipina y Comarapa, Departamento Santa Cruz
Objetivo:	El proyecto busca mejorar en 7% el ingreso, proveniente del cultivo de cebolla, de 960 agricultores tradicionales de cebolla, elevando los rendimientos y la calidad de la producción hortícola nacional a través de la incorporación de semilla de alta calidad, nuevas variedades y épocas adecuadas de siembra. Las actividades tendrán un impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	641.422,00	590.900,32*	92,12%
Aporte al Fondo Dotal (Bs.)	96.213,30	31.059,55	32,28%
Avance Cronológico (meses)	18	17	94,44%
N° de Beneficiarios	1.200	1.159	96,58%

*Ejecución al mes de abril. No fue entregada la ejecución a mayo.

Resultados por Componente

Componente	Resultados Esperados	Logros
Apoyo a la Producción Introducir y validar 36 variedades de cebolla en dos épocas de siembra y en seis zonas de valle del País; Obtener al menos dos variedades de buena adaptación por zona y época de siembra	• Validar 36 variedades primera época de siembra • Validar 36 variedades segunda época • 1.000 kg de semilla fiscalizada son difundidos y vendidos para mejorar la calidad de la producción • Elaboración de un manual sobre el cultivo de cebolla • Capacitar a 1.200 agricultores en técnicas de producción y uso y manejo de semilla de alta calidad • 960 agricultores adoptan técnicas recomendadas y utilizan semilla de calidad	• Se han evaluado 36 variedades en la primera época de siembra (invierno), para la cual se cuenta con 6 variedades de cebolla amarilla y una blanca promisorias para las zonas de los Valles. o Se han evaluado 42 variedades en una segunda época de siembra. El análisis estadístico y de comportamiento varietal, será presentado con el informe final del proyecto, el mes de julio. o Se han vendido y difundido 2.313 kg de semilla fiscalizada, llegando a cerca de 908 familias (ca. 400 ha) • Se ha elaborado un manual del cultivo de cebolla. • Se han capacitado a 1.159 agricultores. • 30 productores han cooperado en los ensayos y cerca de 174 productores han aplicando las técnicas recomendadas.

Fortalecimiento Organizacional	• Una Asociación en Playa Ancha • Una Asociación en Sipe Sipe • Establecer una canal fiable de distribución de semilla fiscalizada • 2.400 bolsas de ½ kg de semilla fiscalizada disponibles para comercializar • Ocho convenios de comercialización	• Las Asociaciones de Productores Hortícolas de Playa Ancha (ASEHPLA) y de Quiroz Rancho (APAQ), cuentan con Personalidad Jurídica. • Se han producido 2.400 bolsas de semilla fiscalizada de ½ kg, con diseño y marca (Valle de Oro) nuevos y empaque apropiado. • Se han hecho acuerdos comerciales con la AAIRC en Culpina y un Proveedor de Tarija (Ivar Garzón) • Se cuenta con una red de distribución de semillas
Organizar y fortalecer dos organizaciones de productores		

Resumen Ejecutivo
(a mayo de 2003)

Mejoramiento de la Calidad y el Valor de la Cebolla en el Valle Bajo (PITA 001/E)

Información General	
Demandantes:	Productores de cebolla de los Municipios de Sipe Sipe y Vinto
Oferente:	Centro para el Desarrollo (CEDES)
Financiador:	FDTA-Valles – Proyecto MAPA, Municipios de Sipe Sipe y Vinto
Periodo:	Diciembre 2001 – Junio 2003
Beneficiarios:	500 Familias
Ubicación:	La zona del proyecto está ubicada en los Municipios de Capinota, Quillacollo, Vinto, Sipe Sipe, Colcapirhua y Tiquipaya, Departamento de Cochabamba
Objetivo	El proyecto busca mejorar el ingreso proveniente del cultivo de cebolla en 25% de 500 familias de productores tradicionales de cebolla en el área del Valle Bajo y Central de Cochabamba, con intervenciones específicas en las áreas de cosecha y poscosecha, comercialización y fortalecimiento organizacional. Las actividades tendrán un impacto significativo en la calidad del producto y por ende en su valor comercial.

Avance del Proyecto

	Programado	Ejecutado	Porcentaje de Ejecución
Aporte FDTA (Bs.)	465.000,00	314.621,34*	67,66%
Aporte al Fondo Dotal (Bs.)	69.750,00	46.500,00	66,67%
Avance Cronológico (meses)	18	17	94,44%
N° de Beneficiarios	500	504	100,8%

*Ejecución al mes de abril. No fue entregada la ejecución a mayo.

Resultados por Componente

Componente	Resultados Esperados	Logros
Cosecha y Poscosecha Reducir 50% de la merma poscosecha de cebolla, que actualmente asciende a 40% del volumen de producción	• Incrementar el volumen ofertable de cebolla factible de ser almacenada de 11,5 a 13,8 t/ha. • 500 Agricultores capacitados en técnicas de cosecha y poscosecha • 460 Agricultores adoptan prácticas de cosecha y poscosecha. • 458 t de cebolla seca almacenada	• Se ha logrado reducir 50% de la merma poscosecha; se incrementó el volumen a 13,8 t/ha • 504 socios productores capacitados en tecnologías de cosecha y poscosecha. • 427 productores han adoptado la tecnología en diferente grado. • Se han secado y almacenado 521 t de cebolla
Comercialización Introducir y comercializar 18.000 bolsas de 25 Kg. de cebolla seca en mercados regionales y nacionales.	• Un centro de acopio construido y en funcionamiento • Establecer cuatro convenios de vinculación comercial. • 500 actores de la cadena comercial capacitados	• Se han comercializado 20.840 bolsas de 25 kg de cebolla seca en los mercados de La Paz, El Alto, Oruro y Riberalta, además de los locales • 504 agricultores capacitados en temas comerciales • Un centro de acopio construido y en funcionamiento. • Tres contratos comerciales de cebolla firmados.
Fortalecimiento Organizacional Organizar y fortalecer a una organización de productores	• Elaboración de Estatutos y Reglamentos • Una Directiva operando activamente • 500 miembros activos	• Se creó la Asociación de Productores de Cebolla del Valle Central y Bajo (ASOPROC), cuya Personalidad Jurídica es RP No. 004/03 • Se cuenta con una Directiva activa y 504 socios. De éstos, 216 tienen sus cuotas al día. • ASOPROC adquirió un terreno donde se construyó el Centro de Acopio, con aportes propios y el apoyo del Municipio de Sipe Sipe y la FDTA-Valles.

ANNEX E

Information Collection Guideline

I. Overarching/General Questions

- Is MAPA meeting the objectives of the Results Package and Contract?
- Is MAPA meeting the expectations of the EO office and the Mission given current needs and objectives?
- How may MAPA compliment and serve the projected strategy and future objectives of the Mission?
- Are there modifications to MAPA activities that will better support Mission objectives?

II. Poverty Reduction (Source: Interviews and Baseline Surveys)

A. MAPA/Valleys

- Have MAPA activities led to increased incomes among intended beneficiaries? Crop by crop, traditional and non-traditional, which have received MAPA assistance for at least one crop cycle. Include future directions/potential. Include impact of increased incomes on intended beneficiaries and communities.
- Do new crops, those with less than one crop cycle, hold the potential for positive benefits?
- Have there been income spillover/demonstration effects in surrounding communities not receiving MAPA assistance? Include an assessment of expansion potential.
- Have MAPA activities reached their targets in terms of beneficiaries and increased income?
- If MAPA is to be extended, can increases in the number of beneficiaries and income be expected to increase?
- Are the achievements of MAPA to date becoming institutionalized and will they be sustainable without future subsidization?

B. MAPA Yungas

- What has been the impact on the incomes of coffee growers due to MAPA activities?
- What is the potential impact on incomes of the MAPA urban planning activities dealing with tourism?
- What is the potential impact on incomes of activities directed at revitalizing the tea industry in the Yungas?
- What are the differences between the Valleys and the Yungas as they pertain to project implementation?
- Is MAPA fulfilling the expectations of the EO and AD offices?

C. SIBTA

- What are the general findings, conclusions, recommendations, and future prospects for SIBTA?

D. FDTA-Valleys

- How has MAPA assistance improved the institutional capacity of FDTA-Valleys?
- What is the adequacy of the Foundation's governing documents, structure, location of offices, General Assembly and Board of Directors?
- What is the functional relationship between the FDTA and MAPA teams?
- How well has FDTA-Valleys responded to the needs of the Ministry, UCPSA, IDB, MAPA, and USAID?
- What has the performance of the FDTA-Valleys been in contrast to the other foundations, including its relationship with the IDB, CAS, and SIBTA? Special attention to be given to how FDTA-Valleys funds its projects compared to the other foundations.
- What is the role of the Competitive Fund for Innovation (FCI) and the Basket Fund?
- Are the operating procedures of the FCI adequate? Is it cost effective?

E. Cross-cutting Issues

- Are the MAPA programs adequately managing gender issues?

Are the MAPA programs incorporating the appropria