

QUARTERLY REPORT JANUARY-MARCH, 1986

CHAPARE REGIONAL DEVELOPMENT
PROJECT

EXPERIENCE, INCORPORATED

COCHABAMBA, BOLIVIA

USAID CONTRACT NUMBER 511-0543-C-00-4214

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I. ACTIVITIES

A. Administrative and Institutional

IBTA/Chapare personnel numbered 85 at the end of the current quarter (Jan.-Mar., 1986), almost constant since the third quarter of 1985.

Director General	1
Directors	2
Technicians	35
Administrator	1
Accountant	1
Administrative Assistants	3
Secretaries	3
Architect	1
Chauffers	3
Tractor Driver	1
Mechanics	3
Assistant Mechanics	2
Warehousemen	2
Cowboys	2
Laborers	16
Cooks	2
Guards	3
Domestics	4

Carlos Tejada joined the EI team as driver/mechanic in November, 1985.

EI personnel took R and R leave as follows:

Alfredo Alvarado	Dec. '85 - Jan. '86
John Bieber	Dec. '85 - Jan. '86
Jose Mondoñedo	Dec. '85 - Jan. '86

During the fourth quarter 1985 and the first quarter 1986, EI personnel averaged about 55 percent of their work-time in the Chapare. The averages ranged from about 40 percent in November, 1985 to almost 80 percent in October, 1985. Experience, Incorporated personnel spent about 70 percent of their work time in the Chapare during March, 1986. These averages include the Coordinator, who averaged only about 15 percent of his work time in the Chapare.

Visitors to the project during the past six months include the following:

Mr. Timothy Bertotti - USAID Executive Officer
Mr. John Fasullo - Deputy Chief, PRD, USAID
Ambassador Rowell
Mr. Richard Gelbard - Department of State
Mr. Robert Delemarre - Senior Vice President, EI
Sr. Mauricio Mamani - GOB Minister of Campesino Affairs and
Agriculture
Mr. Walter Henry - Heifer Project International
Mr. Jeffrey Biggs - Deputy Chief of Mission
Mr. Jack Muench and Vicente Molinas - Forestry Support Program
Mr. Enrique Garcia - EI Associate
Mr. Dwight Ink - AA Latin America and Caribbean, AID/Washington
Mrs. Jo Anne Vaughn - CLO, US Embassy
Mr. Steve Miller, USAID Project Manager

IBTA/Chapare and EI hosted or participated in various inspection trips to the Chapare. These trips involved two groups of GOB legislators, police and cabinet officers, Mr. Biggs, Mr. Ink, the Minister of Agriculture and Mr. Delemarre.

Staff meetings were held with IBTA/Chapare. Regular meetings were also held with heads of U.S. Agencies and contact was maintained with NAU and DEA. Frequent meetings were held with various development agencies such as SDTB, CORDECO, Banco de Cochabamba and with the national and regional offices of IBTA.

EI Employee Evaluations were completed by the Coordinator, reviewed with employees and forwarded to EI/Washington.

Leave records for EI/Bolivia personnel were forwarded to the home office.

Suggested changes in the EI Local Budget were calculated and forwarded to EI/Washington.

EI/Bolivia vehicles and personnel were insured.

The inventory of EI furniture, appliances and household items was updated.

USAID made arrangements whereby seeds and genetic material for IBTA/Chapare can be paid for through the Experience, Incorporated contract. Seeds and plants have been brought from Costa Rica and Ecuador under this arrangement.

Ten Ford pickups, 15 gas refrigerators, 16 gas kitchen stoves, 13 portable generators and various other items were received by IBTA/Chapare. These were purchased directly by USAID for the project.

EI personnel assisted IBTA/Chapare in the preparation of the "Plan Operativo" for 1986.

EI assisted IBTA/Chapare in recording training, research and extension activities on videocassette.

B. TECHNICAL

EI and IBTA/Chapare activities fall generally into the following categories:

- Agricultural Extension
- Agricultural Research
- Training
- Plant and seed production
- Acquisition of genetic material
- Reporting
- Maintaining professional contacts - meetings.

All EI consultants and IBTA/Chapare technicians are involved in extension activities to some degree. Initial contacts and meetings with community groups are usually made by extension personnel, but researchers are involved in the planning and development of Production Demonstration Units and community nurseries. Researchers also assist extensionists in follow-up visits.

Research

An experiment for evaluating the effects of fertilizer and zinc on yuca yield was completed. Results were reported in the January Monthly Report.

Secondary data on social, economic and agronomic conditions in the Chapare were collected for use in planning and evaluation by IBTA/Chapare. A cost of production study was designed in March.

A yield trial of a bean-yuca association was harvested in February, and the results analysed.

Several new research projects were planned, proposed or initiated:

- Evaluation of yuca storage technique
- Off-season production of pineapple
- Identification of economic insects
- Yuca fertilizer response
- Evaluation of growth characteristics of pineapples planted as fruit tops, fruit base suckers and plant base suckers.
- Potassium response in banana
- Insecticidal properties of the 'Paraiso' tree
- Sun-scald in pineapples
- Management of banana plantations
- Herbicide residuals in beans and cowpeas
- Bean and cowpea germination tests

Experiments in progress were maintained by weeding, fertilizing, liming, innoculating, grafting, pruning, thinning, spraying and evaluating, etc., according to the requirements of the specific experiment.

Demonstration/multiplication plots of cardamon and other plants were established at Chipiriri and La Jota.

Initial planning was done for a long-term UDP at Chipiriri to demonstrate the values of crop rotation and farm management techniques in a production system which includes forage and livestock production.

Extension

IBTA/Chapare and EI began distributing small quantities of seeds, along with brochures containing instructions, to selected farmers in the Chapare. Seeds of cowpea, Lagenaria, yard-long beans, black pepper and edible gourd were distributed through extension agents. The major purpose of this program is to determine adaptability and acceptability in various geographic areas of the Chapare.

Extension agents, researchers and consultants made numerous field trips in the Chapare for the purposes of supervising UPD and nursery development. Areas visited included:

San Miguel
Barrientos

21 de Abril
Bubuzama

Puerto San Francisco
Gualberto Villarroel

San Isidro	Jatum Pampa	Villa Banzer
Estrellas	Naranjitos	Villa Barrientos
Ibuelo	Senda D	Itira Pampa
F. Tropical	Chasqui	Arroyo Seco
Samuzubaty	San Miguel	Hayrurumias
Cesarzama	Mariscal Sucre	Villa General Roman
Santa Rosa	Nueva Galilea	Matamojo
Isinuta	2 de Agosto	Union Agraria
Villa Nueva	Puerto Sucre	

A general meeting of extensionists, experiment station directors and consultants was held in February to discuss the extension implementation program for 1986.

Training

A training program for eleven farmers in seedbed and nursery maintenance was held at La Jota in January.

Preparation of training materials continued throughout the quarter.

A training program for IBTA/Chapare technicians on proposal and report writing was held in February.

A short session on nutrient deficiency symptoms in corn and effects of fertilization on yuca yields was given for IBTA/Chapare technicians in February.

A training program for IBTA/Chapare technicians on modern agronomic practices, soil conservation and economic analysis was held in March.

A second training program in March was held for promoters. Topics included crop production, effects of fertilization, soil sampling, chemical weed control, horticultural practices such as budding and pruning, plant disease identification and control, extension principals and techniques, method demonstration, and techniques for non-formal education.

Introduction and Collection of Genetic Material

Large quantities of seeds and plants from Costa Rica were acquired by IBTA/Chapare in January and February. Information on varieties and quantities was reported in the corresponding Monthly reports. The material included field crops, spices, tropical fruits, nuts, medicinal herbs, vegetables and forest trees. The material was planted on Experiment Stations, IBTA/Chapare nurseries or, in some cases, in Community nurseries.

IBTA/Chapare planted 125 coconut seeds in a special seedbed at La Jota. The seeds were procured in Ecuador by EI/Washington and arrived in Cochabamba in early March. IBTA/Chapare plans to procure several thousand additional coconuts for seed from Santa Cruz, the Brazilian Amazon and the Alto Beni area of Bolivia within the next few months.

In addition to genetic material imported from abroad, IBTA/Chapare and EI collected potentially useful plants already growing in the Chapare. These included jackfruit, sponge gourd, Lucuma, chirimoya, carambola, ginger and vanilla. These plants were established in nurseries at La Jota for observation and multiplication.

Reporting

IBTA/Chapare and EI have produced numerous bulletins, research reports and training materials. The following is a partial list:

- | | |
|--------------|---|
| Alvarado, A. | "Factores edafoclimaticos que afectan la produccion de cultivos en los tropicos." |
| Alvarado, A. | "Manejo de suelos en la region del Chapare". |
| Alvarado, A. | "Factores importantes relacionados con la fertilizacion de cultivos". |

- Alvarado, A. "Como hacer curvas de nivel usando el metodo del caballete".
- Alvarado, A. "Como hacer curvas de nivel usando el marco tipo A".
- Alvarado, A. "Como medirla pendiente".
- Alvarado, A. "Aspectos importantes en la elaboración de subproyectos de investigación".
- Alvarado, A,
J. Mondoñedo,
J. Bieber, and
J. Lennis "Efecto de fertilización con zinc y NPK sobre rendimientos de frijol y yuca asociada".
- Mondoñedo, J. "Semilleros para cultivos en el Chapare"
- Mondoñedo, J. "Los viveros para cultivos en el Chapare".
- Mondoñedo, J. "La multiplicación de cultivos por enraizamiento".
- Mondoñedo, J. "El nivel Bambú/Manguera para siembra en contorno".
- Ayala, E.,
J. Lennis and
J. Bieber "Ensayo de variedades de leguminosas"
- Lennis, J. and
J. Bieber "Cultivos en asocio con yuca"
- Altamirano, J.,
J. Bieber,
E. Ayala and
J. Lennis "Ensayo de variedad de caupi"
- Ayala, E. and
J. Bieber "Lote de observación de variedad de caupi"
- Altamirano, J.,
J. Bieber
E. Ayala and
J. Lennis "Ensayo de Rhizobium inoculación en frijol y caupi"

Plant and Seed Production

A large shaded nursery area, approximately 2500 square meters, was constructed at La Jota for production of seedlings which require shading.

A cardamon plantation was established at Chipiriri Experiment Station.

Coffee and cacao seedlings were added to the production plots already growing.

Numerous production plots for annual crops such as corn, rice, cowpea, sweet potato, beans, and yuca were established and maintained.

IBTA/Chapare began an evaluation of land now controlled by the Colonization Service as a possible site for seed production in the Chapare. Preliminary evaluation of soils, productive capacity and facilities indicates that the area is at best marginally suitable. A decision will be taken after an evaluation of IBTA/Chapare capacity to manage such a large operation, and consideration of a problem involving squatters on the land.

II. ISSUES AND SOLUTIONS

IBTA/Chapare and EI have reason to expect a marked increase in the demand for services in the next few months, and are developing a strategy to deal with it. The reason for this increase in demand, which has already been manifested to some extent, is primarily a decrease in the price of coca leaf. This may be due to overproduction as well as increased pressure from control and reduction efforts.

The strategy for dealing with the increased demand involves changes in emphasis in existing activities. Development of community nurseries will be increased to meet the expected demand for plants and to avoid the bottleneck created by shortage of labor in IBTA/Chapare. Semi-formal training of promoters and farmers will be accelerated to include more trainees, and to increase the skill level of promoters already in the program who have demonstrated interest and ability. More farmers will be trained in the communities and fewer at the experiment stations.

Acquisition of seeds and plants in larger quantities, suitable for distribution to farms and community nurseries, will be emphasized. This strategy is practical now, as a years experience has served to identify appropriate varieties. Sources for commercial quantities of some plants and seeds have been located in Bolivia and abroad.

Extension activities - direct contact with communities for supervision of nursery and demonstration farm development - will be increased as much as possible. IBTA/Chapare suffers a shortage of extension personnel at present, but hopes for authorization to recruit more technicians. Meanwhile, researchers will assume additional extension responsibilities.

IBTA/Chapare must increase the production of extension material such as bulletins, audio-visual material and mass communications.

As IBTA/Chapare resources (personnel, funding and equipment) are limited, some activities must necessarily be de-emphasized. Semi-formal training for IBTA/Chapare technicians will be decreased to make way for increased training of promoters. On-the-job training and seminars by EI consultants can be refined and increased to some extent to counterbalance lack of semi-formal training for technicians.

Research activities will also be de-emphasized and concentrated in two areas: 1) Identification of new genetic material and 2) development of suitable cropping systems. On-farm research involving direct farmer participation in the development of technology will be emphasized over basic and adaptive research on experiment stations.

The program of Production Demonstration Units (demonstration farms), which is a combination extension-research technique, will be diminished and refined. Of the fifty or more PDU's established to date, some fifteen or twenty have not shown good results for various reasons. Some will be dropped from the program, according to a current evaluation by IBTA/Chapare. The remaining PDU's will be improved according to needs which are better understood after a years experience, and to fill serious gaps in current knowledge of suitable systems for the Chapare.

IBTA/Chapare and EI are now in a position to utilize more short-term consultants, which will serve to increase their capacity to provide services to Chapare farmers from the last half of 1986 onward.

Due to the high level of interest in coffee and cacao, IBTA/Chapare plans to secure the assistance of coops and research station in the Yungas and Alto Beni for training Chapare farmers in production, on-farm processing, quality control and other aspects. We note that development of processing plants and marketing procedures should be initiated as soon as possible by the proper authorities.

III. WORK PLANNED FOR NEXT QUARTER

IBTA/Chapare and EI will lobby for radio equipment, additional vehicles and extension personnel.

Implements for tractors are expected in the second quarter.

The strategy outlined in Section II will be initiated.

Construction of an addition to the dining facilities at La Jota and general repairs at both experiment stations should be concluded in the coming quarter.

IBTA/Chapare hopes to receive approval for new construction of living quarters and other facilities early in the second quarter; and to complete construction during the coming "dry season".

Several experiments on annual crops will be completed in the next quarter, and results analyzed. Longer term experiments will be maintained according to the research plans.

IBTA/Chapare will evaluate their programs and personnel.

IBTA/Chapare and EI personnel will continue to respond to invitations from farmer organizations and communities so far as resources permit.

The existing UDP's and nurseries will be evaluated. Several of the more successful will be selected for special experiments. Some may be discarded and others upgraded.

The training program will continue, perhaps with some modifications according to the changes outlined in Section II. Semiformal training courses are scheduled as follows:

Farmers	-	First week in April
Technicians	-	First week in June
Promotors	-	Third week in June

IV. RECOMMENDATIONS

Although IBTA/Chapare plans to conduct an internal evaluation during the second quarter of 1986, EI recommends an outside evaluation preferably by a small group of specialists from abroad. The project is almost at mid - point, and could no doubt benefit from a professional evaluation.