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QUARTERLY REPORT JULY - SEPTEMBER, 1987

**CHAPARE REGIONAL DEVELOPMENT
PROJECT**

EXPERIENCE, INCORPORATED

COCHABAMBA, BOLIVIA

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

USAID PROJECT NUMBER 511-0543

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With Input From:

IBTA/Chapare
Alfredo Alvarado
Joe Lopez

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I. ACTIVITIES

A. Administrative and Institutional

IBTA/Chapare personnel numbered 85 at the end of the current quarter.

Director General	1
Station Directors	2
Technicians	32*
Administrator	1
Architect	1
Station Administrators	2
Accountant	1
Purchasing Agent	1
Farm Managers	2
Nurserymen	2
Warehousemen	1
Secretaries	5
Chauffers	3
Tractor Drivers	3
Mechanics	2
Mechanic Assistants	2
Cowboy	1
Cooks and Domestics	6
Guards	4
Laborers	13

	85

* Two in training abroad

IBTA/Chapare technician Armando Ferrufino returned from long-term training in Costa Rica and is now working in the Chapare as forage researcher.

Mario Arrazola joined the Project as junior technician while the conducts research on rice varieties for his thesis at UMSS.

Ing. Cesar Mealla left IBTA/Chapare employ in August and was replaced by Ing. Victor Frontanilla.

Ing. Joe David Lopez was on R and R leave from 18 July to 15 August, during which time he arranged for the purchase of genetic material through the export firm TRINTERCONSA in Costa Rica. He served as acting coordinator during Owens R and R in September and October

Experience, Incorporated personnel assisted IBTA/Chapare in the preparation of plans, schedules and budgets for purchasing and producing seed and plant material in anticipation of the increased emphasis on coca eradication. EI personnel also participated in meetings with the newly established Sub-Secretariat for Alternative Development to explain plans and requirements for production of up to 10,000 hectares of alternate crops in the Chapare region.

Alvarado and Owens assisted Dr. J.T. Smith of NCSU during his visit to the Chapare to coordinate the TROP SOIL network activities in Bolivia.

Dr. Alvarado and Ing. Angel Cartagena prepared plans and budget for the construction, installation and operation of the multiple laboratory planned for La Jota.

Ing. Joe Lopez completed cost of production estimates for the production of the following plants in Chapare nurseries:

Coconut	10,000
Black Pepper	20,000
Macadamia	10,000
Cardamon	20,000

Owens prepared a report on local hire salaries for USAID which resulted in an increase of approximately 50 percent for EI local hire employees. USAID local hire employees received a salary increase of 71 percent.

Experience, Incorporated sent reports on costs of production of introduced crops to USAID/Panama at the request of David Cohen.

Owens assisted IBTA/Chapare in review of specifications for audiovisual equipment.

B. Technical

- Extension

The major part of extension field activities during July, August and September involved the care and supervision of plantings in community nurseries and PDU's. This work was carried out primarily by IBTA/Chapare extensionists and EI Extension Advisor Joe Lopez. They were assisted by researchers and the EI Soils Specialist. In some cases, recommendations were given for planting, insect and disease control, fertilization, pruning, grafting, etc; and in other instances the measures were carried out by extensionists or researchers.

Research

IBTA/Chapare researchers and the EI Soils Specialist harvested several experiments. These included 12 on-farm regional trials of beans and four on-farm trials of the effects of lime on corn, beans and cowpeas. Data are being analyzed.

On-going experiments were monitored and maintained.

Experiments on effects of potassium on sweet potato and lime on cowpeas, beans and corn were established on experiment stations and PDU's.

IBTA/Chapare, led by Dr. Alvarado, began installing equipment for a seed laboratory at the liaison office in Cochabamba. The equipment was donated by the Japanese Government.

Soil samples from PDU's were sent to North Carolina State University for detailed analysis.

Rhizobium strains adapted to acid soils obtained by Dr. Alvarado were sent to CIAT/Santa Cruz for reproduction. These will be used to inoculate bean seed in the Chapare.

Limestone samples were taken from quarries in and near the Chapare for analysis at UMSS.

Training

Eight training courses; three for IBTA/Chapare technicians, one for promoters and four for farmers; were held during the third quarter. In all, 23 short term training courses have been held in 1987. See Annexes I and II.

Ing. Lopez took the lead in designing and programming training for five IBTA/Chapare technicians in Costa Rica, to begin in October. The six week training course will emphasize production of non-traditional crops such as cacao, cardamon, macadamia, coffee, black pepper, vanilla, tembe, papaya and coconut.

Introduction and Production of Genetic Material

IBTA/Chapare Director of Planning and Evaluation Gerardo Rodriguez procured 37,900 cacao seeds from the Sapecho Experiment Station in the Alto Beni. These were distributed and planted as follows:

- Community nurseries	4,500
- IBTA/Chapare nursery - V. Tunari	10,000
- IBTA/Chapare nursery - La Jota	23,400

IBTA/Chapare, with the assistance of Ing. Lopez, imported the following genetic material from Costa Rica through the export company TRAINTERCONSA.

- 100 grafted macadamia plants of the varieties 508, 660, 344 and 800.
- 5 kg of green cardamon capsules
- 20 kg of macadamia seed (Tetraphylla)
- 100 cuttings of macadamia budwood of varieties 660, 508 and 344.

The macadamia and cardamon were planted on experiment stations, or grafted onto material already growing on experiment stations.

IBTA/Chapare and EI began planning for increased production of genetic material as early as November 1986 in anticipation of increased demand from Chapare farmers. Costs were estimated for annual and perennial crops, per 1000 hectares.

During the third quarter, 1987, the Government of Bolivia and USAID suddenly increased priority on provision of alternate crops. Using available information on suitability and costs, based on three years observation and research in the Chapare, plans, schedules and budgets for massive production of genetic material were drawn up. IBTA/Chapare is in a position to provide up to 10,000 hectares of alternate crops by 1991 if funds and other resources are made available. In addition to funds for purchase and transport of genetic material, IBTA/Chapare must expand its infrastructure, obtain additional vehicles and equipment, employ more technical and support personnel and adapt its organizational structure to the job at hand.

II. ISSUES AND SOLUTIONS

Three vehicles have been assigned to EI. Two are old, requiring a great deal of maintenance and at least one of these is unsafe on the road between Cochabamba and the Chapare. The third vehicle, a relatively new Ford Bronco, is satisfactory. Two new vehicles, preferably Toyota Land Cruiser station wagons or Chevrolet Suburbans, should be assigned to EI.

Audio visual equipment for the project is still lacking although it has been ordered. The project desperately needs at least two cameras with appropriate lenses and accessories. IBTA/Chapare should purchase locally if quantity needed is not on order.

The EI staff house in Villa Tunari, which is now used as a hotel for the entire project and related agencies, is frequently overcrowded and difficult to manage. It should be turned back to owners (Automobile Club of Bolivia) or put under the management of SDTB or IBTA/Chapare.

IBTA/Chapare extensionists continue to be based at Experiment Stations, losing a great deal of time driving back and forth to their work areas. Sites for extension centers giving good coverage of the project area should be chosen as soon as possible. Appropriate infrastructure should be constructed without further delay.

EI believes that IBTA/Chapare is in need of additional advisors. Dr. Alvarado is effectively serving as Research Advisor as well as Soils Specialist, and is obliged to shoulder responsibility for a good deal of contact and advice to other Bolivian institutions. Ing. Lopez spends a significant portion of his time advising on reproduction of perennial crops in addition to his already overtaxed responsibilities as Extension and Training Advisor. USAID and IBTA/Chapare should discuss needs and means for obtaining additional technical assistance. The following positions should be considered:

- Long term specialist on horticulture/genetic reproduction
- Long term research agronomist
- Short term laboratory advisor
- Long term animal scientist
- Additional long term extension specialist

IBTA/Chapare accepts the overall political decisions regarding the eradication program and the need for additional genetic material. Roles and responsibilities of the various agencies involved should be clarified as soon as possible. Contingency plans should be elaborated in case the program does not work out as foreseen (10,000 hectares eradicated in the next 3 years?).

For example, what would IBTA/Chapare be expected to do if only 1000 hectares are eradicated? What if the farmers offer to eradicate 10,000 hectares or more, and funds are not available for indemnification?

III. WORK PLANNED FOR NEXT QUARTER

Ing. Lopez will continue his extension visits to the field and planning for training. He will be in Costa Rica for six to eight weeks in October, November and December with the IBTA/Chapare trainees. During this time he will be purchasing plant material for the project. He will also familiarize IBTA/Chapare technicians with the purchasing procedures and introduce them to the producers of genetic material with whom they will be dealing in the future.

Dr. Alvarado will work with IBTA/Chapare in harvesting various experiments on annual crops, and advise on analysis of results.

Dr. Alvarado will supervise the planting of corn experiments at three locations in the Chapare. The objective of these experiments is to determine the residual effects of liming.

Dr. Alvarado will assist in final preparation of theses for IBTA/Chapare technicians Roberto Delgadillo and Juan Lennis, who expect to receive their Ing. Agronomo degrees from UMSS later this year.

Dr. Alvarado plans to take annual leave in the coming quarter.

Dr. Owens will continue his administrative duties. He will work with SDTB and IBTA/Chapare in planning economic studies such as costs and returns of various crops. These studies could be initiated if the human resources are available. Owens plans to collect data on costs of various inputs during the next quarter.

Dr. Owens will continue to assist IBTA/Chapare with data analysis and purchasing, as required.

LISTA DE CURSOS DE ENTRENAMIENTO PARA AGRICULTORES, PROMOTORES Y TECNICOS

ANNEX I

REALIZADOS DURANTE EL TRIMESTRE JULIO - SEPTIEMBRE, 1987

No.	LUGAR	PROYECTO	FECHA	No. PARTICIPANTES	T E M A
1.-	"LA ESTRELLA"	ENTRENAMIENTO AGRICULTORES	JULIO, 17-18-19, 1987		"EXPLOTACION DE ANIMALES MENORES (CERDOS Y AVES)"
2.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO TECNICOS	JULIO, 16-23-24, 1987		"IMPLANTACION Y MANEJO DE VIVEROS EN CULTIVOS NO TRADICIONALES"
3.-	"OFICINA IRTA/CHAPARE" COCHABAMBA	ENTRENAMIENTO TECNICOS	AGOSTO, 3-4-5-6-7, 1987		"DISEÑO DE ALTERNATIVAS TECNOLOGICAS EN SISTEMAS DE PRODUCCION AGROPECUARIA DEL TROPICO HUMEDO - REGION CHAPARE"
4.-	"SAN JULIAN"	ENTRENAMIENTO AGRICULTORES	SEPT. 8-9-10, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE, CACAO Y CITRICOS"
5.-	"GUADALUPE"	ENTRENAMIENTO AGRICULTORES	SEPT. 15-16-17, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE, CACAO Y CITRICOS"
6.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO TECNICOS	SEPT. 14-15-16-17-18-19, 1987		"SISTEMAS AGROFORESTALES PRESENTADO POR CUMAT"
7.-	"CHASQUI"	ENTRENAMIENTO AGRICULTORES	SEPT. 21-22, 1987		"CITRICULTURA"
8.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO PROMOTORES	SEPT. 20-21-22, 1987		"IMPLANTACION Y MANEJO DE VIVEROS EN CULTIVOS NO TRADICIONALES"

LISTA DE CURSOS DE ENTRENAMIENTO PARA AGRICULTORES, PROMOTORES Y TECNICOS

ANNEX II

REALIZADOS DURANTE EL AÑO 1987, HASTA LA FECHA

No.	LUGAR	PROYECTO	FECHA	No. PARTICIPANTES	T E M A
1.-	"CENTRAL BOLIVAR"	ENTRENAMIENTO AGRICULTORES	MARZO, 20-21-22, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE Y CACAO"
2.-	"KILOMETRO 18"	ENTRENAMIENTO AGRICULTORES	MARZO, 20-21-22, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE Y CACAO"
3.-	"SENDA D"	ENTRENAMIENTO AGRICULTORES	ABRIL, 3-4-5, 1987		"EL CULTIVO DEL CAFE"
4.-	"ESTRELLA"	ENTRENAMIENTO AGRICULTORES	ABRIL, 6-7-8, 1987		"TECNICAS DE IMPLANTACION Y MANEJO DE VIVEROS"
5.-	"MEJILLONES"	ENTRENAMIENTO AGRICULTORES	ABRIL, 17-18-19, 1987		"EL CULTIVO DEL CACAO"
6.-	"9 DE ABRIL"	ENTRENAMIENTO AGRICULTORES	ABRIL, 20-21-22, 1987		"EXPLOTACION DE ANIMALES MENORES (CERDOS Y AVES)"
7.-	"SAN GABRIEL"	ENTRENAMIENTO AGRICULTORES	ABRIL, 20-21-22, 1987		"TECNICAS DE IMPLANTACION Y MANEJO DE VIVEROS"
8.-	"CHOCOLATAL"	ENTRENAMIENTO AGRICULTORES	ABRIL, 22-23-24, 1987		"EL CULTIVO DEL CAFE"
9.-	"PARAISO"	ENTRENAMIENTO AGRICULTORES	MAYO, 5-6, 1987		"MANEJO Y CONTROL DE PESTICIDAS"
10.-	"VEINTE MAYO"	ENTRENAMIENTO AGRICULTORES	MAYO, 6-7, 1987		"ESTABLECIMIENTO Y MANEJO DE HUERTOS DE CAFE"
11.-	"SESARZAMA"	ENTRENAMIENTO AGRICULTORES	MAYO, 6-7-8, 1987		"MANEJO DE VIVEROS DE CAFE Y CACAO"
12.-	"SAN JULIAN"	ENTRENAMIENTO AGRICULTORES	MAYO 15-16-17, 1987.		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE, CACAO Y HORTALIZAS"

No.	LUGAR	PROYECTO	FECHA	No. PARTICIPANTES	T E M A
13.-	"MATAMOJO"	ENTRENAMIENTO AGRICULTORES	MAYO, 18-19-20, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE Y CACAO"
14.-	"LA ESTRELLA"	ENTRENAMIENTO AGRICULTORES	JULIO, 17-18-19, 1987		"EXPLOTACION DE ANIMALES MENORES (CERDOS Y AVES)"
15.-	"SAN JULIAN"	ENTRENAMIENTO AGRICULTORES	SEPT. 8-9-10, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE, CACAO Y CITRICOS"
16.-	"GUADALUPE"	ENTRENAMIENTO AGRICULTORES	SEPT. 15-16-17, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE, CACAO Y CITRICOS"
17.-	"CHASQUI"	ENTRENAMIENTO AGRICULTORES	SEPT. 21-22, 1987		"CITRICULTURA"
18.-	"SAN SALVADOR"	ENTRENAMIENTO AGRICULTORES	OCT. 6-7-8, 1987		"ESTABLECIMIENTO Y MANEJO DE VIVEROS DE CAFE Y CACAO"
19.-	"ALTO S.FRANCISCO"	ENTRENAMIENTO AGRICULTORES	OCT. 15-16-17, 1987		"EXPLOTACION DE ANIMALES MENORES (CERDOS Y AVES)"
20.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO PROMOTORES	SEPT. 20-21-22, 1987		"IMPLANTACION Y MANEJO DE VIVEROS EN CULTIVOS NO TRADICIONALES"
21.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO TECNICOS	JULIO, 16-23-24, 1987		"IMPLANTACION Y MANEJO DE VIVEROS EN CULTIVOS NO TRADICIONALES"
22.-	"OFICINA IBTA CHAPARE" COCHABAMBA	ENTRENAMIENTO TECNICOS	AGOSTO, 3-4-5-6-7, 1987		"DISEÑO DE ALTERNATIVAS TECNOLOGICAS EN SISTEMAS DE PRODUCCION AGROPECUARIA DEL TROPICO HUMEDO - REGION CHAPARE"
23.-	"ESTACION EXPERIMENTAL LA JOTA"	ENTRENAMIENTO TECNICOS	SEPT. 14-15-16-17-18-19, 1987		"SISTEMAS AGROFORESTALES PRESENTADO POR COMAT"