

4

# CONSORTIUM FOR INTERNATIONAL DEVELOPMENT



ADMINISTRATIVE REPORT No. 001/76  
INFORME ADMINISTRATIVO No.

Colorado State University  
Oregon State University  
Texas Tech. University  
University of California  
University of Arizona  
Utah State University

QUARTERLY REPORT OF  
CONTRACT NUMBER GOB/AID-511-92  
BETWEEN  
THE MINISTRY OF RURAL AFFAIRS AND AGRICULTURE  
OF BOLIVIA  
AND  
CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

Period Reported: January 1, 1976 thru  
March 31, 1976

LA PAZ, BOLIVIA

001/76

QUARTERLY REPORT OF  
CONTRACT NUMBER GOB/AID-511-92  
BETWEEN  
THE MINISTRY OF RURAL AFFAIRS AND AGRICULTURE  
OF BOLIVIA  
AND  
CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

Period Reported: January 1, 1976 thru  
March 31, 1976

QUARTERLY REPORT OF  
CONTRACT NUMBER GOB/AID-511-92  
BETWEEN  
THE MINISTRY OF RURAL AFFAIRS AND AGRICULTURE OF BOLIVIA  
AND  
CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

Period Reported: January 1, 1976 thru March 31, 1976

The following report of Contract activities is submitted in accordance with Paragraph IV-A of Appendix B of said Contract.

ACCOMPLISHMENTS

Personnel and Administration

Dr. Larry K. Bond arrived January 30, 1976 and has assumed duties as co-director of the National Extension Service. He will be stationed in Cochabamba temporarily to become acquainted with the extension system and problems and to initiate regional programs in cooperation with local extension personnel. We anticipate his transfer to La Paz around July 1st.

A contract between the Consortium for International Development and the Ministry of Agriculture was signed which provides for short-term consultants to support this project. The Contract is funded from USAID loan sources.

The budget for Contract 511-92 was amended through July 31, 1976 with the approval of the Ministry of Agriculture and USAID.

## Program

### Agricultural Research and Technology

Portions of the agronomic research crops in process at the experimental stations were harvested at the Saavedra station. All of the rice experiments were completed and the data recorded. However, low yields were experienced due to the unusually limited rainfall. The harvest of corn and sorghum plots was initiated in February and will be continued until May. Of the remaining nine corn experiments, at least three will likely have to be discarded due to disease and lodging problems.

Within the oilseeds crops, all of the peanut experiments (6) have been completed and the data being summarized. The sunflower and sesame experiments will be harvested in April. The last "date of planting" for soya were made in March. Late plantings of soya have been adversely affected by shortage of rainfall. Although the soya harvest has not been completed, the Brazilian variety, Santa Rosa, and two other Brazilian strains look exceptionally good. Plans have been completed to initiate a soya breeding program. Plantings under the breeding program will begin in May when seed is available.

Harvesting of experimental plots in the Cochabamba area will begin in April and continue through the coming quarter. The plots at Toralapa are generally in good condition and disease and insect free except for some virus problems. An unexpected frost in late March killed all of the potatoes, but the harvest will begin about mid-April. There are indications that some of the native potato varieties have some degree of resistance to the nematode Nacobbus

serendipiticus. If the degree of resistance is sufficient, this could provide a basis for a strong potato breeding program.

Experimental potato plots at Chinoli have suffered somewhat from poor germination. However, nematicide tests with Nematicur, Terracur, and Temik appear promising for control of both nematode and insect problems. The quinoa tests (40 variety introductions), while not yet harvested, do not appear to be responding well to modern agronomic practices as was expected. The wheat trials for most of the high mountain valleys will be harvested in late April and May. Rust resistance ratings are now being made with excellent data on Puccinia graminis and glumum being obtained in the Cochabamba area. The wheat research program of the MACA was likely too expansive for the available manpower and has emphasized the need to set priorities, such as breeding, and to assign an adequate number of full time people to work in these areas. We anticipate a reduction in variety testing emphasis for next year and increased emphasis on breeding and small-farm technology.

An extensive survey of the incidence of nematodes was made during this quarter. The genus Meloidogyne sp. was found throughout the area and could cause extensive losses especially in the Santa Cruz areas in cucurbits, cotton and other vegetables. Nematode problems in potatoes are very serious and could be causing yield losses in the magnitude of 30-50 percent. An extension pamphlet on the identification and treatment of nematodes is currently in process.

The benchmark evaluation of the research stations scheduled for comple-

tion during this quarter was delayed in the interest of a more complete and in-depth evaluation of existing and proposed station research programs. However, the report is nearing completion. An initial evaluation of the agronomic problems at stations in the regions of CID responsibility suggest that insects, weeds, and soil fertility may be confounding research results. Insect and weed infestations in many cases virtually invalidate the research data for several stations and crops. The absence of prior soil fertility testing on research plots and the failure to account for residual fertilizer raises serious questions about the accuracy of fertilizer response data being developed. This latter problem is being given special attention by the Consortium National Director of Research (who is a Soils Specialist). It also points to the need for establishing competent soil testing capability as physical facilities are improved under the loan program. Dr. Charles Ward, Texas A&M Entomologist, visited stations in the project area during March as a short-term consultant under the Contract discussed on page 1. He made collections of insects and evaluated the research programs. His report is in process but confirms the critical problem of insects at the research stations. He will classify the insects collected and send them back to Bolivia which will form the basis for CID/MACA research-extension program in insect control.

#### Extension Technology

The newly arrived CID Extension Co-director reviewed the status and organization of the extension service.

His initial assessment shows the following conditions in the extension

service:

- 1) About 1/2 of the agents are Agrónomos with only a few years of technical school, about 30% have graduated from the University with title of Agrónomo Egresado and about 20% have the title of Ingeniero Agrónomo. A small percentage have Masters' Degrees.
- 2) Staff training for new as well as older agents is virtually non-existent.
- 3) There is a general lack of resources for travel, repairs, etc. Agents are therefore confined to their offices.
- 4) Extension supervisors do not meet as a group or individually with the Extension Director and have received no training in supervision.
- 5) The administrative system for authorizing travel, purchases, etc. is extremely cumbersome.
- 6) In Santa Cruz, Extension Agents are working exclusively for the Banco Agrícola and are not engaged in regular extension activities.

During February and March he visited many of the Extension agencies in the Cochabamba area to become acquainted with personnel and problems. He also visited the Santa Cruz region where he met with local agents and supervisors. He presented a seminar on developing Plans of Work and assisted in drafting a work plan for the Santa Cruz region. A system for preparation of job descriptions and individual agent plans of work was initiated.

A preliminary survey was conducted of existing technology available for extension to meet priority problems. Range improvement was identified as a high priority problem for which a small-farm technology package existed. In cooperation with the CID economist, visits were made to range areas of the Cochabamba valley to select communities where range exploitation is occurring. A demonstration program was formulated in cooperation with extension agents. Approximately 30 range cages will be constructed and placed in selected communities for demonstrating the results of controlled grazing.

A three day training session for extension agents in the Department of Cochabamba was held March 29-31. About 20 agents attended. The agenda included discussions on systems of program planning and agent responsibilities. Special presentations and discussions were given on range management and erosion problems and extension methods. A representative of Union Carbide Company gave a presentation on the control of nematodes and insects in potatoes. A demonstration Field Day was also held at Saavedra which was attended by approximately 400 campesinos.

### Sector Management

#### Agricultural Planning

The final draft of the Plan Quinquenal was completed and submitted to CONEPLAN. A major part of the writing was done by the CID Economist and Ing. Gandarillas. The plan is currently awaiting the final approval of CONEPLAN.

A plan for reorganizing the Office of Planning was approved by the Sub-secretary and Director General. Included in the proposal are recommended

objectives for each Division, proposed staffing patterns, budgets and space requirements. Office equipment and requirements for purchase under the 053 loan have also been identified. Complete implementation has been delayed pending approval of counterpart funds for contracting qualified professionals.

#### Agricultural Marketing

Data collection on agricultural prices in the La Paz market was continued. However, no subsequent analysis or price reporting was accomplished. With the reorganization of the Planning Office, the marketing section has been made an independent office outside the planning function. Given this redesignation and the moratorium on market price reporting by MACA, the Current Plan of Work cannot be accomplished. This area can possibly be addressed with the expansion of contract personnel now tentatively planned for August. This expanded team may include an additional economist to work directly with the marketing office. However, it will be necessary to rewrite the plan of work for marketing to reflect currently existing political constraints.

#### Economic Studies and Policy Analysis

The initial draft of the paper "Common Property Rangeland and the Induced Neighborhood Effects: Resource Misallocations in Bolivian Agriculture" was rewritten and 50 copies published for critical review by experts throughout the United States (CID Working Paper 001/76). The Spanish translation has been completed and distribution to local experts will be made in mid-April.

The study of Yungas agriculture is continuing on schedule. Consultations were held with Dr. Richard Suttor (USDA/Washington) on the method of analysis.

It was decided to use Benefit/Cost procedures combined with sensitivity analysis in analyzing the profitability of various crops. The study has been expanded to include Chapare agriculture by using equivalent data collected by a student at UMSS in Cochabamba.

### Training

In addition to the extension training initiated during the quarter, other training activities were undertaken. A 4-day symposium on the Economic Development of Bolivian Agriculture was presented by the Economist and Chief of Party to students and faculty at UMSS, and technicians from the Ministry and selected regional development organization in Cochabamba. Consultations with students on thesis problems were also held. Subsequent discussions between UMSS, MACA, and CID resulted in several agreements for strengthening relationships between MACA and UMSS. These included: (1) CID/MACA personnel to advise UMSS students in economics on thesis problems concerning agricultural problems. MACA has agreed to assign 3 scholarships to the economics faculty at San Simon for thesis in agricultural economics; (2) CID personnel will give courses at UMSS, Department of Economics, with two such courses tentatively scheduled for the next quarter; and (3) MACA will approve additional short term course participation by CID personnel. The courses are yet to be determined. A similar seminar planned at Gabriel René Moreno University in Santa Cruz was postponed at the Universities' request. Likewise, a seminar planned for the same University on wheat and oil seeds production was postponed. The Land Economics course scheduled for March at UMSS has been rescheduled for April.

Contacts with the College of Agriculture at San Simon have not produced fruitful results. Efforts here will be continued.

Dr. Kenneth Ellis, accompanied by his Bolivian counterpart Gerardo Caero attended the International Conference on Nematodes (Genus Meloidogyne) held in Cali, Colombia. Each country will collect material of this genus to be sent to the Colombian Agricultural Institute (ICA) where the South American collection will be assembled. In addition, each country will test their collections against a standard set of 10 bioassay plants. This information will be sent to ICA and to the University of North Carolina. Each country will receive \$ 800 to help defray the cost of the program. Dr. Ellis also visited the International Potato Center (CIP) in Lima. He became acquainted with their program and found the personnel anxious to cooperate with the Bolivian program. The CIP program planned for Bolivia will be pursued in cooperation with the CID and Bolivian technicians in Cochabamba.

CID technicians reviewed with Ministry counterparts the proposed organization and operation of IBTA and several changes were made based on their observations. This Institute has now been legally established and will form an integral part of the research and extension activities of CID technicians.

National and local meetings were held on the subject of weed control. Two Bolivian technicians from the Saavedra station presented Weed Research results at a national conference. In addition, CID technicians conducted a training session on Weed Control for Saavedra personnel.

CID technicians continued thesis supervision for four agronomic students at Saavedra and one economics student in La Paz. Two additional economic students at UMSS are being advised by Contract technicians. Four extension agents in Cochabamba are preparing thesis project statements under the supervision of CID technicians.

### Publications

1. Common Property Rangeland and Induced Neighborhood Effects: Resource Misallocation in Bolivian Agriculture, by Morris D. Whitaker and E. Boyd Wennergren. CID Working Paper 001/76.
2. Nematode Identification and Problems, by Kenneth C. Ellis and Gerardo Caero. (In Process).
3. Small Farm Rice Management and Production by Emilio Salavas and Max G. Long. (In Process).
4. Insects and Ag. Production in Bolivia by Charles Ward. CID Working Paper 002/76.

### Problems Encountered

#### Administrative

1. The Consortium is still experiencing significant problems with duty free importation as guaranteed by the Contract. Special problems are associated with packages received by international mail. The required invoices and packing lists are impossible to acquire in

some cases and some packages have remained in the postal customs since before Christmas. A Supreme Resolution has been requested by MACA but this will require time. In the meantime, it is difficult to operate without efficient mail service. While the mail problem is especially difficult, we are generally experiencing difficulties in receiving the duty free tax status provided by the Contract.

2. A request for increase in the housing allowance was initiated. A requested \$ 550 per month was approved by the Ministry but reduced by USAID to \$ 525. This approved amount is expected to be insufficient and reconsideration of this problem will be requested. The continued strong demand for housing, especially in Santa Cruz, the transfer of technicians from Cochabamba to La Paz, and the significant increases in Utility Costs in Santa Cruz and Cochabamba justify such a reconsideration.

### Program

1. A major concern has arisen with respect to the organization of MACA in Santa Cruz and its impact on working conditions for CID technicians in Santa Cruz. In recent months, CIAT has been organized as an extension of Obras Públicas and MACA.

Facilities at Saavedra have been transferred to their control. Obras Públicas already controls a significant portion of the Saavedra budget and has demonstrated strong control over program development. CID technicians have been assigned co-director responsibilities at the station by

MACA. But without control of the resources it is difficult, if not impossible, to implement desired programs. Furthermore, extension agents in the Santa Cruz region are currently serving as functionaries of the Banco Agrícola and are not involved in traditional extension activities. We have been asked by MACA to suspend extension activities in this region until these agents are released from this other assignment. The uncertainty of this situation raises doubts regarding the ability of the Consortium to fulfill its contract responsibilities. If this situation cannot be clarified soon, there may be merit in either of two other alternatives: (1) Transfer CID technicians to assist in the development of the planned University station near Santa Cruz, (2) Transfer the CID technicians to Cochabamba and concentrate our total agronomic program efforts in this area.

2. Electrical power supplies at both Saavedra, Toralapa, and Chinoli still remain inadequate. Development of power supplies at Toralapa should be given high priority.
3. The budget for Saavedra is still not approved.
4. The delay in approving counterpart funding for acquiring qualified personnel in the Planning Office has seriously hampered efforts to strengthen that office. CID technicians are spending time writing program documents instead of training others. The Consortium cannot meet its contract obligations for training personnel and building the sector management

capability without these qualified personnel.

5. The combination of research and commercial farm functions at the experiment stations has led to inefficiencies in station operation. The use of equipment and labor resources for research efforts is often impeded due to competition resulting from the commercial activities at the stations. This point is being presented in the upcoming "Research Report" and must be given serious policy consideration if the research program is to be effective.
6. The rice variety Dawn which has been selected and distributed in recent years has produced significant yield increases. However, milling companies are complaining about the milling quality and resisting its use.