

PAGE 1 512-21-110-283 PROJECT APPRAISAL REPORT (PAR)

1. PROJECT NO. 512-L-077	2. PAR FOR PERIOD 4/1/76 TO 12/31/76	3. COUNTRY Brazil	4. PAR SERIAL NO. 77-4
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5. PROJECT TITLE

AGRICULTURAL RESEARCH LOAN

6. PROJECT DURATION: Begon FY 72 Ends FY 78	7. DATE LATEST PROP N/A	8. DATE LATEST PIP N/A	9. DATE PRIOR P. 6/15/76
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10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: \$	b. Current FY Estimated Loan Budget: \$11,798,310	c. Estimated Budget to completion After Current FY: \$ N/A
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11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME	b. CONTRACT, PASA OR VOL. AG. NO.
University of Wisconsin	Host Gov't. Contract
Purdue University	Host Gov't. Contract

I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X)			B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
USAID	AID/W	HOST		
X	X		1. Make determination of final equipment purchases amounts and deobligate balances of L/Comms. 07 & 08.	2/15/77
		X	2. Review technical assistance and training requirements and determine whether the billing/voucher/dispbursement system and the 12/31/77 TDD: a) Will force a curtailment of services approved in the 1976-1977 Implementation Plan in order to have all charges against loan paid by 12/31/77;	1/31/77
X	X	X	b) If so, can a justification be made for a brief extension of TDD for billing purposes only.	3/31/77
		X	3. Revise University budget projections for 1977 in order to determine amount of deobligations which can be made.	Overdue

D. REPLANNING REQUIRES	E. DATE OF MISSION REVIEW
REVISED OR NEW: <input type="checkbox"/> PROP <input type="checkbox"/> PIP <input type="checkbox"/> PRO AG <input type="checkbox"/> PIO/T <input type="checkbox"/> PIO/C <input type="checkbox"/> PIO/P	1/11/77

PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE F.R. Campbell	MISSION DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE AID/R: W. F. Gelabert
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PROJECT APPRAISAL REPORT (PAR) -
AGRICULTURAL RESEARCH LOAN, 512-L-077
APRIL 1, 1976 TO DEC. 31, 1976

BEST
AVAILABLE

Introduction: During the Annual Loan Review in December 1976, representatives of Borrower, (EMBRAPA, the Brazilian Agricultural Research Enterprise) presented a series of reports on the status of research activities and the various loan components. A summary of these reports constitute an appraisal of the loan status and follows herewith.

1. Overview of Agricultural Research Activities

During 1976, the National Research Centers which were designated in 1975 were at various stages of installation or implementation. EMBRAPA reported their status as follows (those receiving loan TA indicated with *):

- RUBBER (Manaus AM): Active research program being undertaken by 10 technicians. Some facilities are being built with IBRD resources: lab facilities are, at present, lacking. Working with Malaysian and Brazilian varieties. Three new technology trials with Brazilian varieties showing promising results.
- HUMID TROPICS (Belem, PA): There are 30 technicians at the Center but research is just being organized and initiated.
- GOATS & SHEEP (Sobral, CE): The GOB-wide personnel freeze instituted in mid-1976 has hampered the operation of this Center. Expansion is hoped for in 1977.
- COTTON (Paraiba): The basic team for research in tree cotton is in place and functioning. The researchers will be increased in 1977 to include work on plant cotton.
- ARID TROPICS (Petrolina, PE): Has been operating for some time in tomato experiments and with irrigation on various crops. There are about 30 technicians at the Center. Programs with ICRISAT and the Ford Foundation have been recently developed.
- CASSAVA & FRUITICULTURE (Cruz das Almas, BA): Implantation going well. At present surveying cultural practices throughout Brazil in order to determine the best technology packages. Also looking into uses of cassava for alcohol production as a petroleum substitute.
- BEEF CATTLE (Campo Grande, MT): The Center has 20 technicians and is presently using refurbished buildings. FAO is assisting with project. Experiments are underway.
- DAIRY CATTLE (Juiz de Fora, MG): Was officially inaugurated in 1976. Laboratories are functioning and there are approximately 30 research people at the center.

* SAVANAH SOILS (Planaltina, Brasilia): Approximately 40 people are advancing the state of the art.

- * RICE & BEANS (Goiania, GO): Using old facilities which should be improved with IBRD loan. Approximately 25 technicians working on projects. Good assistance from loan contract personnel.
- * - CORN & SOYBEAN (Sele Lagoas, MG): This Center is recognized internationally and has a working agreement with CIMMYT in Mexico.
- * - SOYBEANS (Londrina, PR): Physical facilities are complete and a reasonable amount of research is underway.
- SWINE (Concordia, SC): Presently using refurbished buildings but permanent facilities are being planned. This Center has 10 researchers who complement and cooperate with meat-packing companies in that region.
- SOIL CONSERVATION (Rio de Janeiro, RJ): Has 50 technicians. The National Service for Soil Surveys operates from this Center.
- WHEAT (Passo Fundo, RS): Has 34 technicians and has probably developed faster than other Centers. Experiments with insecticides, herbicides have resulted in a technology which can increase production by 20 percent.

Regarding EMBRAPA efforts to coordinate agricultural research nationally, twenty-three State Government Agriculture Secretariats are cooperating with EMBRAPA and nine of them have formed research corporations similar to EMBRAPA model. Each National Center is responsible for developing research programs on a national scale. In addition to the agreements with state research organizations, written agreements with six Universities have been reached for basic research. Additional effort at University relationships will be made in 1977.

Other research activities include EMBRAPA's involvement in the National Service for Basic Seed Production through which EMBRAPA will produce genetic seed material for sale to private enterprise, which in turn will multiply such material for sale to farmers; Cr\$52.0 million is available for this program in 1977 and 105.0 million earmarked for 1978. A national center for germplasm was inaugurated in late November. Training and materials for library services and information retrieval have progressed very well and include the use of computer services for rapid handling. Diffusion of research results has been an EMBRAPA concern and each Research Center has one person designed as being responsible for seeing that material is prepared for dissemination to farmers, primarily through the Extension Service (EMBRATER), with which EMBRAPA has a working agreement.

2. Technical Assistance Provided under the Loan to Date

<u>Commodity/Area</u>	<u>Man/Years</u>
Corn-Sorghum	27
Soybeans	20
Rice	16
Edible Beans	9
Resource Development-Northeast	14
Cattle Production	8
Research Admin. & Coord.	<u>13</u>
	<u>Total</u> 107
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This compares favorably with the 102 man/years for various disciplines listed in the project description Annex to the Loan Agreement. In addition, 29 short-term consultants have provided 38 man/months of technical assistance, compared to 16.5 man years indicated in the project description.

3. Status of Participant Training

EMBRAPA presented a report which showed that 78 M.S. and 58 Ph.D participants are being financed under AID Loan 512-L-077; 12 M.S. and 8 Ph.D have completed training. The training program has gone very well, according to EMBRAPA, due in part to the able placement assistance of the American University contractors. To-date, there has been only one drop-out. In-country training is also proceeding well.

4. Loan Equipment Imports

Despite the great effort of the Universities in getting Pro-forma invoices, the hard work of EMBRAPA in rushing through the submission of Import Permit applications, and the patience of USAID, EMBRAPA could not get CACEX to issue any more permits than it did even though EMBRAPA had the Minister of Agriculture intervene.

EMBRAPA submitted tables showing that of the \$868,870 in import permit requests submitted to CACEX, approximately \$255,000 (exclusive of shipping costs) of equipment had been approved by CACEX and purchased by the Universities of Purdue and Wisconsin. An additional \$13,000 was approved by CACEX too late to be used by the Universities.

5. Problems and Delays

A. University Contractor Billings: Billings by the Universities of Wisconsin and Purdue have been lower than they should be according to budget projections of the 1976-1977 Implementation Plan. At USAID's request, EMBRAPA asked the Universities for new budget analysis and disbursement projections but only Wisconsin had responded to EMBRAPA by the Annual Loan Review Date.

B. Possible Curtailment of University Services: The billing/voucher/disbursement procedures for reimbursement to the University contractors has been demonstrably slow and Wisconsin had already determined that contract technicians will have to be returned to the U.S. in July 1977, in order for the University to clear all billings prior to the TDD of December 31, 1977. EMBRAPA said it did not want this to happen and would prepare a justification for a TDD extension request of 60-90 days for billing purposes only. (See Brasilia 246).

PROG: FRCampbell; ncl

3/16/77

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