

PROJECT APPRAISAL REPORT (PAR)

PAGE 1

1. PROJECT NO. 519-11-110-012	2. PAR FOR PERIOD 01 JUL 74 TO 31 DEC 75	3. COUNTRY El Salvador	4. PAR SERIAL NO. 76-1
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AGRICULTURAL DEVELOPMENT: MULTI-CROPPING

6. PROJECT DURATION: Began FY 63 Ends FY 76	7. DATE LATEST PROP PP: NOV 75	8. DATE LATEST PIP n/a	9. DATE PRIOR PAR 17 JUL 74
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10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: \$ 5,415,000	b. Current FY Estimated Budget: \$ 30,000	c. Estimated Budget to completion After Current FY: \$
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11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME UNIVERSITY OF FLORIDA  (*REF AUBURN)	b. CONTRACT, PASA OR VOL. AG. NO. Contract No. AID/1a-586  No. AID/1a-1084
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I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION IX			B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
USAID	AID/W	HOST		
			NONE. PROJECT TERMINATES	
			*Project includes a freshwater fisheries element on which a special evaluation was recently prepared and submitted.	

D. REPLANNING REQUIRED	REVISOR OR NEW:	<input type="checkbox"/> PROP	<input type="checkbox"/> PIP	<input type="checkbox"/> PRO AG	<input type="checkbox"/> PLOT	<input type="checkbox"/> PIOC	<input type="checkbox"/> PIOC/P	E. DATE OF MISSION REVIEW 31 DEC 75
PROJECT MANAGER. TYPED NAME, SIGNED INITIALS AND DATE Mack H. McLendon				MISSION DIRECTOR. TYPED NAME, SIGNED INITIALS AND DATE Allen Goldstein, Acting Director				

**II. PERFORMANCE OF KEY INPUTS AND ACTION AGENTS**

A. INPUT OR ACTION AGENT CONTRACTOR, PARTICIPATING AGENCY OR VOLUNTARY AGENCY	B. PERFORMANCE AGAINST PLAN							C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE (X)					
	UNSATISFACTORY		SATISFACTORY			OUTSTANDING		LOW			MEDIUM		HIGH
	1	2	3	4	5	6	7	1	2	3	4	5	
1. University of Florida				X									X
2.													
3.													

Comment on key factors determining rating Factors: (a) Design and implementation of trials and (b) Resulting packages for dissemination. Trials: Design excellent, emphasizing basic grains and root crops not requiring irrigation. Implementation good, including statistical analysis of within row and between row spacing, rate and timing of fertilizer and pesticide applications, and of comparable economic advantages. Packages: Modest in number and scope; research during period under evaluation only netted one package ready for transfer through the Extension Service, and this package was best suited to irrigated conditions. Farmer enthusiasm and readiness to adopt far exceeded expectations, however, and the current status of research indicates that determinations regarding additional packages are only pending final analysis and transfer to Extension for dissemination during the CY 76 growing season.

4. PARTICIPANT TRAINING			X										
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Comment on key factors determining rating Factors: Adequacy of coverage of CENTA nominees and placement and follow-up. Coverage: Rating due to the low number of CENTA personnel trained. The total of 23 might have been higher had the Ministry of Agriculture included more of those names requested by CENTA in the Ministry's approved list of nominations. Placement: Placement and follow-up efforts by AID were successful for all CENTA nominees who were forwarded by the Ministry, and who passed the language test.

5. COMMODITIES					X								X
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Comment on key factors determining rating Factors: Provision and delivery. Provision: The Government of El Salvador provided the needed commodities in a generally timely and satisfactory manner. Delivery: Delivery following receipt by CENTA was without unnecessary hold-ups. Only very limited quantities were provided under the contract.

6. COOPERATING COUNTRY	a. PERSONNEL			X									X
	b. OTHER					X							X

Comment on key factors determining rating Factors: Coordination of components of Government involved, logistical support, and dissemination through extension. Coordination (Sub-category "a"): Satisfactory, but weakened by frequent Ministry and CENTA personnel changes which lacked adequate provision for continuity pertaining to this project. Log Support (Sub-category "b"): For research, satisfactory; for extension, very good; and for advisor and counterpart transportation, poor. Dissemination (Sub-category "b"): Publication of research results tended to be less than adequate, while the actual transfer of techniques to the target group through the Extension Service tended to be very good.

7. OTHER DONORS													
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(See Next Page for Comments on Other Donors)

AID 1020-25(10-70) PAGE 3 PAR	PROJECT NO. 519-11-110-012	PAR FOR PERIOD: 01 JUL 74 to 31 DEC 75	COUNTRY El Salvador	PAR SERIAL NO. 76-1
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II. 7. Continued: Comment on key factors determining rating of Other Donors N/A

### III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS *		TARGETS (Percentage/Rate/Amount)					
		CUMU- LATIVE PRIOR FY	CURRENT FY		FY ____	FY ____	END OF PROJECT
			TO DATE	TO END			
Number of trials and experi- ments to achieve zone-spe- cific, small farm, multiple cropping systems.	PLANNED	10		20			30
	ACTUAL PERFORM- ANCE	10	20				
	REPLANNED						
Number of multiple cropping demonstration plots.	PLANNED	10		200			210
	ACTUAL PERFORM- ANCE	8	210				
	REPLANNED						
Number of variety tests to identify those varieties with growing conditions most suited to multiple cropping research.	PLANNED	117	0				117
	ACTUAL PERFORM- ANCE	117	0				
	REPLANNED						
Number of rotation and relay crop planting systems studied to determine effects of continued land productivity	PLANNED	4		0			4
	ACTUAL PERFORM- ANCE	4	0				
	REPLANNED						
B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS		COMMENT: Advisor inputs permitted consideration of photo- synthetic efficiency as effected by plant spacing, soil moisture, soil fertility, and insect, disease and weed control.					
1. Identification of factors limiting production in multi- ple cropping systems.							
2. Identification of research methods for measuring and sub- sequently reducing the impact of factors limiting produc- tion.		COMMENT: The advisors with their CENTA counterparts were able to develop during the period covered by this evalua- tion cultural practices suitable to the area and to current and subsequent research practices.					
3. Identification and achieve- ment of organizational arrange- ments suited both to CENTA and AID priorities.		COMMENT: Multiple cropping research and extension duties initially rested with the Agricultural Economics Dept. of CENTA; they have, however, been appropriately transferred, extension to the extension service and research to the fitotecnia department.					

\* PROP provides no annual planning figures.

AID 1020-25 (10-70) PAGE 4 PAR	PROJECT NO. 519-11-110-012	PAR FOR PERIOD: 01 JUL 74 to 31 DEC 75	COUNTRY El Salvador	PAR SERIAL NO. 76-1
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IV. PROJECT PURPOSE

A. 1. Statement of purpose as currently envisaged. During the period under evaluation, the principal focus was on the design and testing of multiple cropping packages suitable for small farmer adaptation. 2. Same as in PROP?  YES  NO

The emphasis at CENTA is now ready to shift to dissemination while continuing to refine systems/packages already developed, seeking to identify systems for each major ecological zone in country, and subjecting the experience gained from carefully controlled trials to on-farm conditions under farm operator management. Technical assistance will be especially desirable during this period of more sophisticated research and is considered essential, initially, in the process of transferring results from research to extension.

<p>B. 1. Conditions which will exist when above purpose is achieved.</p> <p>Adoption of research results into Extension Service "courses".</p> <p>Target farmer interest as demonstrated by operator performance at CENTA supported demonstration plots and by selected near-by farmer attendance at the Extension courses conducted at these plots.</p> <p>Target farmer adoption of part or all of the Extension Service recommendations re crop combinations, row widths, rotations, varieties, etc.</p> <p>Target farmer demand for agricultural inputs related to multi-cropping packages.</p> <p>CENTA adoption of broader multiple cropping/intensive farming research objectives including appropriate commitments of resources.</p>	<p>2. Evidence to date of progress toward these conditions.</p> <p>One CENTA research package was included in presentations for target farmers during CY 75 growing season. Performance at monitored demonstration plots was excellent; comments about the non-monitored plots indicates equally favorable performance. Attendance at in field courses varied but tended to reflect skeptical interest with willingness to experiment.</p> <p>Unexpectedly large numbers of farmers experimented with the package presented during the CY 75 growing season. Many used the techniques in conditions other than those for which they were intended with adverse results; however, enthusiasm remains high and Extension plans to reach greater number in future with Peace Corps assistance.</p> <p>Data re target group demands is weak and does not yet appear to correlate with known levels of farmer adoption of new techniques, seeds, etc.</p> <p>CENTA now prepared participate in more extensive testings and increased emphasis on dissemination to target group.</p>
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V. PROGRAMMING GOAL

A. Statement of Programming Goal

Goal has remained unchanged during project; it is:

To increase the income and employment of small farm operators.

B. Will the achievement of the project purpose solve significant conditions in the programming goal, given the magnitude of the problem? Cite evidence.

Yes, it will. The preliminary research conducted to date has shown that substantial yield increases may be expected with the adaptation of improved multiple cropping systems/packages. Further research is expected to confirm that even under on-farm conditions yield increases will more than compensate the target farmers for whatever additional inputs may be required. A target group readiness to experiment with and accept modern techniques has been demonstrated. Farmers in the group who do adopt these new packages as they are developed and disseminated may be expected to improve their position relative to other farm operators inasmuch as these multiple cropping techniques are best suited to the farm sizes most common among the target group.