

9310077001701

9310077 (3)  
70-AAL-534-6

CLASSIFICATION  
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-4

1. PROJECT TITLE  Clinical Assay of High Protein Foods			2. PROJECT NUMBER <u>931 0077</u>	3. MISSION/AID/W OFFICE  DS/N
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)	
A. First PRO-AG or Equivalent FY _____	B. Final Obligation Expected FY <u>78</u>	C. Final Input Delivery FY _____	<input type="checkbox"/> REGULAR EVALUATION <input checked="" type="checkbox"/> SPECIAL EVALUATION <i>(IDP)</i>	
6. ESTIMATED PROJECT FUNDING			7. PERIOD COVERED BY EVALUATION	
A. Total \$ <u>377,000</u>			From (month/yr.) <u>10/76</u>	
B. U.S. \$ _____			To (month/yr.) <u>4/78</u>	
			Date of Evaluation Review <u>4/3/78</u>	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
(1) The current project contract is to be extended.	S. G. Kahn	9/30/78
(2) Systematization of the present program regarding selection of materials to be tested and review of the data and information generated by the project.	S. G. Kahn	9/30/78

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	A. <input type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input checked="" type="checkbox"/> PIO/T	_____	B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	C. <input type="checkbox"/> Discontinue Project	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	D. <input checked="" type="checkbox"/> Set up program review <i>pane</i>	
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)			12. Mission/AID/W Office Director Approval	
Samuel G. Kahn Project Officer			Signature _____ <i>km</i>	
			Typed Name Martin J. Forman, Director, I	
			Date 9/15/78	

## PROJECT EVALUATION SUMMARY NARRATIVE

13. SUMMARY - Summarize the current project situation, mentioning progress in relation to design, prospects of achieving purpose, major problems encountered, plans for utilization of anticipated project results, etc. Indicate any changes recommended in project design/funding as a result of this evaluation.

This project is fulfilling its purpose as an assay laboratory that serves as a support activity to the Agency programs that develop both new agricultural varieties and new low-cost nutritious food products. Specifically, the project assesses in humans, the nutritional quality of new varieties of cereals and legumes and new low-cost food blends. To date, the Project has screened numerous food products, some of which have been found with improved nutritional value and are currently used in existing Title II and other food programs; however, many tested new products were shown to be of no nutritional improvement over conventional counterparts. Thus, new food products that would have had no added nutritional advantage were kept from displacing equally nutritious or better conventional food. The review panel concluded that: this type of work is needed; it cannot be done effectively on an ad hoc basis; the current project with the Institute for Nutritional Investigation, Lima, Peru, should be continued, and the present procedure of selecting materials for testing needs to be systematized.

14. EVALUATION METHODOLOGY - Describe the methods used for this evaluation, including the design, scope, cost, techniques of data collection and analysis. Identify agencies and key individuals participating and contributing. Indicate any changes needed in project evaluation plan, including recommendations as to timing and scope of next evaluation.

Background information papers concerning the project (e.g. project reports, memoranda of previous reviews, etc.) were sent to the members of a review committee. The committee consisted of three experts from outside the Agency and a fourth committee member from within the Agency. (Unfortunately, the fourth member was not available to attend because of TDY.) The three attending experts represent academia, industry and an international agricultural research center. Two are nutritionists and the latter an agriculturalist. The committee met for one day in Washington, D.C. Also attending were representatives from the Office of Nutrition, USDA, and A.I.D. Program Office personnel, plus the principal investigators. This review cost the transportation of one expert from Boston, Mass., to Washington, D.C. and return.

15. **EXTERNAL FACTORS** - Identify and discuss major changes in project setting, which have an impact on the project, including technical/scientific factors, cooperating LDC institutions and host government priorities, etc. Examine continuing validity of assumptions for Goal, Purpose, and Outputs.

The reviewers commented that a bilateral arrangement with the host government is desirable but because of present circumstances in the host country, it is considered politically prudent for this A.I.D. project to maintain a low profile and not become a bilateral program. Conditions should be studied regarding a future arrangement between the contractor and the International Potato Research Institute, Lima, Peru.

16. **INPUTS** - Are contractor/grantee inputs (research, technical, training and/or information services) and project supporting activities being delivered as programmed? Analyze input delivery to determine costs and establish effect on planned output targets for each category of project activity. Does technical or managerial experience with the planned mix of inputs, level of effort and/or assumptions indicate any change in design/funding of inputs needed to facilitate achievement of output targets?

The contractor's inputs (technical services) are being delivered as programmed. Current conditions at the contractor's facility, the group's technical input, can screen two to four test samples under short-term nitrogen balance studies, plus one to two test samples for long-term (three months) feeding studies. Increases in this capacity can only be accomplished by expanding the immediate facility, which is not contemplated at this time. Changes in project technical design are unnecessary.

17. **OUTPUTS** - Assess contractor/grantee progress in achieving output targets for each category of project activity in current project design/implementation plan. Analyze costs of outputs. Comment on significant technology and management experiences. How are outputs being utilized to achieve project purposes? Does experience indicate any change needed in output targets or relationships to facilitate achievement of project purpose(s).

During the past year, the contractor has analyzed several rice varieties developed by IRRI and has tested Triposha, an extruded food blend produced by CARE and the Sri Lanka government. The latter is to be used as a weaning food in child feeding programs of that country.

18. PURPOSE - Quote approved project purpose. Cite progress toward each desired End-of-Project Status (EOPS) condition, using table if appropriate. When can achievement be expected? Is the set of desired EOPS conditions still considered a good description of what should exist when the purpose is achieved? Discuss causes of any shortfalls, eg., causal linkage between outputs and purpose (i.e., the project strategy), external factors.

To provide A.I.D. clinical assay services for evaluating the nutritional merits of newly derived varieties of cereals and legumes and new low-cost food preparations.

The purpose of the project remains as long as A.I.D. supports the philosophy of improving the nutritive quality of the world food supply. The clinical evaluation of new strains of agricultural products and new, low-cost fabricated foods must continue to be an integral phase of food and agriculture programs. The Agency should look on this activity as a long-term renewable project pending, of course, periodic review of the progress of this project.

19. GOAL - Quote approved sub-goal to which project contributes. Describe status by citing evidence available to date from specified indicators, and by mentioning progress of other contributory projects. To what extent can progress toward goal be attributed to purpose achievement, to other projects, to other causal factors? If progress is less than satisfactory, explore the reasons, eg., purpose inadequate for hypothesized impact, new external facts affect purpose-sub-goal linkage.

To alleviate malnutrition in LDCs by aiding in the selection of nutritionally improved low-cost foods and new crop varieties. This goal remains the same.

20. BENEFICIARIES - Identify anticipated direct and indirect beneficiaries of this project and nature of benefits. Assess any field experience involving intended beneficiaries and likelihood of results being utilized by LDCs.

The children and infants receiving certain blended foods in areas around the world.

21. UNPLANNED EFFECTS - Has project produced any unexpected results or effects? Are there any implications which would require any change in project design or execution?

None

22. LESSONS LEARNED - What advice can you give a colleague about development strategy--e.g., how to tackle a similar research and development problem or to manage similar project activities? What can be suggested for follow-on activities to utilize project results in LDCs? Do you have any suggestions about evaluation methodology?

It is recommended by the review committee that the Agency systematize its current way of selecting materials for test so that the project may be more effective. A small interdisciplinary group of experts should be convened as a panel to assist A.I.D. in review and selection of materials for testing. The panel should also be used to review the data collected following each test. In this manner, an up-to-date evaluation of project results can be maintained.

MEMORANDUM - Panel Review

SUBJECT: Project Review: "Clinical Assay of High Protein Foods"  
AID/TA-C-1286, Institute for Nutritional Investigation,  
Lima, Peru. (Held April 3, 1978, in Washington, D.C.)

Attendees:

Mark Hegsted, Harvard (Chairman, Review Panel)  
Richard Sawyer, International Potato Institute (Review Panel)  
Richard Theuer, Bristol-Myers Company (Review Panel)  
Samuel Kahn, AID/DS/N  
Martin Forman, AID/DS/N  
Irwin Hornstein, AID/DS/N  
Paul Crowley, USDA/NEAD  
Charline Reeves, AID/DS/PO  
George Graham, John Hopkins University  
William McLean, John Hopkins University

The panel addressed each of 15 key issues submitted to them for review. In their judgment, certain issues were outside the panel's purview, nevertheless, they agreed to record their collective opinions on each issue question.

Issue 1:

Have the objectives of the project's contract been satisfied?

In the opinion of the panel, the contractor has carried out the objectives of the project's contract.

Issue 2:

Has the project been effective in either highlighting findings that have practical applications or preventing the introduction of foods that had either no or an undesirable nutritional impact?

The panel believes that the services provided to AID by the contractor have been effective in differentiating between the nutritional value of new low cost foods or new cereal varieties and conventional food counterparts. Several new food products screened have been found to improve nutritional value and are currently used in existing Title II and other food programs; however, many tested new products were shown to be of no nutritional improvement over conventional counterparts. Testing of new varieties of cereals in humans has only recently been started; nevertheless, preliminary findings suggest that digestibility of new high protein varieties is an important index of measure. <sup>no</sup> Due to their lower digestibility, certain higher protein varieties were found to be ~~not any~~ better than standard varieties.

Issue 3:

How well has information been disseminated under the contract?

Information coming out of the project is presented at meetings and published in professional journals. A.I.D. has used the information to modify certain of its feeding programs. However, the Agency should develop procedures that ensure wider dissemination of project information, especially to individuals and institutions involved in food and agricultural production.

Issue 4:

Should new procedures be established in the selection of materials to be tested?

The current way of selecting materials for test has served the Agency in the past; however, a more systematized procedure must be established if the clinical assay system is to be more effective. The panel recommends that a small interdisciplinary group of experts be formed as a panel to assist A.I.D. in review and selection of materials for testing. The panel could also be used to review the data collected following each test.

Consideration should be given to expanding the current testing procedure to include, in addition to protein evaluation, the study of digestibility of fat and carbohydrates and when appropriate, the clinical assay of vitamins and minerals.

Issue 5:

Can the Agency conduct this program on an ad hoc basis?

The review panel unanimously agrees that it is extremely difficult and impractical to attempt to contract separately for each food to be tested. First, it will be difficult to employ one of the few U.S. laboratories capable of doing this work because of the short-term nature of the commitment, in addition to subject enrollment problems and other reasons. Secondly, conducting this project piece-meal (ad hoc) will attract investigators who go where the money is rather than where a priority necessity exists.

Moreover, investigators who are interested in conducting short-term service contracts may not be as proficient as those with a continuing commitment to this type of work. Finally, to do this work ad hoc requires that a new laboratory generate the same normative data already established for the unit in Peru. Differences between laboratories as to the selection and care of

subjects could modify baselines and cause test results to be variable. A qualified group would require at least one year to generate norms for their unit. Thus, conducting this work ad hoc would increase time and cost and reduce the reliability of the results.

Issue 6:

Are program activities essential in the development of new food and crop varieties?

The panel believes that the program's activities are important to both development activities. In the past, emphasis was on the screening and selection of new low cost foods, especially new weaning foods. The program could and should be directed to the clinical evaluation of new crop varieties. In the opinion of the panel, clinical work of this type has to be conducted because no alternative exists. AID cannot afford to release new food mixtures that may prove to be inadequate by any criteria, and the ultimate criteria is the human standard. Human testing is extremely important in the evaluation of new varieties where there are potentially undesirable food constituents. This is especially true with legumes. Furthermore, one cannot predict what effect processing will have on these constituent factors and on the nutrient value of the new food.

Careful evaluation must be conducted on new varieties that possess widely divergent genetic backgrounds from their conventional food counterpart. Animal testing alone may not detect these differences, therefore, the importance of human testing.

Issue 7:

If INI had not existed would assays have been conducted?

Testing could and would have been carried out at another clinically competent laboratory.

Issue 8:

Have other organizations, public or private, used the assay service of INI?

Yes, NIH, Mead Johnson & Company, the International Rice Research Institute (IRRI), the International Maize and Wheat Institute (CIMMYT) and the International Potato Institute have used INI's clinical assay services.

Issue 9:

What is the relative priority of this project's work compare to other nutrition activities in the area?

In the opinion of the panel the contractor is conducting work that is important to this area of nutrition.

Issue 10:

What services has INI provided to AID or AID supported activities?

Services to AID are described in the annual summary report distributed to the panel. Examples of services are: recent assay of various rice varieties developed by IRRI; the testing of Triposha, extruded food blend produced by CARE and Sri Lanka government; previous work conducted on CSM and whey-soy blends; soybean and other food blends that are currently used by FFP.

Issue 11:

What percent of the INI budget is supported by AID?

Approximately 45 percent of the current INI budget is derived from this AID project.

Issue 12:

If AID withdrew its support would INI still remain viable, can INI ever be self-sustaining, and does INI anticipate getting support from other donors?

In the opinion of the panel, INI would collapse if AID were to withdraw current support. Under existing circumstances, INI could never be self-sustaining. INI would be very pleased if support was extended by other donors but this possibility is remote.

Issue 13:

Is the activity important to Peru?

INI receives no financial support from the Peruvian government. There should be a bilateral tie-in because of the potential importance of the work to Peru, but under present circumstances in Peru it may be politically prudent for this AID supported project to keep a low profile.

Issue 14:

From whom does INI receive additional support and to what extent?

The remaining 55% of the contractor's budget is derived from NIH support money.

Issue 15:

Should this program area and the INI project continue?

The panel believes that A.I.D. cannot eliminate this program of testing. Just one unfortunate incident in which a new crop or food product can be associated with undesirable effects, even in a few infants or children, may have catastrophic effects upon the entire program. It would be widely interpreted, particularly in the public and scientific press, as evidence of a callous and careless attitude on the part of A.I.D.--an unwillingness of the organization to spend a few additional dollars to be sure while spending millions to develop the product. Long years of effort could be wiped out. Obviously, one does not expect that any of the products tested will be shown to be toxic and, thus, many of the results will not be spectacular. They will usually confirm what is expected. Nevertheless, the release or promotion of products for human consumption which have not been "fully tested" must be considered to be irresponsible. "Fully tested" means that the products must be fed to infants and young children under reasonably standardized conditions and these studies must be conducted by responsible people with as much experience in such studies as can be found. The latter cannot be achieved by obtaining ad hoc evaluation by the lowest bidder or by having different groups test each product.

The INI project, in particular, has a long tradition of research in this area, which has generated a unique experience that is the basis for reasoned judgments of the value of new foods. If A.I.D. support of INI lessens, the Agency will be the loser.

Summary

A strong effort must be made to better inform the International Agricultural Research Centers as to the potential merits of this program and how this activity can tie into and benefit their programs; since, these institutions should be supporters of this program. The risks inherent in developing new varieties without adequate clinical testings should be pointed out to them.

In conclusion, the panel wishes to emphasize the following points:

1. This type of work is needed;
2. It cannot be done effectively on an ad hoc basis;
3. The current project with INI should be continued;
4. The Agency's present procedure of selecting materials for test needs to be systematized.

~~MAIL~~  
9310077-4  
PD-AA2-534-C1

AGENCY FOR INTERNATIONAL DEVELOPMENT <b>PROJECT PAPER FACESHEET</b>				1. TRANSACTION CODE <input type="checkbox"/> A = ADD <input type="checkbox"/> C = CHANGE <input type="checkbox"/> D = DELETE			PP		
3. COUNTRY/ENTITY DEVELOPMENT SUPPORT BUREAU				4. DOCUMENT REVISION NUMBER <input type="checkbox"/>					
5. PROJECT NUMBER (7 digits) [ 931-0077 ]		6. BUREAU/OFFICE A. SYMBOL [ DSB ] B. CODE [ 10 ]		7. PROJECT TITLE (Maximum 40 characters) [ Clinical Assay High Protein Food Sources ]					
8. ESTIMATED FY OF PROJECT COMPLETION FY [ 81 ]				9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY [ 810 ] B. QUARTER [ 1 ] C. FINAL FY [ 811 ] (Enter 1, 2, 3, or 4)					
10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$1 - )									
A. FUNDING SOURCE		thru 9/30/78 FIRST FY			LIFE OF PROJECT				
		B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL		
AID APPROPRIATED TOTAL		531			1427		1427		
(GRANT)		( )	( )	( )	1427	( )	1427		
(LOAN)		( )	( )	( )	( )	( )	( )		
OTHER U.S.		1.							
		2.							
HOST COUNTRY									
OTHER DONOR(S)									
TOTALS		531			1427		1427		
11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION		B. PRIMARY PURPOSE CODE		thru 78		H. 2ND FY 79		K. 3RD FY 80	
		PRIMARY TECH. CODE		E. 1ST FY					
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1)	FN	301		531		300		296	
(2)									
(3)									
(4)									
TOTALS				531		300		296	
A. APPROPRIATION		N. 4TH FY 81		O. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED  0 4   8 11	
		P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN		
(1)	FN	300				1427			
(2)									
(3)									
(4)									
TOTALS		300				1427			
13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.									
[ 1 ] 1 = NO 2 = YES									
14. ORIGINATING OFFICE CLEARANCE						15. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W OCCU. MENTS. DATE OF DISTRIBUTION			
SIGNATURE <i>Martin J. Gamm</i>									
TITLE Director, Office of Nutrition									
DATE SIGNED MM   DD   YY 05   23   71						MM   DD   YY 			

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I		1. TRANSACTION CODE <input type="checkbox"/> A = ADD <input type="checkbox"/> C = CHANGE <input type="checkbox"/> D = DELETE	PAF 2. DOCUMENT CODE 5
3. COUNTRY/ENTITY B. Adaptation & Application DSB - RDA 8		4. DOCUMENT REVISION NUMBER 1	
5. PROJECT NUMBER (7 digits) 931-0077.14	6. BUREAU/OFFICE A. SYMBOL DSB B. CODE 10	7. PROJECT TITLE (Maximum 40 characters) Clinical Assay High Protein Food Sourc	
8. PROJECT APPROVAL DECISION <input type="checkbox"/> ACTION TAKEN A = APPROVED D = DISAPPROVED DE = DEAUTHORIZED		9. EST. PERIOD OF IMPLEMENTATION YRS. 02 QTRS. 8	

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>thru</u> 78		H. 2ND FY 79		K. 3RD FY 80	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	301	331		531		300			296
(2)									
(3)									
(4)									
TOTALS				531		300			296

A. APPROPRIATION	N. 4TH FY 81		O. 5TH FY		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED (ENTER APPROPRIATE CODE(S)) 1 = LIFE OF PROJECT 2 = INCREMENTAL LIFE OF PROJECT	A. GRANT	B. LOAN
	D. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN			
(1) FN	300				1427				
(2)									
(3)									
(4)									
TOTALS		300			1427				81

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)			13. FUNDS RESERVED FOR ALLOTMENT		
A. APPROPRIATION	B. ALLOTMENT REQUEST NO.		TYPED NAME (CHW/NSR/PM/PS/D)		
(1)	C. GRANT	D. LOAN	SIGNATURE		
(2)			DATE		
(3)					
(4)					
TOTALS					

14. SOURCE/ORIGIN OF GOODS AND SERVICES  000  941  LOCAL  OTHER \_\_\_\_\_

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

This amendment is required in order to extend the life of the Project Paper another two years from October 1, 1979 to September 30, 1981. The current funding level of \$1,427,000 does not change.

FOR PRC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE
		MM DD YY		MM DD YY

PROJECT AUTHORIZATION AND REQUEST FOR  
ALLOTMENT OF FUNDS

PART II

ENTITY: Development Support Bureau  
PROJECT: Clinical Assay of High Protein Food Sources  
PROJECT NUMBER: 931-0077.14

I hereby authorize a two year extension from October 1, 1979 to September 30, 1981 of the Project Paper entitled "Clinical Assay of High Protein Food Sources". Activities under this project will continue at the current funding level of \$1,427,000.



Tony Babb  
Deputy Assistant Administrator  
for Food and Nutrition  
Development Support Bureau

Date: 8/17/79

Clearances:

DS/N, M.J. Forman [Signature] Date: 5/23/79  
DS/PO, K. Milow [Signature] Date: 7/11/79  
DS/PO, R. Simpson [Signature] Date: 7/11  
DS/PO, B. Chapnik [Signature] Date: 7/11

\*Subject to limitation in approval memo that this extension applies to IIN, Lima, and that any further work in the project will be presented in a revised P.P.

May 23, 1979

ACTION MEMORANDUM TO DEPUTY ASSISTANT ADMINISTRATOR  
DEVELOPMENT SUPPORT BUREAU

THRU: DS/PO, Robert C. Simpson 

FROM: DS/N, Martin J. Forman 

Problem: Your approval is requested for a two year extension at its current funding level of the project paper "Clinical Assay of High Protein Food Sources", Project Number 931-0077-14.

Discussion: This project supports clinical testing of human subjects, an activity authorized in FY 1976, for the purposes of (1) assessing in infants and young children the nutritional quality of new cereal and legume varieties and new low-cost foods, and (2) developing a network of clinical laboratories to carry out the required analyses. Currently, the project funds the Institute of Nutritional Investigation (IIN), Lima, Peru. Support for IIN will expire December 1979 unless the authority of the project paper is extended. The IIN project serves as a support activity to the Agency programs by providing for the clinical assay of new agricultural varieties and new low-cost nutritious food products. This activity is part of a continuing commitment to provide a means by which the Agency can measure the nutritional impact of new foods being distributed under Food For Peace or as part of a country's nutrition program.

This project has been important in evaluating the nutritional merit of such low-cost blended foods as CSM, WSB, whey-soy, wheat-soy-sorghum (Thriposha), cereal and legume flours (e.g. wheat, soy, peanut), plus new varieties of wheat, rice, corn and sorghum. Besides studying food products for improved nutritional value, the program can identify a new crop or food products which may be associated with undesirable effects. Just one unfortunate incident in a few infants or children could have catastrophic effects on the entire Agency program. This project provides additional insurance against such incidents.

In an evaluation of the IIN project held last year, the reviewing panel concluded that this type of work is needed and could not be done effectively on an ad hoc basis; in other words, the Agency needs the services of on-going laboratories that can be responsive to Agency needs for assessing new food products. New cereal or legume materials should first be studied in those regions where they comprise the principal food staple. In this regard, it was the intent of the original project paper to expand the number of A.I.D. supported clinical assay laboratories under this project to three. Therefore, two additional laboratories will be supported

from either Africa, the Near East, or Asia. Selected laboratories must provide written assurance to A.I.D. that they will abide by the A.I.D. policy regarding the protection of individuals as test subjects. These laboratories will assay in their respective geographic areas new crop varieties, indigenous weaning foods and low-cost nutritious foods. Moreover, additional assay facilities would create the opportunity for the exchange of test material between laboratories. Inter-laboratory data is essential for the verification of findings.

The service would continue to evaluate the nutritional merits of new low-cost food preparations that are developed through the existing DS/N, USDA and food industry activities. Linkages would be encouraged with existing clinical assay laboratories in developed countries and with any emerging laboratories in the LDCs.

Data and information derived from this program is fed back into the existing international crop breeding programs for the selection of nutritionally superior breeds of cereals and legumes. Other data has been invaluable in the selection and formulation of new indigenous low-cost nutritious foods that find use in national and international food programs, in addition to the Agency's own food program. Thus, in these ways, project data is utilized and the results contribute to improving the world food situation.

The need of a project such as this remains as long as the Agency supports the philosophy of improving the nutritive quality of the world food supply. The clinical evaluation of new breeds of agricultural products and new low-cost fabricated foods must continue to be an integral phase of food and agriculture programs. The Agency should look on this activity as a long-term renewable project pending, of course, periodic reviews of the progress of the project. The project should not be designed as a year-to-year activity.

The current project's funding level is \$1,427,000. To date, \$531,000 has been obligated, leaving \$896,000 for future project needs. Approximately \$300,000 will be used during this fiscal year for two years forward funding of the ongoing IIN project which otherwise would expire at the end of this calendar year. The remaining monies are planned to be used in support of one, possibly two clinical assay laboratories in different geographic areas of the world.

Since the purpose and scope of work of the project remains unchanged and extensive review of the project has supported the current activities, a two year extension of the authority of the Project Paper is considered appropriate at this time. This extension will permit continuation of the current IIN, Lima, Peru activity. In addition, a new project paper will

be prepared for review prior to the start-up of any new clinical assay laboratory. Submission of the Project Paper is scheduled for early 1980.

Recommendation: That you approve a two year extension of the authority of the Project Paper so that the current IIN, Lima Peru activity may continue at the current funding level from October 1, 1979 to September 30, 1981.

Approved: \_\_\_\_\_

Disapproved: \_\_\_\_\_

Date: \_\_\_\_\_