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Appendix 6A, ch 6
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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE ("X" appropriate box) PD-AAC-692-B1 PP
[X] Original [ ] Change 41p
[ ] Add [ ] Delete

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: Interregional GTS-KPA #8

3. DOCUMENT REVISION NUMBER:

4. PROJECT NUMBER: 931-11-560-225

5. BUREAU: a. Symbol: TAB; b. Code: 6

6. ESTIMATED FY OF PROJECT COMPLETION: FY 79

7. PROJECT TITLE - SHORT (stay within brackets): Soybean Utilization

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION: a. INITIAL mo. 4 yr. 76; b. FINAL FY 78 39p

9. ESTIMATED TOTAL COST ($000 or equivalent, $1 =)

a. FUNDING SOURCE	FIRST YEAR FY 76			ALL YEARS		
	b. FX	c. L/C	d. Total	e. FX	f. L/C	g. Total
AID APPROPRIATED TOTAL	450		450	675		675
(Grant) X	(450)	( )	(450)	(675)	( )	(675)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
HOST GOVERNMENT						
OTHER DONOR(S)						
TOTALS	450		450	675		675

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS ($000)

a. Appropriation (Alpha Code)	b. Primary Purpose Code	c. Primary Tech. Code	FY 76 d. Grant	FY 76 e. Loan	FY 78 f. Grant	FY 78 g. Loan	FY h. Grant	FY i. Loan	ALL YEARS j. Grant	ALL YEARS k. Loan
FN	330	330	450		225				675	
TOTALS			450		225				675	
11. ESTIMATED EXPENDITURES			450		225					

12. PROJECT PURPOSE(S) (stay within brackets) [ ] Check if different from PID/PRP

To develop a methodology for introducing unprocessed and simply processed soybeans as a food staple among the rural poor in LDCs.

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14, or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.

[ ] Yes [X] No

14. ORIGINATING OFFICE CLEARANCE

Signature: [signature] (for) Martin J. Forman

Title: Director, Office of Nutrition

Date Signed: mo. 03 day 17 yr. 76

15. Date Received in AID/W, or For AID/W Documents, Date of Distribution: mo. day yr.

AID 1330-4 (7-75)

B. RECOMMENDATIONS

1. This project requires approval for grants totaling $675,000 consisting of the following items:

(1)	Contract (Contractor to be selected through RFP).	$625,000
(2)	RSSA (USDA/ARS/NRRC)	50,000
	TOTAL	$675,000

Notations:

This project was reviewed and endorsed by the Research and Development Committee (R&DC) at its March 9, 1976 meeting.

A. Originating Office:

DRAFTER: Dr. Irwin Hornstein, TA/N date 3/17/76

B. Clearance:

TA/PPU: Carl R. Fritz date 4/22/76

C. Approval:

AA/TA, Curtis Farrar for CF date 4/26/76

C. DESCRIPTION OF THE PROJECT

The purpose of this project will be to introduce soybeans as a food staple among the rural poor in a selected LDC and develop a methodology for introducing unprocessed or simply processed soybeans as a direct food for low-income segments of the populations of other LDCs. The project will be managed by a U.S. organization selected through RFP which will identify a suitable country for project implementation and will select and organize cooperating institutions within the country to carry out the project. The U.S. organization will also prepare a case history of the country-study and a methodology for introducing soybeans in other countries. The cooperating institutions within the country will include home science and extension institutions, advertising and promotional organizations, consumer survey groups, and such other organization as are necessary to introduce soybeans as a direct food among the rural poor and evaluate the consumption of soybeans resulting from project activities. In addition, an inventory of information on soybean consumption patterns around the world will be collected by USDA/ARS/NRRC, Peoria, Illinois; outputs from this part of the project will be incorporated into the methodology resulting from the country study. At the completion of the project it is expected that soybeans will be consumed as a new food staple by a segment of the rural population in an LDC and a methodology will be available which will provide guidance to expand consumption in that country and introduce soybean as a direct food in other countries

D. SUMMARY FINDINGS

Analysis of the technical, financial, social, and economic aspects of the project reveals no major problem and indicates the project is sound and ready for early implementation. Arrangements for implementation call for

a number of contractors and subcontractos operating both in the U.S. and overseas. However, careful selection of the prime contractors and periodic review of progress should enable AID to be assured that the project objectives are reached.

The project meets all applicable statutory criteria.

E. PROJECT ISSUES

On January 16, 1976, RAC reviewed a proposal for research from the University of Illinois which included a component for work on development of simple processes to make soybeans suitable for food use at the home or village level. RAC recommended that this component be separated from the contract and that a new proposal concerning development of soybean food products be prepared for submission to RAC by October 1976. TAB has considered the RAC recommendation and has decided to have USDA/ARS Northern Regional Research Center, Peoria, Illinois prepare, on an urgent basis, a state-of-the-art study on food uses of soybeans and to use this study as a basis for determining what, if any, further work is required and to what extent AID should support further work on development of soybean processing. The USDA study is to be completed by October 1976 and recommendations for further project activity will be developed by TA/N and TA/AG as soon thereafter as possible. USDA/ARS/NRRC is proposed to carry out this study on the basis of its long standing preeminence in soybean technology and its availability to undertake the study on an urgent, high-priority basis.

Part 2. Project Background and Detailed Description

A. BACKGROUND

Lack of availability of low-cost nutritious foods is recognized as a major problem in the less developed countries. Inadequate food consumption

and poor quality foods have contributed to poor nutritional health, high levels of morbidity and mortality, widespread stunting of mental and physical growth, and general deterioration in the quality of life. In addition, economic growth has been inhibited due to lack of strong, healthy people to carry out programs for agricultural and industrial development.

The need to overcome these problems has been identified by AID as a high priority goal and has been included in the AID Nutrition Program Strategy. 1/ That strategy calls specifically for attention to two methods for providing low-cost foods for LDC population, viz (1) greatly improving the nutrient content of the basic food supply grown, and (2) fortification of the food supply. A number of approaches have been conceived for implementing these methods and AID has actively supported efforts to introduce the use of these approaches where appropriate in developing countries.

One approach to improving the food supply which has been supported by AID is the introduction of soybeans. Soybeans can provide a low-cost source of high quality protein and high energy vegetable oil in many of the less developed countries where the climate and soil are favorable for soybean production. Soybeans contain double the protein of the pulses and legumes normally found in diets of low income persons yet costs only about 1/4 - 1/2 as much as those grains. In recognition of this, AID has supported agricultural research and development of soybeans in a number of LDCs in Africa, Asia, and Latin America. (For a recent review of AID supported activity on soybean production and plans for future actions see Annex H (1), Project Statement of Development of Improved Varieties of Soybeans, University of Illinois). However, these agricultural projects cannot be totally successful

1/ The AID Nutrition Program Strategy, U.S. Agency for International Development, June 1973.

unless soybeans and soybean products are consumed as food by nutritionally deprived population groups in the countries where soybeans are produced. Accordingly it is necessary to compliment soybean development projects with soybean utilization projects, especially in those countries where AID has or is assisting with soybean production.

Although soybeans can be processed to yield edible meal and oil, and the meal can be used as an ingredient in processed or fortified foods or converted to textured vegetable protein (TVP) or other consumer foods, these applications generally require some form of processing industry. (AID has supported the use of soybeans in processed foods through a variety of projects including the ongoing Food and Nutrition Technical Services Project with USDA and the proposed new GTS project entitled Improving the Nutritive Value of Wheat Foods which emphasizes the utilization of soy meal as a protein fortificant in wheat products). On the other hand, in some cultures soybeans are consumed directly as a vegetable or as a food ingredient in home recipes and consequently a soybean processing industry is not required. Numerous studies and compilations of the direct food use of soybeans have been made including ones supported by AID such as Indian Recipes of Soybeans 2/. Cultures using soybeans in this way exist in Indonesia, Korea, Nepal and certain other countries. Also many cultures of Latin America, Asia, and Africa use beans and pulses directly as home-prepared foods now. Therefore it should be possible under some circumstances to use these existing recipes to introduce soybeans as a direct food in LDCs.

In addition, it might be possible to develop or introduce new, simple processes for home or village use so that more methods are made available

2/ Singh, Rajeshwari, Soyahar Indians Recipes of Soybean. U.S. Agricultural University. Pantnagar. U.P. India. 1970.

by which soybeans can be utilized directly for food use. A new activity to generate an inventory of information on availability and utilization of soybeans will be developed through a contract with USDA/ARS/NRRC. This review will determine whether additional efforts to explore simple processes for utilizing soybeans should be pursued. These activities are important elements in the total effort to introduce soybeans as a direct food in the diets of those in need of low-cost nutritious foods in LDCs.

2. The major activity convered by the PP will be the introduction of soybeans as a direct food among the rural poor using available recipes for food preparation. A second activity will be the preparation of a methodology for introducing soybeans as a direct food in other countries. The rural poor were selected as the beneficiaries of the project because other methods of assisting urban groups are available (such as fortified and processed foods) and promoting direct consumption of crops such as soybeans is one of the few methods of reaching the rural poor. This part of the project will be carried out by a contractor selected through an RFP and therefore no proposal exists at this time. The preparation of an inventory of information on availability and utilization of soybeans, which compliments the major activity and could lead to greater potential for utilizing soy, will be developed as a RSSA with USDA.

B. DETAILED DESCRIPTION

1. Project Design

a. The sector goal is to increase the quantity and improve the nutritional quality of the food supply for economically deprived segments of the populations of LDCs.

The objectively verifiable indicators that this goal has been achieved consist of food balance sheets and food consumption studies which show increased consumption of energy and protein of specific population elements, particularly low income groups. In cases where new foods are introduced, consumption can be verified by sales statistics and consumer surveys.

It is assumed that lower cost and nutritionally better foods can be identified or developed, and that these foods can be introduced successfully into the diets of low income people. It is also assumed the governments of LDCs will support efforts to improve the availability of low-cost nutritious foods.

b. The project purpose is to develop a methodology for introducing unprocessed and simply processed soybeans as a food staple among the rural poor. Also, it is the purpose to collect information concerning the availability and uses of soybeans elsewhere in order to provide more and better methods through which soybeans can be utilized as food. The indicators that the project purposes have been achieved will be:

(1) Soybeans will be consumed as a food staple by the rural poor in the selected country as verified through food consumption surveys in the target group. It is anticipated that consumption will increase from zero to about 20 kg. per person per year or more in the test areafor three years based on replacement of ordinary beans with soybeans.

(2) A written methodology for introducing soybeans will be available which will draw on the experience of the introduction of soybeans as a direct food in the selected country as well as the information describing the availability and use of soybeans which will be carried out under the project.

It is assumed that a country can be selected where soybeans are produced but are not now consumed directly as food, and that the rural poor can be persuaded to change their food habits and eat soybeans in place of or in addition to other food staple which cost more and provides less nutrition (e.g. ordinary beans). It is also assumed that the approach to introducing soybeans can be generalized to the extent that a methodology can be written which is applicable to many areas around the world.

c. The project outputs will include the following elements:

(1) The identification of a country in which to carry out the project. The primary basis for country selection will be that soybeans are now produced locally but are not consumed directly as human food, that soybeans cost less than other foods in the diet which they might replace such as pulses or beans, and that there are local institutions which are qualified to carry out, under the guidance of the contractor, the extention and promotion activities necessary to introduce soybeans (see Annex B, Technical Details on Country Selection). The country will be selected jointly by AID, concerned USAID Missions, and the contractor. Special attention will be given to countries where USAID Missions are actively supporting soybean production.

(2) A number of individual outputs associated with introduction of soybeans in the specific country are required including---

-- An inventory of food habits and dietary practices to provide a baseline against which progress in introducing soybeans can be made and to give guidance in selecting culturally acceptable recipes and preparation methods for using soybeans.

-- An inventory of methods for communicating with the target group and persuading them to use soybeans (e.g. radio broadcasts, expected coverage, cost, and effectiveness).

-- A list of recipes developed especially for promoting use of soybeans as a direct food in the selected country.

-- A promotional campaign to encourage use of soybeans, including campaign design pretests, material development, as well as the actual campaign itself.

-- A supplementary marketing system for soybeans. (This element is necessary only if existing marketing system is judged not to be adequate to assure that the intended consumers have access to soybeans).

-- An evaluation of the effectiveness of the promotional campaign and the extent to which soybeans are consumed directly as food.

All of the above outputs will be verified by reports prepared under the guidance of the contractor.

(3) An inventory of information on the availability and utilization of soybeans for human food with the following elements:

-- A literature review.

-- An investigation of recent experience around the world regarding use of soybeans directly for food.

-- An analysis of factors which might encourage or constrain use of soy for food.

-- Suggestions for additional research or development work which is needed.

This output would be supplied as a comprehensive report to AID and additional summaries or reports as needed to widely disseminate the information.

(4) A methodology manual which will provide guidance for introducing soybeans as a food staple in appropriate LDC.

It is assumed that competent contractors and other participating institutions to carry out the project elements can be found, and that these organizations will assign individuals qualified to work on the project. It is also assumed that sufficient information is available on introducing new foods so that an effective introduction campaign can be designed within the scope of the project. It is further assumed that existing recipes for direct consumption of soybeans are applicable in LDCs with little or no modification.

d. The project inputs will include the following:

(1) A project management organiztion (to be selected as the prime contractor through RFP) to have technical and organizational responsibility for the project including selection and guidance of subcontractors in the selected country, preparation of all country reports, and preparation of the methodology for introducing soybeans as a human food. In-country subcontractors are expected to include advertising, promotion, and market research firms, home science and extension organizations (such as local universities), and project management specialists (either in addition to or as a part of the technical organizations).

The total cost of the prime contractor and all subcontractors is estimated to be $625,000 over the three-year life of the project.

(2) USDA/ARS/NRRC will develop the inventory on availability and utilization of soybeans at a cost of $50,000 during the first year of the project.

(3) USAID Missions and Regional Bureaus which will advise on country selection and assist informally with developing and implementing the project.

(4) USDA, through the Food and nutrition Services RSSA, which will assist AID in monitoring the project.

(5) AID which will monitor the project, provide periodic reviews, and supply project funds in the amount of $675,000.

The Logical Framework Matrix for the project is given in Annex D.

2. Time Phase of Project

This project is to be carried out over a three-year period and will consist of the following major elements:

a. Development of a methodology suitable for use in other countries and introduction of soybeans as a direct food in a selected country.

This element will include:

(1) Selection of a country and suitable subcontractors by a team made up of representatives from TAB/Regional Bureaus and the prime contractor drawing on advice from USAID Missions. Country visits will be made as required to determine if countries meet selection criteria (see Annex D-1) and to select appropriate subcontractors.

Period: Year one, quarter one.

(2) Subcontractor will develop an inventory of communications methods and food habits and attitudes to use as a base for developing a

strategy for introducing soybeans, selecting appropriate recipes, and effectively promoting soybean consumption.

Period: Year one, quarter 2 through 4.

(3) Subcontractors will evaluate a variety of recipes for preparing soybeans as a direct food and based on local food habits and attitudes will select those most likely to be adaptable to the local culture.

Period: Year one, quarters 3 and 4.

(4) The prime contractor will select 2-4 strategies for introducing food use of soybeans and subcontractors will pretest these strategies to help determine which is more likely to be successful. The prime contractor, in consultation with AID, will select a strategy for soybean introduction for implementation.

(5) The prime contractor will complete the design of the introduction program and engage additional subcontractor if necessary.

Period: Year one, quarter 4.

(6) The subcontractors will carry out the campaign for introducing soybeans as a human food, using advertising, promotion, extension workers and others as necessary. The prime contractor will monitor the activities of all subcontractors and make adjustments in the campaigns as required. Consumption rates and the effect of promotional activities on consumption rates will be followed to assess the extent of soybean consumption among the rural poor and the reasons for changes in consumption rate.

Period: Year 2-3, quarters 1-4, 1-2.

(7) The contractor will prepare a comprehensive description of the project experiences in introducing soybeans as a food, and will generalize to the extent possible as a methodology, how soybeans might be introduced in other section of the country and in other countries. In preparing the methodology the contractor will draw on the findings of USDA/ARS/NRRC regarding its inventory of information on availability and use of soybeans.

Period: Year 3, quarters 3-4.

b. An inventory of information on the availability and use of soybeans as a human food. This will include a literature survey and broad, worldwide contacts with organizations and individuals working in soybean development to obtain a comprehensive inventory of relevant information. Specially, the contractor will:

(a) Assemble the available literature on direct utilization of soybeans for human food.

(b) Determine the countries in which soybeans are being most successfully utilized for human food.

(c) Based on the information obtained in (a) and (b), visit the 2-3 countries where results appear most promising in order to study first-hand the ways in which soybeans are being used at the village and home level including the ways they are included in the diet, combined with other foods, and the problem and constraint on expanded use.

(d) Analyze the information obtained.

(e) Prepare a report of findings that will include recommendations on needed research.

(f) Submit report to major contractor and AID.

The inventory will be used as an input by the prime contractor (a) in developing a methodology for introduction of soybeans and, in addition, is expected to be useful background during the activity to introduce soybeans in the specific country. Therefore completion of the inventory during the first year of the project is important.

Period: Year one, quarters 1-2.

c. Project review and evaluation. This will include initial participation by AID in the country selection process, annual reviews of progress by AID, and final evaluation of the project during the last stage of the preparation of the final report and methodology by the prime contractor.

A summary of the project elements showing time phasing and duration is given in Annex E. The completion of these project elements will lead to a report and methodology which, as a final output, will indicate achievement of the project purpose of introducing soybeans as a new low-cost food staple among the rural poor in a specific country and the development of a methodology for doing so elsewhere.

Part 3. Project Analysis

A. TECHNICAL ANALYSIS

1. a. Appropriateness - AID has given strong support to increasing the production of soybeans in LDCs and in addition has encouraged production in many countries where soybeans have never been grown. AID has also encouraged the use of soybean flour, grits, and other centrally processed foods as protein fortificants and ingredients in low-cost foods. These efforts are coming to fruition in certain countries such as Brazil, Korea, and India. However in a number of countries soybeans are used almost totally for animal feed orm more often, are

exported and the food benefits are not realized. In recognition of these diversions of soybeans from food uses it is now appropriate to search for ways by which soybeans can be converted directly to food in the countries where they are produced. Since many recipes for this purpose have evolved over the years and since skills in new food introduction are readily available, it is appropriate now to spread the use of those recipes among countries where soybeans are produced so that the soybeans will be used directly for food and not be used totally for animal feed or for export. It is also appropriate now to seek out new ways to use soybeans for food so that additional, perhaps better, ways of preparing soybeans can be recommended.

b. Design and price of project - This project has been designed jointly by TA/N and TA/AG with advice from USDA and the University of Illinois. It represents over 18 months of project design deliberations and is believed to be the best approach to development of a methodology for introducing the use of soybeans as human food. The estimated cost of the project is believed to be reasonable and realistic. The use of institutions and organizations within LDCs as the primary implementation agencies, and the use of a U.S. contractor as a project management and advisory agency are believed to represent the most economical ways of executing the project.

2. Technology and Employment Effects - The technology proposed in this project does not affect employment in the usual sense. The project proposes to develop a methodology for introducing soybeans as a direct, unprocessed or simply processed food into the diets of the rural poor in LDCs and the technology for this purpose is simple home-cooking of soybeans or simple

village processes to aid in converting soybeans to an edible form. This should have no significant effect on employment.

3. Environmental Considerations - This project is not expected to have any significant effect on the environment.

4. Technical Design and Cost Estimate - It is believed that this project has good technical design (see section #a 1-b above) and that the cost estimate is reasonably firm (see section 3 B-3 below).

5. Summary Conclusion - This project is technically sound, well designed, reasonably priced and meets FAA Section 611 (a) and (b).

B. FINANCIAL ANALYSIS AND PLAN

1. Financial Rate of Return/Viability

The financial return of project participants (the rural poor) can not be estimated precisely. However the goal of the project is to persuade the rural poor of countries to substitute inexpensive nutritious soybeans for more expensive, less nutritious foods now used in their diets. To illustrate the financial return, it might be assumed that soybeans at 20¢ per kg. are substituted for ordinary black or red beans at 40¢ per kg. at an average per capita rate of 20 kg. per year. Under these circumstances, an individual might save annually $4, a family of six might save $24, and a population of one million might save $4,000,000. Alternatively, the beneficiaries might buy more food rather than save, and accordingly would benefit from greater food intake.

2. Recurrent Budget Analysis of Implementing Agencies.

a. Budgets by implementing agencies after project completion - No recurrent expenditures will be required by any of the implementing agiencies beyond the life of the project. The cost of expanding the

use of soybeans for food at additional sites beyond the one used in this project would be expected to be borne by governments as parts of other projects or programs if those governments deem the effort to be worthwhile.

b. Recurrent Budgets - Different Implemeting Agencies - Not applicable.

3. Financial Plan/Budget Tables

a. b. Cost of this project are to be borne entirely by AID. The following table summarizes cost according to project output.

Summary Cost Estimate and Financial Plan

Source	Amount (U.S. $)
Output:	
1. Introduction of soybeans in selected country	625,000 a/ & b/
2. Information on availability and utilization of soybeans	50,000
3. Methodology for introducing soybeans	-- b/
Total	675,000

a/ Any expenses required for country selection will be borne by the USDA, Food and Nutrition Technical Services Rssa.

b/ This includes estimated costs of preparing methodology for introduciton of soybeans elsewhere as a part of final report. Inflation factor and contingencies are included in estimate.

c. Costs of the major project elements by project year are shown in the table below.

Budget of Annual Expenditures

Major outputs	Project year 1	2	3	Total
Development of methodology for introduction of soybeans.*	195,000	205,000	225,000	625,000
Direct costs:				
Salaries, U.S.	40,000	20,000	30,000	90,000
Salaries, Cooperating country	37,000	38,000	38,000	113,000
Travel and allowances	34,000	25,000	25,000	84,000
Materials and supplies	5,000	5,000	5,000	15,000
Subcontracts	25,000	78,000	78,000	181,000
Indirect costs:	54,000	39,000	49,000	142,000
Inventory of information on availability and utilization of soybeans	50,000	---	---	50,000

TOTAL	245,000	205,000	225,000	675,000

*Note: Annual expenditures are estimates; actual costs are to be established through competetive bidings

BUDGET SUMMARY* (Contractor to be selected)

Category	Year I	Year II	Year III	Total
I. Salaries	$ 77,250	$ 58,250	$ 68,750	$204,250
A. U.S.	(40,500)	(20,000)	(30,500)	(91,000
B. Cooperating Country	(36,750)	(38,250)	(38,250)	(113,250
II. Fringe	5,660	2,795	4,260	12,715
III. Indirect Costs	39,415	25,300	32,755	97,470
A. U.S.	(28,755)	(14,200)	(21,655)	(64,610
B. Overseas	(10,660)	(11,100)	(11,100)	(32,860
IV. Travel and Transport	18,500	16,000	16,000	50,500
V. Allowances	15,000	9,000	9,000	33,000
VI. Other Direct Costs	9,500	9,500	11,000	30,000
VII. Materials and Supplies	5,000	5,000	5,000	15,000
III. Subcontracts	25,000	77,500	77,500	180,000
	$195,325	$203,345	$224,265	$622,935

* This excludes the $50,000 for the inventory of information which will be done by USDA/ARS/NRRC.

BUDGET DETAIL (Contractor to be selected)

	Year I		Year II		Year III		
	ftc/mm		ftc/mm		ftc/mm		
Salaries		$ 77,250		$ 58,250		$ 68,750	$204,250
A. U.S.	2.25/27	40,500	1.0/12	20,000	1.5/18	30,500	(91,000)
1. Professional		36,000		17,500		25,000	
a. Home Econ.	.5/6	10,000	.25/3	5,500	.25/3	6,000	
b. Communication	1.0/12	20,000	.25/3	5,500	.5/6	12,000	
c. Ag Econ.	.25/3	6,000	.25/3	6,500	.25/3	7,000	
2. Nonprofessional		4,500		2,500		5,500	
a. Secretary	.5/6	4,500	.25/3	2,500	.5/6	5,500	
B. Cooperating Country	8.75/45	36,750	20.25/63	38,250	20.25/63	38,250	(113,?
1. Professional		18,750		11,250		11,250	
a. Home Econ.	.5/6	7,500	.25/3	3,750	.25/3	3,750	
b. Communication	.5/6	7,500	.25/3	3,750	.25/3	3,750	
c. Ag Econ.	.25/3	3,750	.25/3	3,750	.25/3	3,750	
2. Nonprofessional		18,000		27,000		27,000	
a. Technician-Recipes	1.0/12	9,000	1.0/12	9,000	1.0/12	9,000	
b. Secretary	.5/6	4,500	.5/6	4,500	.5/6	4,500	
c. Paraprofessionals	6/12	4,500	18/36	13,500	18/36	13,500	
. Consultants		NA		NA		NA	NA
f. Fringe (13.97% of 1A)		5,600		2,795		4,260	12,715
. Indirect Costs		39,415		25,300		32,755	97,470
A. U.S. (71% of IA)		28,755		14,200		21,655	(64,610)
B. Overseas (29% of IB)		10,660		11,100		11,100	(32,860)
Travel and Transport		10,500		16,000		16,000	50,500
A. U.S.		1,500		1,500		1,500	
b. International		12,000		12,000		12,000	
C. Local		5,000		2,500		2,500	

BEST AVAILABLE COPY

4. Summary

The financial plan and budget as outlined above has been established as a "best estimate" of expenditures necessary to carry out the project.

V. SOCIAL ANALYSIS

1. Social Soundness

This project has been designed specifically to change the food habits of groups of people in order to provide them with soybeans as a less expensive, nutritionally superior food. To achieve this objective, it will be necessary for large numbers of people to eat soybeans as a food staple when they have not previously eaten soybeans. Changing food habits is not expected to be a simple task and will require indepth knowledge of the culture, application of incentives, and use of effective communication techniques. However, the food habits of large populations in both developed and underdeveloped countries have been changed many times in the past, and it is the strategy of this project to use techniques which have proven successful to persuade the rural poor in a selected country to consume soybeans. The techniques will involve adapting soybeans to local recipes which are culturally acceptable, using the low cost of soybeans as an economic incentive for change and using mass media, extension, and other modern techniques of communication to persuade people to change their food habits.

It is believed that analysis of the experience of introducing soybeans as food in a specific country and culture will provide a basis for developing a methodology which can provide guidance for carrying out similar activities in other countries more quickly and effectively. Thus the project aims specifically to diffuse the new practice among other groups (the spread effect).

The production of soybeans should by itself assist in distributing the social benefits of development since soybean farmers as well as the soybean processing industry will benefit from this new crop. However the benefits will penetrate more deeply into the economic strata if poor farmers and other elements of the rural poor can benefit to a greater extent by using soybeans in part as a direct food. This project is designed particularly to achieve that end.

2. Summary

The Social impact of this project is expected to be positive in that it should lead to greater inclusion of the rural poor in the development process and to improvement in their quality of life, and a mechanism is developed through which this impact can be widely spread.

D. ECONOMIC ANALYSIS

As a methodology development activity, the economic benefits of the project are difficult to measure in a meaningful way. Methods for estimating return on investment for nutrition projects have not been meaningful because it has not been possible to place a value on the quality of life resulting from nutrition investments. Likewise it has not generally been possible to make cost/benefit analyses because benefits of nutrition activities do not have a defineable monetary value. Even cost/effectiveness comparisons are not generally appropriate because the objectives of various nutrition interventions are not identical and therefore not strictly comparable. (For example, a project to promote indirect food use of soybeans through animal feeding or central processing would not be expected to affect the same socio-economic segment of the population as the direct food use of soybeans described in this project and therefore the effectiveness of these two interventions can not be compared).

Savings to consumers, as estimated in section 3B 1, illustrates a simple analysis of the economic benefits of the project. The analysis showed that an individual consuming 20 kg. per year of soybeans in place of ordinary beans might save $4 per year. However it should be recognized that the amount saved by consumers would vary substantially depending on the relative price of soy and the food it replaces in the diet and on the amount of soybeans consumed. It would be expected that data collected during this project should enable AID to make some assessment of the savings by consumers when the project is complete.

Part 4. Implementation Arrangements

ANALYSIS OF THE RECIPIENT's AND AID's ADMINISTRATIVE ARRANGEMENTS

1. Recipient

This is an AID funded project to be carried out by contractors and sub-contractors acting under directions provided by AID. Although a number of "recipient" country governments are likely to be indirectly involved (due to in-country activities by the contractors and subcontractors) no special arrangements with any of the countries are expected to be necessary except to obtain from them concurrence for overall project activity (through affected USAID Missions and their counterparts). However efforts will be made to encourage host government interest and participation in the project.

The prime contractor for introducing soybeans into a specific country is expected to be a U.S. organization, possibly a university with overseas experience and competence in food science, communications including mass media, extension in agricultural areas, and project management. Sub-contractors within the selected country will carry out implementation of the project under the guidance of the prime contractor and therefore it is essential that the prime contractor and the various subcontractors are

compatible and can work cooperatively toward common goals. It is not anticipated that the prime contractor will have full-time personnel stationed in the country but rather that representatives of the contractor will travel to the selected country as needed. However, it is expected that one of the subcontractors will furnish an "in-country" project manager who will act on behalf of the prime contractor to assure continuous management of all elements of the project.

The number and type of subcontractors will be determined by the prime contractor. However it is expected that subcontractors will include at least (1) a local home science institution or other organization cable of developing and evaluating food preparations of soybeans, (2) a market and consumer research organization that can study local food habits and measure the effectiveness of the program in introducing soybeans as a new food, (3) an advertising/promotion and/or extension organization that can persuade the rural poor to use soybeans, and (4) a project management orgazization.

AID/TA/N with assistance from USDA through the Food and Nutrition Technical Assistance Project RSSA, will monitor the project.

The USDA/ARS/NRRC project element to generate an inventory of information on availability and utilization of soybeans will be developed as a RSSA with USDA and will be managed by TA/N with assistance from TA/AG.

2, A.I.D.

No unususal administrative features requiring special attention or added personnel are present in this project. Funds will be disperesed according to procedures negotiated with the contractors.

B. IMPLEMENTATION PLAN

1. An outline of the plan to implement the project is provided in section 2 B 2 and a time schedule of major activities is shown in Annex E.
2. Milestones for evaluating progress are shown in section (d) of Annex E and occur (1) after country selection visits and at the time of country is selected (first quarter), (2) when the introduction program design has been completed (4th quarter), (3) after one year of the introduction-program has passed (8th quarter), and after the introduction program is complete but before the project conclusions have been finalized (12th quarter).
3. No time limits or AID waivers are involved.
4.
5. Monitoring aspects of the project are discussed in section 4A 1.
6. No logistic support is required.
7. Contracting arrangements are discussed in section 4A 1.
8. No unresolved issues or problems have been identified.
9. The views of the beneficiaries (consumers of soybeans) will be assessed through consumer surveys which will aim to identify consumer food preferences, reactions to use of soybeans as a new food staple, and consumption rates of soybeans after efforts have been made to persuade consumers to use soybeans. These surveys will be used to guide the contractors in their activities to promote soybean consumption.
10. No other unique problems or need for actions have been noted.

C. EVALUATION ARRANGEMENTS FOR THE PROJECT

The project will be reviewed annually in the selected country by a team consisting of representatives of TA/N and TA/Ag and by one or more advisors specialized in elements of the project identified by the AID project monitor

as especially critical (such as mass media or food science or soncumer research) Key members of the staff of the prime contractor and appropriate subcontractors and USDA/ARS will participate in the review and furnish reports, observations, etc. as requested by the project monitor. Representatives of the participating host government and the appropriate USAID Mission and other interested agencies will be invited to attend project reviews.

The prime contractor will furnish quarterly progress reports to AID throughout the lives of their contract. Each prime contractor will furnish a comprehensive report at the end of the contract. The final report by the contractor introducing soybeans in the selected country will consist of two parts: (1) A case study of the introduction in the selected country covering all activities and evaluating effectiveness of the effort, and (2) recommendations for introducing soybeans elsewhere prepared in the form of a methodology for introducing soybeans as a direct food for humans.

AID will review the project after all project activity is complete and all reports obtained for the purpose of evaluating the success and utility of the project and for recommending to AID follow-up activities.

D. CONDITIONS, COVENANTS, AND NEGOTIATING STATUS

No special arrangements with host governments are anticipated.

ANNEX B

TECHNICAL DETAILS ON COUNTRY SELECTION

COUNTRY SELECTION. A single country will be selected by AID for implementation of the project. A team including appropriate representation from AID/W and the prime contractor will visit potential sites for the project, collect and analyze information related to site selection, and recommend to AID a first, second and third choice for the project site.

Criteria used for site selection will include, but not be limited to, the following:

a. Soybeans must currently be produced and available in a reliable supply sufficient to furnish a large segment of the rural poor in a test area with soybeans as a food staple.

   1. The population size desirable for the project is at least 30,000. A supply of at least 25 to 45 kg. soybeans per person per year should be available (750 to 1,350 metric tons soybeans per year minimum).

   2. The population may be divided into several groups dependent on geographical location if the operation managers deem this desirable.

b. Soybeans must not now be used to a significant extent for human food in the test area.

c. The projected price of soybeans in rural areas should be in the range of other food staples and preferably lower than prices of pulses and other crops which might be replaced by soybeans (such as dry beans and other pulses).

d. There should be evidence, or a strong indication, that the widespread use of soybeans as food would have a beneficial effect on the quality and quantity of the food supply of the country

e. A competent local institution or group of institutions, public or private, must be available and prepared to participate actively in the project. The institutions must have personnel skilled in (1) project management, (2)home science, (3) advertising/promotion, (4) market/consumer research, and (5) economics, and be able to assign those personnel to the project as required to implement it.

f. The host country government and the USAID Mission should be supportive to the project, recognizing that the project will continue for at least three years and that, if successful, it is likely to lead to justification for expanded use of soybeans as food and will require government support. In addition, it is expected that host government institutions (agricultural extension, public communications, education, etc.) will make significant contributions to the project, and support of the host-country government will be needed to enlist the assistance of these institutions.

g. AID will consider the team recommendations and, considering all relevant factors, select a country for project implementation. Final selection will be contingent on approval of the affected USAID Mission and host government.

Project title and number:

Date Prepared 12/30/71

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes: To increase the quantity and improve the quality of the food supply for economically deprived segments of the populations of LDCs.	Measures of Goal Achievement: An increased food supply as reflected by increased food intake of a target population of an LDC.	Food Intake Surveys. Marketplace studies of soybean availability and sales. Communication surveys.	Assumptions for achieving goal targets: Lower cost and nutritional better foods can be identified or developed. Host country interest and committment to increasing food supply.
Project Purposes P. To introduce unprocessed and simply processed soybeans as a food staple among rural poor in a specific country. 1. To develop a methodology for introducing soybeans as human food. 3. To find new or better ways of using soybeans as a direct food.	Project Achievement Indicators: 1. Increased use of soybeans as human food. 2. Successful promotional campaign. 3. Expansion of project by government of the LDC into other areas of the country 4. Use of findings in other countries	1. Project reports and reviews dietary impact and economic impact. 2. Interest in methodology by other LDCs.	Soybeans are available to the populati and can be made palatable. It is possible to promote, through an advertisi campaign, the incorporation of a new f staple into the diet. A methodology can be developed that can be transferr to other areas.
Outputs: 1. Identification of country in which to implement project. 2. Introduction of soybeans. a. food habits inventory b. communications inventory c. soybean recipes d. soybean marketing system e. campaign evaluation 3. Information on availability and use of soybeans. 4. Methodology for introducing soybeans	Magnitude of outputs: 1. Selection of a country for mentation. Year 1, quarter one. Data on food habits, media use patterns & attitudes existing in program area Year 1, quarters 2-4 Soybean recipes, developed & tested. Year 1, quarters 3-4 Promotion materials for media use. Year 1, quarter 4 Full promotion program in operation including demonstrations, classes & mass media. Years 2 & 3 quarters 1-4, 1-2; Inventory of communications methods & food habits & attitudes. Year 1, quarters 2-4. Completion of Methodology for Soybean Introduction, Year 3 quarters 3-4.	1. Reports from contractors 2. Recipe booklets 3. Final reports of campaign effectiveness as judged by changes in food intake, improvement in nutritional status of target groups and increased food availability 4. Manul for soybean introduction.	Mass media and/or personal contact pro motional methods can be developed to reach the target population. Food preparation procedures and cultural co ditions are such that soybeans can be incorporated.

PROJECT DESIGN SUMMARY LOGICAL FRAMEWORK

From: F to: F
Total U.S. Funding
Date Prepared 12/30/75 Page 2

Project Title and Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: a. Prime contractor b. LDC subcontractors c. USDA/ARS d. USAID Missions (advisory) e. USDA/ERS (advisory) f. AID (funding and monitoring)..	Budget (3 years) a. Prime contractor and LDC sub-contractors $625,000 b. U. of Illinois 50,000 $675,000		Assumptions for providing inputs: Qualified personnel will accept assignments and responsibilities as required. Appropriate institutions exist in the selected country that can be utilized. Contractors and subcontractors are qualified to perform as needed.

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ANNEX E

Time Schedule of Major Activities

Project activity	Project year 1	2	3
A. Inventory of information on availability and use of soybeans			
B. Development of Methodology			
1. Introduction of soybeans in selected country as a direct food.			
(a) Country and subtractor selection			
(b) Communications methods and food habits inventory			
(c) Recipe selection			
(d) Design and Pretest of introduction strategy			
(e) Introduction-program design for soybean consumption campaign			
(f) Soybean consumption campaign			
2. Methodology			
C. Project review and evaluation by AID and USDA.			

February 26, 1976

MEMORANDUM FOR: Research and Development Committee Members

FROM: TA/PPU, Carl R. Fritz

SUBJECT: Research and Development Committee Meeting, March 9, 1976

REF: My memorandum dated February 25, 1976

Included on the agenda for the March 9 R & DC meeting will be the following project to be inserted as item 3 on the agenda after which the two TA/AGR proposals will be discussed:

3. Soybean Utilization, TA/N, GTS, KPA 8.

Attachment: a/s

(See attached sheet for distribution)

2 cys rec'd
1 Glenlake
2 file

DISTRIBUTION FOR RESEARCH AND DEVELOPMENT COMMITTEE MEETINGS (R &DC)

RESEARCH AND DEVELOPMENT COMMITTEE

A. MEMBERS

AFR/DP, Frank Moore

ASIA/TD, Herbert Dodge
LA/DR, Charles Stockman
NE/TECH, James Dalton
GC/TF&HA, A. R. Richstein
SER/IT, Joseph Kovach
SER/ENGR, John Rixse
SER/CM/COD, Robert J. O'Brien
FFP/POD, Peggy Sheehan
PPC/DPRE, Arthur Handly
PHA/POP, David Mutchler
O/LAB, Sigurd Moody

B. ALTERNATES

AFR/DS, John Blumgart
AFR/NARA, Woodrow Leake
ASIA/PD, John W. McCarthy, Jr.
LA/DP, Austin Heyman
NE/DP, Richard Birnberg

SER/IT, Dale Clark w/o att.

SER/CM/COD, V. Perelli w/o att.

PPC/DPRE, Norman Cohen w/o att.
PHA/PVC, Cleo Shook
O/LAB Paul Fera w/o att.

C. INFO.

IGA, John Kurelich
PPC/RB, L. Rogers
SER/MP, N. Ayers w/o att.*
PPC/PDA, J. Hoath
A/AID, Gilda Varrati
OMB, Ed. Sanders,

D. TA OFFICES

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D. Myren
TA/PPU Analysts (as appropriate)
TA/AGR, L. Hesser
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TA/N, M. Forman
TA/OST, H. Arnold
TA/RES, M. Rechcigl
TA/RD, T. Owens
TA/UD, W. Miner
TA/MGT, L. Crain
TA/PPU, E. Shields, R&DC Files

(*Attachments on request)
Rev. 2/76

Informal Minutes of the Reseach and Development Committee Meeting
Held on March 9, 1976

Project: Soybean Utilization, (KPA 8, GTS)

Project Manager: Dr. Irwin Hornstein, TA/N

Dr. Irwin Hornstein, TA/N, summarized the major elements of the proposed project. He stated that the project is designed to improve the direct consumption of available soybeans. The activities will consist of an inventory of information on soybean utilization and the introduction of unprocessed or simply processed soybeans as a direct food among the rural poor. The inventory of information serve two functions: (a) provide information that will be an input to the major activity and (b) assess the needs for additional research in soybean processing. (See Attachment A: Inventory of Information).

Highlights of the Discussion:

LA/DR/RD (Breitenbach): Queried about the need for the inventory of information. Stated that the University of Illinois was to have done this as a part of an earlier TA/AGR soybean research activity.

TA/AGR (Hesser): Responded that Illinois has not met all the objectives of the contract due to an internal problem. RAC recommended that (1) the state-of-the-art study be separated from the existing project and (2) TA/AGR submit a new proposal for such a study in processing.

LA/DR/RD (Breitenbach): Then questioned whether or not any action had been taken regarding funds in the existing contract earmarked for the study.

TA/AGR (Garmen): Stated that the scope of work for the state-of-the-art study (University of Illinois) was not clearly defined.

TA/PPU (Fritz); Requested TA/AGR and TA/PPU to check with the General Counsel's Office regarding the and contract to see if the Agency needed to take any action against the contractor and whether the contractor had been reimbursed for work not performed.

AFR/DS (Leake): Inquired about the utilization of soybeans in countries where they are grown; and whether specific information was available on countries where they are produced but not used.

USDA/ERS (Crowley): Responded that the proposed project focuses on countries where soybeans are produced but not being used. Two potential countries are Brazil and Sri Lanka.

LA/DR (Breitenbach): Queried whether non-AID countries should be included as project sites.

TA/PPU (Fritz): Stated that the country selected should be AID supported, or provide a setting illustrative of AID countries where results of the pilot project would later be transferred.

LA/DR/RD (Breitenbach): Added that it should be a country where A.I.D. is actively involved.

PPC (Sharlach): Queried about the schedule for the review before commencing with the utilization; and whether there is a valid basis for approving a funding level for the utilization component until Phase I is completed.

ACTION REQUIRED:

1. TA/N and TA/AGR needs to check on level of activity of the state-of-the-art study (University of Illinois), and involve GC if contract included tasks not completed and/or paid for

2. TA/N will check with the contract office on whether the project is a contractable one as presented.

MEMORANDUM

TO: AA/TA, Mr. Curtis Farrar

FROM: TA/PPU, John M. Gunning

SUBJECT: Soybean Utilization Project Paper

This proposed project is designed to develop a methodology for introducing unprocessed and simply processed soybeans as a food staple among the rural poor in LDCs. The PP requests funds for a project consisting of two activities: (1) a major activity - the introduction of soybeans as a direct food among the rural poor; and (2) a complementary activity - the compilation of an "inventory of information" on the utilization of soybeans. The inventory of information will provide information on availability and utilization of soybeans in LDCs. It will be developed through a contract with [illegible]. The primary activity will be carried out by a contractor selected through an RFP. The total funding level of the proposed project is $675,000 for a duration of three years.

A Research and Development Committee meeting was held on March 9, 1976 to discuss the proposed project. [illegible] raised was on the [illegible] of the previous soybean [illegible] study which was proposed to have been done by the University of Illinois (UI). According to TA/[illegible]'s findings, there is a difference in the UI study and the inventory of information as proposed by TA/[illegible]. (See attachment B: Memo from Hesser to Fritz). The Committee recommended approval of the project with the understanding that their issues and comments would be incorporated in the PP.

On April 12, 1976 the PP was circulated for R & DC optional comments. No other issues have been raised regarding this project.

The PP is now ready for final processing. TA/PPU recommends that you approve the project, at a total funding level of $675,000 for a duration of three years, by signing p. 2 of the PP.

Attachments:

A. Soybean Utilization Project Paper

B. Memo from Hesser to Fritz, 4/7/76

TA/PPU:ECMcLeod:asj:4/21/76

OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : TA/PPU, Mr. Carl Fritz

DATE: April 7, 1976

FROM : TA/AGR, Leon F. Hesser

SUBJECT: R&DC Request for Clarification with Respect to Previous Soybean State-of-the-Art Study by University of Illinois

Background: You will recall that during the recent R&DC meeting a question was raised by LA/DR, Dr. Breitenbach, about the current proposal of TA/N for a state-of-the-art study on uses of soybeans as human foods. His contention was that what TA/N is proposing now was supposed to have been done previously by the University of Illinois (UI).

Discussion:

1. Referring to the 1971 contract with UI, it appears that three of the five objectives could possibly be construed to be related to the current TA/N proposal. These objectives were:

A. To demonstrate the University of Illinois process for making soybeans useable in the human diet, in two or more selected countries.

B. To establish a demonstration operation in selected countries.

E. To provide other specified technical services and consultation, related to improvement and utilization of soybeans.

2. What TA/N is proposing now, however, seems to be quite different, namely, finding out where, how (in what form), and to what extent soybeans are being utilized as human foods.

3. By way of further information, Mr. Garman reports that on March 24 TA/N met with representatives of USDA's Northern Regional Soybean Laboratory to lay plans for their state-of-the-art study. As we presently understand the matter, phase one will be a comprehensive review of all previously reported food uses of soybeans in the developing countries. Phase two will be concerned with detailed studies in selected DCs to answer points in paragraph 2 above, which should enable AID to see what, if any, new R&D is needed in the area of food processing.

5010-110

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

URGENT

April 12, 1976

MEMORANDUM FOR: Research and Development Committee

FROM: TA/PPU, Carl R. Fritz

SUBJECT: Soybean Utilization Project Paper

The R&DC met on March 9, 1976 to discuss the proposed "Soybean Utilization"project.

Informal minutes of that meeting and a memo from TA/AGR, dated 4/7/76, regarding the state of the art study by University of Illinois are attached. TA/PPU has been informed that the project is contractable as presented in the PP. The revised draft PP is also attached. I believe that it accommodates your basic concerns and incorporates your suggestions.

May I have your additional comments and/or clearance on this PP by April 19, 1976. If we do not hear from you by COB of that date, TAB will assume your clearance.

Attachments: a/s

FILE

URGENT

Mr. Sharlach

April 29, 1976

MEMORANDUM FOR: TA/PPU, Mr. Carl Fritz

FROM : PPC/DPRE, Arthur Handly

SUBJECT : Soybean Utilization Project Paper

FILE

Attached is a copy of a memo to me on the subject by Howard Sharlach who was at the R&DC meeting.

I think his views are reasonable and sound and strongly encourage you to revise the funding plan in the project accordingly. I believe to proceed as proposed, that is to obligate funds for both Phase 1 and Phase 2,does not add up to sound management.

I further question the validity of the estimates for Phase 2. While the project is small in terms of total estimated expenditures, I think we need to be as reasonable and rational in our planning as we would if it was a much larger project.

cc: PPC/DPRE/PR, Howard Sharlach