

9310796 (3)

PD-282-904-01

I. PROJECT IDENTIFICATION

1. PROJECT TITLE: **Technical Assistance Food Grain Drying**

APPENDIX ATTACHED:  YES  NO **PROP**

2. PROJECT NO. (N.O. 1093.2): **731 190 - 786**

3. RECIPIENT (specify):  COUNTRY  REGIONAL  INTERREGIONAL **TAB**

4. LIFE OF PROJECT: BEGINS FY **1968** ENDS FY **1975**

5. SUBMISSION: ORIGINAL DATE **11/5/71**

6. REV. NO. DATE

CONTR./AGENCY NO. **1588**

II. FUNDING (\$000) AND MAX MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. COOP/CNTR.		H. LOCAL EXCHANGE CURRENCY RATE: \$ US (U.S. OWNED)			
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY	(A) JOINT	(U) BUDGET
1. PRIORITY ACTUAL FY	461	461	238					461	238				
2. OPBN FY	72	170	88					170	88				
3. BUDGET FY	73	175	90					175	90				
4. BUDGET .1 FY	74	185	92					185	92				
5. BUDGET .2 FY	75	200	95					200	95				
6. BUDGET .3 FY													
7. ALL SURO. FY													
8. GRAND TOTAL	1191	1191						1191					

9. OTHER DONOR CONTRIBUTIONS

(A) NAME OF DONOR: **NONE**

(B) KIND OF GOODS/SERVICES

(C) AMOUNT

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER: **A. D. Lundberg** *A.D. by JAK*

2. CLEARANCE OFFICER: **O. J. Kelley** *Madison Freshwater* TITLE: **Director, TA/AGR**

DATE: **3/1/72**

DATE: **12-8-71**

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL

Funding approved for FY 72 only.

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF.	SIGNATURE	DATE
AFR/TAC	<i>John K. Long</i>	12/6/71	NE SA/TECH	<i>S. P. Williams</i>	11/24/71
SA/IR/TECH	<i>Edgar K. ...</i>	12/8/71	LA/DR	<i>[Signature]</i>	11/26/71
VN/ND	<i>[Signature]</i>	11/24/71	LA/DP	JIH:1/af memo dtd 12/15/71. Limited clearance	

3. APPROVAL BY AS OF OFFICE DIRECTORS

SIGNATURE: *[Signature]* DATE: *12/1/71*

TITLE: **Ass't. Administrator, TA**

4. APPROVAL BY AID (See N.O. 1093.1 VI C)

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT

## A. Statement of the Goal

1. To increase the efficiency of food production and marketing systems in developing countries in order to raise farmer incomes, increase the quantity and improve the quality of food available to consumers, and reduce the cost of food to consumers.

2. Goal achievement can be determined by the following criteria:

a. Reduced qualitative and quantitative losses of food in the course of on-farm and later storage and distribution.

b. Increased net return to farmers per unit of crops produced for the market.

c. Improvement in the efficiency and effectiveness of marketing institutions in developing countries.

d. Increased quantities of improved quality foods available to consumers at lower and more stable prices.

3. Certain assumptions of goal achievement must be made in the expectation that the goal will be realized. Less developed country government policy must provide the support necessary to implement and continue necessary projects and programs. Consumer preferences for food stuffs, particularly grains, must remain relatively constant, i.e. a substantial change in the world grain market could force price rises to the point where consumers would change eating habits. It is further assumed that there will be a continuing consumption requirement for certain food stuffs in less developed countries as well as a per capita increase in consumption. Additionally, an increasing need is assumed for feed grains and milling of products to be transformed to animal protein.

## B. Statement of Project Purpose

1. The purpose

Estimates of food losses, in less developed countries, from the field to the consumer may be as high as 50% of total production and, in some cases, exceed food deficits. In response to this problem, the purpose of this project is to provide technical assistance to public and private grain storage and marketing institutions on food grain drying, storage, handling and transportation in developing countries. This technical assistance will be focused on improving their management and operational efficiency with a view to reducing costs and grain losses.

## 2. Conditions expected at the end of project

It is expected that at the termination date of this project that:

- a. The demand for AID technical assistance will be reduced to a level below that which justifies the continuation of the project.
- b. The less developed country institutions that have been assisted will be capable of managing their own grain handling and grain storage operations.
- c. Terminal and regional grain handling and storage facilities will be operational in most countries where AID advice has been solicited and given.
- d. A grain marketing/stabilization program will be operational in many countries where AID advice has been solicited and given.

## 3. Assumptions

To achieve the purpose as stated in this project, the following assumptions must be recognized.

- a. Less developed countries will request AID assistance in overcoming grain storage and handling problems.
- b. Less developed countries will utilize the assistance and recommendations provided to develop an efficient and effective grain handling and storage program.
- c. Grain handling and storage will continue to be a problem in less developed countries.
- d. Grain handling and storage problems will increase in less developed countries as grain production increases to meet the needs for both human consumption and livestock feed.

## C. Statement of Project Outputs

The following explicit and verifiable results (outputs) are directly expected if the later mentioned specified inputs are provided. These outputs will be verified by indicators as mentioned.

1. Assistance and consultation is provided in reviewing and evaluating technical assistance projects related to post-harvest grain handling practices. Kansas State University will be available to USAIDs to assist in determining project feasibility of those projects that may deal with grain handling.

2. Advice and assistance is provided in the planning, organization or reorganization and implementation of grain storage programs and facilities, for both private and government firms. It is expected that on demand, approximately fifteen evaluation studies of national programs and eight studies of private programs be carried out.

3. Problems in grain drying, storage, handling, and transportation will be identified and analyzed and recommendations will be made as means for solution. These special studies will be carried out in twenty-five less developed countries by the end of FY1973.

4. Advice will be provided on the planning, design, and construction of physical facilities required for grain storage programs. Recommendations of this nature will be provided to ten less developed countries by the end of FY1973.

5. Training seminars, courses, and/or conferences will be planned and executed that deal with grain drying, storage, handling, and transportation. By the end of FY1973, training will be provided to:

- a) at least 75 developing country technicians in four short courses,
- b) at least sixty counterparts through training by 30 Kansas State University teams, and
- c) five hundred less developed country technicians through participation in fifteen seminars.

6. A functioning information center designed to answer questions and inquiries relating to grain storage programs and technology will be established. This information center will provide timely service to USAIDs/less developed countries on request.

7. Both written and illustrated instructional, informational, and reference publications on various aspects of grain handling and storage will be prepared, edited, and reproduced for use by AID in less developed countries. A list of publications available will be provided to USAIDs on request. The extent to which these publications are utilized will be an indicator of project success.

8. Methodology and design criteria will be developed through adaptive research and review to minimize problems attendant to grain handling and storage programs in less developed countries. Methods and criteria will have been determined for fifteen less developed countries by the end of FY1973.

#### Basic Assumptions -

It is assumed that the aforementioned outputs will be utilized by less developed countries. This utilization, of course, will be dependent upon USAID's assistance in coordinating less developed country needs with services available from Kansas State University.

#### D. Statement of Project Inputs

Various parties to the contract will be responsible for providing those inputs deemed necessary for project success. These inputs are as follows:

1. AID Contract and Professional Staff will carry out studies in less developed countries as requested and prepare and distribute results of these studies. Field advice will be given as necessary. Contract services and backstopping will be performed. Research will be conducted that is applicable to less developed country grain handling and storage problems. Short courses will be conducted at Kansas State University and seminars and conferences will be conducted in less developed countries. Consultant services will be provided depending upon availability of funds.
2. USAIDs and LDCs requesting services will assume funding responsibility for local costs including transportation and per diem, necessary office space and facilities as well as local counterpart personnel and international transportation costs with variation of LDC input expected from country to country.
3. Technical Assistance Bureau, Office of Agriculture will carry out technical reviews and evaluate the operations of the contract.
4. The International Bank for Reconstruction and Development (World Bank), Inter-American Development Bank, and Asia Development Bank may consider as loan possibilities the construction of national and regional grain storage facilities in less developed countries where a grain marketing and storage program is underway.
5. Food and Agriculture Organization (FAO), United Nations Development Program (UNDP), may take part in conferences, seminars and be a part of technical linkages in countries where the project is of interest to the multi-lateral organizations.
6. AID/TA/AGR will provide budget support and will monitor project operation and progress.

#### Assumptions

It is assumed that inputs will be timely and executed in a manner such that the project purpose can be achieved without delay. It is further assumed that multi-lateral organizations, mentioned in inputs D4 and D5 above, will be kept informed and maintain an interest in the grain storage and marketing programs and will utilize results of studies in development of loans to LDCs.

BUDGET (all years)

		MM of Services <u>1/</u>	(\$ 000)
All Prior Years	(Actual)	238	461
Operational Year	1972	88	170
Fiscal Year	1973	90	175
Fiscal Year	1974	92 <sup>1</sup>	185
Fiscal Year	1975 <sup>2/</sup>	95	200

1/ Services to be performed by professionals (8) non-professionals (3) and consultants (2). Other costs will include overhead (44.7%) U.S. and International Travel, Equipment, Materials and Supplies.

2/ Continuation of the project by end of FY75 is contingent upon future project reviews and IDC country requests for services.

## Narrative Statement

A continuous endeavor will be made by Kansas State University to build up a library reservoir of knowledge and to disseminate information on problems and solutions concerning grain storage and handling in LDCs. This will be done through studying the situations and problems, through adaptive research carried out in LDCs, by reviewing the literature, and by application of this work to specific LDC problems.

Another method to achieve the outputs will be the country-project type in which an AID mission requests the services of the University through a PIO/T to provide consultation and training services and assistance in greater depth for overcoming the problems of that country in storing and handling grains.

The contractor will furnish personnel from its regular staff and facilities for the following purposes:

1. To provide technical assistance to AID and cooperating countries to help reduce the losses of grain and grain quality during the post-harvest handling, drying and storage of grains as requested and authorized by AID. Services to be rendered by Kansas State University to AID, USAIDs and cooperating countries will be tailored to the needs and material resources of each cooperating country.
2. Prepare, edit and reproduce written and illustrated, instructional, informational and reference publications on the several administrative and technical aspects of post-harvest operations of drying, storing, handling and transportation of grain for use by AID and cooperating countries, and by Kansas State University in its training activities. All written material and illustrations produced will be submitted to AID for review and approval prior to publication. This right may be waived by AID for specific publications.
3. At the request of and with the approval of AID, develop methodology, establish criteria and design systems through studies and by exhaustive review of literature in pertinent fields that will obviate or minimize specific local country problems and difficulties attendant to grain storage and handling programs in regions characterized by adverse environments. Design criteria that will be established shall include: type of storage unit, characteristics and properties of available packaging and structural materials, features of construction requisite for environmental control, specifications and installation of mechanical environmental conditioning equipment, features of construction for rodent, mold and microbial contamination, insect control, details of methods, construction and maintenance. To the extent of the funds made available by AID and upon approval by AID, Kansas State University may obtain the services of special consultants from sources other than its regular staff for participants in the various activities outlined in this proposal.

The Project Manager and the technical specialist assigned to the Kansas State University project by TA/AGR are responsible for closely monitoring project progress, coordinating project activities with those of multi-lateral organizations, following mission requests for services and reacting on problems as well as initiating and monitoring funding documents necessary for project continuance.

Two critical preconditions which must be met to achieve the project purpose are:

1. An interest on the part of LDCs to utilize the services of Kansas State and initiate the necessary action as recommended by the Kansas State assistance team.
2. Active follow-up and utilization of Kansas State studies by multi-lateral organizations in considering funding of marketing and storage projects deemed necessary to LDC development.

Regarding the status of the projects, the original contract was signed effective June 30, 1967, and covers a 5-year period to June 29, 1972. Additional funds were provided for FY1971 bringing the total amount allocated to \$461,000.

To date, the contractor has provided services to Guyana, the Dominican Republic, Brazil, Guatemala, Ecuador, El Salvador, India, Morocco, Jordan, Pakistan, the Phillipines, Honduras, Costa Rica, Korea, Colombia, West Africa (Mali, Upper Volta, Senegal), Bolivia, Vietnam, Indonesia, and to the Asian Productivity Organization in Tokyo.

The project was reviewed in January 1970 by the Technical Assistance Bureau with representatives from each of AID's Regional Bureaus and appropriate staff office and was considered at that time to be making suitable progress.