

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET		FOR AID USE ONLY Batch #24	
1. SUBJECT CLASSIFICATION	A. PRIMARY Agriculture		AE70-0000-G356
	B. SECONDARY Distribution and marketing--Guatemala		
2. TITLE AND SUBTITLE Observations and recommendations concerning the corn marketing system in Guatemala			
3. AUTHOR(S) Sorenson, L.O.			
4. DOCUMENT DATE 1969	5. NUMBER OF PAGES 16p.	6. ARC NUMBER ARC GT338.1731.K16	
7. REFERENCE ORGANIZATION NAME AND ADDRESS Kan. State			
8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publisher, Availability) (In Food grain drying, storage, handling, and transportation rpt. no. 13)			
9. ABSTRACT			
10. CONTROL NUMBER PN-RAB-436		11. PRICE OF DOCUMENT	
12. DESCRIPTORS Guatemala Maize		13. PROJECT NUMBER	
		14. CONTRACT NUMBER CSD-1588 GTS	
		15. TYPE OF DOCUMENT	

GT
338.1731
K16

Food Grain Drying, Storage, Handling and Transportation

Report No. 13

July 1969

Observations
on the
Corn Marketing System
in
Guatemala



FOOD & FEED GRAIN INSTITUTE
KANSAS STATE UNIVERSITY

MANHATTAN, KANSAS 66502

A.I.D.
Reference Center
Room 1656 NS

SUMMARY OF REPORT/PUBLICATION

Title of Report/Publication: Observations and Recommendations Concerning The Corn Marketing System in Guatemala.

Author: Orlo Sorenson.

Period of Report/Publication: July 28 through August 9, 1969.

Project Title: Technical Assistance in Food Grain Drying, Storage, Handling and Transportation.

Contract Number: AID/csd-1588

Contractor: Food and Feed Grain Institute, Kansas State University, Manhattan Kansas.

Principal Investigator: Orlo Sorenson.

SUMMARY STATEMENT

The purpose of the trip to Guatemala was to consult with agricultural personnel of AID in Guatemala on problems of marketing corn and to suggest ways in which technical assistance could be made available through the Food and Feed Grain Institute at Kansas State University to aid in solving corn marketing problems in Guatemala.

Work in Guatemala consisted of study of reports and statistics related to corn production, marketing, and consumption; extensive discussions with AID Guatemala agricultural personnel; discussions with Guatemala Ministry of Agriculture representatives; field trips to visit sites of marketing operations; and, discussions with active participants in the marketing of corn. On one field trip I was accompanied by Mr. Milton Lau and Mr. Phillip Church of AID and Mr. Victor Velasquez, Chief of the Office for Agricultural Planning, Guatemala Ministry of Agriculture. On a second trip I was accompanied by Mr. Phillip Church. Trips included visits to government owned (INFOP) and privately owned elevator facilities in Guatemala City, on the South coast, and in the highlands. Two public markets (Antigua and Guatemala City) were visited.

The return trip was through Washington, D. C. for discussion of observations and recommendations with Mr. Carl van Haeften, Mr. Don Feister and other State Department personnel.

Recommendations include initiating Kansas State University assistance in preparation of a loan proposal for agricultural development purposes and initiating a program of technical assistance in developing an improved corn marketing system in Guatemala. Recommended modification in the original PIO/T (PIO/T No. 520-194-3-90123) included separate specifications of (1) assistance needed to prepare data to support an international loan request and (2) technical assistance in development of a corn marketing system. Personnel changes from the initial request are also recommended.

Date: August 1969

**OBSERVATIONS AND RECOMMENDATIONS CONCERNING
THE CORN MARKETING SYSTEM IN GUATEMALA**

July 28 - August 9, 1969

**Prepared by
Dr. L. Orlo Sorenson
Agricultural Economist
Kansas State University**

**for the
AGENCY FOR INTERNATIONAL DEVELOPMENT**

**AID/csd-1588
Technical Assistance in
Food Grain Drying, Storage, Handling and Transportation**

**at the
FOOD AND FEED GRAIN INSTITUTE
KANSAS STATE UNIVERSITY
MANHATTAN, KANSAS 66502**

**Dr. William J. Hoover, Director
Dr. Harry B. Pfost, Agricultural Engineer
John R. Pedersen, Entomologist**

Acknowledgment

A number of people in Guatemala were very helpful in providing information and other assistance. The assistance was very much appreciated. Especially helpful were:

Deane R. Hinton
Mission Director
USAID, Guatemala

Alphonse C. Chable
Food and Agriculture Officer
USAID, Guatemala

Milton Lau
Assistant Food and Agriculture Officer
USAID, Guatemala

Phillip Church
USAID, Guatemala

Lic. Victor Velasquez
Chief of the Office of Agricultural Planning
Ministry of Agriculture, Guatemala

TABLE OF CONTENTS

Summary	1
Acknowledgment	ii
Introduction	1
A Concept of Marketing	1
A Grain Marketing System	1
Corn Marketing in Guatemala	2
Storage Facilities	3
Transportation	3
Warehousing	4
Price Reporting	4
Technical Training	5
Recommendations	5
Recommendations for KSU Participation in USAID/Guatemala Corn Marketing Project	7
General	7
Personnel	9
Additional Comment	11

INTRODUCTION

The following observations are offered as prologue to recommendations concerning Kansas State University participation in USAID effort to assist in development of improved corn-marketing procedures in Guatemala. The following comments result from observation over a period of only 10 days. Deficiencies in information that may be reflected here are a result of the Author's inability to absorb more information in this period of time. USAID personnel in Guatemala and others have devoted substantial time and effort in providing information during the above 10-day period.

To help identify the problem, this report will attempt to briefly sketch the content of a Grain Marketing System and relate Guatemalan corn-marketing development to the elements of a grain-marketing system.

A Concept of Marketing. Marketing involves transfer of goods and associated services from producers to consumers and the reverse flow of funds from consumers to producers. A quality marketing system meets consumer needs as effectively as possible and meets accepted standards of efficiency in all parts of the system.

A Grain-Marketing System. A grain-marketing system may be thought of as involving three principal types of activities, or sub-systems, all three of which must be intensely integrated to provide an effective system. These are (a) a system for physical handling, storing and processing of the product; (b) a system of ownership transfers and ownership contingencies; and (c) an information system that facilitates decision making on the part of the participants in the system.

The physical handling system includes conditioning and storage facilities to provide for minimum quality deterioration from harvest to consumption. Minimum cost combinations of storage, conditioning or processing, and transportation contribute to efficient marketing. Achieving a minimum cost system for physical handling of grains involves a complex fitting together of physical facilities of various kinds and sizes to achieve specific marketing requirements. Continuous adjustment in facilities is also required as marketing conditions change.

The system of ownership, ownership transfers and ownership contingencies involves provisions for buying and selling by sample or by description as well as inspection. It also involves a system for establishing financial claims facilitated by use of grain as collateral. A system of transferring risk of ownership is an integrated part of an advanced marketing system. Financing of stocks and risk transfers are strongly dependent upon the integrity of the warehouse receipt. Regulation of public warehouses, diligently enforced, is important.

The essential ingredient of the information system is a freely moving price system that conveys information concerning supplies, demands and costs of services. Operating freely, price is an exceptionally efficient information system which, combined with a profit motive, makes the system responsive to changes in supply, resource cost, and demand conditions.

CORN MARKETING IN GUATEMALA

Annual production of corn in Guatemala is approaching 17,000,000 cwt. Little empirically verified information is available on marketing of corn. Such information as is available is summarized in Agricultural Development and Policy in Guatemala (Department of Economics, Iowa State University, 1969).

Storage Facilities. Commercial storage, handling, and conditioning facilities are reported to be inadequate. Observations bear this out. However, there is evidence that the private sector recognizes an urgent need for more facilities. Relatively new facilities observed at locations in Guatemala City, La Maquina, Palin, and Novillero suggest a desire on the part of the private sector to provide more commercial marketing facilities. There is also evidence of some improvement in facilities for on-farm storage involving use of metal containers holding up to a metric ton of shelled corn.

Efficiency of some of the new commercial facilities could be improved, I feel. For example, better coordination of receiving and drying capacity with storage capacity is needed in some facilities. However, these new establishments appear to be reasonably satisfactory and represent important pioneering in the establishment of a Grain Marketing System. They should be encouraged through technical assistance and financial credit, if possible.

There is a need for substantial expansion of physical facilities. Storage facilities are needed for merchandising and storage of commercial stocks both at community and terminal levels. Additional drying and storage is needed either on the farm or at the community level to reduce deterioration in stocks to be consumed in local communities or held for sale at a later time. A reported practice of farmers selling corn at harvest to be bought back for consumption later in the year at price increase exceeding \$1.00/cwt. may be economic practice if losses are as large as reported.

Transportation. Transportation rates, illustrated by geographic price differences, appear to be high. Improved roads would, no doubt, reduce costs. However, the need for the trucker to collect a load of corn from many producers, finance the purchase of corn and then seek out a market for it represents a

major reason for reported high rates. Existence of transport facilities does not appear to be a major obstacle to development of a commercial corn marketing system.

Warehousing. Guatemala is just now making operational a procedure for establishing bonded public grain warehouses. Indications are that this will improve the environment for private investment in warehouse facilities. A reported restriction of \$250,000 minimum capitalization for operation of a bonded public warehouse would tend to limit this opportunity to larger firms and reduce the potential benefit of the law in development of a commercial system for marketing corn. Further development of a set of rules and regulations within which the private grain trade may operate would make a significant contribution to development of corn marketing. Rules that will facilitate financing of stocks whether in storage or in transit and rules that will protect the private trade from unwarranted charges of undue speculation or market manipulation seem most urgent. Development of a system of public warehouses providing services without discrimination at uniform rates would provide storage space for price stabilization purposes, also, if public policy requires stabilization effort. This assumes adequate total storage capacity.

Price Reporting. Trading in corn is largely in private hands in Guatemala. Values are determined by the price system. There does not appear to be significant use of the grading system for corn. Price reporting procedures on a current basis needs to be established. Reported wide distribution of transistor radios simplifies distribution of price information. A collection system is undoubtedly greatly more difficult. Statistical data on prices and grain movements should be developed as soon as possible to facilitate investment decisions. Production estimates (outlook information) would also improve the information system.

Technical Training. Developing the administrative and technical talent required to operate a commercial system in the private sector will take time. If desired, technical assistance should be made available as new operations are developed. It is anticipated, however, that the major task of training, or providing technical assistance to, administrative personnel will be beyond the period of time covered in the contractual arrangement currently proposed. Development of administrative and technical talent for enforcement of the rules and regulations forming the legal framework for a corn marketing system will be necessary, also.

Recommendations. Viewing the marketing of corn as a system and defining problems as they relate to the system as has been done by USAID is a very commendable approach. Development of an advanced system of corn marketing will be a long-term process. However, substantial improvement in the marketing techniques that are now used; encouragement of new investment; and effort to tie developing segments of a system together into a more systematic and less costly procedure for marketing would seem to be reasonable short-run projects.

The most immediate need, in my judgment, is to encourage private investment in conditioning and storage facilities appropriate to Guatemalan conditions. Secondly, to encourage proper conditioning of grain and use of storage, particularly on farm and in community storage to avoid the current high rate of loss to rodents and insects. It is also important that pioneering efforts in investment in facilities, especially at the community level, be given technical assistance to insure their success, if possible.

Another fairly high priority item, in my judgment, is the development of a system of price reporting by radio. Available information should lead to more stable prices and reduce the costs of cross-hauling.

Development of regulatory procedures, and facilities for enforcement should proceed as rapidly as is feasible under current circumstances. Improvement of regulation permitting the operation of bonded public warehouses will increase efficiency in the system. Since this is a fairly critical area but perhaps also a sensitive area, regulations should be kept as simple as is feasible initially and develop slowly into a more complete system of regulation.

The manner in which the private sector will develop will be significantly influenced by public policy with regard to operation of the corn price stabilization agency. Firm decisions in the near future on issues relating to stabilization will provide a stronger basis for individual decisions in the private sector.

RECOMMENDATIONS CONCERNING KANSAS STATE UNIVERSITY'S PARTICIPATION IN USAID/
GUATEMALA CORN MARKETING PROJECT

General. Contemplated work related to development of a marketing system for corn in Guatemala appears to be of two types: (a) to provide assistance in development of an application for an international loan to be used for agricultural development purposes, and (b) to provide technical assistance to government agencies and to individuals in the private sector in development of an improved corn marketing system. The proposed level of assistance requested by USAID/Guatemala is 24 man-months consisting of a team leader for 12 months and provision of four specialists for 2 to 4 months each. Currently the above positions are described in a single PIO/T No. 520-194-3-90123. The current PIO/T describes only technical assistance except as reference to drafting a plan of action in block 21, page 2, may contemplate a feasibility study which may be used for loan purposes.

Preparation of a plan of action for providing technical assistance within the country should be distinguished from a feasibility study to be used to support a loan application.

The degree of success in developing a corn marketing system will be strongly influenced by the outcome of the loan application, especially if money is designated for market development as now anticipated. It is my judgment that the Kansas State Team could give major assistance in preparation of the loan proposal. It appears to be the wish of the Mission Director that such assistance be included. Guatemala Mission people have indicated a mid-December deadline for completion of a loan proposal. To be of assistance in preparation of the proposal, the project leader should be in Guatemala at the earliest possible date. If it is not possible to identify a project leader

and arrange his arrival in Guatemala at an early date, the contract for project leader services should reflect this either (1) in reduced services in regard to the loan, or (2) a change in expected date for completion of the loan proposal.

It is recommended that the Kansas State Team not undertake a detailed site analysis in Guatemala at this time. It is understood that reference to location in block 21, paragraph 2, page 2 of the PIO/T does not commit Kansas State to a detailed site analysis. In my judgment, the lack of data on grain flows, transportation charges and current methods of marketing corn, along with uncertainties about future production growing out of an anticipated program to increase corn production, make it impossible to complete a reasonable analysis of site for commercial grain facilities. Alternative facility investment plans, based on assumptions about corn production and consumption and marketing environment, to demonstrate possible uses of investment funds, if useful for loan purposes, could be prepared. Location, in the context used in the PIO/T, is also interpreted to mean recommendations concerning levels of investment in on-the-farm, community or terminal storage and the bringing to bear, where possible, information that will aid private investors in selecting proper sites. This has been discussed with USAID people in Guatemala.

Preparation of the loan request is a short-term project and should be completed in four or five months after initiation of the project. (It is understood that this is not the singular responsibility of the Kansas State Team but that the corn marketing team will assist in those portions of the request relating to marketing.) Provision of technical assistance in marketing is a longer-term project. Political conditions and receptiveness

of technical aid will strongly influence accomplishments. Recognizable major accomplishments are more likely if work with the private sector extends beyond one year.

Personnel. It would be very desirable to have a team leader who speaks Spanish in addition to being knowledgeable concerning various aspects of grain marketing. It is important to the planned program of the AID Mission in Guatemala that a project leader arrive there in the near future. The Mission Director in Guatemala has asked to be kept informed concerning possibilities of locating a project leader.

It is recommended that the PIO/T be amended to combine specialist categories "merchandising specialist" and "marketing management specialist". With a small number of firms currently in operation that may wish to use the services of a management or merchandising specialist, it is my judgment that the two positions can be combined into a single position during the period of the currently proposed contract for services. The position may be described as follows:

"The marketing management specialist will consult in matters of internal operations of grain marketing firms, including operating budgets, financing, customer credit, sales and purchases, quality control, issuance of warehouse receipts, bonded shipments and compliance with government regulations. He should have applied experience in commercial marketing operations."

The fourth specialist position should be given over to a short-term position in which efforts will be made to develop, in cooperation with Guatemalan officials, a procedure for collecting and disseminating current corn price and market information. The position may be described as follows:

"The market information specialist will consult in establishing procedures for collection and dissemination of current domestic and export price information and in collection and dissemination of information about size and location of current stocks of corn, production prospects and market demand prospects that may influence prices in the future. The specialist should be familiar with information needs of the private sector and with proven techniques for collection and dissemination of information."

Specialist assistance in control of stored grain insects is not provided in the existing PIO/T. Ample evidence of a severe problem of insect infestation exists. It is hoped that combined efforts of a Kansas State Team that has some knowledge of insect control and of Guatemalan specialists can make headway on this problem. If not, the project leader may wish to recommend revision of the PIO/T at a later date to incorporate the services of an entomologist.

Mr. Phillip Church has indicated a willingness to negotiate employment in a specialist position concerned with development of a price and market reporting procedures. Mr. Church is currently working on corn marketing problems in Guatemala on a Foundation Grant. In my judgment he would do a capable job in the position described and provide valuable assistance in developing a loan proposal. Mr. Church's contacts with marketing firms, his current knowledge of corn marketing problems in Guatemala and his knowledge of the Spanish language would provide valuable continuity in the initial phases of a corn marketing project. The foundation grant on which Mr. Church is supported in Guatemala expires August 31. Prompt action will be required to keep him in Guatemala. It is my understanding that AID Guatemala is arranging for Mr. Church's services on a direct hire arrangement, if necessary to assure keeping him in Guatemala for a 6-month period.

Additional Comments. In my judgment, technical assistance should begin as soon as possible concurrent with development of support for the loan application. Specialist positions as described should give adequate support to the project in the period covered by the PIO/T. Specialist support should be flexible in amount of time provided by individual specialists and perhaps in type of specialist provided, at least as indicated above, to accommodate developing needs as determined by the project leader in consultation with other AID personnel and Guatemalan government officials.

Technical assistance is not likely to achieve final results in development of an improved system of marketing in one year's time. A technical team can identify and begin work in areas in which sustained effort must be forthcoming in subsequent years for continued improvement in a marketing system.