

PN-AAU-590

43991

AID AGRIBUSINESS ACTIVITIES IN AFRICA, 1970 - 1986

Prepared by:

Timothy J. Mooney

Prepared for:

The Employment and Enterprise Development Division
Office of Rural and Institutional Development
Bureau for Science and Technology
U.S. Agency for International Development

Under Contract No. DAN-1096-0-00-5038-00

November 1985

EXECUTIVE SUMMARY

At the request of the Senior Agribusiness Advisor, S&T/RD/EED, this paper reviews and analyzes AID-funded agribusiness and agribusiness-related activities in Africa. The goal of the paper is to address the following question:

What can the Agency for International Development learn from past activities in agribusiness to guide the formulation of future projects and programs?

The purpose of the paper is to review previous AID involvement in agribusiness in Africa and to present an overview of the types of activities the Agency has supported. In addition, the paper extracts lessons learned from these activities and concludes with draft guidelines to improve the design, implementation and evaluation of agribusiness projects.

The term agribusiness, as used in this paper, includes all the interrelated functions to be performed to produce, process and market agricultural products. These functions include farm supply and credit, farming, processing, storage, assembly, institutional and retail distribution, export and government regulation.

The paper briefly reviews 220 projects. Rather than attempting to provide a critical analysis of these undertakings, the purpose here is make the reader aware of the types of agribusiness and agribusiness-related projects and activities the Africa Bureau has supported since 1970.

For the most part AID's agribusiness-related agricultural efforts in Africa have concentrated on increasing the production of agricultural commodities. The underlying assumption of many projects has been that an increase in production will automatically lead to increased income for the rural poor in Africa. In this policy environment, there has been an emphasis on projects to increase the supply of credit, extension, and training. Projects that have focussed on improving the flow of crops and livestock from the farmgate to the consumer have been less important, although the trend seems to be changing.

This paper recommends that in the future AID should take a broader approach in designing agribusiness projects. By broader approach, we mean one that would attach as much importance to improving the processing and marketing of agricultural products as it does to increasing production. Analyzing an agribusiness activity in the context of the commodity system in which it will perform is one way to do this.

The commodity systems approach to analyzing agribusiness identifies each of the inter-related elements that is involved to produce a crop, process it, and distribute it to the ultimate consumer. The commodity systems approach is a useful tool to

Identify the first limiting constraint on any given system and can help donors to channel limited resources to key problem areas.

The Conceptual Framework for the Design, Implementation, and Evaluation of Agribusiness Projects on the next page is an attempt to guide a broader approach to understanding agribusiness projects. The framework is divided into two parts: a description and an analysis. The description is straight forward. The design and implementation plan for an agribusiness project should contain a detailed description of the commodity system in which the agribusiness is to function. Such a description also provides background information for evaluations.

The analysis contains three sections: technical/managerial; financial/economic; and political and social. The purpose of these three analyses is to identify the constraints that may impede the development and successful implementation of an agribusiness project. When examined within this framework, it should become clear whether or not a proposed project addresses the key constraints to successful agribusiness development.

CONCEPTUAL FRAMEWORK for the DESIGN, IMPLEMENTATION and EVALUATION of AGRIBUSINESS PROJECTS

DESCRIPTION	A N A L Y S E S		
	Technical/Managerial	Financial/Economic	Political/Social
<p><u>Input Supply</u></p> <p>Describe the availability of and producer access to the following:</p> <ul style="list-style-type: none"> -Credit -Seeds, stock -Machinery and equipment -Chemicals -Fertilizers -Extension -Research -Other 	<p>Analyze the technical and managerial constraints impeding the the use of inputs and the skills required to adopt inputs effectively.</p>	<p>Analyze the costs and benefits of current input use and the costs and benefits of adopting and using additional inputs.</p>	<p>Analyze the policies and and cultural practices that may promote or inhibit the use of inputs.</p>
<p><u>Production</u></p> <p>Describe the production process and discuss yields, variability and risk.</p>	<p>Analyze the technical and managerial constraints on production and the problems with adopting different methods.</p>	<p>Analyze the costs of of production.</p>	<p>Analyze the impact of policies and social customs on production.</p>
<p><u>Processing and Marketing</u></p> <p>Describe the availability and use of the following:</p> <ul style="list-style-type: none"> -storage -transportation -processing -wholesale markets -retail markets -export markets 	<p>Analyze the technical and managerial constraints impeding the increased use of processing and improved marketing.</p>	<p>Analyze the market and the financial and economic costs of processing and marketing.</p>	<p>Analyze policies and cultural practices that affect processing and marketing.</p>

Table of Contents

Executive Summary	1
I. Introduction	1
Purpose	
Agribusiness	
Methodology	
II. Overview of Projects	6
A. Benin	6
B. Botswana	7
C. Burkina Faso	9
D. Burundi	12
E. Cameroon	12
F. Cape Verde	15
G. Central Africa Republic	15
H. Chad	16
I. Congo	18
J. Djibouti	18
K. Equatorial Guinea	19
L. Ethiopia	20
M. Gambia	21
N. Ghana	22
O. Guinea	24
P. Guinea-Bissau	25
Q. Kenya	26
R. Lesotho	28
S. Liberia	30
T. Malawi	32
U. Mali	33
V. Mauritania	34
W. Mauritius	35
X. Mozambique	35
Y. Niger	35
Z. Nigeria	37
AA. Rwanda	38
BB. Senegal	39
CC. Sierra Leone	40
DD. Somalia	41
EE. Sudan	42
FF. Swaziland	43
GG. Tanzania	44
HH. Togo	46
II. Uganda	47
JJ. Zaire	49
KK. Zambia	51

LL. Zimbabwe	52
MM. East Africa Region	52
NN. Sahel (Central and West Africa) Region	52
OO. Southern Africa Region	54
PP. Africa Region	55
III. Lessons Learned: An Analysis of Past Activities	56
IV. Planning for the Future: Host Country Agribusiness Development Strategies and Other Donors' Activities	63
V. Draft Guidelines for Planning, Designing, and Implementing Future AID-Funded Agribusiness Activities in Africa	73
Appendix 1 Projects Summary	
Appendix 2 Checklist of Critical Questions for Agroindustrial Project Analysis	

Chapter 1 INTRODUCTION

Purpose

This study was prepared at the request of the Senior Agribusiness Advisor in the Employment and Enterprise Division of the Office of Rural and Institutional Development of the Bureau for Science and Technology. The goal of this study is to address the following question:

What can the Agency for International Development learn from past activities in agribusiness to guide the formulation of future activities?

The purpose of this analysis is to review past AID-funded agribusiness activities in Africa and to suggest ways in which AID might improve the design and implementation of future undertakings in agribusiness. This report follows an earlier review of AID agribusiness activities in Latin America and the Caribbean. /1.

Agribusiness

Agribusiness is a complex, sometimes controversial, term. As used in this report, agribusiness:

includes all of the interrelated private and public policymaking enterprises, from farm supply, farming, and processing through distribution to the ultimate consumer - including all the private and public coordinating mechanisms that hold the commodity systems together and enable them to adjust to technological, political, social, and economic change. /2.

Conceptually, it may be helpful to distinguish three types of entities engaged in agribusiness. Austin defines these as:

- Operators - farmers, transporters, warehousemen, processors and distributors - "who actually handle the physical commodity as it flows from the farm to the marketplace";
- Supporters - farm suppliers, financial institutions, research centers and extension services - "that contribute to the system's operators; and

Coordinators - government regulatory agencies, brokers, futures markets, and industrial associations - "that integrate various stages of the food-and-fiber system." /3.

Agribusinesses operate within commodity systems. A commodity system includes all of the activities that must take place to produce a crop and then to process it and distribute it to the ultimate consumer. The diagram on the next page sketches out a basic commodity system. Some agribusinesses operate in more than one commodity system at the same time. A farmer, for example, who grows both corn and soybeans operates in two systems. A food processor that purchases multiple ingredients to manufacture the products it sells may participate in many different commodity systems. Whether public or private, simple or complex, Goldberg suggests that every agribusiness has two vital characteristics:

The first is its position and function in its commodity structure and in the global food system. The second is the manner in which it relates to, or coordinates its functions with, the commodity system of which it is a part. /4.

Agribusinesses differ from other types of business in several key ways. Seasonality is one important difference. The production of crops and livestock are subject to the laws of biology. Therefore, raw materials are available only at certain times of the year. These raw materials are perishable, and this factor creates unique problems for firms that engage in the processing and marketing of agricultural products. The production of crops and livestock is subject to the vagaries of weather, as well as insects and disease. These forces cause variability in both the quantity and quality of production each year. Finally, because many agribusinesses are concerned with the basic food supply of a country, they are subject to more stringent political and social considerations.

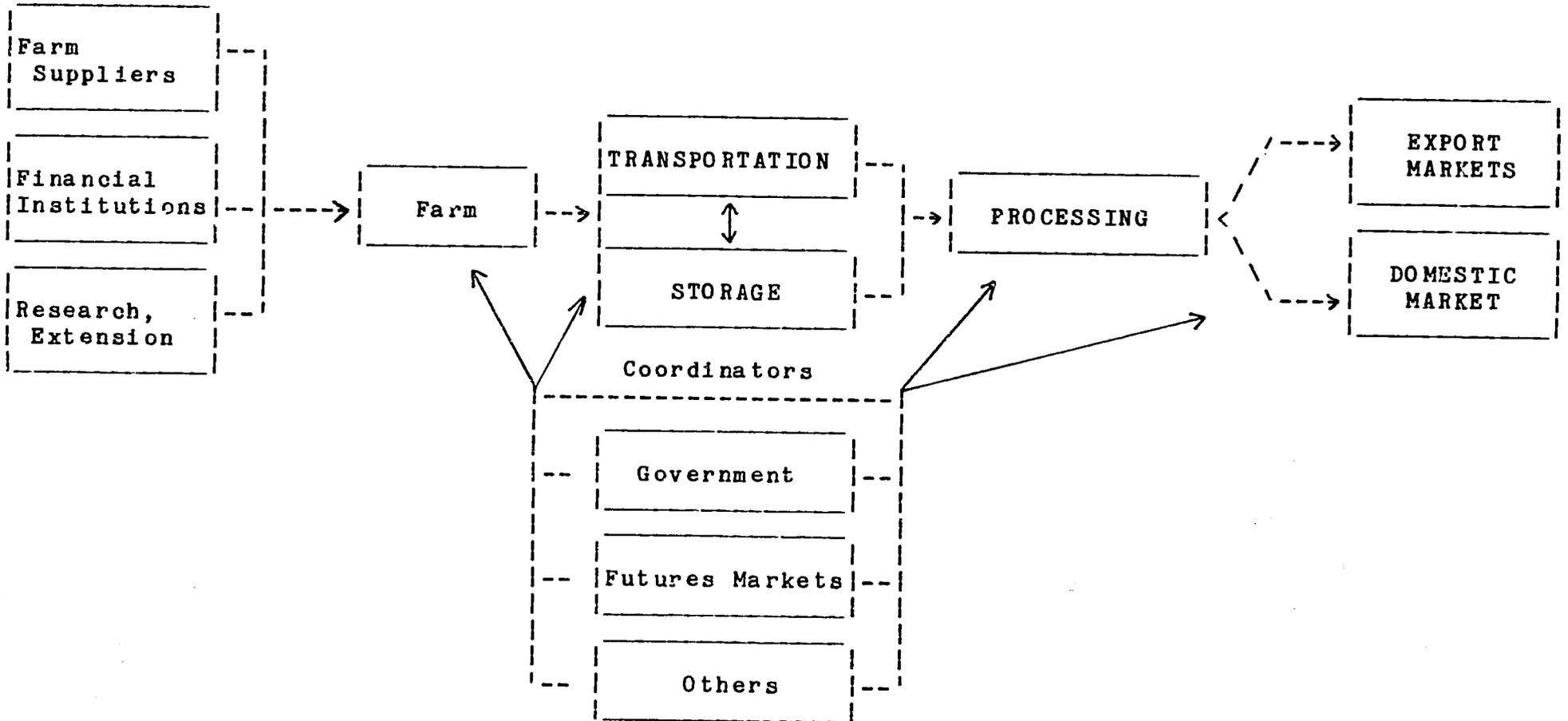
Agribusiness development in developing countries is a difficult task. An agribusiness in a developing country is much less likely to operate in and have the support of a well defined and structured commodity system in which the various tasks from input supply to retail distribution are developed, integrated and coordinated. However, the problems and constraints of any commodity system need to be fully understood before practical, cost effective agribusiness can take place. As Goldberg warns:

Only by understanding the entire system and every factor within it can one know enough to predict developments and suggest policies to produce desired results. /5.

BASIC COMMODITY SYSTEM

Supporters

O P E R A T O R S



Methodology

Two sources, the Development Information Unit (DIU) and the Functional Information System (FIS) established in the Agriculture and Rural Development Division of the Office of Technical Resources of the Africa Bureau (AFR/TR/ARD), provided the initial information about the activities surveyed and analyzed in this study. In order to uncover the agribusiness activities that AID has funded in Africa, the DIU searched for projects that included any of the following activities: input supply: fertilizer, chemicals, machinery, equipment; farming: farm management; transportation; storage; processing; and marketing. The FIS provided lists of projects that had the following "purpose category/definition": agro-industry; input supply; and commodity marketing; as well as projects that listed private enterprise as a special concern. DIU supplied information on projects active since 1970. The AFR/TR/ARD system begins with FY 1978.

Chapter 2 contains a brief review of 220 agribusiness and agribusiness-related projects that AID has funded in Africa since 1970. The DIU identified and supplied information on 117 projects. The FIS identified another 76 projects. Twenty-seven projects were covered by both sources of information. By researching the available information - project identification documents, project papers, mid- and end-of-project evaluations, special studies and evaluations, audit reports and final reports - the study has tried to focus on the activities that best served to promote the development agribusiness, especially in the private sector, that AID has supported in Africa. Project evaluations and audits were the best source of information for determining the success or failure of any project. Unfortunately, these documents were not available in the AFR/PD micro-fiche files, which was the major source of project information, for most of the activities reviewed in this paper.

The approach here is extensive rather than intensive. The major purpose of Chapter 2 is to give the reader a "feel" for the types of agribusiness projects AID has funded in Africa. These projects are, after all, the basis upon which future activities will be planned and implemented.

Chapter 3 is an attempt to extract lessons learned from the Agency's experience to date in Africa. The analysis here is much more qualitative than quantitative. The annual Agriculture and Rural Development: Functional Review produced by AFR/TR/ARD provides a complete and thorough quantitative analysis of the Africa Bureau's agricultural and rural development portfolio of projects, including agribusiness projects. It is not the purpose of this report to be repetitive. Rather, the purpose of Chapter 3 is to provide some perspective on the Agency's past experiences in Africa. The intention is that this perspective will contribute to and improve the design and implementation of future endeavors in this area.

There are three different facets to Chapter 4. The chapter begins with a brief review of the current agribusiness-related policies of AID-assisted countries in Africa. The intent here is to identify countries that favor and encourage private sector agribusiness development. The second part of the chapter briefly looks at the current activities of two other donors: the World Bank and UNIDO. Increased cooperation with these and other donors may be one way for AID to contribute to the development of commodity systems in which agribusinesses might operate more effectively. Finally, the chapter concludes with a list and brief descriptions of certain on-going and new agribusiness and agribusiness related projects that should be monitored most closely and that are most likely to contribute future lessons for AID planners and policymakers.

This analysis concludes with draft guidelines for designing, implementing and evaluating future agribusiness projects in Africa. The guidelines suggest incorporating more of a commodity systems approach to agribusiness development, with increased emphasis on processing and marketing. Adopting a commodity systems approach should, among other things, help make it clearer to policymakers, planners, and implementors what the constraints inhibiting agribusiness are and suggest measures that might be taken to remove them.

Footnotes

- /1. Warfield, Elizabeth, AID Agribusiness Projects in Latin America and the Caribbean, S&T/RD/EED, 1985
- /2. Goldberg, Ray A. and McGinity, Richard C., Agribusiness Management for Developing Countries - Southeast Asian Corn System and American and Japanese Trends Affecting It, Cambridge, Ballinger Publishing Company, 1979 p. 2
- /3. Austin, James E., Agroindustrial Project Analysis, Baltimore, The Johns Hopkins University Press, 1981, p. 15
- /4. Goldberg and McGinity, op. cit., p. 3.
- /5. idem

Chapter 2 Overview of Projects

The follow pages briefly review 220 agribusiness and agribusiness-related projects that AID has funded in Africa since 1970. Two sources identified these projects: the Development Information Unit of the Bureau for Policy and Program Coordination and the Functional Information System of the Agriculture and Rural Development Division, Office of Technical Resources, Africa Bureau. A review of project files, including project identification documents, project papers, mid- and end-of-of project evaluations, special studies and evaluations, audit reports and final reports supplied the data for these overviews. Unfortunately, the files for many projects lack evaluation documentation making it difficult to assess the full impact of the activities.

A. BENIN

1. Soya Nutrition (680-0207) FY 76

The purpose of the Soya Nutrition project was to promote the production and consumption of soya as an affordable, nutritional protein component for the rural poor. AID made an Operational Program Grant (OPG) to Catholic Relief Services to undertake this activity. AID funding provided \$ 0.8 million of total project costs of \$1.45 million. The project's emphasis was on the training of local personnel to promote the cultivation of soya as well as its nutritional value. There is no evaluation of whether or not the project met its expected level of outputs, which included:

- 2,140 trained in soya horticulture, soya promotion techniques, its nutritional value, and animal traction;
- approximately 10,120 kgs. of seed distributed;
- 8 soya experimentation plots established;
- 144 seed multiplication plots established in schools;
- and
- 9,000 tons of soya produced.

B. BOTSWANA

1. Crop Production (633-0056) FY 76-80

AID approved a grant of \$1.7 million for the Botswana Crop Production project on August 25, 1976. These funds were used to support three major sub-activities:

- development of an unsophisticated system of production of cereal grains;
- establishment of a Crop Production Division within the Ministry of Agriculture; and

BOTSWANA, cont.

- capital support to the Botswana Agricultural Marketing Board.

Support to the marketing board was in the form of warehouses and commodities to be used to implement a Strategic Food Storage and Reserve Program.

The goal of this project was to "increase the degree of self-sufficiency in basic cereal grain and pulses." Its purpose was to develop a proven and practical technological base to permit increased crop production/productivity and to develop an adequate institutional capacity to effectively transmit such information to rural citizens, and to receive essential feedback to modify programs and to provide support for the Strategic Food Storage and Reserve Program.

The project paper expected the project to produce the following outputs:

- the development of a proven package of inputs and practices suitable for use by small farmers and developed to double unit productivity of the major cereal grain (sorghum);
- the development and refinement of cropping systems;
- existing and properly staffed Crop Protection Division, within the Ministry of Agriculture, to link research findings to the Extension Division's field staff and responding to field requests for technical assistance and problem solving;
- improved harvesting and storage of crops; and
- the establishment and operation of a strategic Food Storage and Reserve System.

The Project Evaluation Summary of February 1980 notes that the project's major contribution was the construction of five 1,000 metric ton warehouses that were "operating with reasonable efficiency."

2. Rural Development (633-0077) FY 80-88

AID's overall contribution to this project totaled \$9.3 million. The goal of the project was to "stimulate rural development and a more equitable distribution of income in Botswana." The purpose of the project was to "assist the Government of Botswana (GOB) in the development and implementation of strategies to provide the rural population with increased access to productive employment opportunities and to assist the GOB in increasing arable land production and the incomes of rural households." Originally planned as a three year project with initial funding of \$3.8 million in 1980, the project was extended to eight years in 1983.

The project had three major components: arable agriculture, non-farm employment opportunities, and equitable and efficient

BOTSWANA, cont.

land utilization. The Ministry of Commerce and Industry was responsible for programs designed to generate non-farm employment opportunities. The project established a Productive Employment Development Fund that was to be used to support grants to small-scale rural enterprises. One the projects major outputs was to be a comprehensive data base on resource availability, market potential and investment needs for entrepreneurs in the rural areas. Such a data base would provide the framework for an expanded Ministry of Commerce and Industry program in the future.

According to an external evaluation of the project completed in July 1984, the Productive Employment Development Fund had provided assistance to small rural producers through training, pilot projects, market studies, and demonstrations. USAID funds had also contributed to the establishment of ten Regional Industrial Officers in the field and a senior industrial officer in the capital.

3. Rural Enterprise Extension Service (633-0212) FY 78-82

This project provided a half million dollar Operational Program Grant (OPG) to Partnership for Productivity to establish an extension training program for small-scale entrepreneurs. The major purpose of the extension service was to train local business persons to perform such basic business operations as simple bookkeeping, unit costing, cash control, etc.

A third year evaluation of the grant found favorable results. It reported that a functioning, high quality business skills extension service using local staff was operating. It further noted that accountability was assured through a reporting and monitoring system and that PfP was in the final stages of codifying a small business skills curriculum package.

4. Agricultural Technology Improvement (633-0221) FY 81-89

The Agricultural Technology Improvement project was a seven year, \$9.2 million dollar undertaking. The grant agreement was signed by the Administrator on September 24, 1981. The purpose of the project was to improve and expand the capacity of the Government of Botswana's Ministry of Agriculture to develop and expand farming systems recommendations relevant to needs of small, resource poor farmers and to promote adequate supplies of quality seed to all farmers. It is hoped that by the end of the project farmers will have access to improved quality seed varieties as a result of more relevant research and an improved seed multiplication and distribution system.

BOTSWANA cont.

5. Small Enterprise Development (633-0228) FY 82-86

An Operational Program Grant of \$425,000 was made to Partnership for Productivity on September 10, 1982. The basic purpose of the grant was to allow PFP to continue its operations (see Rural Enterprise Extension Service, above). The specific objectives of the grant were to "catalyze small-scale productive activities" and to "identify gaps in the economic dynamics . . . and develop entrepreneurs to fill those gaps . . ."

A project evaluation report dated February 17, 1984 noted that "To date PFP has produced a highly regarded baseline survey of the target area and has initiated a microcredit scheme to selectively fill gaps that exist with various government grant and credit programs for small producers."

C. BURKINA FASO

1. Integrated Rural Development (686-0201) FY 74-81

AID's grant funding of the Integrated Rural Development project totaled \$4.8 million over seven years (1974-1981). The goal of the project was to assist in the overall development of the rural sector by supporting the government's regional development organization (ORD) program. The purpose of the project was to upgrade the quality of rural life in one of the ten ORDs primarily by progressively increasing food supplies and surpluses which could be marketed outside the region. As designed the project was to provide core financing for the delivery of an intermediate technical package to small farmers and herders.

Apparently, the project did not live up to its expectations. The audit report of February 13, 1981 states that, ". . . few tangible results achieved. No evidence of a technical package capable of increasing crop production at the farm level."

2. Seed Multiplication (686-0202) FY 74-80

See discussion of Foundation Seed Production project, below.

3. Oncho Area Village Development Fund (686-0212) FY 78-82

The goal of this activity, to which AID contributed \$2.2 million between 1978 and 1982, was improved economic and social well-being of people in resettlement villages of the Volta Valley Authority (AVV). The purpose of the project was twofold: 1) village level capacity developed to organize, manage, and invest independently in village social and economic development

BURKINA FASO, cont.

projects in 133 villages, and 2) the institutionalization of credit to make such village undertakings possible. The project created a \$1.0 million Village Level Development Fund to provide loans to establish income generating enterprises, mostly related to food production.

The results of the project fell short of these expectations. According to the audit report of March 25, 1982 the funds invested in technical assistance, equipment, training and the fund itself would not have "any lasting effect. Little progress has been made to institutionalize capability of the village development fund administered by AVV "

4. Rural Enterprise Development (686-0219) FY 77-81

The goal of this \$642,000 Operational Program Grant to Partnership for Productivity (PFP) was improved quality of life of herdsmen and small farmers in the eastern part of Burkina Faso. The purpose of the project was to "determine through experimentation and data collection an appropriate technological package and credit system for rural enterprise development." According to the project authorization signed February 7, 1978, the project was to foster the development of rural enterprises which would have a beneficial impact on the incomes and living standards of rural farmers and other residents and to provide a self-perpetuating means of increasing farmer self-determination and commercial independence. Both a mid-term (12/79) and final evaluation of the project noted that it was not incorporated into any existing structures and therefore unlikely to be self-sustaining without outside support. Nevertheless, AID funded a second phase of this activity (see Small Economic Activity Development, below).

5. Seguenega Integrated Rural Development (686-0231) FY 78-85

Part of this \$6.0 million Operational Program Grant to Africare included funds to construct a network of improved farm-to-market roads. Other elements of the project include social services; production activities, including construction, for vegetable gardening activities, rice production, and improved livestock production; and support services. The project was slow in developing. Funds were initially obligated in FY 1978. However, an audit report dated October 1980 noted that the project was behind schedule and that there had only been limited success in meeting its objectives. A final obligation of \$550,000 was scheduled for FY 1985.

BURKINA FASO, cont.

6. Grain Marketing Development (686-0243) FY 80-86

The project authorization for the Grain Marketing Development project was signed December 31, 1979. The goals of this \$2.6 million undertaking were to increase cereal production and provide food security in rural areas and to improve the basis for policy and operational decision making in food grain marketing. By providing technical assistance to the country's grain marketing board and conducting research on the role of private merchants in grain marketing, the project hoped to establish a set of conditions favorable to food grain marketing.

An evaluation of the technical assistance component of the project has been completed but was not available for this analysis.

7. Eastern Region Food Production (686-0244) FY 81-86

AID contributed \$3.0 million to this follow-on project to the Integrated Rural Development project (686-0201) discussed above. The goal of this activity was to improve food production and the quality of life in the Eastern Region of Burkina Faso over the long term. To reach this goal the project called for training and technical assistance to upgrade the Government of Burkina Faso's management, monitoring, and researching of agricultural development. AID's major contribution was to include an agronomist "to analyze the evolution and testing of farm system packages."

8. Foundation Seed Production (686-0245) FY 81-86

The goal of this project is to increase domestic food production and improve the quality of life of rural families in Burkina Faso. As a follow-on to the Seed Multiplication project, its purpose was to further develop with the Government of Burkina Faso a workable national seed multiplication, marketing and quality control program which will increase the quantity of seed of genetically superior varieties of the target crops produced in the country and to assure widespread availability and use of such seed. AID's contribution of \$1.6 million was to help the National Seed Service finance the production of foundation seed, assure quality control, establish a regular and systematic seed market survey to improve marketing, and train extensionists in seed technology awareness.

9. Small Economic Activity Development (686-0249) FY 81-86

This project is a follow on to the Rural Enterprise Development project discussed above. AID authorized an

BURKINA FASO, cont.

Operational Program Grant to Partnership for Productivity in the amount of \$2.3 million. This project consists of a group of activities to increase the availability of goods and services in the Eastern region of Burkina Faso by providing a combination of credit, management and technical advice to small-scale entrepreneurs. It is hoped that the project will result in the the formation of an indigenous private development organization to take over the responsibilities of PFP personnel.

D. BURUNDI

1. Basic Food Crops (695-0101) FY 80-85

AID participation of \$5.9 million in the Basic Food Crops project was initially authorized in FY 1980. The project continued through 1985. The basic purpose of the project is to help the Government of Burundi make improved varieties of food crops available to small farmers in high altitude areas, the tea producing areas. To do this the project was to establish a seed multiplication farm. The farm was to produce wheat and maize at first and then expand into peas, beans, sweet and Irish potatoes. A second purpose of the project was to demonstrate improved cultivation techniques to these farmers. The project underwent a special in-depth evaluation in March/April 1984 that has lead to a tightening of project management and farm seed operations.

E. CAMEROON

1. North Cameroon Seed Multiplication (631-0001) FY 76-83

The goal of the North Cameroon Seed Multiplication project was to increase per hectare yield of sorghum and peanuts in north Cameroon to reduce food scarcities, improve nutrition, contribute to import substitution, and increase rural income. The project's purpose was to establish and institutionalize a self-sustaining, regional system for the production, distribution, and use of improved peanut and sorghum seed in north Cameroon. Over a seven year period, from 1976 to 1983, AID provided almost \$ 1.5 million to this activity.

The first phase of the project concentrated on the testing of improved varieties of sorghum and peanuts as well as the multiplication of seed. Distribution was the responsibility of a parastatal. A mid-term evaluation of the project dated June 1980 noted that a distribution system was in place and included Ministry of Agriculture extension offices, training centers for farm families, and regional project coordination offices. As part of its media promotional campaign, the project had trained

CAMEROON, cont.

extension personnel in the use of audio-visual equipment. In its analysis and recommendations for Phase II of the project, the evaluation warned that "contract seed multiplication by small farmers of foundation seed may present serious problems" Unfortunately, there were no other evaluations in the file.

2. Young Farm Family Training Center (631-0002) FY 77-82

This project, initially authorized in 1977, was a \$1.0 million Operational Program Grant to the International Union for Child Welfare (IUCW) to assist in establishing a region-wide network of agricultural training centers in the northern province of Cameroon. The goal of the project was a reduction of regional income disparities and an increase in the quantity and quality of food production. Its purpose was to establish a region-wide network of agricultural "innovators" who "will pass on improved methods to their neighbors and serve as reception point for additional new methods continuously being introduced from outside . . ." Under the project 450 farm families were to receive training in agriculture, animal-drawn cultivation equipment and draft animals, basic farm economy, family budgets, and other subjects.

3. National Cereals Research (631-0013) FY 80-85

The purpose of this \$9.5 million grant authorized in 1979 was to assist the Government of Cameroon to develop an institutional capacity to provide high quality research on maize, rice, sorghum, and millet.

4. Small Farmer Livestock/Poultry Development (631-0015) FY 80-85

This activity is a \$1.3 million, six year Operational Program Grant to Heifer Project International (HPI). The grant called for HPI to make improved breeds of livestock and dairy cattle available to small farmers in Cameroon. As further elaborated in the project authorization, the project was to consist of "establishing a dairy cattle, small livestock, and poultry industry in Cameroon and developing a distribution system to provide improved livestock to small farmers."

A progress report dated August 1981, one year after authorization, found the results to date favorable. A distribution plan was in place that "enables farmers to obtain animals without making a large initial investment . . . The plan basically involves an agreement . . . whereby a farmer who qualifies for animals but who is unable to pay the full purchase price of the animals, pays at least 25% down and agrees to pay

CAMEROON, cont.

the remainder by a specific date either by returning offspring equal in value to the amount owed or by paying the amount owed in cash."

5. Small Farmer Fish Production (631-0022) FY 80-85

Under this project AID made a grant of \$600,000 for technical assistance, training, commodities, and construction to improve the management of and provision of inputs to the already existing Inland Fisheries Program. The goal of the project was to assist the Government of Cameroon in its efforts to increase income, improve the diet, and diversify farm production of the rural population. The purpose was to increase fish pond construction by developing the government's capacity to supply fingerlings to fish farmers and to improve fish pond management through the extension service.

The project's emphasis was to train 45 new extensionists to advise farmers on pond site selection, cooperative methods of pond construction, fingerling care, pond management, timely harvesting, marketing, and the nutritional benefits of fish.

6. North Cameroon Seed Multiplication II (631-0023) FY 82-86

The North Cameroon Seed Multiplication II project was initially authorized in FY 1982. AID funding included a grant of \$ 9.0 million and a loan of \$5.6 million. This activity is an extension of the seed multiplication project discussed above. Of particular note in Phase II is the participation of a U.S. private firm in the project. The company was contracted to provide technical assistance and to undertake studies to determine the feasibility of private sector investment and divestiture of present operations now under parastatal control.

7. Training for Small Business (631-0034) FY 80-82

The evaluation of this project dated July 2, 1983 provides a concise summary of this activity. The "project attempted to develop a proposal which would relieve the constraint caused by inadequate management techniques which impede the creation of small- and medium-sized enterprises." The major thrust of this Operational Program Grant was to develop a proposal for the establishment of a new division of Small and Medium Enterprise within the University Center at Douala.

8. Credit Union Development (631-0044) FY 80-86

The purpose of this \$1.6 million project was to develop a strong cooperative savings and credit (i.e. credit union)

movement in Cameroon. Initially authorized in FY 1980, expenditures will continue through 1986. As a result of a recent evaluation, the project will develop a five-year implementation plan for Cameroon's Cooperative Credit Union.

F. CAPE VERDE

1. Rural Works (655-0001) FY 75-82

This is basically a road building and conservation project. The project goal is to increase food production, in order to increase small farmer incomes and reduce Cape Verde's dependence on imported commodities. The purpose of the project is to improve and increase the effective availability of soil and water resources for agricultural production and to increase the effective farm gate price to the farmer by improving physical access and reducing transport costs. The project, which provided \$3.9 million over seven years (1975 - 82), focused on two main activities: the construction of farm-to-market roads and soil/water conservation.

2. Watershed Management (655-0006) FY 75-82

This project has little to do directly with agribusiness development. AID's grant of \$ 6.3 million was to provide technical assistance to the Government of Cape Verde to establish a viable program in watershed management including a pilot agricultural extension service for small-scale farmers.

3. Food Crop Research (655-0011) FY 82-86

This activity is basically a research project. AID is contributing almost \$7.0 million over five years (1982 - 87) to help transform Cape Verde's Center of Agrarian Studies into an Institute for Agricultural Research so that it may conduct interdisciplinary, adaptive research on food crops, especially for irrigated acres.

G. CENTRAL AFRICAN REPUBLIC

1. C.A.R. Seed Production Center (676-0001) FY 76-80

AID contributed \$763,000 to this project to reestablish a seed production and multiplication facility and to conduct a farm management program at a government-owned agriculture center. No evaluations of this project, which ended in 1980, were available in the files.

CENTRAL AFRICAN REPUBLIC, cont.

2. Rural Development (676-0015) FY 82-88

The emphasis of this project, initially authorized in 1982, is also on rehabilitation. The goal of the project was to increase the incomes of the target rural population through agricultural production activities. The purpose was to increase small farmer production of rice and manioc, fish, beeswax, and honey.

The evaluation report dated January 3, 1985 is very insightful in pointing out the weaknesses of the project's design and suggesting where the emphasis should be in agribusiness projects. It noted that, "The purpose statement generally is inaccurate asking for increased production when efficiency and financial viability would be more appropriate objectives." The evaluation goes on to make the following remarks about specific areas of activity. As for beeswax, it noted that "The project's main effort has been to improve marketing such that wax already produced in traditional hives is not discarded . . . After two years of experience project personnel are beginning to realize that marketing should be the primary point of research and effort instead of production." It further noted that the emphasis of the fish culture activities was shifting from "hobbyist" type fish farmers to commercial producers.

3. Post Harvest Food Systems (676-0016) FY 84-87

The project authorization committing AID support of \$3.7 million over five years was signed in August 1984. The purpose of the project is to extend food storage and reduce post-harvest food losses, both quantitatively and qualitatively, as well as to reduce labor in post-harvest processing. The project is to be implemented by two PVOs - Volunteers in Technical Assistance (VITA) and Africare. Five advisors are assisting the government to identify and introduce appropriate technologies to decrease food storage and processing losses.

H. CHAD

1. Lake Chad Irrigated Agriculture (677-0001) FY 77-81

AID provided \$1.8 million to this project between 1977 and 1981. The goal of the project was to develop the agricultural potential of the Polder area of Lake Chad through the exploitation of land and water resources. To do this the project called for the strengthening of SODELAC, the government agency responsible for the development of the Lake Chad area. The grant was also to support the costs of machinery, personnel,

CHAD, cont.

and and operations of a roads and irrigation maintenance brigade.

2. Agricultural Institutional Development - Extension (677-0002) FY 78-83

Initially authorized in 1978, this five year, \$5.4 million project consisted of in-country training, salary support for extension workers, commodities, and an advisor to improve the agricultural extension program in Chad.

3. Irrigated Crop Production (677-0009) FY 76-80

This four year project was a \$392,000 grant to the Seventh-Day Adventist World Service to support its cooperative irrigated crop production project. The project called for the organization of a farmers' association and provided one hectare of irrigable land to farm families to supplement returns from their traditional farms. AID-funded technicians - an engineer and an agronomist - were to train selected individuals in water use, input purchases, marketing, credit, equipment maintenance, and financial management.

4. Crop Production Research, Seed Multiplication, and Grain Marketing (677-0014) FY 78-83

Two components of this \$10.0 million, five year project appear on the agribusiness computer printout. One component was for a grant and technical assistance to develop the capability of the Ministry of Agriculture to produce, promote, and distribute adequate quantities of improved seed at reasonable prices. Specifically, it called for the establishment of three seed multiplication centers. A second component provided support to the government to strengthen the marketing analysis and management capabilities of the country's grain marketing board.

5. Chad Range and Livestock Development (677-0201) FY 78-80

AID provided \$3.2 million to this three year project to introduce range management into Chad's livestock sector. The emphasis was on helping the government's Livestock Development Unit develop a sector plan.

I. CONGO

1. Smallholder Agricultural Development (679-0001) FY 81-85

This activity was a five year, \$3.0 million grant to CARE. The purpose of the project was to increase productivity and income of smallholders. The project authorization identified an inefficient marketing system and an inadequate storage system as the major constraints to farmers' increased income. The objectives of the project included refurbishing or building crop storage warehouses and strengthening pre-cooperative farmer groups to take on added responsibility for marketing crops. All indications are that CARE has been successful in its efforts.

An evaluation of the project dated June 20, 1983 stated that, "The project is an imaginative effort to cope with the problems of agricultural commodity collection and producer incentives . . . The argument was advanced that, if smallholders could count on prompt payment for produce at the time of harvest, even a modest price would bring forth considerable increased production." AID authorized a second \$ 3.0 million for Phase II in 1983.

2. Smallholder Agricultural Development II (679-0002) FY 83-87

The purpose of this Phase II endeavor, which runs through 1987, is to increase the productivity of smallholders. It addresses the following constraints: the inefficient crop marketing system; inadequate or nonexistent post-harvest/pre-marketing crop storage system; and the unavailability of new seed or improved varieties. Project activities include the establishment a revolving fund for the purchase of smallholder crops, construction of twenty warehouses, and expansion of the capacity of a seed farm to meet demand for improved seed.

J. DJIBOUTI

1. Fisheries Development I (603-0003) FY 7984

The original authorization, signed January 1979, approved \$498,000 for a two year project. The purpose of the project was to assist small fisherman to establish a more viable system for the improved harvesting, handling/storage, and marketing of fish. It is interesting to note how the project's concept had evolved and changed even before implementation began. The project paper points out that the lack of production was, at first, thought to be the major constraint. However, "further analysis has reversed the order assigned to these problems. The more critical constraint is now believed to be the ability (or inability) to market additional fish."

DJIBOUTI, cont.

A mid-term evaluation of the project dated December 21, 1981 helped reinforce the importance of marketing when it noted that "the dramatic production improvements . . . were somewhat offset by the high level of spoilage . . . and apparent loss of stock."

The project was amended several times, bringing the LOP funding to \$2.2 million. In 1983 and 1984 major changes in the project included the establishment of eleven retail outlets for product sales (funded by IFAD), and the construction of two major fish processing/storage centers.

2. Fisheries Development II (603-0015) FY 84-87

AID authorized almost \$3.0 million for Phase II of the fisheries development project on January 3, 1984. The project was designed to support various activities to improve the production, processing, and marketing of fish and to strengthen the institutions which administer the fishing industry. In addition, the three year project will seek to improve existing fish marketing plans based on market analysis and to construct a marketing office.

The project paper summarizes the problems the project had to address. "Fluctuating supplies, lack of product differentiation, and a poor price structure have been weaknesses in the marketing system. The main constraints also include a lack of information about available products, statistical information about clients and potential clients."

K. EQUATORIAL GUINEA

1. Agricultural Production (653-0001) FY 81-86

The original authorization for this project was signed on December 30, 1980. The original purpose of the project was to provide transportation equipment to help revitalize the country's coffee and cocoa cooperatives and to assist with the rehabilitation of a poultry and egg production center. Since then the project has been amended three times, and the current Congressional Presentation requests an addition \$500,000, bringing the total costs to \$ 2.5 million. The original purpose of the project was to provide assistance to the Ministry of Agriculture, Livestock, and Rural Development to help rehabilitate the country.

The files contain an evaluation report dated August 17, 1983 that summarizes the early development of the project. It noted that "constraints to increased agricultural production are much more diverse and complicated than the introduction of transportation vehicles. Among these appear cooperative organization, cooperative management, availability of inputs,

EQUATORIAL GUINEA, cont.

control of pests and diseases, availability of credit, and marketing."

As a result of the evaluation, the cooperative component of the project was transferred to CLUSA, and the original project implementor, International Human Assistance Programs (IHAP), continued to implement the poultry, rabbit raising, and vegetable farming components.

2. Cooperative Development (653-0002) FY 83-86

The purpose of this \$3.0 million grant to CLUSA is to improve the performance of existing coffee and cocoa cooperatives by assisting them to better organize and to improve the services they offer to their membership. Three CLUSA advisors are working with the cooperatives to develop administrative, management, and marketing abilities of the cooperatives.

L. ETHIOPIA

1. Ethiopia Regional Livestock Development (663-0112) FY 65-75

This ten year, \$2.0 million project was an effort to improve all aspects of livestock production and marketing.

2. Ethiopia - Agricultural Sector Loan (663-0157) FY 70-75

The goal of this \$20.0 million loan was the equitable distribution of the social and economic benefits of the development to Ethiopia's rural poor. Its purpose was to implement agrarian reform, expand employment opportunities in the agricultural sector, accelerate the rate of growth of agricultural output and increase small farmers' incomes. This was the fourth in a series of loans to support the country's agricultural sector development.

3. Shashemene Agricultural Development (663-0159) FY 70-76

The purpose of this project was to develop a supervised credit program and technological package in the Shashemene area. In an effort to develop commercial farming, the project planned to provide packages of both short term and medium-term credit for the purchase of inputs, equipment, and farm buildings.

ETHIOPIA, cont.

4. ADA Agricultural Development Project (663-0162) FY 77-79

This \$2.1 million , three year project was targeted to help small farmers. Credit, supplies, marketing and technical services were to be provided to small farmers through project headquarters and seven farm centers.

5. Pulse Diversification and Improvement (663-0166) FY 74-80

AID authorized \$1.4 million to this project to develop an institutional and infrastructure framework, including research, extension, seed multiplication, and marketing to increase pulse productivity and overall pulse production.

6. Micro Regional Rural Development (663-0214) FY 78-79

The agriculture component of this two year operational program grant was to include improvement of various farming techniques through training and demonstrations by local agricultural agents, and providing agricultural resources for farmers through the establishment of a revolving credit fund.

M. GAMBIA

1. Mixed Farming and Resource Development (635-0203) FY 79-86

The authorization for this \$9.0 million, eight year project was signed on July 19, 1979. The project includes six components: land resource and use, evaluation, classification, and cartography; grazing area development and management; improved crop and forage production and management; improved rural technology; strengthening ministry planning and evaluation capacity; and agricultural skills training and communications. More specifically, the grazing subproject called for the development of controlled grazing areas designed to improve the nutritive status of large and small ruminants.

An evaluation of the project dated April 1983 highlighted the need to scale down and focus project activities. It recommended that the best way to promote the integration of crop and livestock production, as far as the project was concerned, would be to concentrate on participant training and socioeconomic data collection and analysis, including the testing of production packages developed for maize, forage and range management.

GAMBIA, cont.

2. Gambia Forestry (635-0205) FY 79-86

This grant was \$ 1.6 million was provided to The Gambia to establish a forestry sector program to meet the country's wood needs.

3. Cooperative Development (635-0208) FY 80-84

Originally, this project included a three year, half million dollar grant to CLUSA. The purpose of the grant was to upgrade the managerial and operational capacity of the lowest level of the cooperative network in the country, i.e. the level of the village marketing cooperative and pre-cooperative thrift and credit societies. The emphasis was on training and education, including basic literacy and numerary skills related to routine operations and management of cooperatives. This three year project was extended a fourth year and LOP funding increased to \$1.0 million.

An evaluation report done in mid-1984 noted several problems with the project. Cooperatives in Gambia were viewed by their members as government purchasing centers and points of distribution for agricultural inputs and supplies. In the livestock sector, the Livestock Marketing Board was a constraint due to its inadequate infrastructure at buying points, poor buying procedures, and inadequately trained staff.

4. Technical Skills Training (635-0215) FY 80-82

AID's grant of \$795,000 to Opportunities Industrialization Center International (OICI) was to introduce a training program of intermediate level agricultural technology for school leavers. A REDSO/WA evaluation of the project in 1982 noted that the project had not been a "cost effective vehicle for channeling AID funds." Apparently, the efforts to resettle graduates on farm land was hindered by lack of funds and poor management.

N. GHANA

1. Agricultural Extension and Production (641-0007) FY 57-73

AID contributed funds totaling \$3.7 million to this project. Its purpose of the project was to increase the use of agricultural inputs and services. The project had two major activities. The production support implementation program was to provide essential inputs (seed, fertilizer, techniques), agro-administrative assistance in planning, and management of increased inputs as required. A second component concentrated on programs to demonstrate the optimal use of inputs.

GHANA, cont.

2. Economic Development Management (641-0062) FY 71-79

The focus of this \$1.4 million project was training to upgrade the decision-making and management capacity of various government institutions engaged in making and implementing macro-economic policies.

3. Managed Input and Agricultural Services (641-0067) FY 76-82

This project included a grant for \$10.0 million and a \$28.0 million loan to develop an institutionalized, coordinated system to provide improved agricultural inputs and services to small farmers on a timely basis. The project was originally authorized in 1976 and expected to run through 1982.

The six basic components of the project included: credit expansion; fertilizer procurement; processing and distribution; seed multiplication; small farm systems research; and marketing and demonstration/extension. A June 1979 evaluation, twelve and a half months after the loan became effective, noted that the project required a "high degree of coordination and integration within each technical component, between components, and between grant and loan". It went on to state that the project had yet to have an impact on the target small farmers.

4. Farmer Association and Agribusiness Development (641-0072) FY 77-82

An AID grant of \$5.0 million was authorized in FY 1977. The purpose of the project was to support PVO initiatives and action in order to determine appropriate and/or optimal means of achieving wide-scale rural development through farmer associations and rural-based business enterprises.

A special evaluation of the project, covering the period from September 1977 to May 1980, was generally favorable. It noted that participating PVOs had established a farm service center, ten crop associations, introduced 348 small poultry farmers to various production methodologies, and provided technical and managerial assistance to two syrup factories. This evaluation suggested a second phase of the project be considered. In contrast, the mission's final evaluation report, dated February 1983, was less favorable. The mission felt the progress was mixed and concluded that "PVO projects tend not to be cost effective".

GHANA, cont.

5. District Planning and Rural Development (641-0073) FY 77-82

This project received an AID grant of \$2.8 million and a loan of \$5.0 million to develop the capacities of the Atebubu District Council to effectively involve the district population in the planning, management, implementation, and evaluation of an integrated rural development program. Among other tasks the project was to identify alternative income-generating activities that increase rural employment opportunities.

6. Agricultural Rehabilitation and Health Promotion (641-0074) FY 76-79

This project comprised a two year \$205,000 grant to the government of Ghana to support the coordinated efforts of the government, Catholic Relief Service, and the Christian Service Commission to improve nutrition, health, and agricultural productivity in the sub-Sahel area. To promote agricultural production, the grant was to make approximately 1,000 bullock plows available for sale through plowing training centers operated by the Ministry of Agriculture, CRS and the CSC.

7. Managed Inputs and Delivery of Agri-Services II (641-0102) FY 80-85

AID contributed grant funds of \$9.4 million and loan funds of \$11.7 million to this multifaceted project authorized in 1980. As a follow on to the project discussed above, this project had six components: seed multiplication and distribution; extension/demonstration; small farmer credit expansion; small farms systems research; small farm marketing; and fertilizer systems development. Due to economic conditions in Ghana, the project has recently been scaled back to encompass only the seed production activity and selected minor elements of the credit and marketing components.

O. GUINEA

1. Smallholder Production Preparation (675-0204) FY 83-85

AID originally authorized \$2.2 million for this project in FY 1983. This project seeks to define AID's activities in the agricultural sector in Guinea. Its objectives are to develop a strategy for increasing the productivity of smallholder farmers, design a project to implement that strategy and bring to an efficient operational level a number of key agricultural research extension training facilities that were started under a previous project.

GUINEA, cont.

2. Agribusiness Preparation (675-0212) FY 84-86

This is one of seven projects that appears on the AFR/TR/ARD list of projects involved with agro-industry. The project was authorized on August 31, 1983 and was not to exceed a half million dollars. The project is now budgeted for \$1.0 million. This is basically a investment identification and promotion project. The project is providing technical support to the Office of Agribusiness Promotion, which is attached to the Prime Minister's office, in the form of a technical advisor. The project will also fund pre-feasibility and feasibility studies.

P. GUINEA-BISSAU

1. Agricultural Development (657-0002) FY 76-85

This project represented AID's first effort in Guinea-Bissau. Authorized in 1976, the project attempted to stimulate agricultural production through seed improvement, identification and control of plant diseases, and land reclamation. The seed program includes: construction of new storage facilities, renovation of existing facilities, and training in seed research, storage, production and packaging. Although LOP funding was increased to \$2.35 million in 1977, the current Congressional Presentation reports an authorized and planned total cost of \$1.8 million.

2. Small Scale Fisheries (657-0006) FY 79-

The original grant of \$365,000 was authorized on February 28, 1979. A revision on August 23, 1979 increased funding to half a million dollars. The project's purpose was to assist the development of small scale fisheries, and it had three components: the development of the small scale fisheries sector at Port Cacheu; the development of a fisheries management unit within the State Secretariat of Fisheries; and socio-cultural analysis.

An evaluation of the project noted the following.
"Fisherman were merely provided with supplies and equipment to do a better job of fishing . . . Small cottage industries in boat building and net making have developed in response to demand created by the project . . . supply of fish protein to Cacheu and surrounding areas has increased considerably to meet demand that was previously unsatisfied. As the project expands and develops its distribution system thousands more Guineans will benefit by the increased availability and accessibility of fish to their diet."

GUINEA-BISSAU, cont.

3. Rice Production II (657-0009) FY 80-86

The purpose of this project, to which AID provided a grant of \$4.5 million is to increase food production and farm income and to develop the institutional, experience, and information bases which may enable the farming systems developed in the project to spread. Project funds financed the irrigation of 400 hectares and provided technical assistance.

4. Technical Skills Training (657-0011) FY 84-86

Although this project falls under the rubric of Education and Human Resources, it is related to agribusiness development. According to the project authorization, AID's commitment of \$1.5 million over two years is to help stimulate agro-industrial investments and selected foreign trade and investment, to increase the capacity of the public and private sectors to expand and manage credit to support such activities, and to improve the capacity of the private sector to carry out agro-industrial activities.

Q. KENYA

1. Range Development (615-0100)

A grant to the Government of Kenya to develop existing and potential rangelands to increase livestock production for domestic consumption and exportation. (No documents available for this project).

2. Crop and Livestock Extension (615-0101) FY 60-73

One sub-project of this \$2.4 million activity was to assist the Government of Kenya to establish an effective extension service enabling Kenyan farmers to improve crop and livestock production techniques.

3. Agricultural Planning (615- 0133) FY 65-74

The goal of this project was to upgrade the capacity of the Ministry of Agriculture to establish country-wide policies to develop Kenyan agriculture and range resources effectively and economically.

4. Kenya - Agricultural Credit (615-0148) FY71-80

The purpose of this \$2.2 million grant was to provide Kenya's main agricultural credit agency with the management and

KENYA, cont.

technical ability to establish field offices, thereby making its services more readily available to small farmers.

5. Rural Planning Project - Kenya (615-0162) FY 76-81

AID granted \$2.6 million over six years (1976 - 81) to develop within the Ministry of Agriculture an improved institutional capacity for agricultural policy and strategy formulation, project preparation, and implementation monitoring.

6. Design Assessment, R&R, Pre-Investment Study (615-0164) FY 75-80

This five year project benefited from an AID grant of \$1.2 million. The purpose of the project was to develop a resource management strategy to increase livestock and crop production.

7. Arid and Semi-Arid Lands Development (615-0172) FY 79-86

This project is primarily a planning endeavor. The purpose of AID's grant of \$13.0 million was to establish a basis for launching an accelerated national development program in arid and semi-arid lands through the following measures: enhancing administrative, planning, and technical competence; and testing and proving an array of activities in soil and water conservation and tillage methods.

8. Rural Enterprise Extension System (615-0174) FY 77-81

AID made an Operational Program Grant to Partnership for Productivity (PfP) to support its rural enterprise extension service program. AID's contribution totalled \$360,000. An end of grant evaluation, dated April 1981, noted that the services of the project were very much in demand and that clients attested to the fact that their managerial and technical skills had improved with PfP assistance.

9. Increase Employment - Income - Production (615-0184) FY 78-82

Under this project AID provided a three year Operational Program Grant of \$700,000 to Technoserve. The purpose of this grant was to expedite the self-help enterprise development process and foster local capability in support of self-help enterprise development. Several agribusinesses, including farming cooperatives and a ranch, received assistance under this activity.

KENYA, cont.

10. Small Business Development (615-0208) FY 82-84

A follow-on grant to Technoserve of \$500,000 to provide technical and managerial assistance to local enterprise sponsors and to government, parastatal, and private voluntary institutions in the identification, implementation, or development of new or on-going self-help enterprises.

11. Partnership for Productivity (615-0210)

A follow-on grant to PFP to allow it to continue its rural enterprise extension program in Kenya.

12. Structural Adjustment Program Grant (615-0213) FY 83-86

This grant included a \$15 million Commodity Import Program and \$6 million for technical assistance. The CIP included commodities to help the agricultural and agribusiness sectors.

13. Rural Private Enterprise (615-0220) FY 83-89

This project includes an AID grant of \$12 million and a loan of \$24 million. The project was authorized in 1983 and is to continue through 1989. The purpose of this activity is to increase rural production, employment, and income by promoting rural private enterprises. The project is providing credit and management assistance to rural private enterprises via commercial banks and PVOs. As defined in the project authorization, rural private enterprises are businesses with strong backward or forward linkages to agriculture.

14. Maseno South Enterprise Development (615-0226) FY 82-85

This three year, half million dollar grant was designed to support the efforts of World Education Incorporated to help the Diocese of Maseno South to promote appropriate, self-sustaining economic activities.

R. LESOTHO

1. Thaba Bosui Rural Development (632-0031) FY 73-80

The purpose of this seven year project to which AID contributed \$3.2 million was to develop and install soil conservation infrastructure applicable in selected environments and to develop a program for testing conservation-oriented farming systems. The project was a joint-venture with the World Bank.

LESOTHO, cont.

2. Land and Water Resource Development (632-0048) FY 74-82

The purpose of this eight year \$3.1 million project was to encourage farmers and herders to accept and adopt sound land use management principles and practices.

3. Lesotho Farming Systems (632-0065) FY 78-86

AID has authorized \$12.1 million to this project which includes technical advisory and consultant assistance, training, and commodities to develop farming systems for all regions. The project is a follow-on to the Thaba Bosui Rural Development project discussed above.

An audit of the project dated June 24, 1983 had several important observations. "New methodology was not getting to farmers due to lack of trained extension agents. . . The project's purpose and primary focus is the creation of farming systems as 'rural enterprise mixes' that will significantly improve the farmers' productivity. Emphasis is on finding the most appropriate means of transferring knowledge and gaining farmers' acceptance of recommended technology."

4. Cottage Mohair Industry (632-0209)

This is one of the few projects that appears on the AFR/TR/ARD list of projects involved with agro-industry. However, there are no documents concerning this project in the AFR/PD files.

5. Commodity Warehousing (632-0210) FY 78-83

This project, authorized in 1978, provided \$250,00 to Catholic Relief to finance the construction of approximately 30,000 square feet of storage in six locations. However, according to the evaluation report dated June 10, 1983 only three warehouses totaling 22.7 thousand square feet were built at a cost of \$495,000.

6. Weaving Training (632-0211) FY 79-81

The grant agreement for this project authorized \$145,000 to the Fund for Research and Investment for the Development of Africa (FRIDA). The two year project had the following objectives: upgrading creative and technical skills leading to improved quality and design of weaving; improved productivity and efficiency by weavers and spinners; improvement in status and self-conception for weavers, artisans, and skilled workers; increase rural incomes; and lessened dependence on South Africa

LESOTHO, cont.

in the mohair industry. According to the final evaluation of the project, the skills of about 550 weavers were improved, and marketing information and skills available to Lesotho weaving organizations were enhanced, including their knowledge of what kinds of weaving products would sell best.

7. Land Conservation and Range Development (632-0215) FY 80-87

The purpose of this seven year \$8.9 million project is to conserve and develop national farmland and rangeland resources by carrying out appropriate conservation measures, land use plans, land management practices, and strengthening the institutional capacity of the Ministry of Agriculture to implement these activities.

S. LIBERIA

1. Agricultural Cooperative Development (669-0127) FY 77-82

AID authorized \$1.4 million for this five year project on June 3, 1977. The project provided contract technical assistance, short-term consulting assistance, training and commodities to the Ministry of Agriculture's Cooperative Marketing Division to improve services to agricultural cooperatives.

2. Upper Bong County Integrated Rural Development (669-0139) FY 78-84

This project provided a \$5.6 million loan to iberj to increase productivity of small farmers by: estj lishing cooperatives to provide farm inputs, crproject marketing services; improving extension services; and constructing and improving farm-to-market roads. Input services were to include: seed, fertilizer, and chemicals; short-term seasonal credit; long-term investment credit for planting coffee and cocoa trees and for developing swamp land for rice irrigation. The cooperatives were also to provide marketing services by acting as buying agents for the Liberian Produce Marketing Corporation.

3. Upper Lofa Rural Development (669-0142) FY 75-81

AID loaned \$5 million to this project which was similar in purpose and scope to the Bong County project discussed above. Unfortunately, the evaluation of AID-funded area development projects in Liberia dated June 1984 was not available on AFR/PD micro-fiche.

LIBERIA, cont.

4. Rural Development Training at Cuttington College
(669-0153) FY 77-85

AID made an Operational Program Grant of \$4.7 million to the Protestant Episcopal Church to establish a rural development institute. The project was originally planned for five years but ran from 1977 to 1984. The Rural Development Institute was designed to offer a two year agricultural technology program.

An evaluation report dated May 1983 noted that "The technology encompasses animal and plant production and health, and related soils management and engineering tasks. The objective is to develop skill-proficient, sub-professional personnel, and train them in technology transfer techniques, generally for agricultural extension type programs".

5. Nimba County Enterprise Development (669-0154) FY 78-82

The broad objective of this two year, \$164,000 Operational Program Grant to Partnership for Productivity was to lay the foundations for integrated rural development in an area dependent on iron ore mining. Separate project activities included: hand tractors and testing of roto-tillers; animal concentrate production and processing - testing to determine the technological and economic feasibility as animal feed for poultry and pigs; and handicrafts. As the project progressed, emphasis on the local production of animal feed was shifted to other crop production, farmer training, and provision of extension services.

6. Nimba County Rural Technology (669-0163) FY 80-86

Under this activity AID provided a \$4.75 million grant to Partnership for Productivity to develop self-sufficiency in the non-mining sector by providing technical assistance and credit to subsistence farmers and small businesses. An evaluation of the project, dated September 20, 1984, offered the following advice. It suggested adding a "Market Investigator/Developer" to the staff and a shift in the concentration of resources from "service" enterprises to "production" enterprises.

7. Small/Medium Enterprise Development (669-0201) FY 84-87

The purpose of this \$2.5 million project is to assist the Small Enterprise Financing Organization in its role of providing an expanding supply of loans and other appropriate financial services to small entrepreneurs, and through that assistance to encourage the expansion of the sector.

T. MALAWI

1. Malawi Union Savings and Cooperative Development (612-0153) FY 66-74

The project is a \$760,000 Operational Program Grant to the World Organization of Cooperative Credit Unions (WOCCU)/Credit Union National Association (CUNA) to develop a national cooperative savings and credit union system. The project was authorized in 1980. An evaluation of the project through October 1983 reported that the Malawi Union of Savings and Credit Cooperatives had been successfully established, although there were problems with numerous delinquent loans, overly restrictive credit union lending policies, and lax collection practices.

2. Rural Enterprises and Agribusiness Development (612-0214) FY 84-86

This \$5.1 million project was authorized in 1984. The project will promote the development and growth of small- and medium-scale Malawian enterprises involved primarily in agro-industrial, rural based activities, or other business activities supporting Malawi's agricultural development.

Project funds are earmarked for two purposes. The project supports the activities of the Industrial Development Fund (INDEFUND), which is a subsidiary of the Investment and Development Bank of Malawi, a fully private bank. An Operational Program Grant to Africare will permit that PVO to provide technical assistance and training to INDEFUND. The other major component of the project calls for the establishment of a revolving credit fund within MUSCCO for development of smallholder agribusinesses. WOCCU will assist MUSCCO in this undertaking.

3. Management Assistance to Rural Traders (612-0219) FY 83-86

In 1983 AID authorized \$2.8 million to fund Phase II of Partnership for Productivity's program to establish the Development of Malawi Traders' Trust (DEMATT). PfP will help DEMATT expand its training and advisory services to small businesses - ultimately on a commercial basis - and improve the latter's access to credit and alternative funding sources.

U. MALI

1. Mali Crop Production (Operation Mils) (688-0202) FY 76-83

The Mali Crop Production project was originally authorized in 1976. The name of the project was changed to Operation Mils in 1980. AID granted a total of \$12.3 million to this undertaking that had as its purpose to increase the productivity and commercialization of cereal crops.

The audit report of May 3, 1983 paints a dismal picture of the project's accomplishments. The project design failed to recognize the limited institutional capacities of Operation Mils. The increasing of cereal commercialization was eliminated as an objective and the marketing program was dropped. Lack of results was attributed to "too much stress being placed on the marketing aspects of the project . . . the commercialization program was not popular with farmers since the official prices were traditionally lower than the parallel market." The project's failures resulted in its termination.

2. Operation Haute Vallee (688-0210) FY 78-85

The overall purpose of AID's contribution of \$18.4 million to this project was to enable the Government of Mali to plan and manage an integrated rural development scheme incorporating both productivity and social components. One sub-project included training, technical assistance and commodities to demonstrate the feasibility of new agricultural enterprises.

3. Action Ble (688-0213) FY 78-83

The purpose of the \$2.0 million grant was to demonstrate that wheat and sorghum production could be increased under irrigation in a manner which would maximize benefits to small wheat producers. The parastatal, Action Ble, was to implement the project with expatriate technical assistance.

The project was not successful. According to a 1981 audit report, the project was beset with serious management problems. Among other things the grantee had failed to establish a revolving credit fund or utilize commodities in an effective manner. As a result of the audit, funding to the project was suspended.

4. Livestock Sector II (688-0218) FY 82-87

This five year project was authorized in 1982. The original obligation was not to exceed \$17.6 million but since then has been increased to \$18.2 million.

The purpose of the project is to increase livestock production and to develop public and private sector capacities

MALI, cont.

to manage livestock investments. One component of the project called for the expansion of a small farmer cattle feeding program.

5. Training Center for Rural Women (688-0225) FY 80-85

AID provided a grant of \$500,000 for the construction costs, operating costs, and commodities to institute a multi-disciplinary training program for women. The National Union of Malian Women's training center offered training in animal production (use of fertilizers, agricultural implements, and animal husbandry) and the management of small businesses.

V. MAURITANIA

1. Integrated Development of Oases (682-0207) FY 80-85

AID's contribution to this five year project totaled \$6 million. The purpose of this undertaking was to introduce appropriate technology which would help oases people to become more self-sufficient in food production. AID financed technical assistance, training, evaluation, construction and commodities for experimental and extension activities.

2. Small Perimeters (682-0226) FY 81-82

AID made a grant of \$457,000 to this project to introduce village-level, farmer-managed, irrigated crop production. Africare provided technical assistance in all agricultural production activities, the construction of irrigation works, farm management, and rice marketing.

3. Sector 206 Program Support (682-0231) FY 83-86

This activity comprised a grant of \$106,000 for long-term academic and short-term special training programs for Mauritians working or intending to work for the Commissariat for Food Security.

4. Human Resources Development (682-0233) FY 84-90

The purpose of the six year, \$6 million grant is to upgrade the capability of public and private sector personnel to meet Mauritania's food security needs.

W. MAURITIUS

AID-funded commodity import programs for Mauritius have provided balance of payment support. Funds have been used to import edible oil. Local currency generated by these programs are being used to support priority development activities - domestic water supplies, assistance to small irrigation schemes, industrial estates, and small businesses and industry.

X. MOZAMBIQUE

1. Mozambique Private Sector Rehabilitation (656-0201) FY 84-87

The purpose of this project, totalling \$54 million, is to rehabilitate Mozambique's private sector. The initial authorization was signed in September 1984 and authorized \$8 million for the project.

AID funds are being used to rehabilitate the private sector, including agriculture and agribusiness, by increasing the availability of farm inputs and improving public and private sector managerial and technical skills. Support is being provided for the rehabilitation of specific enterprises, including the processing of export crops (cashews, cotton, sugar, and tea) and assistance in planning the divestiture process for small-scale and medium-sized enterprises.

Y. NIGER

1. Niger: Cereals Production Project (683-0201) FY 74-82

AID contributed a total of \$16.1 million to this eight year endeavor. The AID grant provided financing for: intensified adaptive research for improved millet; a foundation seed farm; five seed multiplication centers; expansion of the national cooperative structure to new areas; and expansion and improvement of training centers.

2. Niger Range and Livestock Management (683-0202) FY 76-84

Planned as a two-year, \$5.4 million project in 1976, this activity remained active through 1984. Its total planned cost was \$3.8 million.

AID's grant provided technical assistance and in-country and U.S. training to develop a comprehensive range management and livestock production program.

3. Niamey Department Rural Development (683-0205) FY 77-81

AID made a grant of \$4.7 million to this integrated rural development project (1977 - 1981). The project comprised six

NIGER, cont.

components, including agricultural services and development of farmer cooperatives. Among other things, the project planned to train 210 farmer/demonstrators to participate in the crop demonstration program.

4. Cereals Research (683-0225) FY 82-87

The purpose of this \$10.6 million grant to the government of Niger was to upgrade the capacity of the National Agronomy Research Institute of Niger (INRAN). Specifically, funds supported INRAN's cereals research and its efforts to disseminate improved intensive farming technologies via the extension and cooperative system.

5. Agricultural Production Support (683-0234) FY 82-86

AID has authorized \$19.9 million to this on-going project. As a condition precedent to the disbursement of funds, the project authorization called for the Government of Niger to furnish a "detailed plan for the implementation of a restructuring of the agricultural input supply system." Unfortunately, there is no additional documentation on this project in the AFR/PD files.

6. Niamey Department Development II (683-0240) FY 81-86

This five year, \$13.6 million project is a follow-on to the Niamey Department Rural Development project discussed above. The grant is providing technical assistance, training, and commodities to establish a village-based technical assistance/input delivery system. Included in the project activities are measures to improve the delivery of inputs through the National Credit and Cooperative Union's supply Center.

An evaluation of the project dated February 1984 made the following observations. The project's emphasis is placed on the extension of an improved agricultural package which will increase the farmers' capacity for greater food production. However, the evaluation pointed out that "supply on hand exceeded demand except for oxen carts and donkey carts. Fertilizer stock at cooperative level exceeded the previous year's sales." The evaluation recommended an assessment of the agricultural inputs sector.

7. Tara II Rural Irrigated Agricultural Development (683-0245) FY 83-86

This project is a \$700,000 OPG to Africare to increase the productive capability and economic opportunities for members of

NIGER, cont.

production and marketing cooperatives for irrigated rice, fishing, poultry and crafts.

8. Rural Sector Development Grant (683-0246/0247) FY 84-87

This project, which includes a \$22 million CIP component, is the focal point of AID activities in Niger. According to the Project Paper it is "essentially a resource transfer (\$29 million) with a technical assistance component (\$3 million) to finance policy studies." The project is intended to promote agricultural production by eliminating policy constraints.

Z. NIGERIA

1. Indigenous Industrial Development (620-0714) FY 66-73

This project, which ran from 1966 to 1973, organized two industrial development centers in Nigeria. The centers were to establish a program of integrated activities designed to expand established indigenous enterprises and stimulate the growth of new private enterprise.

2. School of Administration, University of Lagos (620-0739) FY 66-69

AID provided a grant of \$1.7 million to have New York University establish a viable school of administration within the University of Lagos.

3. Agricultural Extension - Northern Nigeria (620-0770) FY 65-74

The purpose of this \$4.7 million grant was to help in the development of agricultural facilities at two universities, Ife and Ahmadu Bello.

4. Livestock Development - Northern Nigeria (620-0774) FY 66-77

In conjunction with the Government of Nigeria, AID funded this project which had the following features: range management; technical assistance for training, research, and livestock vaccine production; the development of a cattle breeding program; a program to demonstrate the feasibility of modern fattening and slaughter techniques; and the building of poultry hatcheries.

NIGERIA, cont

5. Ahmadu University Veterinary Medicine Faculty (620-0817)
FY 70-77

AID provided assistance from 1970 to 1977 to create the institutional capacity to train doctors of veterinary medicine.

AA. RWANDA

1. Food Storage and Marketing (696-0100) FY

The purpose of this project was to assist the Government of Rwanda in achieving the institutional capacity to increase the availability of agricultural food products. Funds provided by AID financed a senior grain storage and marketing specialist and working capital to purchase grain stocks. The project was implemented through a parastatal.

2. Local Crop Storage (696-0107) FY 79-86

This grant of \$2.6 million was authorized in March 1979. The purpose of the project was to assist in the development of a local-level food storage and marketing system by constructing grain storage warehouses, and training personnel in cooperative planning and management and in warehouse and storage techniques.

3. Cooperative Grain Storage (696-0108) FY 78-

This project, authorized in 1978, provided a grant to CLUSA to provide assistance to strengthen the capacity of local cooperatives to reduce losses of beans and grain stored by farm families. CLUSA's input focused on management training, development of training materials, and short courses for leaders, managers and operating personnel of cooperatives.

4. Fish Culture (696-0112) FY 81-85

The purpose of the \$2.5 million grant is to help in the development of a Fisheries Extension Service. The project provides long- and short-term technical assistance and commodities.

5. Food Storage and Marketing II (696-0116) FY 82-86

This \$2.9 million activity was authorized in 1982. The purpose of the three year project is to strengthen and expand the National Granary of Rwanda (GRENARWA) as a catalyst in stimulating and assisting the marketplace to respond to regional and seasonal imbalances in supplies and prices of food crops.

RWANDA, cont.

6. Cooperative Training Center (696-0119) FY 81-86

This \$250,000 grant to CLUSA established a Cooperative Training and Research Center which is providing needed training services for Rwandan Cooperatives.

7. Private Enterprise Development (696-0121) FY 84-88

This \$7.4 million project was authorized in 1984. Technoserve, a PVO, is implementing the project which will concentrate on training local entrepreneurs in financial and other management skills and on providing consultancy services to small Rwandan businesses. To quote from the 1986 Congressional Presentation, "Agrobusiness will be emphasized".

BB. SENEGAL

1. Casamance Regional Development (685-0205) FY 78-85

This six year, was originally planned to cost \$ 34 million. However, the current planned costs are projected to be only \$ 23.7 million. Project components include: technical assistance, training, construction, commodities, and contracted studies and institution building program for Government of Senegal planning agencies.

2. Senegal Grain Storage (685-0209) FY 77-83

The purpose of this five year \$4.9 million project was to increase the capability of Senegal's National Marketing Board (ONCAD) to store and market millet. This support funded 30,000 metric tons of warehouses and provided training for warehouse managers, insect control personnel, and quality control personnel.

3. Agricultural Sector Analysis (685-0223) FY 81-86

Originally authorized for \$4.95 million in 1981, the total cost of this project is now expected to be \$5.4 million. The purpose of the project is to strengthen the capacity of the Government of Senegal to perform agricultural policy planning and evaluation, including the ability to develop commodity management systems.

SENEGAL, cont.

4. Senegal Cereals Production II (685-0235) FY 79-84

AID granted \$7.7 million to the Government of Senegal for this project to improve extension and research capabilities to reach the entire farm family with improved cultural recommendations designed to increase food production and farm incomes.

5. Village Woodlots (685-0247) FY 80-83

AID granted \$250,000 to Africare to assist the Water and Forest Service of the Ministry of Rural Development to establish village woodlots.

6. Agricultural Development Assistance (685-0249) FY 83-86

AID's contribution of \$5 million to this project includes \$3.05 million for commodities (importation of fertilizers), \$3.2 million to cover shipping costs, and \$3.75 million for technical assistance. As part of the conditions for receiving this aid, the Government of Senegal agreed to allow the private sector to import area directly from the U.S. and to do a reorganization plan of the country's fertilizer marketing system.

7. PVO Community Enterprise Development (685-0260) FY 84-87

This \$3 million project was authorized in 1983, and funds were initially obligated in 1984. The project consists of assistance to enable village organizations to carry out agricultural production, food processing and preservation and to assist rural entrepreneurs and enterprises to support agriculture and to manage and sustain their own growth.

CC. SIERRA LEONE

1. Cooperative Credit Society (636-0112) FY 79-82

This project, authorized in June 1979, provided a \$500,000 grant to CUNA. The three year project had a twofold purpose. The project was to assist with the establishment of an increasingly self-sufficient Sierra Leone Cooperative Savings and Credit League which would be capable of providing needed financial and technical services to a network of affiliated savings and credit societies. The project also was to assist the League to expand this latter network of societies that had capabilities to provide required services to an increasing rural membership. An evaluation of the project dated November 1980 indicated that the project was being implemented well.

DD. SOMALIA

1. Agricultural Services (649-0038) FY 62-75

AID made \$5.6 million available to this project to develop food research, training and extension service institution.

2. Development Bank (649-0040) FY 59-74

AID's contribution, a loan of \$2.1 million, to this activity provided lending capital to Credito Somalo, the Somali development bank, to assist private industrial and agricultural investors and entrepreneurs. Project ran from 1959 to 1974. Unfortunately, there are no documents available for this project.

3. Agricultural Extension, Training and Research (649-0101) FY 78-84

The purpose of this four year project, to which AID contributed \$5.1 million, was to provide technical advisory assistance, on-the-job training and participant training, and farm equipment and supplies to implement a farming technologies extension program. The project was intended to improve the productivity on small, privately owned farms and cooperatives and to establish a self-sufficient national extension service.

4. Livestock Marketing (649-0109) FY 84-86

The grant agreement for this \$11 million project was signed in July 1984. The purpose of the project is to help the Government of Somalia to develop livestock marketing and health policies and programs. The basic thrust is to support the expansion of Somali livestock exports by establishing a quarantine system for the export of cattle and to lay the conceptual basis for a broader approach to strengthening the Somali livestock industry. The private sector is to supply trucking services and adequate fodder.

5. Agricultural Delivery Systems (649-0112) FY 79-86

Funds for this \$8.6 million activity were first obligated in 1979. AID is supporting technical assistance, training and commodities required for the National Extension Service's Farm Management and Extension Training Center. The purpose of the project is to install a working extension service and to provide properly trained staff to operate the extension service so that improved technologies can be delivered to small farmers.

SOMALIA, cont.

6. Bay Region Development (649-0113) FY 80-86

This is a basic integrated rural develop project.

2. Commodity Import Program II (649-0120) FY 83-85

Under this project AID provided \$16 million of foreign exchange to finance light equipment for manufacturing and the importation of commodities for the agricultural sector. The Somali private sector received about 85 percent of the resources.

8. Refugee Self-Reliance (649-0123) FY 83

Overall, the purpose of the project was to strengthen the capacity of the Government of Somalia to manage and coordinate refugee affairs. However, part of the AID contribution of \$6 million was to go for land for both irrigated and rainfed agriculture.

EE. SUDAN

1. Blue Nile Integrated Agricultural Development (650-0018) FY 78-86

In 1978 AID authorized \$12 million to assist in developing viable approaches to small farmer and livestock development for rainfed areas. The project was to test the technical and economic feasibility of various levels of mechanized farming, the use of improved, non-mechanized methods, a producer managed cooperative system providing credit for farm mechanization and other purposes, and alternate approaches for extending improved production and range management technologies to small farmers and herders.

An evaluation of the project dated March 1982 suggested that the "project needs to be restructured to establish realistic goals and must be better monitored."

2. Abyei Integrated Rural Development (650-0025) FY 78-81

AID authorized \$1.3 million to initiate a process of integrated rural development, including efforts to improve agricultural production and incomes.

3. Southern Rural Infrastructure I (650-0031) FY 80-85

This is a project to finalize the engineering designs for an improved, all-weather road.

SUDAN, cont.

4. Yambio Agricultural Research Station (650-0035) FY 79-83

AID authorized an Operational Program Grant to International Voluntary Services (IVS) to assist in the renovation and reestablishment of this agricultural research station.

5. Commodity Import Program (650-0038) FY 79-84

The bulk of the \$40 million provided for this activity was to be used to import wheat for domestic consumption, agricultural inputs (spare parts, tractors, and wheat seed) to help Sudan attain wheat self-sufficiency, and other infrastructure support.

6. Southern Agricultural Development I (650-0046) FY 82-87

The long term goal of this project, for which AID has authorized \$10.1 million, is to increase agricultural production and the incomes of farmers and pastoralists as well as promoting the participation of private entrepreneurs in agricultural processing and marketing. The marketing component of the project is to focus on improving agricultural policies that affect production and incomes, and marketing and transportation infrastructure.

7. Southern Region Agricultural Rehabilitation Development (650-0103) FY 76-78

This project was authorized in 1975. It provided for an OPG to International Voluntary Services. Agribusiness related activities included foodcrops development, and livestock marketing and survey components of a larger, World Bank funded project.

FF. SWAZILAND

1. Swaziland Cropping Systems Research and Extension Training (645-0212) FY 81-87

AID has authorized \$15 million to this six year undertaking. The purpose is to improve and expand the capacity of the Ministry of Agriculture and Cooperatives research and extension program to develop and effectively extend cropping system recommendations relevant to the needs of small farmers.

SWAZILAND, cont.

2. Swine Production and Crop Development (645-0213) FY 80-85

The purpose of this \$483,000 OPG to the National Council of Negro Women is to enhance income generating opportunities through the development of a community-based program of small-scale pig production and marketing.

GG. TANZANIA

1. Rural Credit Union Development (621-0085) FY 68-74

AID made a \$225,000 grant to CUNA to allow that organization to continue its credit union development activities in Tanzania,

2. Tanzania - Seed Multiplication (621-0092) FY 70-83

Originally authorized for \$1.9 million, AID's support to this project from 1970 to 1982 totaled \$6.8 million. The project consisted of assisting Tanzania in developing a system to provide the quantities of improved/high quality food crop seeds necessary to satisfy national demand. Three foundation seed farms were to be developed and certain capabilities, including seed certification, established. A project evaluation report dated November 1979 noted that the project had been successful in developing two seed farms which were producing about 30 percent of the country's needs.

3. Masai Livestock and Range Management (621-0093) FY 70-83

AID contributed \$4.7 million to this project between 1970 and 1981. The project was designed to improve water and range resources, control livestock parasites and diseases, increase animal production, and institute regularized marketing at profitable levels.

4. Agricultural Marketing Development (621-0099) FY 71-80

AID made a grant of \$1.7 million to provide four technicians to Tanzania's National Agricultural Products Board. These technicians were to work in the following areas: accounting, marketing, storage and marketing research.

5. Agricultural Projects Support (621-0103) FY 71-77

This \$1 million loan was to provided production, harvest, cleaning, and processing equipment for the Masai Livestock and Range Management project, above.

TANZANIA, cont.

6. Livestock Marketing and Development (621-0122) FY 74-85

Originally authorized for \$1.4 million, AID's total commitment to this project is now \$4.4 million. Begun in 1974 the project was designed to assist the Government of Tanzania to establish an effective livestock marketing system. The project called for the establishment of an effective livestock marketing system through a fully operational Tanzania Livestock Marketing Company and improvement of the financial and accounting operations of the Tanzania Livestock Development Authority.

A 1977 evaluation report of the project praised the performance of the contract team (Texas A and M) but noted that achievements were limited due to "many unforeseen Tanzanian Government policy constraints. . ." The evaluation was not able to measure benefits accruing to the traditional producers.

7. Agricultural Sector Loan I (621-0133) FY 75-76

The purpose of this \$12 million loan to the Government of Tanzania was to increase the food production of small farmers. To do this the government was to fix, for two years, a minimum producer's price for food grains, maintain adequate producer price incentives, improve the implementation of agricultural projects run by the Ministry of Agriculture, review the disincentive effects of agricultural export taxes, and review the feasibility of differential zonal pricing of food grains.

8. Livestock Marketing Development (621-0142) FY 73-78

This \$2.6 million loan augmented the AID contribution to four agricultural projects.

9. Arusha Planning and Village Development (621-0143) FY 78-85

The Food and Nutrition component of this project totaled \$14.5 million. In addition, AID funded a \$6.6 million health component. Originally planned as a four year project, the project was completed 1985.

The project developed in response to the Government of Tanzania's request to prepare a long-range development plan for the Arusha region. The project called for the construction of small farm centers and an appropriate technology center to help coordinate the supply and delivery of inputs ;the construction of village storage units, and the repair and rehabilitation of roads. More specifically, the appropriate technology center was to develop improved agricultural implements and processing equipment, and promote the development of village enterprises.

TANZANIA, cont.

A 1982 evaluation noted that under the project 57 "economic activity projects" had been initiated. These included brickmaking, ox-cart and ox-plough production, and several nursery and reforestation projects.

10. Training for Rural Development (621-0149) FY 73-78

The purpose of this \$6 million grant was to train indigenous personnel to implement the Government of Tanzania's rural development programs more effectively.

11. Resources for Village Production (621-0155) FY 80-85

This two-phased project was originally intended to be a \$45 million undertaking. Authorized in 1980, the major objectives of Phase I (1980 - 1983) were to support the institutional development of the Tanzania Rural Development Bank, and to capitalize selected development bank activities. Phase II (1984 - 1986) activities were to concentrate on carrying out innovations in lending services developed in Phase I.

According to the 1986 CP, total authorized and planned costs of the project are now only \$10.1 million. This is despite a favorable evaluation dated October 1983 that noted that the project's emphasis on marketing goods and services to villages and promoting "agro-industry at the village level" had been successful.

12. Farming Systems Research (621-0156) FY 82-86

AID contributed \$3 million to this effort to introduce an adaptive farming system research capability to the Tanzanian Agricultural Research Organization.

13. Village Environmental Improvement (621-0160) FY 81-85

A part of this project comprised a \$ 500,000 OPG to Lutheran World Relief for technical assistance, training and commodities to provide effective drip irrigation systems for home gardens.

HH. TOGO

1. OICI Agricultural Training and Production (693-0217) FY 81-84

AID made a \$1 million OPG to OICI to develop and demonstrate a community-based, agricultural training program.

TOGO, cont.

2. Animal Traction (693-0218) FY 83-87

Originally authorized in 1983 as a \$3.1 million project, this activity now has a planned cost of \$5.1 million. The project is designed to assist in the improvement and expansion of the use of animal traction among small farmers to increase crop production. The project grew out of an earlier, AID-funded Accelerated Impact Project (AIP). The original project provided the following services: centralized cattle buying, animal training, implement distribution and repair, revolving credit, and farmer training. An evaluation of this earlier AIP noted, however, that only 33 of a target 60 to 80 farmers were participating in the project.

3. Credit Union Development (693-0224) FY 83-87

This is a \$2.2 million grant to CUNA to improve savings and credit related services available to an increasing number of Togolese families by promoting the development of a national credit union association and an expanded network of savings and credit societies. The five year project was authorized in 1983.

4. Sio River Village Production and Marketing (693-0226) FY 84-87

AID approved this \$3.5 million OPG to PFP in 1984. Under this five-year project technical assistance is being provided in the areas of management and marketing, and technological packages will be developed for adaptation. The project is also to establish mechanisms to provide needed credit to small-scale agricultural producers and other small businesses.

II. UGANDA

1. Agricultural Extension (617-0012) FY 63-75

AID provided \$2.3 million to this project to apply saturation extension methods in assisting Uganda to establish an effective extension service.

2. Development Bank (617-0020) FY 63-74

AID made a loan of \$2 million to the Ugandan Development Corporation to augment the capital resources available for medium- and long-term sub-loans to agricultural and industrial enterprises. Capital provided by the loan in 1963 covered one year of the funding required for the Development Corporation's planned five-year loan program.

UGANDA, cont.

3. Livestock Development (617-0047) FY 68-74

An AID loan of \$4.7 million in 1968 contributed to a comprehensive program to upgrade the livestock industry. Specific interventions included a dairy crossbreeding ranch in a tsetse-free zone, artificial insemination services, modern dairy equipment on easy terms, and five mobile vaccination units.

4. Commodity Import Program (617-0101) FY 79-82

This eighteen month, \$3 million project consisted of a grant to the Government of Uganda to finance imported raw materials for agricultural-related industries, inputs to spur agricultural production and marketing, and vehicles to transport agricultural produce to market.

5. Food Production Support (617-0102) FY 81-86

This \$9 million project was authorized in 1981. The purpose of the original authorization of \$5 million was to provide financial support in three areas: commodities (\$3.45 million), including hoe production equipment, seed, and spare parts; technical assistance (\$1 million) to improve the commodity distribution system within the cooperative sector; and training (\$0.6 million). Funding was increased to \$9 million in 1982. A 1984 evaluation of the project found the overall results satisfactory despite financial reporting problems.

6. Rehabilitation of Productive Enterprises (617-0104) FY 84-89

This \$18.2 million project consists of assistance to improve income of the rural poor and to increase agricultural production by expanding productive investment in agricultural enterprises. Working through the Central Bank and the Uganda Development Bank, the project provides technical assistance and training for improved managerial and technical capacity, and start-up lending capital to prime the credit system. It is expected that by FY 1986 the project will have trained bank personnel in improved loan application appraisal techniques and loan practices. Feasibility studies jointly prepared by outside consultants and bank staff should guide investment decisions towards activities that are supportive of the Uganda Recovery Program.

JJ. ZAIRE

1. Supervised Agricultural Credit (660-0023) FY 69-73

With this \$218,000 grant to International Voluntary Services in 1969, AID contributed to a four year project to establish a credit system for small- and medium-sized farming enterprises and small agribusinesses.

2. Agricultural Marketing Support (660-0025) FY 79

The purpose of this loan agreement dated September 1979 was to provide \$5.4 million for foreign exchange costs of commodities and commodity-related services directed to the agricultural marketing subsector. Commodities eligible for financing included: food crop protective material; crop storage construction and vehicle body work material; agricultural machinery and spare parts; and electrical equipment.

3. Agricultural Marketing Development Loan (660-0026) FY 79-85

AID authorized \$5 million in loan funds in 1979 for this project to improve roads and bridges in the Bandundu region.

4. Agricultural Marketing Development (660-0028) FY 81-86

This project included a \$4 million loan and a grant of \$170,000 to upgrade roads to improve farmers' access to markets for agricultural produce.

5. North Shaba Rural Development (660-0059) FY 76-86

The original authorization for this project, signed July 29, 1976, approved a grant of \$13.4 million and a loan of \$3.5 million. The grant amount has since been increased to \$15.1 million.

The project includes six elements designed to help increase small farmer agricultural production and income: research and extension; development of farmer groups or pre-cooperatives; development and production of intermediate technology; marketing and credit; infrastructure development; and monitoring and evaluation. The marketing and credit component includes credit to small grain merchants to cover the costs of purchases from farmers.

A May 1982 evaluation of the project concluded that "rehabilitation of roads and bridges is generally believed to be a primary factor in whatever marketing increase took place." It further noted that farmer groups needed additional access to trucks and fuel to increase their marketing efforts.

ZAIRE, cont.

6. INERA Support (660-0064) FY 77-85

The purpose of this \$3.9 million grant is to provide technical assistance, and goods and services needed to assist with the development of the institutional capacity of the National Institute of Agricultural Research.

7. CEDECO (660-0075) FY 77-81

The purpose of this \$100,000 grant to the Church of Christ of Zaire was to expand and improve the small agricultural tool production facility of CEDECO to better serve small farmers. Specifically, the types of tools produced were to be changed and expanded to include basic hand tools required by small farmers, production was to be expanded, and technological improvements introduced.

The project was authorized in 1977. A December 1980 evaluation noted that the project had met its end-of-project goals. There was a continuous supply of basic, appropriate agricultural tools in Bas Zaire. However, the evaluation felt that the project's accomplishments were "more adopted to the middle class farmer or to the agro-industrial business, which grows food crops for its workers."

8. Imeloko Integrated Rural Development (660-0082) FY 78-81

This three year, \$410,000 grant to the Church of Christ was directed to provide agricultural outreach services as part of a pilot integrated rural development project.

9. Zaire PVO Economic Support (660-0097) FY 83-85

In 1983 AID authorized \$5 million in Economic Support Funds for this project to strengthen the capacity of U.S. and indigenous PVOs to implement development projects in Zaire.

10. Agricultural Marketing Development (660-0098) FY 84-86

This \$8 million project focuses on the rehabilitation of navigable rivers and farm-to-market road rehabilitation to improve the market access of small farmers.

11. Agricultural Input Support (660-0100) FY 84-86

The purpose of this \$8 million grant approved in 1984 is to finance the foreign exchange costs of certain commodities and commodity-related services helping to stabilize the agro-industrial sector by supplying essential U.S. manufactured intermediate and capital goods to agro-industrial firms.

ZAIRE, cont.

12. Area Food and Market Development (660-0102) FY 85-92

As a complement to previous projects in the Bandundu region, this \$15 million activity began implementation in 1985. Working through private voluntary organizations, the project hopes to increase smallholder agricultural production through technical assistance, extension, and management, and to aid these small holders in marketing strategies.

KK. ZAMBIA

1. Agricultural Training, Planning, Institutional Development (611-0075) FY 80-85

This \$4.8 million grant was made in 1980 to assist the Government of Zambia to strengthen its capacity to carry out effectively planned and managed agricultural programs. The principal project components include training programs.

2. Agricultural Development, Research, Extension (611-0201) FY 80-90

The purpose of this five year project, supported by a \$12.5 million AID grant, is to strengthen the research capacity of the Ministry of Agriculture and Water Development. In addition the project aims to increase the effectiveness of the extension service in transferring relevant agricultural technology, with special emphasis on small farmers.

3. Chama Area Development (611-0204) FY 81-86

In 1981 AID approved this \$1.1 million OPG to Africare. Africare was to assist the Government of Zambia to increase rice production in several different areas of the Chama district. To improve extension services and market access, the project called for the improvement of several feeder roads.

4. Western Province Small Farmer Production (611-0205) FY-83-86

The purpose of this \$564,000 grant to Africare was to increase the commercial production of beeswax and honey by building a processing plant, improving and providing extension services, and establishing a revolving fund to sustain project activities.

LL. ZIMBABWE

1. Rehabilitation Program Grant (613-0202) FY 80

This 4.3 million grant provided the Government of Zimbabwe with budgetary support for its resettlement and reconstruction programs. Specific activities included the purchase of locally-made farm and construction implements and the reestablishment of a revolving loan fund to help small rural enterprises.

2. Zimbabwe Agricultural Sector Assistance (613-0209) FY 82-86

This \$45 million grant is aimed at alleviating the key constraints on smallholder farm productivity. The project identifies these constraints as follows: agricultural credit, agricultural manpower development, research, input supply and marketing, planning, improved land and water use, and agricultural extension.

MM. EAST AFRICA REGIONAL

1. Nairobi Veterinary Faculty (618-0602) FY 62-74

This \$1.8 million grant funded a twelve year project to upgrade the faculty and curriculum of the University of Nairobi School of Veterinary Science.

2. Animal and Crop Production (618-0644) FY 69-74

This AID grant of \$338,000 provided six livestock and plant specialists to fill vacant positions within the East African Agriculture and Forest Research Organization.

3. Major Cereals and Legume Improvement (618-0652) FY 70-74

This \$1 million project funded research on maize, sorghum and millet seed improvement.

NN. SAHEL REGIONAL

1. Lake Chad Basin Livestock and Mixed Agriculture (625-0010)

No documents about this project were available.

SAHEL REGIONAL, cont.

2. Gambia River Basin Development (625-0012) FY 81-86

This five year project consists of a \$17.2 million grant to the Gambia River Development Organization to create an effective planning division.

3. Entente Livestock II (625-0014) FY 75-84

The purpose of this \$4.5 million loan to the Entente Fund was to assist the Economic Livestock Community to increase livestock production in the Entente States by improving regional cooperation in livestock production and marketing.

4. Grain Production and Marketing (625-0161) FY 71-78

This grant to the Mutual Aid and Loan Guaranty Fund of the Council of the Entente funded a program to improve the marketing, production, and quality of domestic food grains. Specifically, the project provided technical assistance to grain marketing boards in Niger and Upper Volta.

5. Regional Center for Agricultural Science (625-0507) FY 69-76

This project comprised of a \$2 million grant to provide technical assistance and training to establish a regional agricultural science center at Njala University College in Sierra Leone.

6. West Africa Regional Poultry Project (625-0508) FY 70-77

This AID grant of \$0.8 million helped establish a pilot poultry production facility in Bamako.

7. OMVS Planning and Policy Development (625-0621) FY 85-90

This \$6 million activity is in line with AID's regional program to provide support to regional institutions for achieving more effective planning and programming of aid .

West African Livestock Development and Meat Marketing
(625-0523)

AID made a grant of \$599,000 to the Entente Fund to support its regional livestock program. AID funds supported research activities of commerce and transportation divisions of program.

SAHEL REGIONAL, cont.

9. Entente States: African Enterprises (625-0715) FY 73-82

An AID \$17.5 million loan authorized in 1973 went to the Mutual Aid and Guaranty Fund of the Council of the Entente to be reloaned to the development banks of the five member states.

10. Entente African Enterprises (625-0717) FY 74-84

AID granted \$1.8 million to this effort to foster the development of a class of African entrepreneurs capable of playing an increasing role in the development and expansion of the private sector in the Entente countries.

11. Sahel Food Crop Production (625-0916) FY 75-82

The basic thrust of this \$4 million grant was to strengthen the ability of plant protection units to combat plant pests and demonstrate pest management techniques.

12. Regional Food Crop Protection (625-0928) FY 78-86

This follow-on activity is a \$37.8 million integrated pest management project.

13. Sahel Accelerated Impact Program (625-0937) FY 80-87

One of the activities funded under this \$5 million project was the Village Reforestation in Mali project. The project developed a trial program of small-scale village reforestation.

00. SOUTHERN AFRICA REGIONAL

1. Northern Abattoir Design (690-0027) FY 75-77

This AID grant of \$51,000 in 1975 paid for the architectural and engineering design services for a 350 head per day capacity abattoir in Botswana.

2. Farming Systems Research (690 0065) FY 78

The purpose of the \$2.5 million grant was to enable the Lesotho Ministry of Agriculture to develop more productive farming systems.

PP. AFRICA REGIONAL

1. East Africa Development Corporation (698-0001) FY 67-75

Under this project, AID loaned \$0.5 million to East Africa Development Corporation, a wholly-owned subsidiary of the Commonwealth Development Corporation.

2. West Africa Development Corporation (698-0002) FY 67-75

Under this project, AID loaned \$1.5 million to Development Corporation West Africa, a wholly-owned subsidiary of the Commonwealth Development Corporation.

3. Regional Wheat Improvement - North Africa (698-0173) FY 67-79

This grant of \$732,000 was approved in 1969 to provide major applied research and training support to individual wheat improvement programs in Tunisia and Morocco.

4. Ghana Rural Reconstruction Movement (698-0387) FY 76-81

A grant of \$584,000 to the Ghana Rural Reconstruction Movement was approved in 1976. The purpose of AID support was to enable the Movement to expand and strengthen its pilot rural development programs.

5. Women in Development (698-0388) FY 76-84

One of the subprojects funded under this \$7.1 million activity was a grant to PFP to serve women entrepreneurs in Kenya.

6. Accelerated Impact Program (698-0410) FY 77-85

In 1977 AID initially obligated funds for what was expected to be a \$13.1 million accelerated impact program. The total amount actually authorized for this program was only \$4.9 million. Activities funded by the program included: rice production in Guinea-Bissau, women's small-scale enterprises (cassava processing) in Ghana, animal traction in Togo, zero tillage agriculture in Liberia, pilot rice production in Tanzania, and poultry development in Somalia.

7. INADES - Formation (698-0501) FY 80-83

The purpose of this \$700,000 grant was to support the efforts of INADES-Formation, a regional training organization headquartered in Abidjan, Ivory Coast, to improve the technical skills of farmers and extension workers.

Chapter 3 Lessons Learned: An Analysis of Past Projects

What lessons, if any, can AID learn from its previous experience in agribusiness and agribusiness-related projects in Africa? A brief analysis of the projects described in the previous chapter can help answer that question.

An analysis of the 220 projects reviewed in the preceding chapter reveals lessons learned that are probably obvious to those who have been involved in AID programs in Africa. The development of private sector agribusiness enterprises has not been a major concern. Since 1970, AID funding has concentrated on production and production-related agricultural activities (extension, training, and credit) instead of processing and marketing activities, including transportation, storage and distribution. Some of the more interesting and successful agribusiness projects have been those that made a conscious effort to include both an input supply and marketing component. Some of the twenty projects that met this criterion are discussed below. Included in the lessons learned from an analysis of these projects are that private voluntary organizations (PVOs) have played an important role in AID's activities in agribusiness development, that processing is an area that received only limited attention, and that while very small enterprises and large parastatals have figured prominently, small- and medium-sized enterprises are less often the target of AID projects.

Few private sector agribusiness projects

For the most part AID involvement in Africa over the last fifteen years has not identified agribusiness as a major area of concern. The AFR/TR/ARD information system had, at the time this study was being researched, only seven projects that were listed under the heading "Africa Projects involved in Agro-Industry." The ARD system's Purpose Category/Definition for agro-industry is: "To provide, or to strengthen the capacity to provide commodity processing/ tool manufacture/ off-farm storage/etc.", and the projects listed therein include:

<u>Project #</u>	<u>Country</u>	<u>Project Title</u>
675-0212	Guinea	Agribusiness Preparation
632-0209	Lesotho	Cottage Mohair
632-0211	Lesotho	Weaving Training
669-0154	Liberia	Nimba County Enterprise Development
688-0202	Mali	Operation Mils II
617-0104	Uganda	Rehabilitation of Productive Enterprises
660-0100	Zaire	Agricultural Input Support

The projects listed above cover a broad spectrum of different agribusiness activities. As a group, however, they are not focussed on commodity processing, tool manufacture, or off-farm storage. The major activities supported by these projects include planning and credit as well as general economic support.

The two projects in Lesotho may come the closest to fulfilling the definition of an agro-industrial project. The first effort was an attempt to develop the production of mohair, and the the second project a follow-on effort. The weaving training project was primarily involved with training. The project's major accomplishment appears to have been to improve the skills and upgrading the design and technical abilities of some 550 weavers.

The Nimba County project in Liberia was financed by an Operational Program Grant to Partnership for Productivity. At one point the project had an animal feed production component, but this activity was eventually dropped.

A similar problem afflicted Operation Mills in Mali. At one point this \$12.3 million project to increase cereal production and commercialization had a large commercialization component. But it ran afoul of government policy. As the audit to the project noted, "the commercialization program was not popular with farmers since the official prices were traditionally lower than the parallel market."

The Agricultural Input Support project in Zaire is a \$8 million grant to help that country meet the foreign exchange needs to import manufactured intermediate and capital goods for the country's agro-industrial firms.

The two most interesting projects on the ARD agro-industry list are the projects in Guinea and Uganda. The Guinea Agribusiness Preparation project is basically a planning project, but the emphasis is focused on agribusiness development. The project grew out of the late Sekou Toure's visit to the United States in 1983. At that time he requested assistance from the Reagan administration. The initial response was a survey mission organized in conjunction with the American Society of Agricultural Consultants. The purpose of the mission was to survey Guinea for investment possibilities. The mission resulted in a recommendation that the United States support Guinea's efforts to establish an Office of Agribusiness Promotion. An AID-funded technical advisor has been in Conakry since early 1985. With his help and additional AID support, the Office will be able to produce prospectuses for potential private sector investments in various agribusiness ventures.

The other agro-industrial project that appears most interesting is the Rehabilitation of Productive Enterprises in Uganda. This \$18.2 million project was authorized in September 1984. Although the principal recipients of AID support under this project are Uganda's Central Bank and the Uganda

Development Bank, the project may be able to support agribusiness development in that country. The project is providing technical assistance, training and start-up lending capital to prime the country's credit system. In addition, the project calls for feasibility studies by outside consultants and bank staff to guide investment decisions towards activities that are supportive of Uganda's Recovery Program.

Emphasis on production

The data base for this analysis contains brief descriptions of 220 projects. As noted in the introduction, the intent of this paper was to analyze AID projects that focussed on agribusiness or had major agribusiness components. An effort was made to filter out projects concerned primarily with credit and roads, and an attempt was made to focus in on projects that emphasized input supply, processing, and/or marketing components. Nevertheless, input supply and marketing figured as the major activity in only half of the projects covered in this report.

The table below, which is based on the summary of the projects in Appendix 1, summarizes the major focus of the projects reviewed in this study:

Summary: Project Focus			
<u>Focus</u>	<u># Projects</u>	<u>Focus</u>	<u># Projects</u>
Credit	23	Planning	19
Extension	16	Research	18
Input Supply	58	Training	29
Marketing	31	Other	6
Input Supply and Marketing	20	TOTAL	220

Only 51 of the 220 projects reviewed in this report were involved in marketing. Thirty-one projects focussed exclusively on marketing and another 20 projects had near equal focus on input supply and marketing. Almost 77 percent of the projects reviewed here focussed on a production-related activity.

This emphasis on production and production-related activities is confirmed by the Africa Bureau's own analysis. AFR/TR/ARD publishes an annual Functional Review of the Bureau's agriculture and rural development portfolio of projects. The July 1984 Review covered 381 projects from FY 1978 to FY 1984. Commodity marketing projects accounted for only 3.6 percent of the total obligations for agriculture from FY 78 - 84. In comparison, input supply projects accounted for 6.16 percent of the funds obligated and credit development had a 5.46 percent share. The heaviest concentration of funding

went to technology development, technology transfer, and natural resource development.

Combined input supply and marketing projects

Projects that had both strong input supply and commodity marketing components are some of the more interesting projects in the agribusiness portfolio. The projects in this group offer some interesting lessons for the planners of future agribusiness activities. Twenty projects reviewed in the previous chapter met this criterion and are listed below:

Projects With Both Input Supply and Marketing Components

<u>Project#</u>	<u>Country</u>	<u>Project Title</u>
677-0009	Chad	Irrigated Crop Production
677-0014	Chad	Crop Production Research, Seed Multiplication, and Grain Marketing
679-0002	Congo	Smallholder Agricultural Development II
603-0003	Djibouti	Fisheries Development I
603-0015	Djibouti	Fisheries Development II
633-0112	Ethiopia	Ethiopia regional Livestock Development
633-0162	Ethiopia	ADA Agricultural Development Project
633-0166	Ethiopia	Pulse Diversification and Development
641-0067	Ghana	Managed Input and Agricultural Services
641-0102	Ghana	Managed Input and Agricultural Services II
669-0139	Liberia	Upper Bong County Integrated Rural Development
669-0142	Liberia	Upper Lofa County Integrated Rural Development
682-0226	Mauritania	Small Perimeters
683-0201	Niger	Niger:Cereals Production Project
621-0093	Tanzania	Masai Livestock and Range Management
693-0226	Togo	Sio River Village Production and Marketing
617-0104	Uganda	Food Production and Support
660-0102	Zaire	Area Food and Marketing Development
613-0209	Zimbabwe	Zimbabwe Agricultural Sector Assistance
625-0014	Sahel Reg.	Entente Livestock II

Several lessons can be extracted from an analysis of this group of projects. One is the importance of the role private voluntary organizations (PVOs) have had in implementing projects with input supply and marketing components. Five of the twenty projects were funded through Operational Program Grants. In Chad, for example, the Seventh-Day Adventist World Service was responsible for implementing the Irrigated Crop Production project. The project called for the organization of a farmers' association through which it could funnel inputs and supply marketing services to farm families given a hectare of irrigated land to work.

CARE is implementing the Smallholder Agricultural Development II project in the Congo. This is an outgrowth of an earlier project that concentrated on marketing aspects. Phase I of this endeavor identified "an inefficient marketing system and an inadequate storage system as major constraints to farmers' increased income." Phase I started to address those issues and although efforts along those lines are continuing in phase II, this project has also expanded into seed production. This would seem to be a most logical progression. If the constraints in the marketing system have been ameliorated, providing inputs to increase production that the marketing system can now handle would seem to be a sound approach.

Another PVO, Africare, implemented the \$457,000 Small Perimeters project in Mauritania. The project included the construction of irrigation works, farm management, and rice marketing components.

The Sio River Village Production and Marketing project in Togo is providing a \$3.5 million to Partnership for Productivity to provide management, marketing and technical packages to small-scale farmers and other small businesses. The project is based around an irrigated rice perimeter.

The Area Food and Market Development project in Zaire is the largest of the five projects in which PVOs play an important role. It is also a follow-on to several other projects that the Agency has funded in the Bandundu region of Zaire. This \$15 million undertaking is working through PVOs to increase smallholder production through technical assistance, extension, management, and to aid these small holders in marketing strategies.

These five projects offer some important lessons about designing and managing agribusiness and agribusiness-related projects. First of all, as is true with most PVO projects, they are small in financial terms. Only the Togo and Zaire projects are authorized at more than \$1 million. And it should be noted that Partnership for Productivity is bringing to Togo skills and experience gained on much smaller scale projects in Africa over the last decade. More important than funding may be the fact that these five projects are geographically concentrated. They do not attempt to extend their channels of distribution for both inputs and outputs over a large area. Rather, they concentrate on providing both inputs and marketing support through the same organization in a limited area. Given the fragmented market structure of most countries in Africa, this approach makes sense.

These two factors, relatively small project budgets and concentration of effort in a rather limited geographical area, are common features of several of the other projects on the data base that had both input supply and marketing components. The two fisheries projects in Djibouti are examples. Djibouti is a very small country, and the original project was authorized at

less than half a million dollars. Eventually the total cost reached 2.2 million. Phase II has a budget of \$3 million. This, too, is a project that identified marketing constraints at the start and concentrated its early efforts to improve the marketing system. Phase II is financing continued activities to improve the production, processing, and marketing of fish, as well as expanding into efforts to strengthen the institutions that administer the fishing industries. This is somewhat in contrast to AID projects that start at the institutional level before the problems of a particular commodity system have been diagnosed and addressed.

Another facet of the PVO projects that appears in several other projects is the provision of services to farmers. The Managed Input and Agricultural Services projects in Ghana are good examples. Phase I included a \$10 million grant and a \$28 million loan to develop an institutionalized coordinated system to provide improved agricultural inputs and services to small farmers. The basic components included: credit, fertilizer; processing and distribution; seed multiplication; small farm systems research; and demonstration/extension and marketing. However, this project also is an example of how difficult it is to coordinate such a multifaceted undertaking. As the economy in Ghana declined in the late seventies and early eighties, Phase II was scaled back to encompass only seed multiplication efforts and minor selected credit and marketing activities.

The two integrated rural development projects in Liberia suggest another way to deliver inputs and services to farmers in a limited geographic area. Both projects established cooperatives to provide farm inputs, credit, and marketing services. However, the marketing role was limited. In this particular case the cooperatives served as buying agents for the Liberian Produce Marketing Corporation, a parastatal.

The marketing component was also linked to a parastatal organization in the Crop Production Research, Seed Multiplication, and Grain Marketing project in Chad, and the Niger Cereals Production Project. These projects suggest another interesting lesson learned. To date AID-funded activities in Africa have followed a two-tier approach. There has been a focus on very small enterprises, mostly through PVOs, on the one hand, and another focus on providing assistance to large, sometimes monopolistic and monopsonistic, parastatals. Projects aimed at assisting small- and medium-sized companies as well as larger private companies have not received much attention.

It would be convenient if this paper could conclude that the most important lesson that AID can learn from its previous experience in agribusiness and agribusiness-related projects is that more attention needs to be paid to the marketing aspects of any project. This is true and the reason for it may have been most dramatically underscored by the Rural Development project (676-0015) in the Central African Republic.

The project focussed on the rehabilitation of "agricultural production activities" including the production of rice and manioc, fish, beeswax and honey. An evaluation of the project made a strong case against the project's emphasis on production rather than on marketing. It suggested that improving efficiency and financial viability "would be more appropriate objectives." It cited the example of the project's experience with beeswax to make its point. It noted that income from beeswax had increased not because of additional production, but because of efforts to "improve marketing such that wax already produced in traditional hives is not discarded." Finding better ways to market already existing crops of agricultural products should receive much more emphasis in AID's efforts to support agricultural and agribusiness development in Africa.

However, focussing primarily on marketing will not necessarily guarantee success either. In certain cases all that is necessary to improve agricultural production and distribution is to increase the factors of production, and the desired outcomes will take place. A good case in point is the Small Scale Fisheries project in Guinea-Bissau. According to the evaluation, the project's major input was to supply fisherman with supplies and equipment for their fishing operations. As a result of the project, the supply of fish in Guinea-Bissau increased, and cottage industries in boat building and net making have developed in response to the demand created by the project.

In the final analysis, there are no simple guidelines or models to follow to promote agribusiness development in Africa. Sometimes, it is sufficient for a project simply to supply increased factors of production, and the outcome is favorable. Other times all that is required is an improved marketing system. Sometimes, and given the present conditions in most African countries today, it is probably safe to say that most of the time, some combination of factors is necessary for a project to be successful. A successful agribusiness project is likely to be based upon a complete understanding of all the factors at work in the commodity system in which the target enterprise participates, and the identification of the most pressing, or first limiting, constraints on the effective operation of the system.

Chapter 4 Planning for the Future

In preparing an agribusiness development component for inclusion in an overall development strategy for African countries, several factors should be kept in mind. The agribusiness development strategies of the countries themselves, the development activities of other donors, and the impact of on-going and new AID-funded projects will all have some bearing on what the Agency can and should plan to do.

Agribusiness Development Strategies of Selected Countries

Unfortunately, few countries in Africa have articulated clear policies for the development of agribusiness. All too often agribusiness falls somewhere between agricultural development and industrial development. Too many countries continue to base their agricultural development strategies on the need to increase small holder production and income. Little, if any, attention is paid to the development of commodity systems that will improve the flow of crops and livestock from the farmgate to the ultimate consumer.

Several countries, however, seem to have recognized the importance of taking a more systematic approach to the development of their agribusiness sector. These countries are the ones in which AID is most likely to be able to contribute to successful agribusiness projects. The paragraphs that follow briefly summarize the policies of these countries.

Cameroon is one likely candidate. As an exporter of agricultural commodities, mostly coffee, cocoa, and tropical hardwoods, the country has some experience with sophisticated marketing systems. The policies of the country are favorable to agribusiness development. Among other things, food crops sell at free market prices. This is certainly a major incentive to increased production. Further, the government of Cameroon intends to make the country the major food supplier to the Central African region.

The Central African Republic is one of the world's Relatively Least Developed countries. However there are some encouraging signs that it may be ready to begin to develop its agribusiness potential. In its economic recovery plan for 1982 - 1985, the government placed a greater emphasis on food crops, increasing export crop productivity, development of private enterprise, and improvement of the road system. These are all steps that could help promote the development of successful agribusinesses.

The current five year plan (1982 -1987) for the Congo also bodes well for the development of that country's agribusiness potential. This plan, the country's first, has two principal priorities: improved infrastructure and increased agricultural

production. Improvement of farm-to-market transportation is a major element of infrastructure improvement and a necessary precondition for agribusiness development. With a per capita income of about \$1,100, there may be a ready market for domestically produced food.

If current reforms continue, Ghana may, once again, provide fertile territory for agribusiness development. As part of an economic reform package, Ghana increased producer prices for cocoa and other agricultural products in May 1983. However, serious problems remain. Parastatals still dominate a number of commodity systems, and the transportation system is in poor condition.

Guinea has always had great potential for agribusiness development. However, it is still unclear if the country is willing to adopt the policies necessary to promote it. With its Agribusiness Preparation project, AID is in good position to monitor developments in the country and respond accordingly.

With some free market oriented development policies and a comparatively open and stable political system, Kenya should have the environment in which agribusinesses could thrive. The large and increasing numbers of small farms provide a ready market for both input supplies and marketing services. As the 1986 Congressional Presentation points out, "In the medium term, Kenya's most promising avenues for development lie in the expansion of agricultural production and value-added processing, and in exports. The promotion of labor intensive processing and manufacturing, especially in agribusiness, will be particularly important to Kenya's development . . ."

Liberia has a unique relationship with the United States and therefore merits special development attention. Although beset by a number of problems, the environment for agribusiness development may be improving. If the World Bank is successful in negotiating a structural adjustment loan, which includes measures to assist the government to divest and liquidate some public corporations and to restore the operating efficiency of the remaining ones, this might open the doors for successful agribusiness development. Helping the country to improve its performance in the export markets in which it competes is one area that needs increased attention.

The policies of the Government of Malawi are most favorable for agribusiness development. The country's development strategy since independence has stressed agricultural production for exports while maintaining food self-sufficiency. This policy stressed that economic growth was to be efficient and reflect the true costs of resources and respond to free market forces. However, dependence upon a rail link through South Africa has raised transportation costs 35 percent, and coupled with a decline in the country's terms of trade and increased debt service, there are major constraints that any agribusiness venture would have to overcome to be successful.

The recent policy changes in Mali are encouraging for agribusiness development. Recently, the marketing of coarse grains has been liberalized and monopolies over external trade reduced. The country's reentry into the West African monetary Union is also helpful. The irrigation potential of the Niger River is a virtually untapped resource and could offer significant opportunity for agribusiness development.

The Congressional Presentation sums up the situation in Mozambique clearly:

Despite the currently depressed situation, the potential for economic recovery and development in Mozambique is high. Tapping this potential, however, will require significant reform and effort by the Mozambique government and people. The potential for economic growth lies in Mozambique's rich resource base. This base is concentrated in the energy, minerals, and agricultural sectors which are underexploited relative to potential. This extensive natural resource base can be used as a solid foundation for the future.

However, before that happens the country needs to implement important policy reforms, not the least of which is the restoration of a market economy.

Rwanda's conservative economic management and sufficient natural resource base offer potential for agribusiness ventures. As a result of both aid and pragmatic economic policies, agricultural growth has been positive on a per capita basis. The country has sufficient resources, including fertile soils and normally sufficient rainfall. (However, significant agribusiness development will require several policy changes, including a devaluation of the currency and a restructuring of the parastatal sector.

The government of Senegal is continuing to implement the economic and financial reform plan it adopted in 1979. The plan aims to stimulate investment in the productive sectors, especially in agriculture. However, there are a number of problems that could slow agribusiness development in the country. It is poor in natural resources and has been afflicted by persistent drought.

Several recent policy changes in Sierra Leone may bode well for the future of agribusiness development in that country. These measures include a 100 percent devaluation of the leone and an increase in agricultural producer prices of up to 100 percent. However, the potential here is still limited.

The government of Swaziland, is committed to free enterprise and has attempted to design a tax and loan policy to stimulate foreign and domestic private investment. Agriculture is the most important sector of the economy, with modern sugar, wood, citrus and pineapple plantations producing mainly for the export market. The challenge to agribusiness in Swaziland is to improve the productivity in the traditional sector, which constitutes about half the modern sector.

Recent changes in policy are encouraging for agribusiness development in Togo. Producer price increases for coffee, cocoa, and cotton - the major export crops - during the 1983/84 crop year were one encouraging sign. Another is the government's performance following its negotiation of financial recovery programs with the World Bank and the IMF.

The uncertain socio-political situation is a major deterrent to development in general and agribusiness development in particular in Uganda. Some recent signs have been encouraging. In 1984 the government announced plans to sell, disband, or make joint ventures with private firms of 67 parastatal organizations. The Ugandan Economic Recovery Program stresses agriculture, and if it is successful at rehabilitating the country's farm-to-market roads, rural markets, processing centers, and credit institutions, a healthy environment for agribusiness development may emerge.

Zaire also has natural resources that make the potential for agribusiness development there attractive. Rainfall is more than adequate and the country has the potential to produce a variety of different crops. Recently, the government has been taking measures to encourage the development of this potential. The government has responded well to the demands of the IMF for fiscal and monetary reform, including the lifting of restrictions on the market for foreign exchange and liberalizing pricing and interest rate policies in the domestic market.

Zambia also has natural resources necessary for successful agribusiness development. Increased agricultural production and opportunities for agribusiness development could come about through an expansion of areas suitable for cultivation and the adaptation of modern practices to improve productivity. Recent policy changes have been encouraging. In 1983 the currency was devalued by 35 percent, a significant number of prices decontrolled, and agricultural producer prices increased.

The 1986 Congressional Presentation gives a favorable report on the agribusiness potential for Zimbabwe. It notes that: economic policies have been pragmatic and progressive. Some tough measures have been adopted to reduce consumer food subsidies and generate revenue. Government has effectively maintained a policy environment that promotes agricultural productivity. Incentive prices are maintained, marketing has remained efficient and basic credit and input services to farmers have been expanded . . .

Other Donors' Activities

In promoting agribusiness development strategies and projects in Africa, AID will want to remain informed of other donors' activities. Commodity system development is difficult under the best of circumstances. Conditions in Africa are as difficult as can be found in the developing world. Better

coordination among donors may make it easier to link together the necessary pieces of any given system so that agribusinesses can be developed more effectively.

Unfortunately, the time allowed for this study permitted only a cursory survey of two other donors, the World Bank and the United Nations Industrial Development Organization.

The agro-industries adviser of the World Bank/International Finance Corporation has been reviewing the agro-industrial activities which the Bank financed from 1972 to 1983. The data base contains information on 960 components in 483 projects. The purpose of this review is twofold: to produce a profile of what the Bank has supported and what the implementation experience has been; and to stimulate a discussion of the issues that emerge from this profile.

A preliminary report noted, among other things, that the Bank was active in financing projects with a processing component. This is an important area of agribusiness development and one in which AID has not been actively involved. It would be helpful for AID to study the Bank's experience to see what lessons have been learned and what might apply to the design and implementation of future AID-funded activities.

Collaboration with the United Nations Industrial Development Organization (UNIDO) might also be fruitful. UNIDO sponsors Investment Promotion Meetings (IPMs) that serve to bring together potential investors and project sponsors. Key government officials from the sponsoring countries also attend these meetings. Agroindustry is one industry sector on which these meeting focus. The New York office of UNIDO is apparently willing to make available information on individual investments and the details of IPMs. It may be worthwhile for an AID representative to attend IPMs scheduled for Central and Southern Africa later this year. The Central Africa meeting, covering Burundi, Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon, Rwanda and Sao Tome and Principe, is scheduled for Libreville in December. A similar meeting for Southern Africa, including Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe is in the works, but the precise dates have not yet been set.

On-going and New AID-funded Projects

In addition to monitoring policy developments in recipient countries and collaborating with other donors, AID can enhance its agribusiness expertise by monitoring more closely its portfolio of on-going and new projects. Learning from the successes and failures of previous projects should help to improve the design of new projects and the implementation of current efforts.

On-going Agribusiness Projects

<u>Project#</u>	<u>Country</u>	<u>Project Title</u>
633-0077	Botswana	Rural Development
633-0228	Botswana	Small Enterprise Development
686-0231	Burkina Faso	Seguenega Integrated Rural Development
686-0249	Burkina Faso	Small Economic Activity
695-0101	Burundi	Basic Food Crops
631-0015	Cameroon	Small Farmer Livestock/Poultry Develop.
631-0022	Cameroon	Small Farmer Fish Production
676-0015	C. A. R.	Rural Development
676-0016	C. A. R.	Post Harvest Food Systems
679-0002	Congo	Smallholder Agricultural Development II
603-0003	Djibouti	Fisheries Development I
603-0015	Djibouti	Fisheries Development II
653-0001	Eq. Guinea	Agricultural Production
653-0002	Eq. Guinea	Cooperative Development
641-0102	Ghana	Managed Inputs and Delivery of Agri-Ser.
675-0204	Guinea	Smallholder Production Preparation
675-0212	Guinea	Agribusiness Preparation Project
657-0002	Guinea-Bissau	Agricultural Development
657-0011	Guinea-Bissau	Technical Skills Training
615-C220	Kenya	Rural Private Enterprise
669-0163	Liberia	Nimba County Rural Technology
669-0201	Liberia	Small/Medium Enterprise Development
612-0205	Malawi	Malawi Union Savings and Credit
612-0214	Malawi	Rural Enterprise and Agribusiness Dev.
612-0219	Malawi	Management Assistance to Rural Traders
688-0218	Mali	Livestock Sector II
656-0201	Mozambique	Private Sector Rehabilitation
683-0245	Niger	Tara II Rural Irrigated Ag. Dev.
696-0107	Rwanda	Local Crop Storage
696-0121	Rwanda	Private Enterprise Development
685-0223	Senegal	Agricultural Sector Analysis
685-0249	Senegal	Agricultural Development Assistance
685-0260	Senegal	PVO Community Enterprise Development
649-0109	Somalia	Livestock Marketing
650-0018	Sudan	Blue Nile Integrated Ag. Development
650-0046	Sudan	Southern Agricultural Development I
645-0213	Swaziland	Swine Production and Crop Marketing
693-0218	Togo	Animal Traction
693-0226	Togo	Sio River Village Prod. and Marketing
617-0102	Uganda	Food Production Support
617-0104	Uganda	Rehabilitation of Productive Enterprise
660-0102	Zaire	Area Food and Market Development
611-0204	Zambia	Chama Area Development
611-0205	Zambia	Western Province Small Farmer Dev.
613-0202	Zimbabwe	Rehabilitation Program Grant
613-0209	Zimbabwe	Zimbabwe Agricultural Sector Assistance

Eighty-eight of the 220 projects covered in this study are on-going, i.e they received funds in FY 1985. Listed on the preceeding page are the on-going projects in AID's African portfolio that are most involved with agribusiness development and that should be monitored closely through their conclusion.

In addition to these forty-five on-going projects, the 1986 Congressional Presentation discusses twenty-two new projects that also should be monitored closely. The twenty-two include both those that were initially authorized in FY 1985 and those for which authorization is expected during FY 1986. These projects include the following:

676-0017 C.A.R. Small Enterprise Development

This is a \$ 3million project to encourage small-scale agribusiness development.

677-0051 Chad PVO Development Initiative

This is a \$12.5 million project which will fund PVO activities in agribusiness, e.g. domestic and export marketing of farm produce and agriculture production.

675-0210 Guinea Smallholder Production

This project, which would initially be funded in FY 1986, is the result of the Smallholder Preparation project. It will focus on providing farmers with culturally appropriate and economically feasible technical packages for food crops and animal systems.

657-0013 Guinea-Bissau Agricultural Industrial Development Fund

This project was budgeted to receive \$500,000 in FY 1985 to provide investment funds for on-lending to private sector agribusiness activities and trade opportunities. The current planned authorization for the project is \$4 million.

615-0221 Kenya Agricultural Management

Funds for this project are to address the managerial constraints faced by public and private organizations serving smallholder agriculture were to be obligated in FY 1985.

632-0221 Lesotho Agricultural Production and Institutional Support

AID authorized this project in 1985 and a request for proposals for technical assistance appeared in August. The

multi-component project is designed to increase small farmer agriculture by strengthening agricultural research capabilities, expanding production and marketing assistance and strengthening in-country agricultural training capabilities.

687-0101 Madagascar Agricultural Rehabilitation Support
687-0102 Madagascar Agricultural Rehabilitation Support II

AID planned to authorize \$5 million in 1985 for this two component project consisting of a short-term training program to strengthen the government's capacity to undertake economic analysis, and a commodity import program to finance critical inputs for agro-processing and farm implement industries. Phase II, for which \$2 million is requested in FY 1986, will finance the foreign exchange costs of the rehabilitation of the rice sub-sector.

642-0006 Mauritius Commodity Import Program III
642-0007 Mauritius Commodity Import Program IV

These two projects are a continuation of the Commodity Import Programs in Mauritius. The \$2 million requested for FY 1985 (III) was earmarked to finance edible oil imports. The local currency generated from this was to be used to support various development activities, including assistance to small-scale irrigation schemes, industrial estates, and small business and industry. The \$4 million requested for FY 1986 (IV) is to finance the cost of private sector commercial imports, including vegetable oil, chemical fertilizer, agricultural equipment, and spare parts. Local currency generations will be used for agricultural diversification and productive private sector enterprises among other things.

683-0250 Niger Cooperative Irrigation Management

The initial obligations of funds for this \$5 million project is planned for FY 1986. The project will initiate a private sector alternative based on cooperatives to provide agricultural extension/water management services.

658-0002 Sao Tome and Agricultural Initiatives
Principe

This is a modest, \$600,000 project planned for initial obligation in FY 1985. Its purpose is to support efforts to increase export crop production.

685-0269 Senegal Agriculture Production Support

This \$19 million project is slated for its initial obligation in FY 1986. Its purpose is to increase cereal production by improving the quality of services and quantity of supply of farm inputs such as seed, fertilizer and essential equipment. The project includes technical assistance for both government institutions and private enterprises.

649-0125 Somalia Commodity Import Program III

The FY 1985 Commodity Import Program for Somalia will provide \$27 million for the foreign exchange costs of light equipment for manufacturing and the importation of commodities for the agricultural sector. About 85 percent of the resources will go to the private sector.

649-0126 Somalia Somali National Agricultural Research Program

Initial funds for this \$30 million project are to be authorized in FY 1986. The focus of the research program is to produce and disseminate technological packages that can be used profitably by Somali farmers and herders to increase food production on a sustained basis.

649-0130 Somalia Commodity Import Program IV

This project requests \$33 million in FY 1986 to provide balance of payments support for the procurement of commodities which are crucial to support the agricultural sector and to stimulate the private sector.

650-0054 Sudan Kordofan Rainfed Agriculture

Funds for this \$18.1 million project were to be obligated in FY 1985. The project is to improve feeder roads and to provide agricultural credit and grain storage facilities.

645-0225 Swaziland Agricultural Production and Marketing

This is a \$7 million project for which funds will be initially obligated in FY 1986. According to the Congressional Presentation the project "will be integrated and market-oriented and identify potential markets for promising crops."

617-0106 Uganda Oilseeds Production

This project, scheduled to begin in FY 1985 and budgeted at \$6 million will expand oilseeds production for domestic consumption.

617-0105 Uganda Cooperative Development

This is a \$20.5 million project for which an initial obligation of \$3 million is requested for FY 1986. The purpose of the project is to strengthen the ability of cooperative societies and district unions to diversify their commercial activities, including agroprocessing, and to expand credit and marketing facilities.

660-0103 Zaire Agricultural Input Support II

This project calls for the obligation of \$10 million in FY 1985 to help stabilize the agro-industrial sector by supplying intermediate and capital goods to agro-industrial firms.

660-0105 Zaire Central Shaba Agricultural Development

This is a \$25 million project scheduled to begin in FY 1986. Its purpose is to increase agricultural and fishery production in the Central Shaba region and to strengthen the marketing infrastructure for producers, processors and distributors.

698-0438 Africa Reg. Africa Private Enterprise Fund

The purpose of the Africa Private Enterprise Fund, begun in FY 1985, is to provide economic, business and management consultants and other technical services to stimulate private enterprise development. The project is to emphasize immediate impact opportunities for indigenous and joint-venture businesses.

Chapter 5
Draft Guidelines for Designing, Implementing and Evaluating
AID-Funded Agribusiness in Africa

The Agency for International Development has identified agribusiness as a special area of attention. The development of successful, profitable agribusinesses could play an important and positive role in the economic development of African countries. Agribusinesses provide the producers of crops and livestock with the inputs and services they need to increase production and to improve the marketing of their output. Producers need access to inputs -- credit, seed or breeding stock, equipment and machinery, fertilizers and chemicals -- to increase their production, and they need a variety of services including storage, transportation, processing, and marketing to help move their products efficiently and profitably to market.

Many of the projects reviewed in this study expressed the goal of increasing production in order to increase the income and well-being of the rural poor. Many of these projects seem to have been designed and implemented with the implicit assumption that an increase in production would automatically lead to increased income for the producer. As a result, an overwhelming number of past projects have concentrated on the input supply and production part of the agricultural and agribusiness development process. Included in these projects have been efforts to supply farmers with additional inputs, research, extension services, etc. Much less attention has been to processing and marketing. It is likely that efforts to improve the ability of producers to move crops and livestock from the farmgate to the consumer would also yield increases in income. An agribusiness approach to increasing production and income would look at everything that needs to be done to produce more and sell it more profitably. This would include both the supply of inputs as well as processing and marketing services including storage, transportation, wholesaling and retailing.

As stated in the introduction, the purpose of this paper is to address the issue of what AID might do to promote the development of agribusiness in Africa. Based on the survey of past activities in AID-assisted countries in Africa, this paper recommends that the following guidelines be implemented.

1. AID should use a commodity systems approach in the design and planning of agribusiness projects;
2. More attention needs to be paid to the processing and marketing aspects of agricultural and agribusiness development;
3. An especially important focus of future endeavors should be to improve the channels of distribution both for inputs and marketable products; and

4. Greater attention should be paid to the process of agricultural and agribusiness development and implementing projects that will improve existing processes.

A discussion of each of these points follows.

Commodity Systems Approach

One of the more important findings of this study is that previous AID-funded agribusiness and agribusiness-related projects have had a narrow focus. That is they have concentrated on one particular activity such as credit, training, extension, research, input supply, or marketing. This narrow approach tends to ignore the nature of farms and other agribusinesses and the complex environments in which they operate. Successful projects need to take into consideration the close interrelatedness of the numerous components of the systems that produce and distribute agricultural products.

In developed countries the links between these various components are strong and operate well. The United States, for example, has highly sophisticated marketing systems that include storage facilities, transportation networks, sales organizations, financial institutions, and regulatory agencies. These systems are capable of quickly and efficiently moving the nation's agricultural output from farm to consumer. In developed countries an agribusiness firm can specialize in one or a limited number of activities because there are already other, well established firms in the business of providing complementary services. The manufacturer and distributor of hybrid seed, for example, knows that the farmer is willing to invest in its products because there is a waiting marketing system of elevator operators, railroads and barge companies, processing companies, and government support programs that will provide a market for the increased production and the services necessary to move the crops from the farm to that market.

The situation is rarely the same in developing countries. An important component of the system may be very weak or nonexistent. A country may be dependent upon imports for its input supplies and not have the transportation and distribution systems needed to get those supplies to producers. The financial system may not be developed enough to reach out into the rural communities to supply working and long-term capital. A coordinated network for the marketing of crops and livestock may not exist. Farmers may be dependent upon an inefficient government agency for crucial inputs or marketing services. The constraints to development at each stage of a commodity system in a developing country can be difficult to overcome.

Understanding that an agribusiness is but one element in a complicated and complex process is a helpful way to look at project design. A commodity systems approach to planning agribusiness projects helps give the development planner a broad overview of where the problems are likely to arise in any effort to increase the production and the income of the rural poor. A systems approach should help the planner to identify the weaknesses in the system that might constrain the success of a project involved in another part of the system. For example, this approach might show that it does not make sense to devote resources to increasing the supply of inputs because the marketing system will be unable to handle any increase in production. Thus, the systems approach can be helpful in directing the planner to funnel resources to make improvements in those areas that will have the most impact on improving the efficiency of the entire process of producing and distributing a particular commodity.

Basically, this is, first, a descriptive and, second, an analytical process. A well designed agribusiness project should contain a complete description of the existing commodity system in which a proposed project will take place. The accompanying analysis should assess the technical and managerial, financial and economic, and social and political aspects of the undertaking.

The first step in planning an agribusiness project should be a complete and thorough description of everything that takes place to produce a particular commodity and move it from farmgate to consumer. This description has three basic parts. It needs to cover all the aspects of input supply. This is a description of how a farmer gets access to the necessary tools of production, including credit. Further it would describe any efforts to improve the farmer's access to extension and research services.

The second part should describe the production process. Here the attention focuses on the methods and techniques currently used to produce crops and livestock.

The third part of the description focuses in on processing and marketing. This part of a design would describe how crops are stored on farm, the transportation system that moves them to intermediary storage and/or processing facilities, and the storage and transportation systems involved in handling and moving products from the processing through the wholesaling to the retailing stages of the system.

The basic thrust of this first phase is to describe and make clear all that happens in the complex process of producing and marketing agricultural products. The second phase of designing an agribusiness project is an analysis of how the project will be affected by the system in which it is to operate. A complete analysis should make it clear where the constraints are in the system. When held up against this analysis, the description of

an agribusiness project should make clear how it is going to address the constraints in the system and thereby improve the ability of the target population to produce more and market it more effectively so as to bring about the desired goal of increasing rural income.

It would be helpful to split the analysis of the system's likely impact on a proposed project into three sections: technical/managerial; financial/economic; and political and social. The technical/managerial analysis would focus on all the aspects involved in producing and moving a commodity through the system. For example, a complete technical/managerial section would analyze the appropriateness of adapting new production technologies and other steps to improve farming systems. It would also discuss the suitability of storage techniques and the availability of transportation, processing and marketing services. In addition it would cover the managerial aspects of a commodity system and address the issue of the skills required to manage a project in the given system.

The financial and economic analysis concentrates on the costs and returns of an activity. A financial/economic analysis might reveal that costs of adapting a new technology far outweighed the projected gain. Financial/economic analysis would also focus in on the costs involved in production and marketing. The latter is particularly important. If it is to be successful, an agribusiness project needs to take into consideration the costs involved in moving a product from the farm to the consumer. This would include the cost of storage, transportation, processing, wholesaling and retailing. Equally important is the financial/economic analysis of the market potential for the product. Here the attention focuses in on the question of how much the product is worth to the consumer and how much the consumer is willing to pay for it.

The third and final segment of the analysis evaluates the political and social factors influencing a project. The analyst of an agribusiness project needs to understand how government policies and social customs might influence an agribusiness project. For example, import and tax policies on fertilizers and chemicals may make it unrealistic to promote the use of hybrid seed. Fixed prices for commodities may make efforts to increase production futile. Or there may be cultural practices that make the adaptation of a new technology impossible.

In summary, it is helpful evaluate the potential for any agribusinesses within the context of the system in which it operates. Agribusinesses, whether they fill input supply, production, processing or marketing functions, are but links in a chain of activities that produce and market agricultural products. In planning an agribusiness project, it is important to understand the commodity system in which a firm operates or will operate and all the factors that may influence its operation. The commodity systems approach is also a useful way

to analyze where policy reforms should be encouraged and where development resources should be directed.

The Conceptual Framework for the Design, Implementation and Evaluation of Agribusiness Projects on the next page is one tool planners, implementors, and evaluators of agribusiness projects can use to follow a commodity systems approach. It briefly outlines the parts of a system that should be described and the technical/managerial, financial/economic, and political and social analyses to which a project should be subjected to understand how it will be influenced by the commodity system in which it will operate.

The framework only outlines the analyses to be undertaken in the most general terms. No one set of questions will cover all projects. The Checklist of Critical Questions for Agroindustrial Project Analysis (Appendix II) presents a detailed list of questions that are useful in guiding analyses of the processing, marketing, and production stages of a project.

Increase Emphasis on Processing and Marketing

As noted earlier the goal of many AID-funded projects in Africa has been to increase the production and income of the rural poor. The implicit assumption here seems to be that an increase in production will automatically lead to an increase in income. Experience shows, however, that this is not necessarily so. Despite the efforts of many governments to control prices, the price of any agricultural commodity is affected by the supply of the product and the demand for it. In times of short supply, prices rise and vice versa. It will take more than simply increasing production to increase the income of Africa's rural poor.

The design of too few of the projects reviewed in this study took into consideration the marketing implications of what a project proposed to do. For example, a private voluntary organization tried to promote the production of potatoes as a cash crop in one of the sahelian countries. The crop came in well enough, but the local market was uninterested or incapable of absorbing the surplus. In an attempt to salvage the operation, a project advisor loaded his pick-up truck with potatoes and drove a hundred and twenty-five miles to the capital. There he tried to hawk his wares in front of the AID office. His explanation was that he was sure at the start of the project that potatoes would sell. But the advisor had not done any market research to support his intuition. The availability of storage facilities to prevent spoilage had never been investigated, nor had the possibility of processing the crop into a more storable product.

As the survey of projects shows, AID has already funded a number of study projects in Africa. As an institution, however,

CONCEPTUAL FRAMEWORK for the DESIGN, IMPLEMENTATION and EVALUATION of AGRIBUSINESS PROJECTS

DESCRIPTION	ANALYSES		
	Technical/Managerial	Financial/Economic	Political/Social
<p><u>Input Supply</u></p> <p>Describe the availability of and producer access to the following:</p> <ul style="list-style-type: none"> -Credit -Seeds, stock -Machinery and equipment -Chemicals -Fertilizers -Extension -Research -Other 	<p>Analyze the technical and managerial constraints impeding the use of inputs and the skills required to adopt inputs effectively.</p>	<p>Analyze the costs and benefits of current input use and the costs and benefits of adopting and using additional inputs.</p>	<p>Analyze the policies and cultural practices that may promote or inhibit the use of inputs.</p>
<p><u>Production</u></p> <p>Describe the production process and discuss yields, variability and risk.</p>	<p>Analyze the technical and managerial constraints on production and the problems with adopting different methods.</p>	<p>Analyze the costs of production.</p>	<p>Analyze the impact of policies and social customs on production.</p>
<p><u>Processing and Marketing</u></p> <p>Describe the availability and use of the following:</p> <ul style="list-style-type: none"> -storage -transportation -processing -wholesale markets -retail markets -export markets 	<p>Analyze the technical and managerial constraints impeding the increased use of processing and improved marketing.</p>	<p>Analyze the market and the financial and economic costs of processing and marketing.</p>	<p>Analyze policies and cultural practices that affect processing and marketing.</p>

70

it has yet to incorporate the findings of these studies into concrete plans to develop specific agribusinesses. Projects would be improved if their designers were forced to review and analyze the results of previous AID-funded activities in the same commodity systems in the same countries or regions. Also, projects that are geared to increasing production should still contain a market analysis to show that there is a marketing system ready and able to handle the anticipated increase in output.

Over the past decade and a half, the emphasis of AID's agricultural activities in Africa has been to increase production. This has proved to be a very difficult task. As informed readers are well aware, the general state of agriculture in Africa is far worse today than ten years ago. The fact that per capita food production on the continent is less today than it was a decade ago is the most startling evidence of this. This may suggest that a broader approach to agricultural development activities in Africa is necessary.

Without ready access to existing markets, or help in finding new markets for their produce and livestock, it may well be that African farmers are unable to remove the constraints that are impeding the continent's agricultural development. A concentrated effort to improve marketing access and thereby to reduce the cost of marketing may be one way to improve the environment for projects to increase production. In the final analysis it would appear that a marketing project without a production component is much less likely to fail than a production project that lacked a marketing component.

Improve Channels of Distribution

An important part of the marketing process is the development of channels of distribution. A channel of distribution is the path along which a product moves from the point of production to the point of consumption. Sometimes a marketing strategy calls for a product to be distributed through several different channels at the same time. For example, a U.S. grain farmer may market part of his crop through his local cooperative. The remainder might be sold to a large, multinational grain merchandiser. The cooperative may turn around and sell its grain to a bakery or some other domestic processor, while the grain merchandiser ships its grain to the export market. Many African countries simply lack the basic infrastructure -- transportation and storage facilities -- needed to support and sustain agricultural and agribusiness development.

Channels of distribution can be made to flow in two directions. That is to say that the same system that evacuates farm products can also be used to supply inputs. There are several very good examples of this system in Africa. The author

is most familiar with the operations of the French-owned Compagnie Francaise des Fibres Textiles (CFDT). CFDT is interested in the production and export of cotton in West Africa. Since colonial times it has established an extensive and intensive network of channels of distribution. The same personnel, transportation and warehousing facilities that are mobilized to provide seed, fertilizers and chemicals to producers are in place to purchase, process and export cotton. It is through this network leading to and from the farm that the company is able to coordinate the cotton system.

As noted earlier in this paper, a large number of AID-funded agribusiness projects in Africa have focused on increasing the supply of inputs to farmers and herders. This may imply that the channels of distribution to improve the marketing of the crops and livestock they are producing may also be in place. But for one reason or another they may be going unused or be underused. The worst example of channels of distribution that have the potential to work in both directions but that only work in one may be government operated grain marketing boards. These organizations usually have an ample supply of assets -- including warehouses, trucks, and capital supplied by donors -- at their disposal that are only mobilized a few months out of the year to evacuate grain from the rural areas to the cities. Here is a potential resource that could be used to supply seed, fertilizer, chemicals and other inputs to the farmer. A better solution might be to convince the parastatals to sell off their rural facilities to local investors who could transform the facilities into local, consumer responsive farm service companies.

Concentrate on the Process of Agricultural and Agribusiness Development

For the past fifteen years AID has concentrated much of its agricultural development effort in Africa on institutional development. Examples include establishing agricultural training institutions, developing agricultural extension services, and supporting agricultural research institutions. As mentioned above AID has also been active in building up grain marketing boards and other public sector agribusiness institutions.

In the future more attention needs to be paid to the process of agricultural and agribusiness development. More emphasis should be placed, for example, on increasing farmers' information about market conditions. With better information about the price of products outside their own small, local markets farmers may be in a better bargaining position when selling their crops. In some countries this would require no more than a weekly or bi-weekly radio broadcast in the various local languages. Even in countries with the poorest

communications networks, there are all sorts of possibilities for gathering and transmitting current market information. For example, agricultural extension agents, missionaries, and even Peace Corps volunteers could monitor prices in local markets and communicate that information to the national radio system via telephone, telegram, or even the police or armed forces communications network.

Besides implementing measures to increase the flow of market information within a target country, the process of improving and increasing the flow of information from developed to developing countries is also important here. The U. S. Department of Agriculture, for example, maintains several data bases that could provide useful information on the suitability of growing specific crops in different environments. These sources include AEGIS (Agricultural, Ecological, and Geographic Information System) and CRIES (Comprehensive Resource Inventory and Evaluation System). The latter data base was developed through the support of an AID-sponsored project from 1975 - 1980.

Finally, AID needs to take advantage of its own internal resources in improving its capabilities to design, implement and evaluate agribusiness projects. Both the Development Information Unit and the Functional Information System of the Agricultural and Rural Development Division of the Office of Technical Resources of the Africa Bureau are valuable and underutilized sources of information about previous AID agribusiness experience in Africa. Part of the evaluation process of any project should include an analysis of relevant past experiences and an effort to incorporate the lessons learned from these experiences into new endeavors. Given the speed with which the DIU and AFR/TR/ARD can deliver information about past projects, this would not be a lengthy, time-consuming process. There is a second advantage to incorporating a review of previous experience into the project design and approval process. It will make known to project managers and other interested parties additional resources and information that are available and that may add to their efforts.

Projects to promote and encourage the development of successful agribusinesses are but one of the means that the Agency for International Development has to help in the economic development of Africa. To design and implement successful agribusiness projects, the designer and implementor has to fully understand the commodity system in which the particular agribusiness is to operate. As with most any business, an agribusiness needs access both to supplies and services as well as markets. In the past AID has concentrated on the supply side of agribusiness development. In the future more attention will have to be paid to the problems of processing and marketing, especially the marketing of crops and livestock. In addition to

improved physical systems -- storage, transportation, processing, wholesaling, and retailing -- this will require improved farmer access to information about conditions in the market place. AID has a long and vast experience with various aspects of agricultural and agribusiness development in Africa. It needs to incorporate the lessons learned from these experiences into the design and implementation of future projects. These measures will help the Agency make a significant and long-lasting contribution to agribusiness development in Africa.

APPENDIX 1
PROJECTS SUMMARY

Appendix 1
Africa Agribusiness Projects Summary

Country	Project Number	Project Title	P R O J E C T F O C U S							
			Credit	Exten- sion	Input Supply	Market- ing	Plan- ning	Re- search	Train- ing	Other
Benin	680 0207	Soya Nutrition								Training
Bots- wana	633 0056	Crop Production				Marketing				
Bots- wana	633 0077	Rural Development	Credit							
Bots- wana	633 0212	Rural Enterprise Extension Service		Extension						
Bots- wana	633 0221	Agricultural Technology Improvement						Research		
Bots- wana	633 0228	Small Enterprise Development		Extension						
Bur- kina	686 0201	Integrated Rural Development				Marketing				
Bur- kina	686 0202	Seed Multiplication								
Faso	686 0212	Oncho Area Village Development Fund			Inputs					
Bur- kina	686 0219	Rural Enterprise Development	Credit							
Bur- kina	686 0231	Segounege Integrated Rural Development	Credit							
Faso	686 0243	Grain Marketing Development								Production
Bur- kina	686 0244	Eastern Region Food Production				Marketing				
Bur- kina	686 0245	Foundation Seed Production								Training
Faso	686 0249	Small Economic Activity	Credit		Inputs					
Burundi	695 0101	Basic Food Crops			Inputs					
Camer- oon	631 0001	North Cameroon Seed Multiplication			Inputs					
Camer- oon	631 0002	Young Farm Family Training Center			Inputs					
Camer- oon	631 0013	National Cereals Research								Training
Camer- oon	631 0015	Small Farmer Livestock/Poultry Development						Research		
Camer- oon	631 0022	Small Farmer Fish Production			Inputs					
Camer- oon	631 0023	North Cameroon Seed Multiplication II			Inputs					
Camer- oon	631 0034	Training for Small Business			Inputs					
Camer- oon	631 0044	Credit Union Development	Credit							Education
Cape Verde	655 0001	Rural Works								
Cape Verde	655 0006	Watershed Management								Roads
Cape Verde	655 0011	Food Crop Research		Extension						
Central African Republic	676 0001	C. A. R. Seed Production Center						Research		
Central African Republic	676 0015	Rural Development			Inputs					
Central African Republic	676 0016	Post Harvest Food Systems								Production
Chad	677 0001	Lake Chad Irrigated Agriculture				Marketing				
Chad	677 0002	Agricultural Institutional Development - Extension			Inputs					
Chad	677 0009	Irrigated Crop Production	Extension							
Chad	677 0014	Crop Production Res., Seed Multiplication, and Grain Mktg.			Inputs & Marketing					
Chad	677 0201	Chad Range and Livestock Development			Inputs & Marketing					
Congo	679 0001	Smallholder Agricultural Development								
Congo	679 0002	Smallholder Agricultural Development II				Marketing				
Dji- bouti	603 0003	Fisheries Development I			Inputs & Marketing					
Dji- bouti	603 0015	Fisberies Development II			Inputs & Marketing					

16

Appendix 1
Africa Agribusiness Projects Summary

Country	Project Number	Project Title	P R O J E C T F O C U S							
			Credit	Exten- sion	Input Supply	Market- ing	Plan- ning	Re- search	Train- ing	Other
Equat. Guinea	653 0001	Agricultural Production								
Guinea	653 0002	Cooperative Development			Inputs	Marketing				
Ethiopia	663 0112	Ethiopia Regional Livestock Development			Inputs	Marketing				
Ethiopia	663 0157	Ethiopia - Agricultural Sector Loan			Inputs & Marketing	Planning				
Ethiopia	663 0159	Shashemone Agricultural Development	Credit							
Ethiopia	663 0162	ADA Agricultural Development Project			Inputs & Marketing					
Ethiopia	663 0166	Pulse Diversification and Improvement			Inputs & Marketing					
Ethiopia	663 0214	Micro Regional Rural Development							Training	
Gambia	635 0203	Mixed Farming and Resource Development			Inputs					
Gambia	635 0205	Gambia Forestry					Planning			
Gambia	635 0208	Cooperative Development					Marketing			
Gambia	635 0215	Technical Skills Training							Training	
Ghana	641 0007	Agricultural Extension and Production			Inputs					
Ghana	641 0062	Economic Development Management							Training	
Ghana	641 0067	Manager Input and Agricultural Services			Inputs & Marketing					
Ghana	641 0072	Farmer Association and Agribusiness Development			Inputs					
Ghana	641 0073	District Planning and Rural Development					Planning			
Ghana	641 0074	Agricultural Rehabilitation and Health Promotion			Inputs					
Ghana	641 0102	Managed Inputs and Delivery of Agri-Services II			Inputs & Marketing					
Guinea	675 0204	Smallholder Production Preparation					Planning			
Guinea	675 0212	Agribusiness Preparation Project					Planning			
Guinea-Bissau	657 0002	Agricultural Development			Inputs					
Guinea-Bissau	657 0006	Small Scale Fisheries			Inputs					
Guinea-Bissau	657 0009	Rice Production II			Inputs					
Guinea-Bissau	657 0011	Technical Skills Training							Training	
Kenya	615 0100	Range Development								Production
Kenya	615 0101	Crop and Livestock Extension								
Kenya	615 0133	Agricultural Planning			Extension					
Kenya	615 0148	Kenya - Agricultural Credit					Planning			
Kenya	615 0162	Rural Planning Project	Credit							
Kenya	615 0165	Design Assessment, R & R, Pre-investment Study					Planning			
Kenya	615 0172	Arid and Semi-Arid Lands Development					Planning			
Kenya	615 0174	Rural Enterprise Extension System					Planning			
Kenya	615 0184	Increased Employment - Income - Production			Extension					
Kenya	615 0208	Small Business Development							Training	
Kenya	615 0210	Partnership for Productivity							Training	
Kenya	615 0213	Structural Adjustment Program Grant			Extension					
Kenya	615 0220	Rural Private Enterprise					Inputs			
Kenya	615 0226	Maseno South Enterprise Development	Credit							
					Inputs					

85

Appendix 1
Africa Agribusiness Projects Summary

Country	Project Number	Project Title	P R O J E C T F O C U S									
			Credit	Exten- sion	Input Supply	Market- ing	Plan- ning	Re- search	Train- ing	Other		
Lesotho	632 0031	Thaba Bosui Rural Development										
Lesotho	632 0048	Land and Water Resource Development										Conservation
Lesotho	632 0065	Lethoao Farming Systems							Planning			
Lesotho	632 0209	Cottage Mohair Industry								Research		
Lesotho	632 0210	Commodity Warehousing										
Lesotho	632 0211	Weaving Training							Marketing			
Lesotho	632 0215	Land Conservation and Range Development							Marketing			
									Marketing			
									Marketing			
Liberia	669 0127	Agricultural Cooperative Development										Conservation
Liberia	669 0139	Upper Bong County Integrated Rural Development							Inputs			
Liberia	669 0142	Upper Lofa Rural Development							Inputs & Marketing			
Liberia	669 0153	Rural Development Training at Cuttington College							Inputs & Marketing			
Liberia	669 0154	Nimba County Enterprise Development										Training
Liberia	669 0163	Nimba County Rural Technology							Inputs			
Liberia	669 0201	Small/Medium Enterprise Development		Credit								
				Credit								
Malawi	612 0205	Malawi Union Savings and Cooperative Development										
Malawi	612 0214	Rural Enterprises and Agribusiness Development		Credit								
Malawi	612 0219	Management Assistance to Rural Traders		Credit								
Mali	688 0202	Mali Crop Production (Operation Mills)										Training
Mali	688 0210	Operation Haute Vallee										
Mali	688 0213	Action Ble							Marketing			
Mali	688 0218	Livestock Sector II										Training
Mali	688 0225	Training Center for Rural Women							Inputs			
												Training
Mauritania	682 0207	Integrated Development of Oases										
Mauritania	682 0226	Small Perimeters							Inputs			
Mauritania	682 0231	Sector 206 Support Program							Inputs & Marketing			
Mauritania	682 0233	Human Resources Development							Marketing			
Mauritius	642 0004	Commodity Import Program II										Training
Mauritius	642 0005	Commodity Import Program III							Inputs			
									Inputs			
Mozambique	656 0201	Mozambique Private Sector Rehabilitation							Inputs			
Niger	683 0201	Niger: Cereals Production Project										
Niger	683 0202	Niger Range and Livestock Management							Inputs & Marketing			
Niger	683 0205	Niamey Department Rural Development										
Niger	683 0225	Cereals Research								Planning		
Niger	683 0234	Agricultural Production Support										Training
Niger	683 0240	Niamey Department Development II										Research
Niger	683 0245	Tara II Rural Irrigated Agricultural Development							Inputs			
Niger	683 0246	Rural Sector Development Grant							Inputs			
Niger	683 0247	Rural Sector Development Grant							Inputs			
												Research

17

Appendix 1
Africa Agribusiness Projects Summary

Country	Project Number	Project Title	P R O J E C T F O C U S							
			Credit	Exten- sion	Input Supply	Market- ing	Plan- ning	Re- search	Train- ing	Other
Nigeria	620 0714	Indigenous Industrial Development								Training
Nigeria	620 0739	School of Administration, University of Lagos								Training
Nigeria	620 0770	Agricultural Extension - Northern Nigeria		Extension						
Nigeria	620 0774	Livestock Development - Northern Nigeria								Research
Nigeria	620 0817	Abmadu University Veterinary Medicine Faculty								Training
Rwanda	696 0100	Food Storage and Marketing								
Rwanda	696 0107	Local Crop Storage					Marketing			
Rwanda	696 0108	Cooperative Grain Storage					Marketing			
Rwanda	696 0112	Fish Culture								Training
Rwanda	696 0116	Food Storage and Marketing II		Extension						
Rwanda	696 0119	Cooperative Training Center					Marketing			
Rwanda	696 0121	Private Enterprise Development								Training Training
Senegal	685 0205	Casamance Regional Development								
Senegal	685 0209	Senegal Grain Storage						Planning		
Senegal	685 0223	Agriculture Sector Analysis								Training
Senegal	685 0235	Senegal Cereals Production II						Planning		
Senegal	685 0247	Village Woodlots								Research
Senegal	685 0249	Agricultural Development Assistance								Inputs Inputs Inputs
Senegal	685 0260	PVO Community Enterprise Development								
Sierra Leone	636 0112	Cooperative Credit Society		Credit						
Somalia	649 0038	Agricultural Services								
Somalia	649 0040	Development Bank								Research
Somalia	649 0101	Agricultural Extension, Training, and Research		Credit						
Somalia	649 0109	Livestock Marketing			Extension					
Somalia	649 0112	Agricultural Delivery Systems			Extension		Marketing			
Somalia	649 0113	Bay Region Development								Inputs Inputs
Somalia	649 0120	Commodity Import Program II								
Somalia	649 0123	Refugee Self-Reliance						Planning		
Sudan	650 0018	Blue Nile Integrated Agricultural Development								Inputs Inputs
Sudan	650 0025	Abyei Integrated Rural Development								
Sudan	650 0031	Southern Rural Infrastructure I								
Sudan	650 0035	Yambio Agricultural Research Station								Planning Research
Sudan	650 0038	Commodity Import Program								Inputs
Sudan	650 0046	Southern Agricultural Development I								Marketing Marketing
Sudan	650 0103	Southern Region Agricultural Rehabilitation Development								
Swazi-land	645 0212	Swaziland Cropping Systems Research and Extension Training		Extension						
Swazi-land	645 0213	Swine Production and Crop Development					Marketing			

Appendix 1
Africa Agribusiness Projects Summary

Country	Project Number	Project Title	P R O J E C T F O C U S							
			Credit	Exten- sion	Input Supply	Market- ing	Plan- ning	Re- search	Train- ing	Other
Tan- zania	621 0085	Rural Credit Union Development	Credit							
Tan- zania	621 0092	Tanzania - Seed Multiplication			Inputs					
Tan- zania	621 0093	Masai Livestock and Range Management			Inputs & Marketing					
Tan- zania	621 0099	Agricultural Marketing Development			Marketing					
Tan- zania	621 0103	Agricultural Projects Support			Inputs					
Tan- zania	621 0122	Livestock Marketing and Development			Marketing					
Tan- zania	621 0133	Agricultural Sector Loan I			Marketing					
Tan- zania	621 0142	Livestock Marketing Development			Marketing					
Tan- zania	621 0143	Arusha Planning and Village Development			Inputs					
Tan- zania	621 0149	Training for Rural Development			Inputs					
Tan- zania	621 0155	Resources for Village Production			Inputs				Training	
Tan- zania	621 0156	Farming Systems Research							Research	
Tan-	621 0160	Village Environmental Improvement			Inputs					
Togo	693 0217	OICI Agricultural Training and Production								Training
Togo	693 0218	Animal Traction								Training
Togo	693 0224	Credit Union Development			Inputs					
Togo	693 0226	Sio River Village Production and Marketing	Credit		Inputs & Marketing					
Uganda	517 0012	Agricultural Extension								
Uganda	617 0020	Development Bank			Extension					
Uganda	617 0047	Livestock Development	Credit							
Uganda	617 0101	Commodity Import Program			Inputs					
Uganda	517 0102	Food Production Support			Inputs					
Uganda	617 0104	Rehabilitation of Productive Enterprises			Inputs & Marketing					Training
Zaire	660 0023	Supervised Agricultural Credit	Credit							
Zaire	660 0025	Agricultural Marketing Support								
Zaire	660 0026	Agricultural Marketing Development Loan				Marketing				
Zaire	660 0028	Agricultural Marketing Development				Marketing				
Zaire	660 0059	North Shaba Rural Development				Marketing				
Zaire	660 0064	INERA Support				Marketing				
Zaire	660 0075	CEDECO							Research	
Zaire	660 0082	Imeloko Integrated Rural Development			Inputs					
Zaire	660 0097	Zaire PVO Economic Support			Extension					
Zaire	660 0098	Agricultural Marketing Development			Inputs					
Zaire	660 0100	Agricultural Input Support				Marketing				
Zaire	660 0102	Area Food and Market Development			Inputs					
Zaire	660 9080	Commodity Import Loan			Inputs & Marketing					
Zaire					Inputs					
Zambia	611 0075	Agricultural Training, Planning, Institutional Development								
Zambia	611 0201	Agricultural Development, Research, Extension					Planning			
Zambia	611 0204	Chama Area Development					Research			
Zambia	611 0205	Western Province Small Farmer Production			Extension					
Zim- babwe	613 0202	Rehabilitation Program Grant			Inputs					
Zim- babwe	613 0209	Zimbabwe Agricultural Sector Assistance			Inputs & Marketing					

2

APPENDIX 2

CHECKLIST OF CRITICAL QUESTIONS
FOR AGROINDUSTRIAL PROJECT ANALYSIS

(Reprinted from Austin, James E., Agroindustrial Project Analysis, Baltimore, The Johns Hopkins University Press, 1981, pp. 178-198.)

Checklist of Critical Questions for Agroindustrial Project Analysis

IN THIS APPENDIX the "salient points for project analysis" listed at the end of the sections of chapters 2-4 are compiled in fuller form and greater detail. It is hoped that this inventory of pertinent, analytical questions will not only serve to review the issues discussed in this book but will also furnish the practicing analyst with a useful tool for the assessment of agroindustrial projects in the field.

The organization of the questions herein parallels the organization of the book in its chapter and section headings.

THE MARKETING FACTOR

Consumer Analysis

Who are the potential consumers?

- What are their economic characteristics? income levels? variability?
- What are their sociocultural characteristics? ethnicity? language? class? education?
- What are their demographic characteristics? regional location? urban or rural? age? sex?
- What are the market segments?
- What are the product's options among these segments?
- What do the segments imply for the marketing plan?

Why would consumers buy the product?

- What physiological, sociological, or psychological needs would the product meet?
- What are the expressed reasons for purchasing? sensory appeal? sustenance? status? convenience? necessity?

- What is the relative importance of the needs and reasons?
- What are the implications of these for the distribution options and the marketing plan?

How would consumers buy the product?

- Which individuals would make the purchase decision and what are their roles in the decisionmaking unit (DMU)?
- What method of disseminating information to each member of the DMU would be appropriate?
- Would the purchases be on impulse or planned?
- Would the purchases be made frequently or seldom?
- Would the purchases be seasonal?
- Where would the purchases be made?
- What are the implications of the buying process for the marketing plan?

What market information and methods of data collection are needed?

- What are the data needs?
- What are the data sources? primary? secondary?
- What were the methods of data collection? formal? informal?
- How valid was the research design for data collection?
- How reliable are the data sources and collection methods?
- What is the cost of collecting additional data?
- Do the benefits expected from the incremental information outweigh the additional costs of data collection?
- Will small-scale industries (SSI's) need assistance to conduct market research?

Analysis of the Competitive Environment

What is the product's market structure?

- Who are the competitors? public or private? regional, national, or international? old or new?
- What are the effects of substitute products?
- What is the chance of raw material suppliers' integrating forward, or of distributors' integrating backward?
- How many competing firms are there?
- Where are the competitors located relative to markets and raw materials?

- What size are the competitors' assets and sales?
- What is each firm's market share?
- How have these shares changed over recent years?

What is the basis of competition in the industry?

- How sensitive are these consumers to price?
- How prevalent is price discounting?
- How sensitive are consumers to product quality?
- How do consumers define quality?
- How sensitive are consumers to brand names?
- What kind of special services are given to distributors or retailers, and how often?
- At what stage of the product life cycle (PLC) is the industry?
- How significant are the barriers to entry from economies of scale? absolute cost advantages? vertical system control? brand franchise?

How do institutional constraints affect the competitive environment?

- What are the effects of economic constraints or incentives? tariffs? quotas? export promotion bonuses? tax credits?
- What are the effects of health constraints? sanitary standards?
- What are the effects of political constraints? price controls? subsidies? direct government intervention? industrial licensing?
- What are the effects of legal constraints? antitrust legislation? patent requirements?

The Marketing Plan

Was the product adequately designed?

- What product characteristics do consumers want?
- Which characteristics are most important?
- Does the cost of improvements in quality keep the product within the consumer's price range?
- Have the product's concept and prototype been tested with consumers?
- Do sst's need government assistance with product design?
- What were the results of the product's design tests?
- Were further adjustments to the design made?

- Was the final product market tested?
- What were the results?
- Does the end product meet consumer needs?

Was the appropriate pricing strategy adopted?

- Is cost-plus pricing feasible?
- Are prices regulated?
- How is the markup calculated?
- Is penetration pricing needed to overcome entry barriers?
- Would low prices expand the market adequately to offset the lower profit margins?
- Would predatory or preemptive pricing be legally or socially responsible?
- Would loss-leader pricing expand the sales volume of other company products enough to offset the sacrifice on the loss leader?
- Is the product sufficiently new, differentiated, and lacking in competition to permit a skimming price strategy?
- Is there an industry price leader?
- If so, what are the benefits of following or deviating from the leader's pattern?
- Are prices administered legally or through cartels?
- Are prices subsidized?
- Are prices determined by supply and demand?
- What are the pricing reference points?
- Can long-term contracts or futures markets be used to reduce the uncertainty of price variability?
- Will the pricing strategy work, given the competitors' strategy?
- How does the firm expect the pricing strategy to change over time?

Was the right promotional strategy formulated?

- What is the market-segment audience?
- What differences are there among members of the DMU?
- Will promotion be directed toward end consumers as a "pull" strategy?
- Will promotion be directed toward distributors as a "push" strategy?
- Is the promotional message consistent with analyses of the consumers and the competitive environment?

nb

- What are the consumers' informational needs?
- What information is being supplied by competitors?
- What does the firm expect the promotional message to do?
- Will the consumer misinterpret the message or misuse the product?
- How will increased consumption affect the nutritional well-being of low-income consumers?
- Will the promotion stimulate primary or secondary demand?
- Would branding increase selective demand?
- Are quality-control procedures at the processing and procurement stages adequate to permit branding?
- Is the promotional vehicle an indirect communication or direct, personal selling?
- Are the promotional vehicles consistent with the characteristics of the selected audience?
- What portion of the audience will be reached by the vehicle and how frequently?
- What is the cost potential of promotional vehicles relative to their coverage?
- Would the cost-benefit of the promotion improve if a combination of vehicles were used?

Will the distribution system adequately link the manufacturer to the marketplace?

- What is the structure of the distribution system? length of the channels?
- How many distributors are at each level of the channels?
- What kinds of distributors are at the wholesale and retail levels?
- Who is performing the logistical functions (transport, assembly, repackaging, storage, inventory management)?
- Who is performing the service functions (financing, promotion, information collection)?
- Should the firm use the existing institutions for distribution or perform some functions directly through forward vertical integration?
- Can firms realize economies by performing these functions collectively?
- What are the cost, quality, and dependability of existing distribution services?

- Are the distributors capable and willing to meet the consumers' needs?
- Where is the power in the distribution channels?
- Why is the power there?
- How will the power distribution affect the project?
- What capital and managerial resources would the firm require for forward integration?
- What are the social, political, or legal barriers to integration?
- Has the distribution system adopted intensive, selective, or exclusive retail outlets?
- Is that choice consistent with the characteristics of the product, the market segment, and the consumers' buying processes?

Are the elements of the marketing mix integrated into a viable marketing plan?

- Are the marketing elements internally consistent?
- How will the marketing plan for this product affect other products in the company's line?
- Is the marketing plan compatible with the company's financial, organizational, production, and procurement plans?
- What does the firm expect the competitive response to the marketing plan will be?
- How will the marketing effort respond to the competitive response?

Demand Forecasting

Are the data on which the forecasts are based sound?

- Are the data prices consistent?
- Are the units of measure standardized?
- Are the data disaggregated sufficiently to project market-segment demand and total demand?
- Have all the relevant secondary data sources been used?
- Was market research used to generate primary data?
- How were the data collected?
- Are the data representative?
- Have the data been verified?
- What are the underlying assumptions of the data projections?

- How sensitive are sales and profit estimates to changes in the assumptions?

Are the forecasting methods appropriate?

- Who provided the judgmental estimates?
 What was the basis of their expertise?
 Can other relevant opinions be gathered?
 If trend projections were made, how representative were the historical series?
 Were seasonal, secular, cyclical, or random variations in the series considered?
 Were moving averages or exponential weighting techniques employed?
 If a regression analysis was used, was it simple or multiple, arithmetic or logarithmic?
 Were estimates made of price and income elasticity of demand?
 If an econometric model was used, what were the variables?
 What causal relationships are assumed in the model?
 Are these assumptions reasonable?
 Is the accuracy of the projection acceptable, given the risk and uncertainty?
 How much could the accuracy be increased by using a more sophisticated technique?
 Would the incremental accuracy justify the added cost?
 Is the previously used forecasting method still appropriate?
 How do the possible forecasting techniques rank in cost, accuracy, skill requirements, data requirements, and speed?

THE PROCUREMENT FACTOR

Adequate Quantity

What was the total production pattern?

- What were the production levels? by region? for the past five years?
 How variable was output?
 What factors affected the variability?

What is the usage pattern of the area planted?

- How much variation has there been in planted area?
 How much land is economically arable but uncultivated?

- What trends are there toward opening up new land for planting?
 How productive is the new land relative to the old?
 To what extent have farmers shifted among crops?
 How much shifting is agronomically feasible?
 What are the nutritional consequences of crop shifts?
 How much land or labor has urbanization or industrialization absorbed?
 What effect will land-reform programs have on the area planted?

What is the crop yield?

- How variable have yields been? why have they varied?
 To what extent do farmers use agrochemicals?
 To what extent do they use improved seed varieties?
 What barriers (for example, credit, price, distribution) exist to the increased usage of these inputs?
 How can these barriers to usage be overcome?
 Do the farmers know how to use these inputs?
 Do they receive technical assistance? how much? of what kind? from whom?

How profitable is the crop?

- How profitable is the crop for the farmer?
 How does that differ from returns on other crops?
 What does it cost the farmer to produce the crop?
 How does that differ from costs of other crops?
 How risky is the crop for the farmer?

How sensitive is supply to production changes?

- How would a change of 10 percent (or more) in area planted affect total supply?
 What price incentive is required to increase acreage?
 How would a change of 10 percent (or more) in yields affect total supply?
 What would it cost to increase the yield?
 What is the probability of increases in area or yield?

Is the raw material a by-product of another agroindustry?

- What is the supply of the primary product from which the by-product is derived?

- What is the market demand for the primary product?
- Are external supplies of the primary or by-product available through imports if domestic shortfalls occur?
- Are there alternative forms of the raw material?

What is the on-farm consumption?

- What percentage of the crop is consumed on the farm?
- How would increased output or higher prices affect the amount flowing into the commercial channels?
- How would increased off-farm sales affect the nutritional well-being of the farm families? of landless laborers?

How is the product consumed?

- Is the raw material consumed fresh or processed?
- What are the proportions and trends for usage?
- How complementary are the product's uses in fresh and processed forms?

What is the animal versus human usage?

- Is the raw material consumed by animals and humans?
- What are the proportions and trends for usage?
- What are the government's priorities for usage?

What are the industrialization options for the raw material?

- How many end products are produced from the raw material?
- What is the demand for these various uses?
- What are the price differentials for the raw material among these different uses.

Is there competition in procurement among similar agroindustries?

- How many firms procure the same product?
- How much raw material do they purchase?
- How does their buying power compare with that of the project?

What are the probable crop losses?

- How much of the harvested crop is lost because of rodent or insect damage, poor handling, or inadequate storage?
- What measures could reduce these losses?
- Do proposed production schemes have adequate on- and off-farm storage facilities?

Acceptable Quality

What are the market's qualitative requirements?

- What market segments will be served?
- How quality conscious are they?
- What characteristics do they use to define quality?
- What do they pay for different levels of quality?

What is the quality of the farm supply?

- What seed varieties are used?
- Will the resultant characteristics of the raw material be consistent with the processed product's qualitative needs?
- What other quality-oriented inputs are used?
- Do farmers have adequate knowledge of these inputs to achieve the desired levels of quality?
- Will technical assistance be needed? of what kind? from whom?

How does handling and transport affect quality?

- Have harvesting and transport personnel been trained in handling techniques that will minimize damage to produce?
- Will transport methods and delays damage the produce?
- What nutrient losses and adverse changes in appearance will occur?

How does storage affect quality?

- What are the storage facilities and fumigation practices?
- Will they prevent damage to produce (including nutrient loss)?

What inputs or services can increase quality control?

- Should the processing plant provide seeds, agrochemicals, storage, drying, or other services?
- What would be the cost?
- How much would quality improve?
- What would be the economic benefits of these measures?

What qualitative specifications and inspection procedures should be instituted?

- Are qualitative standards for the raw material specified?
- Are there means to communicate the specifications for the raw material to the farmers?

9
J.F.

- Are there procedures for crop inspection?
- Are there adequately trained inspection personnel?

What quality control would result from backward integration?

- How much additional quality control would be gained if the processor integrated backward to assume the production, storage, transport, and handling functions?
- How do these benefits compare with the cost and with the alternatives for quality control?

Appropriate Timing

What is the seasonal harvesting pattern?

- When is the crop harvested (or the animal slaughtered)?
- Would different seed varieties (or livestock breeds) lengthen or spread the flow of raw material to the plant?
- Would staggered planting (or altered feeding patterns) lengthen or spread the flow of raw material to the plant?
- What would it cost to adjust the flow period?
- How do the costs compare with the benefits of a more even flow?

What facilities are required by the seasonal pattern?

- What drying (or corral) capacity will be needed to absorb the harvest (or animals)?
- What will be the peak of the raw material inventory?
- How much storage capacity will be needed for peak inventory?
- Can the firm rent space for peak inventory, thereby reducing the overall investment?

How perishable is the raw material?

- When must the crop be harvested (or animal be slaughtered) to avoid deterioration of quality?
- How soon after harvest must the crop be processed to avoid esthetic or nutritional damage?

What facilities are necessitated by the raw material's perishability?

- Are there adequate harvesting, transport, and storage services?
- Can these services meet the constraints of the material's period of perishability?

- Can special treatments (for example, freezing, precooling, waxing) reduce perishability?

When and for how long will the raw material be available?

- Is the crop (or breed) new to the area?
- How long a period is needed to ensure agronomic suitability (or acclimatization)?
- How long is the planting-to-harvest period (or breeding cycle)?
- How will farmers be financed during this period?
- Do cultural practices threaten the viability of the crop (or livestock)?
- What is the yield pattern over the life span of the crop (for perennial crops and breeding animals)?
- How will this pattern affect flow of the raw material?
- What is the risk of suppliers' switching among crops or land uses?
- Are there multiple sources of the raw material?

Reasonable Cost

How do supply and demand affect the cost of raw material?

- How strong is the demand from competing users of the raw material?
- How will the project affect raw material demand and prices?
- What are the supply projections under varying prices?

What are the farmers' opportunity costs?

- What are the land's alternative uses?
- How profitable are these activities?

How do structural factors affect costs?

- What margins do the middlemen between farmer and factory receive?
- Would it be cost effective and organizationally and politically feasible for the factory to perform these intermediary functions?

How do logistical services affect raw material costs?

- What are the farmers' transport charges?
- What portion of the price on delivery is the transport charge?

How does governmental involvement affect raw material costs?

- Is there a support price?
- Are services or inputs subsidized?

Should spot prices be used?

- What are the prevailing spot prices?
- How have they varied annually and across years?
- Do competitors use spot prices?

Are multiple sources a potential pricing mechanism?

- Can the plant use multiple crops for the raw material?
- How comparable are crops' price levels and variability?
- What is the lowest cost combination?
- What organizational or technical problems for processing are caused by multiple sources?

How do support prices affect pricing?

- Is there a governmental minimum support price for the crop?
- What percentage of the crop flow is affected by this program?
- How comparable are the support price and the spot price?

Is contracting a desirable pricing mechanism?

- Are production contracts currently used by farmers?
- What should the contract terms be for quantity, quality, delivery, technical and financial assistance, and price terms?
- How long a period should the contract cover?
- Will the farmers comply with the contract terms?

Are joint ventures feasible and desirable?

- Are farmers interested in investing in the plant?
- Will this increase the certainty of supply or lower the raw material costs?
- What socioeconomic benefits would investment bring to the farmers?

Would backward integration lower costs of raw material?

- Could the plant integrate vertically backward and absorb transport or production or both?
- Would that lower the raw material costs?

What does the sensitivity analysis of raw material costs reveal?

- How would a 10 or 20 percent change in raw material costs affect profits and return on investment?
- What is the likelihood of such changes occurring?

Organization of the Procurement System

What are the number, size, and location of the operators in the structure of the existing system?

- How many producers, transporters, and buyers operate in the existing system?
- What are the implications of these numbers for the organization and control of a procurement system?
- What percentage of total marketed produce does each participant handle?
- How do their production techniques and needs differ?
- How differently must the plant interact with large and small suppliers?
- Where are the suppliers located?
- What implications will the geographical dispersion of producers have for plant location, logistical control, and the vulnerability of agronomic supply?

What is the suppliers' crop mix?

- What crops do the farmers grow?
- Do they specialize?
- To what extent do they shift among crops?

What are the patterns of land ownership?

- How much land is owned, rented, or sharecropped?
- How will differences in ownership affect farmers' relations with the processing plant?
- How mobile are the farmers?

What are the routes, timing, and accessibility of the raw material's flow?

- What are the raw material's flow channels?
- How much flows through these channels?

- When does it flow through?
- Can the flow meet the project's requirements?

What does the analysis of channel power reveal?

- How much power does each participant in the system have?
- How is it spread?
- What is the basis of power for each participant?
- What is the basis and strength of the project's power?

Should producers integrate vertically backward?

- How much will control of quantity, quality, and timing improve with integration?
- How far back should the producers integrate?
- How much additional fixed investment will be required to integrate?
- How much additional working capital?
- How might integration reduce the project's flexibility in obtaining sources of raw material?
- What are the economic and operational risks of a decrease in this flexibility?
- How will integration affect variable and fixed costs?
- How will integration affect the plant's break-even point?
- Is integration politically feasible or socially desirable?

Are there producers' organizations?

- How organized are producers?
- What are the goals and activities of existing producers' organizations?
- What are the barriers to organization?
- What incentives can the agroindustry provide to facilitate organization?
- How can the producers' organization be a vehicle for communication between factory and farmer?
- How can the producers' organization transmit services or quality-control functions?
- How can the producers' organization aid in economic bargaining?

Should farmers integrate vertically forward?

- What are the financial and managerial requirements for such integration?
- What are the benefits?

THE PROCESSING FACTOR

Selection of Processing Technology

Is the processing technology consistent with the qualitative requirements of the marketplace?

- Will the technology match the qualitative standards of the selected market segments?
- Will the incremental revenue from higher quality justify the increased investment in technology?
- Will the technology for the local market meet consumer requirements in the export market?

What constraints are imposed on technology selection by the technical requirements of the transformative process?

- How many forms of technology can meet the requirements of the process?
- Do these requirements dictate a minimum economic scale of operation?
- Are the sales forecasts consistent with this required minimum volume?

Which technology has the lowest socioeconomic costs?

- What are the relative costs of alternative mixes of capital and labor?
- Do the private and social costs of these factors differ?
- Are there component processes in the technological package that could operate more economically manually?
- Are there functions within the agroindustrial system that could be performed by ssr's?
- Can new technologies be developed that will be more appropriate to the country's factor endowment?
- Can costs of technology be minimized by buying secondhand equipment?
- What are the estimated energy requirements of alternative technologies relative to energy costs, supply, and sources?
- Can energy sources be derived from biomass?
- How significantly will the chosen technology economize on raw materials?

How will the technology affect use of project capacity?

- To what extent can the technology be adjusted to process other products and lengthen the project's operating period?
- What are the costs and benefits of such an adjustment?

How well does the technology fit with the firm's managerial capability?

- Will supervisory demands be excessive?
- Will technical demands be excessive?
- How can the technology be adjusted to reduce these demands?

What are the technology's nutritional consequences?

- How will processing affect the quality and quantity of the food product's proteins, carbohydrates, fats, vitamins, and minerals?
- How can the technology be adjusted to minimize nutrient loss?
- Can the technology improve the product's nutritional value through fortification, nutrient concentration, or by-product usage?

Plant Location

Do the raw material, market, and transport factors support the proposed location?

- How perishable and fragile is the firm's product?
- Will the processing increase or decrease the weight or volume of the raw material?
- How significant are transport costs and what are their foreseeable changes?
- If supplies or markets are scattered, how do the transport savings from multiple plants compare with the economies of scale from a single plant?
- How significant are transport costs relative to total product value?
- How adequate are the supply and quality of existing transport facilities?
- Should the plant develop its own transport services?

Is there an adequate labor supply at the location?

- Are the plant's requirements for unskilled labor compatible with the local supply?

- Can the plant recruit skilled technicians and professional managers at the proposed location?
- Will the plant need to offer special recruiting incentives?

Is the infrastructure at the location acceptable?

- How does the plant's incremental demand for electricity and steam compare with the projected supply?
- How many interruptions have there been to power supply in the past and how serious were they?
- What will the energy services cost?
- How does the plant's incremental demand for cooling, processing, and potable water compare with the actual and potential quantity and quality of the supply?
- What will the water cost?
- What are the effluent requirements and does the infrastructure adequately avoid pollution?
- Are there adequate fire-protection facilities?
- Is the transport infrastructure acceptable?
- Are the housing, educational, health, and recreational facilities adequate for plant personnel?
- How does the cost of remedying infrastructural deficiencies compare with site advantages?

What will the plant's land cost?

- How do the prices for a square meter of land compare among various sites?
- What is the rate of the land's appreciation?
- Can the firm purchase adequate land to allow for future expansion?
- Will future urbanization create transport congestion and increase costs?

What will be the developmental effects of the location?

- What direct and indirect employment will be generated?
- How will the project's location affect the income of low-income groups?
- What will be the developmental benefits for the region?
- Are fiscal or other governmental incentives available?

Inventory Management

What will be the best storage capacities for raw materials and finished goods?

- How quickly must the product be processed?
- How does the processing affect its storability?
- Can the product be semiprocessed to reduce the investment for the inventory of finished goods and extend the plant's use of its capacity?
- What are the comparative spatial and qualitative requirements for the inventory of the raw material and the finished goods?
- Is there adequate inventory capacity for processing supplies and equipment repair parts?

Are the physical facilities adequate?

- What are the potential quantitative and qualitative losses in the inventories of raw material and finished goods?
- What are the economic costs and benefits of adjusting facilities for inventory handling and storage to reduce these losses?
- Are the storage facilities effectively located relative to suppliers of raw material and distributors of finished goods?

Have the requirements for working capital and the inventory price risks been adequately analyzed?

- What are the working capital needs for seasonal procurement of the raw material?
- Is it possible to hedge against price risks on an existing futures market?
- What are the advantages and disadvantages of buying raw materials from a wholesaler throughout the year rather than stockpiling them at harvest time?
- Is it possible to achieve price protection for inventory through advance contracts?

Supplies for Processing

Where should the plant procure its ancillary supplies (packaging, ingredients, chemicals)?

- Can they be obtained locally in adequate quantity and quality when needed and at a reasonable cost?
- What will be the foreign exchange requirements, delivery delay risks, additional transport costs, and import duties of imported supplies?
- How can the processor help develop local suppliers' capabilities?
- What would be the economic, technical, and managerial feasibility of the plant's integrating to produce its own supplies?

What are the nutritional effects of the ancillary materials?

- What packaging is needed to preserve the product's nutritional quality?
- How will the packaging affect the product's price and consumption by lower-income groups?

Programming and Control

Is there a clear and systematic implementation plan?

- Are each of the postinvestment and preproduction steps delineated?
- Have programming techniques such as Gantt charts, Critical Path Method (CPM), or Project Evaluation and Review Technique (PERT) been used?

Has project engineering been carried out diagrammatically?

- Have general functional layouts been made?
- Have flow diagrams of materials been designed?
- Have production line diagrams been specified?
- Have transport, utility, communications, and manpower layouts been set forth?

Does a master schedule for procurement and processing exist?

- Has the seasonal availability of the raw material been considered?

AGROINDUSTRIAL PROJECT ANALYSIS

- Has the possibility of the plant's working multiple shifts been explored?
- Have alternative uses of the production capacity been examined?

Are there systematic quality-control procedures for raw materials, work in process, and finished goods?

- Is there an inspection system for the raw material as it is being grown?
- Are contamination levels, packaging integrity, temperature, and chemical composition controlled?
- Are sampling procedures designated?
- Do laboratory testing facilities exist?
- Can nutritional quality be verified?
- Are corrective procedures specified?

By-products

What is the contribution to revenue of the by-products?

- What are the outputs?
- Are there unsold by-products that have an economic or nutritional value?
- What are the price levels and variations of the by-products?
- Do the by-product sales provide any countercyclical or seasonal balancing to variations in primary product prices?

Can the by-products be used as energy sources for the processing operations?

- What additional investment would be required to convert the by-product to an energy source?
- Can the energy be used to meet the agroindustry's own fuel needs?
- Can the energy from by-products be sold outside the agroindustry?