PDBBM655

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) — Amendment Number: — DOCUMENT CODE: 3

2. COUNTRY/ENTITY: ZAMBIA

3. PROJECT NUMBER: 611-0214

4. BUREAU/OFFICE: USAID/Zambia — 611

5. PROJECT TITLE (maximum 40 characters): Zambia Agribusiness and Management Support

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 93

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4): A. Initial FY 88 — B. Quarter 4 — C. Final FY 91

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY 88 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	8,000		8,000	15,000		15,000
(Grant)	(8,000)	( )	(8,000)	(15,000)	( )	(15,000)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country		1,871	1,871		17,850	17,850
Other Donor(s)					150	150
TOTALS	8,000	1,871	9,871	15,000	18,000	33,000

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1) DFA (DA)	134	070				8,000		15,000	
(2)									
(3)									
(4)									
TOTALS						8,000		15,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 013 — 072 — 073 — 074 — 075 — 140

11. SECONDARY PURPOSE CODE: 163

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BR	BF	BU	COOP	PVOU	PVON	TNG
B. Amount				$3,750	$1,358	$1,288	$429

13. PROJECT PURPOSE (maximum 480 characters)

To improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.

14. SCHEDULED EVALUATIONS: Interim MM 04 YY 91 — Final MM 04 YY 93

15. SOURCE/ORIGIN OF GOODS AND SERVICES: [X] 000 [ ] 941 [X] Local [X] Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

17. APPROVED BY — Signature: Leslie A. Dean — Leslie A. Dean — Title: Mission Director, USAID/Zambia — Date Signed: MM 07 DD 27 YY 88

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY

AID 1330-4 (8-79)

July 26, 1988

ACTION MEMORANDUM FOR THE MISSION DIRECTOR, USAID/ZAMBIA

FROM: for Allan Van Egmond, Acting Assistant Director

SUBJECT: Zambia Agribusiness and Management Support Project (ZAMS) (611-0214)

Problem: Your approval is requested to authorize a grant of $15 million for the ZAMS Project.

Background: The ZAMS Project Paper (PP) calls for grant funding of $15.0 million over five years. The grant is from the Development Fund for Africa account (DFA). Obligations will be made over a four year period. An obligation of $8 million is planned for FY 1988.

On March 31, 1988, AID/Washington approved the Project Identification Document (PID) for the ZAMS Project (see Annex A of the PP). The project was originally titled Zambia Agricultural Marketing Support Project, and subsequently changed to the present title. AID/W authorized the USAID/Zambia Mission Director to approve a Project Paper (PP) for the ZAMS Project, provided the elements and concepts in the PP did not deviate substantively from those in the PID.

From May 23, 1988 to July 11, 1988, the ZAMS project design team met with more than 45 persons in different ministries of the Government of the Republic of Zambia (GRZ) and in parastatals, non-government institutions, cooperatives, and agricultural marketing and processing firms. The project design has now been completed, with the basic components and concepts outlined in the PID remaining intact. Details have been added to reflect the insights gained in the various discussions, and extensive studies commissioned by USAID/Zambia which are included as supplementary annexes of the PP.

The goal of the project is to increase agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing system for both agricultural inputs and outputs. The purpose of the project is to improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.

Discussion: The Mission's FY-1989 CDSS Update identified problems in agricultural marketing as key sectoral constraints now facing agricultural and food development in Zambia, and highlighted agricultural marketing as a logical next phase of Mission activities. These marketing problems faced by the

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private sector are not being adequately addressed by other donors or the GRZ. The ZAMS Project addresses this priority.

The project is designed to operate effectively within the existing policy environment and to take advantage of any future changes in policy. The strategy of the ZAMS Project is to focus on those elements in the private sector agricultural marketing system that will help the GRZ to achieve key objectives that were outlined in the Interim National Development Plan (INDP) fulfilling the policy of "growth from our own resources." The main goal in the INDP's marketing, transport, and storage program is to create and maintain the conditions which will ensure an increase in the operational efficiency in the marketing of agricultural inputs and outputs.

The project will focus on domestic markets, but selected export-related sub-projects which meet certain criteria for activities specified in the PP will be eligible for consideration. A major emphasis of the project will be to help improve the use and efficiency of existing food processing capacity.

1. Administrative Structure: The basic implementing unit for the ZAMS Project will be an Agricultural Marketing Advisory Group (AMAG). The Ministry of Commerce and Industry (MOCI) will be AMAG's principal GRZ counterpart organization. MOCI will carry out day-to-day liaison and monitoring of AMAG with regard to project implementation. Because their objectives complement each other, AMAG will also work closely with two Zambian organizations, the Small Industry Development Organization (SIDO) and Village Industry Services (VIS). Institutional strengthening of these two organizations will be a part of the project.

AMAG will be constituted through a direct USAID/Zambia contract with a U.S. firm or institution selected through open competition. To build upon resources and technical capabilities which exist locally, the prime contractor will negotiate a sub-contract with an appropriate Zambian private organization to provide a large portion of the long-term technical experts and the support staff. Short-term technicians will be arranged by AMAG to be provided by the prime contractor, the Zambian sub-contractor, the International Executive Service Corps (IESC), or by other groups in Zambia or the region, depending on the specific requirements and which source has the most appropriate skills to offer. It is anticipated that U.S. PVOs and Zambian NGOs will also assist in implementation of the project, through grants provided under the project.

While the Ministry of Commerce and Industry will be the GRZ implementing agency, a close association is planned also with the Ministry of Agriculture and Water Development (MAWD), the Ministry of Cooperatives, and the Ministry of Finance. A ZAMS Advisory Council comprised of representatives from each of

these four ministries, the USAID/Zambia Director, and AMAG's Chief of Party, will meet periodically to assist AMAG in identifying targets of opportunity for assistance, and to give guidance in implementing the project.

2. Project Costs: The total cost of the project (at the current exchange rate of ZK8/$1) is estimated to be $33 million, of which A.I.D. will provide $15 million in foreign currency grant aid. Other financial inputs amounting to Zambian Kwacha (ZK) 144 million ($18 million) will be derived from: local currency generations from commodity sales, ZK 69.6 million ($8.7 million); local current generations from services sales, ZK 1.469 million ($183,625); in-kind contributions from the Zambian private sector, ZK 1.2 million ($150,000); in-kind contributions from the Government of the Republic of Zambia (GRZ), ZK 242,000 ($30,250); and, the counterpart local currency Bank of Zambia Account No. 846, ZK 71.490 million ($8.936 million).

A summary of A.I.D.-financed project elements is as follows:

Project Element		Amount (thousands)
Technical Assistance		$2,368
Long-term	1,628	
Short-term	740	
Training		1,786
Long-term	720	
Short-term	1,066	
Commodities		9,063
Transport	2,000	
Agricultural Marketing	6,700	
TA Support	363	
Evaluations/Audits		190
Studies		165
Inflation, Contingency, Misc.		1,428
Total		$15,000

3. Beneficiaries: The project's direct beneficiaries will be: (1) truck owners (large and small operators) who will be able to return their vehicles to service and derive income from commodity transport; (2) purchasers of up to 20 pick-up trucks; (3) the owners, employees, suppliers and and clientele of firms receiving technical assistance and project commodity support; (4) employees of the GRZ or firms, and individual entrepreneurs receiving various forms of training; and, (5) Zambians who experience increased agricultural production, incomes, and nutritional status as a result of the project's activities.

4. Other Factors The PP demonstrates that the project is technically, socially, and economically sound and administratively feasible. The technical design and cost estimates are reasonable and adequately planned, thereby

satisfying the requirements of Section 611(a) of the Foreign Assistance Act (FAA), as amended. The timing and funding of project activities are appropriately scheduled. The implementation plan is realistic and establishes a reasonable time frame for carrying out the project. Adequate provision has been made for evaluation and audits. The PP responds fully to the questions and concerns mentioned in the ECPR guidance message on the ZAMS PID (Annex A). Finally, there are no human rights concerns with an impact on this project.

IEE: The AFR Environmental Officer approved a negative determination for the project on April 6, 1988, as part of the ZAMS PID submission.

Conditions Precedent (CP) and Covenants: Other than the standard provisions contained in the Project Agreement (Annex E), the ZAMS Project does not contain conditions and covenants. The project is designed to operate within the existing policy environment and to take advantage of any future changes in GRZ policy.

Waivers: The project will operate under the special procurement policy rules set by the DFA. No additional waivers will be required, although the project will maximize U.S. procurement whenever practicable in accord with A.I.D. policy. As requested in State 071920 (May 27, 1988), the Mission will develop a procurement tracking system (CIMS), and report at the end of CY 1988 specific significant instances where the use of the new DFA flexibility has facilitated project implementation.

Congressional Notification: A Congressional Notification will be sent to the Hill by July 26, 1988. The 15 day waiting period will be allowed to elapse before the Project Agreement is signed, and the grant of $8 million in FY 88 funds obligated.

Authority: As the USAID/Zambia Mission Director, Africa Bureau Delegation of Authority (DOA) No. 551 (revised) grants you the authority to approve the ZAMS PP and sign the Project Authorization. All necessary legal and other clearances have been obtained.

Recommendation: That under the authority of DOA 551 (revised), you approve the ZAMS PP (by signing the Project Data Sheet), and sign the attached authorization for the ZAMS Project.

Clearances:
AID/GC/CCM:KFries (subs)
USAID: PDO:AVan Egmond (draft)
CMO:JHarmon (draft)
PEO:RHarber (draft)
FA:KMugo (draft)
Drafted:AAD:AVanEgmond:7/18/88:Doc. ZAMSAMEM

PROJECT AUTHORIZATION

Name of Country: Zambia

Name of Project: Zambia Agribusiness and Management Support (ZAMS)

Number of Project: 611-0214

1. Pursuant to the Sub-Saharan Africa Development Assistance Account of the FY 1988 Continuing Resolution, I hereby authorize the Zambia Agribusiness and Management Support Project (ZAMS) (the "Project") for Zambia (the "Cooperating Country") involving planned obligations of not to exceed fifteen million U.S. dollars ($15,000,000) in grant funds, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the Project. The Project Activity Completion Date will be September 30, 1993.

2. The Project will assist the Government of the Republic of Zambia to increase agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing systems in Zambia. It is planned that the A.I.D. grant will finance long and short term technical assistance, long and short term training, and certain commodities.

3. The Project Agreement, which may be negotiated and executed by the officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

Source and Origin of Commodities, Nationality of Services.

Commodities financed by A.I.D. under the Project shall have their source and origin in the Cooperating Country or in the United States, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities shall have the Cooperating Country or the United States as their place of nationality, except as A.I.D. may otherwise agree in writing. The suppliers of services shall have the Special Free World (A.I.D. Geographic Code 935) as their place of nationality, except that the prime contractor for long-term technical assistance and training shall have the United States as its place of nationality. Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

Leslie A. Dean
Mission Director

Date: July 27, 1988

Clearance:
AID/GC/CCM:KFries (draft) date: 7/1/88
USAID: PDO:AVan Eymond (draft)
CMO:JHarmon (draft)
PEO:RHarber (draft)
AEO:WWhelan (draft)
REDSO/ESA: RCO:CBucher (subs)
RFMC/N: CKemner (draft)

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M. Financial Plan
N. Initial Environmental Examination; Negative Determination

Supplementary Annexes (Available in the USAID/Zambia Library or AFR/PD)

1. Deloitte, Haskins & Sells, Study of the Oil Seed Sector in Zambia, April 1987:
   Vol. 1: Main Report
   Vol. 2: Database

2. Robert R. Nathan Associates, in cooperation with AGMMARK Limited, Market Potential for Fruits, Vegetables, and Minor Field Crops, June 1988

3. AGMMARK Limited, Institutional Analysis of Agricultural Marketing Firms in Zambia, June 1988

4. Dr. Chungu Mwila, Social Analysis Study, June 1988

List of Tables and Figures

ABBREVIATIONS AND ACRONYMS

AEO	Agricultural Economics Officer
AEPRP	Africa Economic Policy Reform Program
AFR/TR/ARD	Africa Bureau, Technical Resources, Agricultural and Rural Development
AMAG	Agricultural Marketing Advisory Group
B/C	Benefit/Cost Ratio
Bank L/C	Bank Letter of Credit
CDSS	Country Development Strategy Statement
CIP	Commodity Import Program
CMO	Commodity Management Officer
C/F	Counterpart Funds
CPI	Commodity Procurement Instruction
ECPR	Executive Committee for Project Review
FAA	Foreign Assistance Act
FAO	Food and Agricultural Organization of the United Nations
FEAC	Foreign Exchange Allocation Committee
FEMAC	Foreign Exchange Management Committee
FSN	Foreign Service National
FX	Foreign Exchange
GRZ	Government of the Republic of Zambia
HIRD	Human and Institutional Resources Development Project (611-0206)
IBRD	World Bank
IEE	Initial Environmental Examination
IESC	International Executive Service Corps
IMF	International Monetary Fund
INDECO	Industrial Development Corporation
INDP	Interim National Development Plan
IRR	Internal rate of return
K	Kwacha
L/Comm	Direct Letter of Commitment
L/C	Local Currency
LOP	Life of Project
MAWD	Ministry of Agriculture and Water Development
MOCI	Ministry of Commerce and Industry
MOC	Ministry of Cooperatives
MOC/CMD	Ministry of Cooperatives, Cooperatives and Marketing Division
MT	Metric tons
Namboard	National Agricultural Marketing Board
NCDP	National Commission for Development Planning
NERP	New Economic Recovery Plan
NGO	Non-Governmental Organization
NMC	National Milling Company
PCU	Provincial Cooperative Union
PEO	Program Economics Officer
PDO	Project Development Officer

PID	Project Identification Document
PP	Project Paper
PSA	Procurement Services Agent
PVO	Private Voluntary Organization
RCMO	Regional Commodity Management Officer
RDSB	Rural Development Studies Bureau
REDSO/ESA	Regional Economic Development Service Office/East and Southern Africa
RFMC	Regional Financial Management Center
RFP	Request for Proposal
ROP	Refined Oil Products
SCF	Save the Children Fund
SIDO	Small Industry Development Organization
SOW	Scope of Work
SSE	Small Scale Enterprise
TA	Technical Assistance
TAZA	Transport Association of Zambia
UNZA	University of Zambia
VIS	Village Industry Services
VITA	Volunteers for International Technical Assistance
ZAMARE	Zambia Agricultural Development: Research and Extension Project (611-0201)
ZAMCAM	Zambia Multi-Channel Agricultural Marketing Program (611-0747)
ZAMS	Zambia Agribusiness and Management Support Project
ZATPID II	Zambia Agricultural Training, Planning and Institutional Development II Project (611-0207)
ZCF	Zambia Cooperative Federation
ZIMCOM	Zambia Industrial and Commercial Association
ZR	Zambia Railways

I. INTRODUCTION AND SUMMARY

A. Introduction

On March 31, 1988, AID/Washington approved the Project Identification Document (PID) for the Zambia Agribusiness and Management Support (ZAMS) Project. (The project was originally titled Zambia Agricultural Marketing Support Project, and subsequently changed to the present title.) AID/W authorized the USAID/Zambia Mission Director to approve a Project Paper (PP) for the ZAMS Project, provided the elements and concepts in the PP did not deviate substantively from those in the PID.

During the period between May 23, 1988 and July 11, 1988, the project design team met with more than 45 persons in different ministries of the Government of the Republic of Zambia (GRZ) and in parastatals, non-government institutions, cooperatives, and agricultural marketing and processing firms. As a result, the basic components and concepts outlined in the PID remain intact, and details have been added to reflect the insights gained in the various discussions. In addition, the project design builds on extensive studies commissioned by USAID/Zambia, carried out by Deloitte, Haskins & Sells on the oilseed sector in Zambia (1987), and by Robert Nathan Associates (in cooperation with AGMMARK, Limited) on fruits, vegetables, sorghum, millet, cassava, and other minor crops (1988). (See Supplementary Annexes.)

The basic implementing unit for the ZAMS Project will be an Agricultural Marketing Advisory Group (AMAG). The Ministry of Commerce and Industry (MOCI) will be AMAG's principal GRZ counterpart organization. MOCI will carry out day-to-day liaison and monitoring of AMAG with regard to project implementation. Because their objectives complement each other, AMAG will work closely with two Zambian organizations, the Small Industry Development Organization (SIDO) and Village Industry Services (VIS), and the MOCI. (Figure 1 on page 15 shows the organizational linkages of AMAG with other agencies.)

AMAG will be constituted through a direct USAID/Zambia contract with a U.S. firm or institution selected through open competition. To build upon resources and technical capabilities which exist locally, the prime contractor will negotiate a sub-contract with an appropriate Zambian private organization to provide a large portion of the long-term technical experts and the support staff. Short-term technicians will be arranged by AMAG to be provided by the prime contractor, the Zambian sub-contractor, the International Executive Service Corps (IESC), or by other groups in Zambia or the region, depending on the specific requirements and which source has the most appropriate skills to offer. It is anticipated that U.S. PVOs and Zambian NGOs will also assist in implementation of the project, through grants provided under the project.

While the Ministry of Commerce and Industry will be the GRZ implementing agency, a close association is planned also with the Ministry of Agriculture and Water Development (MAWD), the Ministry of Cooperatives, and the Ministry of Finance. A ZAMS Advisory Council, with representatives from each of these four ministries, the USAID/Zambia Project Officer, and AMAG's Chief of Party, will meet periodically to assist AMAG in identifying targets of opportunity for assistance, and to give guidance in implementing the project.

B. Summary

1. Goal and Purpose

The goal of the project is to increase agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing system for both agricultural inputs and outputs. The purpose of the project is to improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.

2. Project Strategy

The Project is designed to operate effectively within the existing policy environment and to take advantage of any future changes in policy. The strategy of the ZAMS Project is to focus on those elements in the private sector agricultural marketing system that will help the GRZ to achieve key objectives that were outlined in the Interim National Development Plan (INDP) fulfilling the policy of "growth from our own resources." The main goal in the INDP's marketing, transport, and storage program is to create and maintain the conditions which will ensure an increase in the operational efficiency in the marketing of agricultural inputs and outputs.

The project will focus on domestic markets. A major emphasis will be to help improve the use and efficiency of existing food processing capacity.

3. Project Elements

The elements of the project include: (a) technical assistance, (b) training, and (c) commodities. The $15 million foreign exchange component of the budget for the project includes:

Project Element		Amount (thousands)
Technical Assistance		$2,368
Long-term	1,628	
Short-term	740	
Training		1,786
Long-term	720	
Short-term	1,066	
Commodities		9,063
Transport	2,000	
Agricultural Marketing	6,700	
TA Support	363	
Evaluations/Audits		190
Studies		165
Inflation, Contingency, Misc.		1,428
Total		$15,000

There will also be a local currency budget of K144 million to support such activities as in-country training, storage, road repair, improvement of produce market facilities, and local consultants.

Local-Currency Funded Activities	Amount (thousand kwacha)
1. Technical Assistance	28,049
2. In-country training	655
3. Infrastructure Development	65,925
Storage (13,950)	
Road improvement (21,700)	
Improved market facilities (30,275)	
4. In-country studies	1,520
5. GRZ (In-kind for Personnel and In-country training)	242
6. Contingency and Inflation	47,611
Total	K144,001

Technical Assistance. Through the ZAMS Advisory Council, counterpart agencies, cooperatives, and discussions with private individuals, AMAG will keep informed of opportunities to assist with expanding, improving, or establishing marketing enterprises and activities. For example, a Zambian emergent farmer who would like to investigate the possibility of establishing and operating a fruit processing facility to make juices and concentrates for the soft-drink industry could be referred to AMAG for assistance. AMAG will help this client to analyze the potential viability of such a venture, either by using its own technical staff, or by mobilizing appropriate specialists from among Zambian consulting groups, or by bringing in consultants from outside Zambia.

If the analysis indicates that the venture is financially and technically feasible, AMAG will assist the client in identifying sources of equipment, help to arrange for the necessary foreign exchange (from the ZAMS Project), and provide assistance as needed to help the client procure the equipment. The client will provide the kwacha cover for the foreign exchange, either from his/her own resources or by borrowing through existing banks or credit institutions. The client will also pay a fee in kwacha (based on ability to pay) for the consultation provided or arranged by AMAG. This fee will be deposited in Bank of Zambia Special Account 846, to be programmed for complementary development activities.

AMAG, in collaboration with SIDO, VIS, U.S. PVOs, or Zambian NGOs, will work with the client in setting up or strengthening the enterprise and will arrange any needed training in the operation of the equipment and in business management. Workshops or training sessions will be used to help organize neighboring farmers, and to assist them in producing and delivering the kinds of produce required for the enterprise to operate efficiently, and at higher levels of capacity utilization.

Training. Both long-term degree training and short-term training is to be provided. Up to twelve persons in GRZ agencies will be given long-term training in agricultural marketing in the United States. Short-term training in agricultural marketing outside Zambia (in the U.S. or third countries) is also planned for key officials. Additional short-term training will be provided, both in-country and outside, for selected groups of farmers, market traders, cooperative members, private marketing and processing firms, equipment dealers, and other relevant groups.

Commodities. The project provides $9.063 million for project-related commodities. To help ease some of the critical marketing constraints involving transportation, the ZAMS Project will make available $2.0 million as soon as the project is authorized, for the importation (beginning the process about September and October 1988) of tires, tubes, and spare parts for trucks. Then, an additional $2.5 million will be allocated during the first year of project implementation, plus $4.6 million during the next three years, for imported items in direct support of specific project activities. Examples include food processing equipment, small-scale oilseed expellers, ancillary storage facilities, spare parts, components for ox-carts, and raw materials for local manufacture of project-related equipment.

Project Activities. For as many project activities as possible, an area focus will be used (Eastern, Southern, and Lusaka/Central Provinces). The approach will be to introduce a

coordinated package of practices which includes a number of elements believed to be needed to make the marketing system in that particular area work efficiently, for the venture in question. A package intended to help establish or to improve the efficiency of an existing food processing enterprise, for instance, might include: technical consultation, to define the requirements; a feasibility study; assistance to import the needed machinery and equipment; assistance to set up the plant; training, both technical and business management; and transportation considerations.

Subject to their meeting project-established economic and social selection criteria, the following types of activities are envisioned for initial concentration:

- o Small-scale sunflower seed expellers;
- o Soybean processing for local consumption; and
- o Fruit and vegetable processing.

Additional activities during the first year will include:

- o In-country studies to identify viable new sub-projects (with special reference to traditional crops);
- o Local-currency assistance for rural storage facilities;
- o Local-currency assistance to improve produce market facilities; and
- o Transportation improvements, including:
  --importation of ox-carts, or component parts;
  --rehabilitation of roads in project areas; and
  --a limited number of farm to market trucks.

II. NEED FOR THE PROJECT AND ITS CONTEXT IN THE ZAMBIAN ECONOMY

A. Current Status of Zambia's Economy

The Zambian economy has been in a long-term retrenchment since the early to mid-1970's. In 1970, GDP per capita was K304 (US$386) measured in 1977 prices, and has declined at an annual rate of approximately 2.9 percent. There are many reasons for this, including adverse movements in Zambia's terms-of-trade due to the drop in copper prices and the general increase in import prices over the period. One of the important causes, according to some observers, was the GRZ's difficulty in adjusting to the new economic environment implied by the price changes. External debt was used to finance a continuation of both external and internal consumption.

Beginning in 1983, the GRZ began to take a series of corrective measures to stabilize the economy, including stabilization programs with the IMF, the decontrol of prices, increases in agricultural producer prices, and the implementation of new taxation measures to address the perennial budget deficit. In 1985, the GRZ reform and adjustment effort intensified with the introduction of a number of bold economic policy adjustments supported by the World Bank and IMF. These reform measures included a sharp reduction in subsidies for maize meal and fertilizer, the decontrol of interest rates, and an auction system for the pricing and allocation of increasingly scarce foreign exchange.

This reform effort continued through 1986. However, on May 1, 1987, the GRZ broke with the IMF and IBRD programs, due to what the GRZ viewed as the unacceptably high social and political costs of those programs.

At the time of this break with the IMF and IBRD, the GRZ introduced a new set of macroeconomic policies. Specifically, the following macroeconomic policy adjustments were introduced:

- The foreign exchange auction system was abandoned and the exchange rate was fixed at K8.0/US$, compared to a rate of K15.0/US$ in the last auction on May 2, 1987;
- Interest rate controls were reintroduced, and the rates were reduced from a range of 30% to 35%, to a range of 20% to 25%;
- Price controls were reintroduced on approximately 21 "essential" commodities; and
- A limit of 10% of net-export earnings was placed on external debt service payments.

Meanwhile, there has been some relaxation of price controls, for which there are now only 11 items controlled.

The combination of increased copper prices and expanded production of copper in 1987 and 1988, and a good maize harvest (assisted by higher producer incentive prices, better and more timely distribution of fertilizer, and excellent weather) helped counterbalance various difficulties in the economic environment. Shortages of many commodities have been common, and domestic financial imbalances have been mounting. Using the official GRZ budget estimates for 1988, the projected deficit is K2.7 billion. The financing of this deficit could be expected to result in an inflation rate of roughly 55%. However, the projection of the budget deficit may be optimistic.

While certain GRZ macroeconomic policies in place prior to May 1987 have been changed, many of the sectoral policies, especially in agriculture, remain in place. The major policy constraint on agricultural diversification remains the maize meal subsidy which continues to affect consumption and production patterns.

The continued domestic financial imbalances imply that the exchange rate will become more and more overvalued which would normally create problems for non-traditional exporters. The maintenance of the policy of allowing such exporters to retain 50% of their export earnings, along with a policy of allowing these retentions to be traded at an exchange rate higher than the official rate (currently approximately K25/US$), has maintained the profitability of non-traditional exports.

B. GRZ Development Priorities

On May 1, 1987, after intense political and economic pressure, the GRZ discontinued the IMF economic reform program and initiated a development strategy titled "The New Economic Recovery Programme" (NERP). The principal stated objective of NERP is to "stabilize the economy by controlling inflation". In July 1987, the GRZ issued the Interim National Development Plan (INDP) for the implementation of NERP. While the INDP did not provide a detailed plan for achieving the stabilization of the economy and hence growth, it did state the objectives the GRZ wished to be achieved during the period July 1987 through December 1988.

The INDP lists such priorities as the promotion of regional specialization, expansion of marketing services, achievement of self-sufficiency in staple food production, expansion of agricultural exports, increased import substitution, and promotion and expansion of market-oriented production.

The main goal of the INDP's marketing, transport and storage program is to create and maintain the conditions which will ensure an increase in the operational efficiency in the marketing of agricultural outputs and inputs. To this end, the development objectives of the sector program are:

"(i) to provide the necessary infrastructure, human and financial resources required for the efficient functioning of the marketing systems;

(ii) to identify and eliminate operational bottlenecks in the systems, such as inadequate marketing, storage and transportation facilities; and

(iii) to increase the cost efficiency in the handling of agricultural inputs and products, thus contributing to the competitiveness and profitability of the sector."

In addition, the NERP intends to reduce regional disparities among provinces and to encourage production patterns based on regional comparative advantages. While not stated explicitly, this will require the development of markets for food commodities other than maize.

The focus of the INDP is on increased production and reduction of costs. This could be achieved by providing increased price incentives for production. It can also be achieved through non-price incentives such as better market access, increased capacity utilization in food and agricultural processing, increased demand for agricultural output through processing, more timely delivery of inputs, greater operational efficiency in marketing (reduced per unit costs and, hence, prices), or a reduction of storage losses (through better storage or processing). All of these non-price incentives can increase the availability of commodities from the same production effort.

If the goals of increased marketing efficiency and food production (other than maize) are to be achieved, changes in the marketing system will be necessary to provide the above mentioned non-price incentives.

C. Rationale for the ZAMS Project

A basic rationale for the ZAMS Project is that it can serve as an effective vehicle to help move the economy from the inherited system based largely on marketing through parastatals toward a system in which private enterprise takes on increased marketing functions. Another is that, in general, agricultural production technology in Zambia is ahead of agricultural marketing practices. Unless constraints in marketing facilities, practices, and processes are mitigated, further achievements in productivity will be difficult to obtain.

Existing incentives which are intended to increase production of maize tend to adversely impact upon production of many other agricultural commodities. Even so, several indications suggest that Zambian farmers will shift production patterns as new or better markets emerge, or if they are convinced that an improved market situation is likely to become available for a different crop or set of crops. As a case in point, there currently exists an increase in demand and in prices for indigenous fruit juices and concentrates, generated to a large extent because of a curtailment on imports of syrups

for making soft drinks, to save foreign exchange. Farmers are now making new plantings of citrus trees and other fruits, and they are improving husbandry in existing groves, to take advantage of the new market situation. Another example has to do with the recently-introduced system of differential pricing of sunflower seeds to be processed into vegetable oil, with higher prices being offered for hybrid varieties which have a higher percentage of oil than do traditional varieties. Demand by farmers for the improved seeds is so keen that a temporary shortage of those seeds exists.

The Mission's FY-1989 CDSS Update identified problems in agricultural marketing as key sectoral constraints now facing agricultural and food development in Zambia and highlighted agricultural marketing as a logical next phase of Mission activities. These marketing problems faced by the private sector are not being adequately addressed by other donors or the GRZ. The ZAMS Project addresses this priority.

The Mission has stated its strong reservations on the means, while generally concurring in the objectives of the INDP and NERP. The ZAMS Project will not require macroeconomic changes on the part of the GRZ in order for the project to be successful. The project will focus largely on the management and physical aspects of marketing that can take place in any given macroeconomic situation, with the objective of reducing the costs of marketing activities, and developing or expanding domestic markets for selected agricultural commodities.

Therefore, while the ZAMS Project clearly furthers the broad objectives of the GRZ's NERP as stated in the INDP, the project's goal and purpose will be achieved by improving the operational efficiency of agricultural marketing, primarily through the private sector.*

III. PROJECT DESCRIPTION

A. Goal and Purpose

The goal of the project is to increase agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing system for both agricultural inputs and outputs. The purpose of the project is to improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.

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* Agricultural marketing economists usually split marketing efficiency into: (a) operational (technical) efficiency and (b) pricing (economic) efficiency. The present GRZ policies severely limit any possible gains in the area of pricing efficiency, but do not impact to any great degree on operational efficiency.

B. Project Strategy

The project is designed to operate effectively within the existing policy environment and to take advantage of any policy changes in the future. The strategy of the ZAMS Project is to focus on those elements in the private sector agricultural marketing system that will help the GRZ to achieve key objectives that were outlined in the Interim National Development Plan (INDP) fulfilling the policy of "growth from our own resources." As indicated in the previous section, the main goal in the INDP's marketing, transport, and storage program is to create and maintain the conditions which will ensure an increase in the operational efficiency in the marketing of agricultural inputs and outputs. Increased marketing efficiency will, in turn, stimulate increases in agricultural production.

A part of the ZAMS strategy will be to help expand availability of selected products for domestic markets, in order to achieve higher levels of import substitution. This will be accomplished by providing training, by expanding knowledge of marketing opportunities through feasibility studies and market analyses, and by providing foreign exchange for importing commodities that will lower costs of processing and transport.

Another element of the strategy will be to address critical transportation problems by both reducing the need for and increasing access to transportation. One way to do this will be to encourage processing in rural areas to the extent feasible. This will reduce the need to transport raw materials to processing centers, which are often several hundred miles distant, and then transporting the intermediate or finished products back to the villages and towns. Truck tires and spares imported with project funds will be designed to bring back into service some of the existing transport fleet. Road repair will also improve access to transport, particularly in relation to some of the larger wholesale and retail markets.

Another way the project will relieve the transportation constraint will be to support an increase in storage capacity -- on-farm, at rural collection points, and up to the district level. To the extent that farm output is stored locally for a few months, the seasonal crunch on transportation facilities will be reduced.

A desirable corollary to the local storage approach would be for the GRZ to establish price policy for grains in a way that a built-in incentive exists for farmers, cooperatives, or traders to store the grains locally; that is, grain prices would be allowed to rise seasonally by enough to compensate for the investment in storage and to cover the risks involved.

A further element of the strategy will be to encourage the development of markets at the micro-level. Experience in Lesotho and other African countries suggests that a latent demand exists for increased trade in some commodities in rural towns, and even in villages.

The project will focus principally on domestic markets. However, a positive spin-off of project activities aimed at improving packaging, handling, and quality of produce may be some increased earnings from exports of fresh vegetables to Europe during the Northern Hemisphere winter.

C. Project Elements

The elements of the project include: (a) technical assistance, (b) training, and (c) commodities. The $15 million foreign exchange component of the budget includes:

Project Element		Amount (thousands)
Technical Assistance		$2,368
Long-term	1,628	
Short-term	740	
Training		1,786
Long-term	720	
Short-term	1,066	
Commodities		9,063
Transport	2,000	
Agricultural Marketing	6,700	
TA Support	363	
Evaluations/Audits		190
Studies		165
Inflation, Contingency, Misc.		1,428
Total		$15,000

There will also be a local-currency budget of K144 million to support such activities as in-country training, storage, road repair, improvement of produce market facilities, and local consultants.

Local-Currency Funded Activities	Amount (thousand kwacha)
Technical Assistance	28,049
In-country training	655
Infrastructure Development	65,925
Storage (13,950)	
Road improvement (21,700)	
Improved market facilities (30,275)	
In-country studies	1,520
GRZ (In-kind for Personnel and In-country training)	242
Contingency and inflation	47,611
Total	K144,001

The local currency budget will be drawn from counterpart funds already accrued in Bank of Zambia Special Account No. 846. The ZAMS Project will make available K14 million of these counterpart funds immediately upon authorization of the project, to support project activities before the technical assistance team arrives. It is expected that roughly K71 million in counterpart funds will be generated by the project. These funds will be deposited in Bank of Zambia Special Account No. 846 during the life of the project.

1. Technical Assistance

Marketing problems exist at all phases of the marketing chain for a wide variety of agricultural inputs and outputs in Zambia. The ZAMS Project will provide technical expertise to help solve selected marketing problems associated with economically viable (or potentially viable) agricultural inputs and outputs that constitute particularly important constraints on increased agricultural production, rural incomes, and nutritional status. As such, the assistance provided through ZAMS will reach beyond first stage marketing problems identified at the farm level to include problems which occur at other phases of the marketing chain as well.

To ensure that the assistance results in sustainable improvements consistent with the project goal and purpose, the primary focus will be on small and medium size firms within selected competitive and potentially competitive input and output industries. Within this context, technical expertise will be required to assist firms in designing, implementing, and evaluating specific marketing interventions to address identified problems.

Given the range of anticipated marketing interventions, expertise of a technical, organizational, infrastructural, and managerial nature will be required. The technical assistance component of the project will provide this expertise, will facilitate the procurement of materials required by the intervention, and will manage the training component of the project. Although the primary emphasis of the project is on the identification and implementation of marketing interventions of a technical, organizational, infrastructural, or management nature, rather than on identifying institutional or policy related marketing changes, the technical assistance may also result in suggestions regarding possible improvements of an institutional and policy nature.

In particular, the technical assistance provided through consultations, training, and feasibility studies will help Zambian firms to:

- identify new products and new product markets;

- o improve capacity utilization in existing food and agricultural processing enterprises;
- o diagnose both general and specific technological, organizational, infrastructural, and managerial problems related to the functioning of selected economically viable agricultural input and output markets;
- o identify appropriate solutions to these problems along with the equipment and other resources needed to address the problems;
- o monitor the specific impacts that the marketing changes have both in improving operational efficiency of selected markets and in achieving the project's ultimate goal of increasing agricultural production, rural incomes, and nutritional status; and
- o strengthen the capability of Zambian private and public sector marketing analysts to:
  - -- diagnose marketing problems of economically viable agricultural inputs and outputs which act as constraints on agricultural production, rural incomes, and nutrition;
  - -- identify specific infrastructural, technological, organizational, and managerial changes which will improve the operational efficiency of selected input and output markets, and improve agricultural production, rural incomes, and nutrition; and
  - -- monitor the impacts of agricultural changes on improved operational efficiency and improvements in agricultural production, rural incomes, and nutrition.

The technical assistance will also relate to: (a) improvements in the performance of the physical marketing functions of storage, transportation and processing, (b) improvements in the performance of the facilitating functions of market research, market information (particularly related to price), management, and grades and standards, and (c) identification of and strengthening of new products and new product markets. Given the project's orientation toward improving marketing functions, commodity subsystems will be analyzed as necessary to ascertain specific marketing problems. This will require commodity specialists on a periodic basis.

To meet these needs, technical assistance will be provided through the Agricultural Marketing Advisory Group (AMAG), operating under the MOCI. Since the project focuses on strengthening existing institutions, AMAG will dissolve when the project is completed. Since their objectives complement each other, AMAG will work very closely with SIDO and VIS. Figure 1 shows the organizational linkages of AMAG to other agencies with various responsibilities in project implementation.

AMAG's professional staff will consist of six different kinds of specialists in agricultural marketing. A U.S.-based group, as prime contractor, will provide the team leader and one other long-term technical adviser (geographic code for TA prime contract procurement is 000: U.S.). The remainder of AMAG's professional staff and all of the support staff will be drawn from one or more consulting firms resident in Zambia, on a sub-contract basis (geographic code for TA sub-contract procurement is 935). (Supplementary Annex 3: Institutional Analysis of Agricultural Marketing Firms in Zambia, contains a profile of some 22 firms which have specialists related to various aspects of agricultural marketing.)

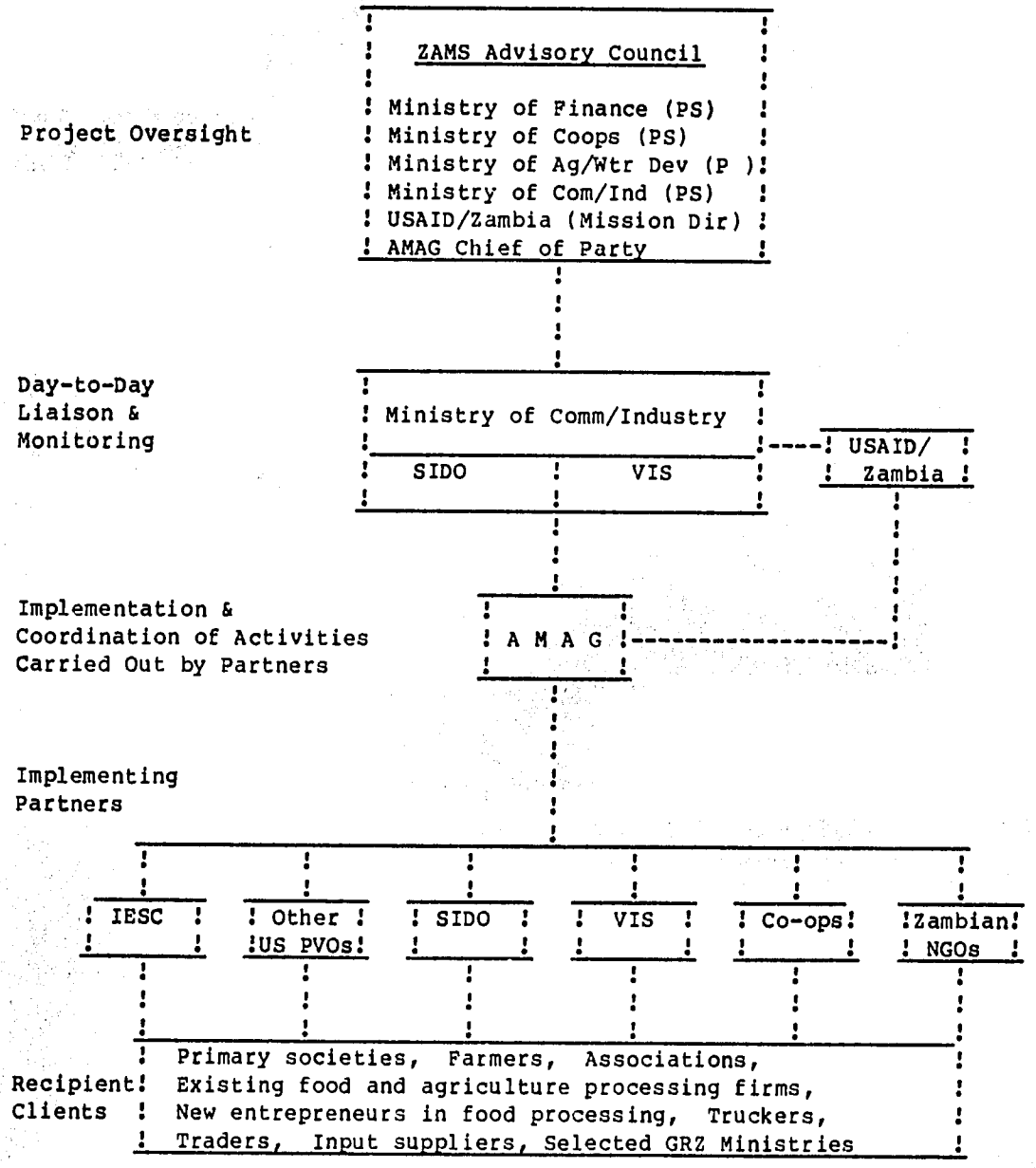
Specifically, the AMAG team will consist of a senior agricultural marketing specialist, who will serve as Chief of Party; a transportation specialist; a food technologist; an agricultural engineer; a management and training specialist; and a commodity procurement specialist. (For a description of these positions, see Annex K: Procurement Plan.) AMAG will also identify short-term technical assistance needs which will be served either through existing A.I.D. projects (e.g., the centrally-funded Agricultural Marketing Improvement Strategies Project) or through other grant and contractual mechanisms. A responsibility of the Chief of Party will be to assure that both short-term and long-term technical assistance are targeted and coordinated and that appropriate industries and marketing interventions are identified.

Through the ZAMS Advisory Council, counterpart agencies, cooperatives, and discussions with private individuals, AMAG will keep informed of opportunities to assist in improving, expanding, or establishing marketing enterprises and activities. For example, a Zambian emergent farmer who would like to investigate the possibility of establishing and operating a small fruit processing facility to make juices and concentrates for the soft-drink industry could be referred to AMAG for assistance. AMAG would help this client to analyze the economic and financial viability of such a venture, either by using its own technical staff, or by mobilizing appropriate specialists from among Zambian consulting groups, or by bringing in consultants from outside Zambia. AMAG would also assess the likely benefits of this intervention in terms of improved agricultural production, rural incomes, or nutrition.

Figure 1.

ZAMBIA AGRIBUSINESS & MANAGEMENT SUPPORT (ZAMS) PROJECT

Organizational Linkages



If the analysis indicates that the venture would: (a) be financially and technically feasible, (b) be economically viable, and (c) result in significant benefits for the target population, AMAG would assist the client in identifying sources of equipment, help to arrange for the necessary foreign exchange (from the ZAMS Project), and provide assistance as needed to help the client procure the equipment. The client would provide the kwacha cover for the foreign exchange, either from his own resources or by borrowing through existing banks or credit institutions. The client would also pay a fee in kwacha (based on ability to pay) for the consultation provided or arranged by AMAG. This fee would be deposited in Bank of Zambia Special Account No. 846, to be programmed for complementary development activities. If the client is already well-established, the fee would be calculated to cover the full cost of the consultation. On the other hand, if the client is just emerging as an entrepreneur, the fee would be only nominal.

In close coordination with or support to SIDO, VIS, and Zambian NGOs, AMAG will assist the client in setting up a venture and will arrange needed training in the operation of the equipment and in business management procedures. If workshops or training sessions were needed to help organize neighboring farmers and to assist them in producing and delivering the kinds of produce required to feed the plant, AMAG will also provide this.

One of the first activities after the technical assistance team is constituted will be a Project Implementation Workshop which will be conducted for key representatives of government agencies and other organizations that will be involved in implementation of the project. The goal of the workshop will be to clarify the project purpose as well as the implementation and monitoring roles of the various parties involved (cooperatives, SIDO, VIS, IESC, NGOs, PVOs). This will include those who are directly responsible for project execution and those whose cooperation and understanding of the project will indirectly impact on the attainment of objectives.

2. Training

Training will be provided to enable individuals, workgroups, and organizations to perform their assigned functions adequately, and to strengthen institutions which have a role in agricultural marketing. The ZAMS Project will accomplish this through in-country workshops, on-the-job training (OJT), and external learning opportunities in the United States and third countries.

Following the Project Implementation Workshop, a Consultancy and Training Workshop will bring together the

technical staff of AMAG (American and Zambian) and representatives of in-country institutions or groups which may be called upon to formulate and implement training programs. This workshop will be used to clarify working relationships, to establish standard operating procedures (e.g., training needs assessments, resource assessments, activity evaluations), and to assess experiential training skills. This may result in a series of follow-up programs in-country or in the region to develop the capacity of indigenous groups to provide training services in agricultural marketing.

Those who will be trained will be from selected groups of farmers, cooperative members, private marketing and processing firms, equipment dealers, relevant government organizations, and market traders. The AMAG staff, in consultation with the ZAMS Advisory Council, will establish procedures for determining and documenting training needs and for the recruitment and selection of participants for training.

In-country training will be in technical areas such as storage, processing, equipment utilization, packaging, and assembly, and in management areas such as inventory control, bookkeeping, accountancy, delegation, and performance appraisal.

Long-term academic training outside Zambia (geographic procurement code 000: U.S.) is planned for GRZ officials who, upon return to Zambia, will occupy positions that are key in the development of the nation's agricultural marketing system.

Short-term training outside Zambia (geographic code 935) of up to three months will be provided to individuals working in the government, agricultural marketing firms, and training organizations, with the expectation that the knowledge and skills gained will improve both their individual performances and those of workgroups with which they will be associated.

Tables 1, 2, and 3 summarize the ZAMS Training Plan, which is described in more detail in Annex L.

Table 1
Estimated Number of Training Participants

Type/Location	Year FY89	FY90	FY91	FY92	FY93	Total
United States:						
Long-term academic	4	6	0	0	0	10
Short-term technical	8	10	12	12	8	50
Third Country:						
Short-term technical	0	6	8	8	6	28
In-Country:						
# workshops	(3)	(5)	(5)	(6)	(6)	(25)
# participants	60	125	125	180	180	670
# S-Term T.A.	(4)	(6)	(6)	(4)	(0)	(20)
TOTAL Participants	72	147	145	200	194	758

NOTE: Short-term T.A. here is defined as expertise dedicated to conducting workshops with 15-30 participants and does not include consultancies related to producing special studies. Costs can be reduced to the extent that T.A. from African institutions is used by the project.

Table 2
Estimated Training Costs: Dollar Component
($ 000)

Type/Location	Year FY89	FY90	FY91	FY92	FY93	Total
United States:						
(a) Long-term (academic)	144	288	216	72	0	720
(b) Short-term (technical)	84	105	126	126	84	525
Third Country:						
(c) Short-term (technical)	24	32	32	24	0	112
In-Country:						
(d) S-Term T.A.	85	130	130	85	0	429
TOTAL	337	555	504	307	84	1,786

NOTES: (a) 36 mos. @ $24,000/year
(b) 2.5 mos. @ $4,200/mo. (including airfare)
(c) 2 mos. @ $1,900/mo. (including airfare)
(d) 45 days @ $280/day fee & $125/day per diem + $3000 trans.
[30 days for workshop;15 days for design & OJT followup]

Table 3
Estimated Training Costs: Kwacha Component
(ZK 000)

Type/Location	Year FY89	FY90	FY91	FY92	FY93	Total
In-Country:						
(a) Trainer Salary	8	13	10	8	3	42
(b) Per Diem for Trainer & Part.	14	24	19	14	5	76
(c) Transport for Participants	11	19	15	11	4	60
(d) Facilities	4	6	5	3	1	19
(e) Trg. Materials	11	19	15	11	4	60
(f) Pvt. Sector In-Kind Support	50	75	100	100	75	400
TOTAL	98	156	164	147	92	657

NOTES: (a) Two Zambian trainers/course @ ZK 1,200/course of 4 weeks
(b) ZK 185/day
(c) ZK 150/participant
(d) ZK 1,200/course
(e) ZK 150/participant
(f) Cost of facilities, fees, and per diem for private sector participants

3. Commodities

The project provides $9.063 million for project-related commodities. To help ease some of the critical marketing constraints involving transportation, the ZAMS Project will make available $7.0 million as soon as the project is authorized, for the importation from the United States (geographic procurement code 000), beginning about September and October 1988, of tires, tubes, and spare parts for trucks. Then, an additional $2.5 million will be allocated during the first year of project implementation, plus $4.6 million during the next three years, for additional imported items (primarily from code 000; as required to meet project objectives, procurement from code 935 will be allowed, subject to written concurrence of USAID/Zambia). In the intensive discussions carried out during project design, imports such as the following were suggested by GRZ officials and others as being of high priority in achieving the objectives of the New Economic Recovery Program:

- Small-scale food processing equipment;
- Small-scale sunflower oil expellers;
- Ancillary equipment for soybean extruders;

- o Equipment to establish small-scale juicers;
- o Ancillary storage for the above processing units;
- o Spares for existing food-processing equipment;
- o Spares (and service) for new processing equipment;
- o Equipment to improve utilization of existing installed capacity;
- o Steel and other items for local manufacture of oilseed expellers and scotchcarts;
- o Coolers to extract field-heat from fresh produce;
- o Equipment for on-farm packing and handling sheds;
- o Refrigerated storage units (cool rooms);
- o Spare parts for U.S.-made road graders;
- o Miscellaneous items such as: tarpaulins, scales, trolleys, cash registers, and safes.

D. Project Focus and Approach

Agricultural marketing is generally defined to include the following types of functions:

- o Exchange functions:
  --buying (assembly),
  --selling (distribution);

- o Physical functions:
  --transportation,
  --storage,
  --processing,
  --packaging and handling; and

- o Facilitating functions:
  --standardization and grading,
  --risk-bearing, and
  --market intelligence.

Further, agricultural marketing encompasses essentially all crops produced and moved off of farms into commercial trade and all purchased inputs brought on to farms to be used in the production process.

To achieve the intended impact, the activities assisted by the ZAMS Project will be carefully targeted, based on having satisfied a number of criteria. Assuming that the criteria will have been met, the initial focus will be on small and medium-scale processing of selected oilseeds (sunflowers and soybeans) and fruits and vegetables, with emphasis to the extent feasible on activities in rural areas which do not have easy access to larger-scale urban processing facilities. After the technical assistance team is set up (around April or May of 1989), this focus during the first year will cover approximately three-quarters of project activities. The other

one-quarter of assistance to be provided during the first year (transportation, urban produce marketing facilities, and in-country studies) is discussed later in this section.

For as many project activities as possible, an area focus will be used. In the case of small-scale sunflower seed mills, for instance, project assistance will be concentrated mainly in the areas where sunflower production dominates: Eastern, Southern, and Lusaka/Central Provinces. The approach will be to introduce a coordinated package of practices which includes a number of the elements believed to be needed to make the marketing system in that particular area work efficiently for the venture in question.

For example, the package might include for a food processing venture having satisfied project selection criteria:

- o technical consultation, to define the parameters of a possible venture;
- o assistance to carry out the feasibility study;
- o assistance to import the required commodities (machinery, equipment, spares, etc.)
- o assistance to set up the plant, including storage facilities;
- o training:
  - --in plant technology and operation, including quality control,
  - --in business aspects of the operation,
  - --in adjustments needed in producing the farm commodities which will feed the plant;
- o road repair, to improve transportation efficiency in the project area; and
- o scotchcarts, pick-up trucks, or refrigerated trucks as part of the transportation system for getting the farm commodities to the plant.

To take another example, an integrated approach would be used in implementing a wholesale or retail market improvement activity. In addition to the physical construction, the feasibility study and planning for the activity will include the need for improvement in roads, for road transport, and for training in marketing principles and in operation and management of the market facility.

A key role of AMAG will be to organize the planning and coordination of the implementation of an activity, and to monitor implementation sufficiently to assure that the synergism intended by the package approach is working effectively. AMAG will have overall responsibility for implementation. However, many of the implementation functions will be carried out by other entities. For some activities, primary cooperative societies may be the logical implementing institution. For others, PVOs or NGOs might be given a grant or contract to do training and monitoring. In some kinds of ventures, it might be that PVOs or NGOs would be appropriate to carry out essentially all of the implementation except for assistance in procurement of commodities and road repair. Road repair might be carried out under supervision of the District Council, according to terms of a local currency grant (from counterpart fund generations) to the Council for road work. But AMAG will have the overview responsibility.

E. Marketing Activity Selection Criteria

The project will strive to accommodate a balance between the rather specific activities to be undertaken during the first year and the need to be flexible enough to allow for shifts in emphasis as new opportunities and needs arise. For marketing activities to be undertaken by the private sector, this entails going through a three-tiered set of criteria to ensure that the industry, the firm and the marketing activity to be assisted are suitable for support through the ZAMS Project. (In this project, a "firm" is defined to include a farmer, a private firm, a cooperative or association organized and run by its members, or a trader.)

1. Industry Criteria

As an initial step, the industrial organization of selected industries within which assistance might be provided will be studied to determine the economic organization and employment potential. Some industries have already been studied as part of the project design process. However, there are other industries which need to be studied in anticipation of requests for marketing support services in those industries: baking and small-scale farm implements, for example. USAID/Zambia may arrange for one or two such studies to be carried out by Zambian consulting firms prior to the arrival of the technical assistance team, once a Project Agreement has been signed. Other industries may be studied by Zambian consultants, under supervision of AMAG, once the AMAG team identifies them as being important based on client demand. These studies, which will provide a basis for establishing the particular industries the ZAMS Project can assist, will relate to the first two selection criteria:

Criterion # 1: The industry within which firms are to be assisted must be one with a reasonable degree of economic competition.

Criterion # 2: An industry not meeting the economic competition requirement can become eligible if and only if the employment and income benefits associated with the industry outweigh the negative aspects of excessive concentration of market power.

2. Firm Criteria

Once a determination has been made that an industry is sufficiently competitive and/or provides considerable employment potential, the following criteria will be used by AMAG as a basis for determining if it is appropriate to assist a given firm:

Criterion # 3: The firm receiving technical assistance and commodity support through AMAG would be within an industry having met either the economic competition or employment generation requirement; preference will be given to firms operating in rural areas that have met criteria numbers 1 and 2.

Criterion # 4: A firm which is a new entrant in a selected industry is encouraged to apply for consultative services as long as it agrees to undertake training which will improve its potential for being successful.

Criterion # 5: A firm with prior business experience, whether or not related to agriculture, must demonstrate evidence of proven creditworthiness and/or business acumen in order to receive assistance provided through AMAG.

Criterion # 6: A firm must satisfy acceptable standards of conduct related to employment policies and practices (i.e., non-discrimination, adequate pay, and safe working conditions) in order to be assisted.

3. Activity-Specific Criteria

Once it has been established that the industry and firm may be supported, an issue arises as to whether or not the particular marketing activity envisioned by an eligible firm satisfies a set of economic viability, financial viability, and social soundness criteria. The following criteria need to be applied to ensure that the specific activity actually contributes to meeting the project's goal and purpose:

Criterion # 7: The proposed marketing activity must have clearly identifiable anticipated benefits for the target beneficiaries; i.e., the rural poor, particularly in terms of improved incomes, food production, and nutrition.

Criterion # 8: The proposed activity must meet minimum economic viability conditions, in addition to financial viability conditions. (See Annex H.)

Criterion # 9: Import parity prices should be used whenever possible in calculating whether the minimum economic viability conditions of the marketing activity can be met.

Criterion # 10: If the proposed activity has export potential, the economic viability of that potential should be evaluated. To do this, the direct foreign exchange costs and the export proceeds should be valued at a shadow exchange rate which reflects a market valuation of the kwacha relative to the U.S. dollar. (See Annex H.) In addition, where warranted, an assessment should be made to establish that the activity cannot reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity (Bumpers Amendment).

Criterion # 11: If the proposed activity has a construction component (e.g., improvement of wholesale or retail market facilities) which exceeds $1 million, the USAID/Zambia Mission Director should certify as to the GRZ's capability to maintain and use the facility effectively.

F. Project Activities

This section contains an illustrative list and description of the kinds of activities that are envisioned for the first year of the project. Before any of these are implemented, they will be subjected to the selection criteria defined in the previous section. Based on preliminary study, it is anticipated that the activities in the illustrative list will meet the criteria.

1. Sunflower Oil

The technical analysis (Annex F) indicates that substantial opportunity exists, based on pilot activities to date, to establish individuals and small private firms, cooperatives, and associations in the business of expelling vegetable oil from sunflower seeds in areas which are remote from urban processing centers. The processing technology ranges from hand-operated expellers with sufficient capacity to provide cooking oil for about 100 families, to small electric or diesel-powered units with a capacity to serve the needs of 200 to 400 families. A major advantage of these units is that the rural people will have access to both cooking oil and the residual cake, or meal, to be used as a high-protein supplement feed for livestock. In the existing situation in which the oilseeds are sold to be processed in urban areas, rural villagers frequently are unable to get back the cooking oil,

and they seldom gain access to the meal for livestock. Another important advantage is that transportation of the oilseeds and products is virtually eliminated.

2. Soybeans for Local Consumption

Another situation in which opportunities may exist is in soybean processing. At least two private companies are using relatively small-scale extruders manufactured in the United States to process soybeans into a full-fat, high-protein food which can be used either for human consumption or as a livestock feed supplement. At the moment, both of these companies are producing primarily for the livestock industry. Both are interested in getting ancillary equipment which would permit: (a) removing about three-fourths of the oil prior to the extrusion process, which would yield an improved meal for both humans and livestock at the same time it makes more vegetable oil available, and (b) manufacturing a wider range of foods for human consumption, including nutritious baby-foods and foods for hospitals and other institutions as well as for the general public.

3. Fruit and Vegetable Processing

Two kinds of interventions which may meet selection criteria relate to medium-scale fruit and vegetable processing: (a) assistance to privately-owned businesses which wish to expand and improve the efficiency of their processing operations, and (b) assistance to individuals and firms which would like to start new processing plants, particularly to make fruit juices and concentrates.

Rivonia Limited is a case in point of a small food-processing company in which the owners would like to expand operations and improve efficiency. Rivonia was started seven years ago. It has grown steadily, but is still a relatively small, family-run operation. It employs 51 Zambians. It has two mincing machines; one converted, or makeshift, machine; and pots and pans to cook the produce in. Capacity is about 2,000 bottles per day. Rivonia buys all of the raw produce from surrounding farmers. Recognizing that demand in Zambia for bottled and canned foods is relatively small, demand in Lusaka alone is far greater than the company can service. In addition, a good regional export market exists for some processed foods. Rivonia's products include marmalades, jams, jellies, sauces, juices, and other items. The company would like to go into more products, but it has not been able to get the basic machinery to expand. With the following items of machinery, costing an estimated $40,000, Rivonia would hire additional Zambians and increase output: a pulping and sieving machine, a vacuum-type cooker for

marmalades, an orange chipper, an orange shredder, a dicing machine, an oil-purifying machine (to refine oil used in making mayonnaise), and a proper mayonnaise-making machine. At some point in the future, they would like a small canning machine and an extruder so they can use cans for selected products, in addition to the bottles used for a number of products.

There are two rather large-scale food-processing companies in Zambia, both of which are multinationals: Copper Harvest, and Lyons Brooke Bond. It is not envisioned that ZAMS will assist these.

In the course of developing the project, many examples were given to the design team of the need for food processing facilities in rural areas of Zambia, and some specific individuals were mentioned who are interested in establishing small-scale processing plants. In Luapula Province, for instance, there is a surplus of oranges, mangos, guavas, and bananas at different times of the year, which could be processed with small-scale units into juices and squashes. While it is generally not economical to base a larger-scale processing plant on "surplus" produce, a series of small-scale plants located in areas of production would more-than-likely stimulate additional production specifically for processing. Another example is a farmer in Eastern Province who now has 3,000 citrus trees. He intends to plant an additional 4,000 by the end of 1988. He would like to have a facility to process the fruit into juices and concentrates and, with this, he would buy fruit from neighboring farmers.

A good market also exists for dried fruits and vegetables, especially during the season when fresh produce is not as readily available. The advantages of dried fruits and vegetables are that the process reduces waste; it reduces transportation costs, due to less weight; it increases total food availability; and the process is energy efficient, since it is usually done with solar energy. An early study will be carried out to identify the constraints to and opportunities for increased drying of fruits and vegetables and, if it is deemed appropriate, interventions will be planned to foster an increase in this technique.

Special attention will be given by AMAG to packing, handling, and quality standards for fruits and vegetables.

In addition to the main focus described above, the other one-quarter of assistance to be provided during the first year will include the following elements:

4. Transportation

Aside from the immediate $2.0 million for truck tires, tubes, and spare parts, it is planned that the ZAMS Project will provide the following kinds of assistance:

- o Rehabilitation of rural roads with emphasis on roads in the areas in which other project-related marketing activities are concentrated; this will involve kwacha counterpart funds for labor and local materials, and perhaps dollars for spare parts for rehabilitating U.S.-made graders;

- o Scotchcarts (ox-carts): Designs are already worked out for a cart that is pulled by two oxen. Many of them are already in use, and the demand greatly exceeds the supply of carts. A constraint in availability of carts is the foreign exchange to import components or to import raw materials for fabricating the carts in-country. The ZAMS Project will provide foreign exchange for this purpose; and

- o Farm to market trucks: One of the most serious constraints to efficient marketing is the lack of trucks from farms or rural collection points to locations in which larger trucks can pick up full loads. Another need, on a limited scale, is for refrigerated trucks to transport highly perishable produce to market. The ZAMS Project will provide a limited amount of foreign exchange for this purpose.

5. Storage

The types of assistance in storage that are envisioned include: (a) storage units that will complement the kinds of processing facilities noted above that will be the main focus of ZAMS, and (b) on-farm storage units that will help farmers to get higher value from their commodities. The latter, if carried out, would be implemented on a self-help basis with a grant of counterpart funds to an appropriate NGO.

USAID/Zambia has recently made a K50 million grant of counterpart funds for storage facilities: K40 million to the Zambia Cooperative Federation (ZCF) to construct 40,000 MT of storage shed capacity at primary society and district levels, and K10 million to NAMBoard for four central storage sheds. If the GRZ so requests, a supplementary grant may be made to ZCF, particularly to augment general storage capacity for primary cooperative societies.

6. Produce Market Facilities

A grant of kwacha counterpart funds may be made through the project to construct facilities for wholesale and retail markets of fresh produce in selected urban areas and rural access markets. The Lusaka Central District Council, for instance, has expressed interest in having assistance under the project in designing appropriate facilities for the Soweto market in Lusaka, and in construction of the facilities. Informal interest has also been expressed for the Ndola, Kitwe, and Chipata markets.

7. In-country Studies

A series of special studies will help, among other purposes, to identify additional specific interventions beyond those initiated during the first year. A particular concern will be to identify activities which would improve marketing efficiency and production of traditional crops, such as sorghum, millet, and cassava (although this may be difficult without changes in maize and mealie meal pricing policies). The objective of the studies will be to establish feasibility of small marketing projects, to identify constraints to market development, and to improve marketing efficiency. Included, for instance, will be: (a) a study of the rice milling problem noted in Annex F, to define the problem more precisely, so that a suitable intervention can be considered; (b) a study of the feasibility of processing cassava into various products (starch, flour, industrial alcohol); (c) a study of ways to use the transportation vehicle fleet more efficiently; and (d) studies to establish benchmarks for measuring progress of the project.

G. Beneficiaries

The beneficiaries analysis focuses on the three major types of inputs -- commodities, technical assistance and training -- and at the geographical distribution of benefits. Little attempt is made to quantify beneficiaries, but recommendations for methodologies to be used in assessing benefits of various activities are developed, and minimum acceptable levels of benefits for activities are proposed.

1. Commodities

Nation-wide: Truck tires, tubes, and spares are to be sold to customers from all regions of Zambia. These items relate to transportation for agricultural inputs and outputs. The immediate beneficiaries will be the truck owners, whether large or small operators, who will be able to return their vehicles to service and derive income from commodity transport. The

indirect beneficiaries will be purchasers of inputs and purveyors of produce, whether at the farm-gate, wholesale, or retail level, whose access to the necessary transport will be increased both in terms of quantity and timeliness.

In addition to the tires, tubes, and spares, 20 pick-up trucks are slated for importation under the project. The primary beneficiaries of these will be the purchasers, and ZAMS will condition their purchase on several criteria: (a) that preference in purchase be given to the lowest income stratum that is creditworthy (i.e., emergent farmers), (b) that the primary occupation of the purchaser be farm production or a backward or forward linkage to agricultural production, and (c) that the truck have a high probability of use in transporting agricultural materials as its primary function. Secondary beneficiaries of the pick-up truck should be the drivers who are frequently employed to drive the trucks and other farmers who have more transport available for hire as a result.

Targeted Local-Level Areas: Oil and rice mills, cassava chippers, scotchcarts, on-farm and regional market storage, road and market upgrading and possibly pick-up trucks are all targeted to specific geographic areas in order to create a synergistic effect. Oil and rice mills will have a specific geographic radius of service. The small, hand-operated oil mills will meet the annual oil consumption needs of about 100 households of six persons each. The estimated 500 oil mills to be provided by the project will likely benefit 300,000 to 320,000 rural individuals. Benefits will take the form of improved nutritional status from an increase in fats in the diet and increased income either through savings realized from not having to purchase oil, or from sale of oil or the cake by-product. There may be some incremental benefit for those who own livestock in improved nutritional status of the livestock and thus a potential improvement in household income at the time of sale or slaughter of the animal. In addition, six to eight people are usually employed by each mill operation; thus, up to 4,000 jobs may be created by this component.

In regard to other village- or local-level interventions, the larger, electric or diesel-powered oil mills will produce a yearly oil supply for 200 to 400 households, so approximately 24,000 to 72,000 individuals will benefit. In addition, households will benefit by the sale or use of the oil and seed cake. The service capacity of the rice mills is at this time unknown. Similarly, the radius of outgrower participation in small juice extracting facilities is unknown at present, but estimates can be made in the course of feasibility studies.

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Five hundred farmers/small entrepreneurs will benefit by the importation of materials for the production of ox-carts (scotchcarts). In addition, an unspecified number of existing ox-carts will be returned to service. Rural residents who purchase ox-carts may realize income from them in two ways: by transporting their own inputs and produce, and by rental of space in the cart for others' inputs or products. It is likely that both approaches will be used, as is the common pattern now. Indirectly, others who require purchased inputs or have produce to haul will benefit by greater availability and more timely delivery of inputs and pick-up of products.

Local currency funds may be provided by the project in the form of a grant to an NGO to help farmers with on-farm storage on a self-help basis. The intention of providing additional storage on-farm is to allow farmers to take advantage of seasonal price fluctuations; that is, to sell at a time that prices are higher than they are immediately after harvest. Depending on the division of income within the household, and its allocation for expenditures, this could serve to raise the household living standard in one of two ways: (a) it could represent a cost savings because farmers could store for auto-consumption what they must now purchase in the market, or (b) they could have outright cash sales for higher prices at a later time of the year.

Improved road maintenance (local currency counterpart funds for road rehabilitation, foreign exchange for grader spares) will also provide local-level benefits. The key constraint to additional small-scale marketing activity has been identified as poor transport. Much of this transport problem is due to lack of road maintenance, making production areas inaccessible to input suppliers or traders. Moreover, trade between major growing areas and major population areas is constrained by poor roads. The benefits of road maintenance are likely to affect a large number of rural inhabitants by providing improved access to input supplies at reduced cost to the purveyor, as well as improved access to a variety of markets, thus introducing some competition among purchasing agents and possibly improved prices to farmers. This effect will be studied more carefully during project implementation.

The upgrading of markets is to be concentrated on urban wholesale and retail markets and rural assembly markets. This upgrading will benefit directly the vendors in the markets and the district councils or voluntary associations that run the markets. Indirectly, urban consumers will benefit. Zambia has a high urban population rate. In 1980, Lusaka had a population of 538,469 (current estimate is 700,000); Kitwe 314,794; Ndola 282,439; Mufulira 145,869 and Chingola 143,635. Per capita GDP has declined significantly in the last 10 years. Thus, a safe

assumption is that an increasing number of the urban residents are living at or below the poverty line, and assistance in providing greater quantities of dietary items ancillary to the staple, such as fruits, vegetables and oilseeds, at lower cost by reducing marketing costs and increasing competition will have a positive impact on at least half the population in urban areas. Interventions which improve market facilities, including upgrading sanitary conditions and permitting more vendors to enter the market should reduce morbidity and increase nutritional standards for the urban poor.

Targeted Industries: The beneficiaries of the targeted industries -- fruit and vegetable canning and processing; commodity hauling and storage; commercial soybean processing; medium-scale vegetable-oil processing and cassava chipping, for instance -- will be firstly the owners of the firms, secondly the employees of the firms, and thirdly the firms' suppliers and clientele. For the most part, these groups exclude the rural poor; however, potential benefits to the urban poor through employment and better access to more nutritious foods should be positive.

2. Technical Assistance

AMAG: Beneficiaries of the technical assistance will include the clients of AMAG, SIDO, VIS and cooperatives, among others, whether individuals, primary societies, or firms. The degree of benefit will depend upon the degree of subsidization of the consulting services by the project, and by the extent to which AMAG provides assistance in all phases of business start-up or expansion (for example, providing only the feasibility study on a full-fee basis).

NGOs: The primary beneficiaries of the local-level Zambian NGO implemented activities will be the individuals or groups who purchase the oil expelling or rice milling equipment. They will receive training and technical assistance in the operation of the mills, in bookkeeping and business management, and other necessary skills. The secondary beneficiaries will be rural residents who have a functioning mill in their areas.

In addition to the work of other U.S. PVO's, IESC will be an additional source of advice to firms, and as such, firm ownership and management should benefit directly from its involvement. Secondarily, suppliers and clients of firms serviced by IESC should benefit, but this benefit will be very indirect and difficult to quantify.

3. Training

Employees of the GRZ who go for long-term training will directly benefit by receiving masters degrees in subjects related to marketing. This will improve their professional skills and make them eligible for positions of higher responsibility on their return to Zambian government service. It will also give them greater mobility in employment.

The 70 employees (target of at least 30% female) of firms and government, or individual entrepreneurs, trained in offshore short courses will benefit directly. They, too, will have upgraded professional skills and increased career choices, though to a lesser degree than those who receive long-term training. Similarly, those 670 (target: at least 30% women) employees of the same types of organizations who receive short-term in-country training will obtain like benefits, but to a slightly lesser degree than those who are sent abroad. At the local level, those approximately 900 individuals (target: at least 30% women) who receive training in management and operation of the oil mills will benefit directly.

4. Geographic Distribution of Benefits

Apart from examining the impact of the inputs planned under ZAMS, an analysis of the geographic distribution of benefits is also warranted. Due to agroclimatic conditions, certain commodities predominate in certain regions, so a commodity focus will, perforce, allocate project benefits to specific regions. The regions can then be examined in terms of the relative number of farms in the large commercial, medium commercial, emergent and traditional categories.

Commodities identified in the project thus far include sunflowers, soybeans, rice, cassava and fruits and vegetables. The three most productive provinces for each commodity are as follows:

Table 4

Geographic Distribution of ZAMS-Targeted Commodities

Commodity	Three Provinces of Highest Production[1]
Sunflower	Central, Southern, Eastern
Soybeans	Lusaka, Southern, Central
Rice	Western, Northern, Eastern
Cassava	Luapula, Northwestern, Northern
Fruits & Vegetables	No data available

[1]Listed in order of highest to lowest production figures.

The purpose of analyzing benefit incidence by commodity and geographic region is to point up that commodities will to some extent be self-targeting in terms of benefiting the rural poor, but may conflict with a geographic focus undertaken for management considerations.

H. Other-Donor Activities in Agricultural Marketing

During the course of designing the project paper, the team visited with many other donors who are supporting agricultural development in various ways. This section summarizes only those donor-supported activities which are closely related to the ZAMS Project. In implementing the ZAMS Project, it will be important that AMAG coordinate with each of these donors to assure that activities are as complementary as possible.

1. UNDP Activities

UNDP has three projects which have marketing elements: (a) one involves post-harvest storage at the village level, using indigenous materials. This activity might possibly be integrated with AMAG activities (or AMAG activities might be integrated with the UNDP project activities), especially those in small-scale village processing; (b) another provides assistance to the Export Board of Zambia (EBZ), to enhance EBZ's marketing services for a range of commodities, including agricultural products; this project has been in operation for 18 months and has another 42 months to go; (c) the third activity is a regional export promotion project being implemented with the Preferential Trade Association (PTA); using a computerized network, PTA registers companies within the region which wish either to export their products or to import supplies, equipment, or raw materials, and provides the information on request to would-be importers and exporters. PTA expects by mid-1988 to have tied into Reuters international market news service as an additional service to members.

2. IFAD Small-Holder Rehabilitation Project

Implementation of this project was just being started in mid-1988. The target areas for the project are primarily Luapula and Eastern provinces. The project is being implemented by the GRZ, primarily through the Ministry of Cooperatives, with the assistance of a technical assistance team. Among other components, the project will provide small-scale processing equipment of various kinds. The project document describes mainly hammermills for maize and other cereal crops, although small-scale oilseed processors are within the scope of the project. The project may fund two pilot schemes of multipurpose power units; this would involve

a diesel engine powering a drive shaft with several pulleys, from which a number of different kinds of processing units could be operated at once. It will be quite important that AMAG keep apprised of activities of the IFAD project, to take advantage of opportunities to collaborate and to avoid duplication. The IFAD project also has a road rehabilitation component, which is another area for potential collaboration. The aim of this component is to get rural roads rehabilitated using hand labor rather than large mechanical graders, because of the problems of maintaining the heavy equipment. The project will finance provincial engineers, who will be responsible to district councils, to supervise activities. The project will provide rollers, culverts, and trailers for moving supporting equipment.

3. SIDA Marketing Activities

Swedish International Development Agency (SIDA) is supporting some activities, primarily with cooperatives, with implications for agricultural marketing: (a) one involves training in cooperative management, and is being implemented partly through the Cooperative College and partly at the field level; (b) technical assistance is being provided to the Zambia Cooperative Federation (ZCF); and (c) support to the Department of Marketing Cooperatives in the Ministry of Cooperatives.

4. CIDA Activities

Canadian International Development Agency (CIDA) is supporting some activities related to agricultural marketing: (a) a technician is provided to the Ministry of Agriculture and Water Development to assist with research on local processing of soybeans; (b) a series of shelters has been put up, mainly along the line of rail, to protect fertilizer and agricultural commodities from rain and sun; and (c) a supervisory engineer and spare parts are provided to rebuild 61 Champion road graders which had been provided by Canada some years ago (1971 and 1978).

5. Italian Government Aid Programs

The Italian Embassy administers three aid projects with relevance to the ZAMS Project: (a) one is to assist ZAMHORT (a parastatal) to expand its capacity and its range of processes in fruit, vegetable, and meat processing; this facility is located in Lusaka; the objective is to process for both the domestic and export markets; the factory is to be on-line in late 1989 with a capacity of 3,500 liters per hour, in bottles, jars, and cans; (b) four central rice mills are being established: in Mongu and Kalabo, in Western Province, at

Chipata in Eastern Province, and at Mansa in Luapula Province; each of the mills has a capacity of 1.5 tons per hour, with a combined total theoretical capacity of 15,000 tons annually, which is Zambia's current annual requirement; these are projected to be operational for the 1988 rice crop; and (c) four soybean and sunflower seed processing plants are to be set up along the line of rail to produce crude vegetable oil and livestock feed; also, a plant is to be established in Lusaka as a central facility to refine vegetable oil for the urban and industrial trade. All the Italian projects are implemented through parastatals.

6. Japanese Assistance in Storage

Japan's aid program has assisted with construction of five storage sheds in Copperbelt Province, to ease storage problems there.

7. World Bank Projects

World Bank projects are currently suspended, pending Zambia's payment of loan arrears. Probably the most relevant activity to the ZAMS Project would be the Export Diversification Project, if it were to be implemented. Among other activities, it would provide financing for a cool-room at the Lusaka International Airport, to facilitate exports of fresh fruits and vegetables. It would also provide substantial support to both the Export Board of Zambia and the Zambia Export Growers' Association.

IV. ESTIMATED PROJECT COSTS

A. A.I.D. Input

The estimated A.I.D. contribution to the ZAMS Project is $15.0 million. This includes technical assistance of $2.368 million, participant training of $1.786 million, transport sector commodities of $2.0 million, and agricultural marketing and project support commodities of $7.063 million. The balance of $1.783 million will provide for evaluations, audits, studies, contingency and inflation. A detailed financial plan is contained in Annex M. A financial plan summary is provided in Table I of the annex. Table II of the annex contains a schedule of A.I.D. obligations by fiscal year. Table III of the annex provides a financial plan, detailing A.I.D. projected accrued expenditures by fiscal year.

B. GRZ Input

The host country contribution is estimated at $18.0 million (including a $150,000 in-kind contribution from private sector sources). This amounts to 55 percent of the total project cost, as illustrated in Table I of Annex M. Table IV of the annex details the sources of the host country contribution by fiscal year. Roughly 48 percent of the host country contribution is comprised of ZK 69.6 million in local currency counterpart funds generated from two sources of imported commodities. The $2.0 million in transport sector commodities, when distributed throughout the country, will generate ZK 16.0 million in local currency. The agricultural marketing commodities of $6.7 million will generate ZK 53.6 million, after distribution in the target areas, in conjunction with AMAG consultancies.

Slightly less than half of the host country contribution (ZK 71.5 million or $8.94 million) will be derived from local currency counterpart funds already deposited in Bank of Zambia Special Account No. 846 through generations from other A.I.D.-funded projects and programs. The remaining host country contribution (ZK 2.9 million, or $363,875) consists of fees from the private sector generated from the AMAG advisory services (ZK 1,469,000 or $183,625), in-kind contributions from the private sector for technical assistance and training (ZK 1.2 million or ($150,000), and in-kind contributions from the GRZ such as salaries of GRZ staff (for in-country training) and personnel assigned to the project (ZK 242,000 or $30,250). The rate of inflation was calculated at about 47% per annum, beginning in FY 89.

Table V of Annex M provides a detailed budget for local currency expenditures by fiscal year. Table VI of the annex contains a detailed listing by fiscal year of the amount A.I.D. will finance for commodities (totaling $8.7 million, excluding TA support commodities).

Table 5 illustrates the means of AID financing for the various implementation methods used in the ZAMS project.

Table 5
Methods of Implementation of Financing

METHOD OF IMPLEMENTATION	METHOD OF FINANCING	COST ($'000)
Technical Assistance:	Direct Payment	$ 2,368
RFP, A.I.D. Direct Contract		$ 1,968
Grants to U.S. PVOs	Direct Payment	$ 400
Participant Training:		$ 1,786
Long-term U.S., Placement by USAID/Zambia	Credit Transfer to AID/W	$ 720
Short-term U.S. and T.C. Placement by Contractor	Reimbursement to Contractor	$ 637
In-country (for trainers) Supplied by Contractor	Reimbursement to Contractor	$ 429
Commodities: CIP-Type and AID Direct Contract	Bank Letter of Commitment and Direct Payment	$ 8,700
Other Costs: AID Direct Contracts and USAID/Zambia-issued Purchase Orders (e.g. T.A. Support Commodities, Evaluations/ Audits, and Studies	Direct Payment	$ 718
Contingency and Inflation		$ 1,428

V. IMPLEMENTATION PLAN

A. Contractor Responsibilities

The basic implementing unit for ZAMS will be the Agricultural Marketing Advisory Group (AMAG), which will be constituted through a direct USAID/Zambia contract with a U.S. firm or institution selected through open competition. The prime contractor will negotiate a sub-contract with a consulting group resident in Zambia to provide most of the long-term professional staff, plus the support staff and logistical support. Short-term technicians will be provided either by or through the prime contractor, the Zambian sub-contractor, or the International Executive Service Corps (IESC), depending on the specific requirement and which source has the most appropriate talent to offer. The prime contractor's Chief of Party will supervise all of the AMAG staff, including short-term technicians provided by both the prime and sub-contractors. The Chief of Party will maintain

liaison with the USAID/Zambia Project Officer and the Ministry of Commerce and Industry and will ensure that a close working relationship exists between AMAG staff, SIDO, VIS, IESC, other U.S. PVO's and Zambian NGO's. AMAG will have responsibility for planning and implementing the training program and commodity procurement, except for an initial $3.0 million procurement, which will be handled by USAID/Zambia prior to the arrival of the AMAG technical assistance team.

B. GRZ Responsibilities

Implementation of ZAMS will require a minimum of direct involvement by GRZ agencies other than the Ministry of Commerce and Industry, although considerable interaction with several different agencies will be important to the success of the project. The Project Agreement will be negotiated with and signed by the Ministry of Finance, because of the financial and budgetary implications of a relatively large proportion of the project's dollar funds being used for commodity imports, as well as the programming of counterpart funds. Three line ministries will be especially relevant to implementation of the project: the Ministry of Commerce and Industry, Ministry of Agriculture and Water Development, and Ministry of Cooperatives. The ZAMS Advisory Council is to have a representative at the Permanent Secretary (PS) level from each of these ministries and one from the Ministry of Finance (in addition to the USAID/Zambia Director and the Chief of Party of AMAG). The Council will be chaired by the PS of the Ministry of Commerce and Industry. It will meet periodically to keep abreast of developments in the project and to provide insights to AMAG on potential new interventions, to review AMAG's annual work plans, and to review and approve long-term training programs.

C. USAID/Zambia Responsibilities

The overall responsibility for project implementation will be with the USAID/Zambia Mission Director. A Project Officer will be designated by the USAID/Zambia Mission. This person will monitor activities of the contractor, maintain liaison with the three GRZ line ministries, and participate in the relevant meetings concerning project implementation.

The Commodity Procurement Officer will take lead responsibility for implementing the initial $2.0 million commodity procurement, for tires, tubes, and spare parts for trucks. Subsequently, he, supported by the RCMO in REDSO/ESA, will be available for consultation on procurement actions taken by AMAG . The USAID/Zambia Training Officer will provide backstopping assistance for long-term and short-term training. REDSO/ESA will provide legal, contracting, and periodic project

backstopping. USAID/Zambia will provide housing and housing support services for the non-resident members of the technical assistance team. (All other logistical support services for the technical assistance team will be the responsibility of the contractor.)

USAID/Zambia will be actively involved in development of the annual workplan for AMAG and in review of progress.

D. Responsibilities of Private Sector Institutions

Funds (primarily counterpart local currency) will be provided through the ZAMS Project to enlist the services of U.S. private voluntary organizations (PVOs) and local NGOs--such as Small Industries Development Organization (SIDO) and Village Industries Services (VIS)--to assist with implementation of selected elements of the project. For instance, there are three American PVOs -- Volunteers in Technical Assistance (VITA), Africare, and Save the Children Fund (SCF) -- which could potentially assist with planning and implementation of the sunflower oil activities of the project. VITA has been working closely with VIS, in pilot work with village-level, hand-powered presses, specifically involved in training in management and accounting. Africare and SCF have experience in implementing field activities in Zambia, and have expressed interest in being involved in helping implement ZAMS field projects.

Primary cooperative societies, which are private in the sense that they are owned and operated by the members, will be assisted through the project to implement approved activities within the geographic areas of concentration of activities.

A significant number of private consulting firms resident in Zambia have individuals experienced in various aspects of agricultural marketing, management, accounting, and related disciplines. Some of these are owned partially or wholly by Zambians. Others are either multinational or have parent companies in the U.S. or in third countries. A profile of some 22 companies is given in Supplementary Annex 3: Institutional Analysis of Agricultural Marketing Firms in Zambia. It is planned that AMAG will draw on these firms for specific kinds of short-term consultants when their specialties match project needs.

During project design, the USAID/Zambia Mission had discussions in connection with an unsolicited proposal with representatives of the IESC, including the Vice President for Africa. Agreement in principle was reached with IESC, subject to formal agreement by the GRZ, that IESC will open a country office in Zambia. (IESC is already conducting a limited number of projects in Zambia.) The IESC principals and the Mission agree that ZAMS would benefit from the kinds of consultants that IESC can provide and that ZAMS offers a basis for IESC to "hit the ground running." ZAMS will provide local currency funding and dollar funding for IESC activities which are directly related to ZAMS.

E. Commodity Procurement and Payment Procedures

Commodity procurement will be divided into two activities: (a) Transportation Sector Support valued at $2.0 million, and (b) Agricultural Marketing/Technical Assistance Support valued at $7.063 million. To facilitate access to the Zambian private sector, A.I.D. Regulation 1 procurement procedures, emphasizing good commercial practice and a minimum of bureaucratic involvement by A.I.D., will be used. Host-country contracting will be utilized between GRZ/AID-approved importers and suppliers of commodities eligible for financing under the agreement. The Ministry of Finance or the Ministry of Commerce and Industries will act as signatory and have primary GRZ responsibilities for monitoring compliance with the terms and conditions of the Agreement. The Commodity Management Officer in USAID/Zambia will have primary administrative and monitoring responsibilities under the transport sector procurement activity, while AMAG will have similar responsibilities under the agricultural marketing/technical assistance support procurement activity. It is expected that truck tires, tubes, and spares will be the primary commodities eligible for financing under the transport sector support activity. Under the agricultural marketing support activity, a broader list will be eligible, including items such as oilseed expellers, extruders and spares, canning equipment, food and juice processing and packing equipment, small-scale milling equipment, scotchcart component parts, equipment/spares for existing food-processing equipment, various types of trucks, and commercial refrigeration equipment.

Payment procedures will be in accordance with A.I.D. Regulation 1. (See Annex K.) A bank letter-of-commitment/ commercial-letter-of-credit financing method will be employed to use the commercial banking community to the maximum and to provide a system familiar to both the local importer community and prospective suppliers. As a member of the ZAMS Foreign Exchange Allocation Committee (FEAC), USAID/Zambia will concur in all forex allocations under the agreement and authorize the issuance of all letters of credit.

If approved by FEAC, a letter will be given to the importer advising the GRZ Foreign Exchange Management Committee (FEMAC) that its concurrence with the ZAMS forex allocation is requested within five working days of the appropriate FEMAC review session. When FEMAC concurrence is received and the import permit is approved, the importer will make a kwacha counterpart deposit equivalent to the value of the importation at a local bank participating in the program. (The local bank will transfer these funds to Special Account No. 846 at the Bank of Zambia.) Upon its review of the deposit receipt, USAID/Zambia will authorize the appropriate local bank to issue a letter of credit to be confirmed through the A.I.D. Letter of Commitment bank designated by the GRZ.

F. Implementation Schedule

The projected implementation schedule for the project appears below. When the technical assistance team arrives in-country, they will prepare an updated and more detailed implementation plan.

Date	Action	Responsibility
7/12/88	Project Paper design completed	USAID
7/15/88	Arrearages paid	GRZ
7/22/88	Project authorized (in the field)	USAID/Director
8/15/88	Project Agreement signed	GRZ/USAID
8/88	RFP prepared for TA	USAID
8/88	ZAMS Foreign Exchange Allocation Committee established	GRZ/USAID
8/88	Determine local bank(s) & U.S. L/Com bank for transport sector support activity	GRZ/USAID
8/88	Guidelines prepared for local importers to participate in trans. sector activity	USAID
9/5/88	RFP sent to AID/W	USAID
9/88	Financing request signed & bank L/Com issued	USAID/GRZ
9/88	First local currency agreement (for ZK 15 million) signed	GRZ/USAID
9/88	Commodity procurement ($2 mil) initiated	USAID
10/3/88	Notice/Solicitation of Proposals for TA appears in CBD	AID/W
1/2/89	TA proposals received	USAID
2/9/89	TA Contractor selected	USAID
3/13/89	TA contract signed	USAID/Contractor
4/1/89	TA sub-contract signed	Contractor/sub-contractor
4/10/89	TA team Chief-of-Party arrives	Contractor
4/15/89	Remaining TA team is mobilized	Contractor/sub-contractor
6/89	First annual work plan completed	AMAG
6/89	First short-term trainees depart	AMAG/GRZ

8/89	First long-term trainees depart	AMAG/GRZ
9/89	Disbursements completed ($2.0 mil)	Local importers
9/89	First in-country training given	AMAG
9/89	Baseline studies contracted	USAID/AMAG
12/89	Baseline studies completed	Local grantee
4/90	First annual internal review	AMAG/GRZ/USAID
6/90	Second annual work plan completed	AMAG
4/91	Mid-term evaluation	USAID
6/91	Third annual work plan completed	AMAG
4/92	Third annual internal review	AMAG/GRZ/USAID
6/92	Fourth annual work plan completed	AMAG
4/93	Final evaluation conducted	USAID
5/93	Last TA team member departs	Contractor
9/30/93	Project Assistance Completion Date	USAID

VI. MONITORING PLAN

Monitoring of ZAMS Project activities on a day-to-day basis will be the responsibility of AMAG. Both USAID/Zambia and the ZAMS Advisory Council will have an overview responsibility for monitoring.

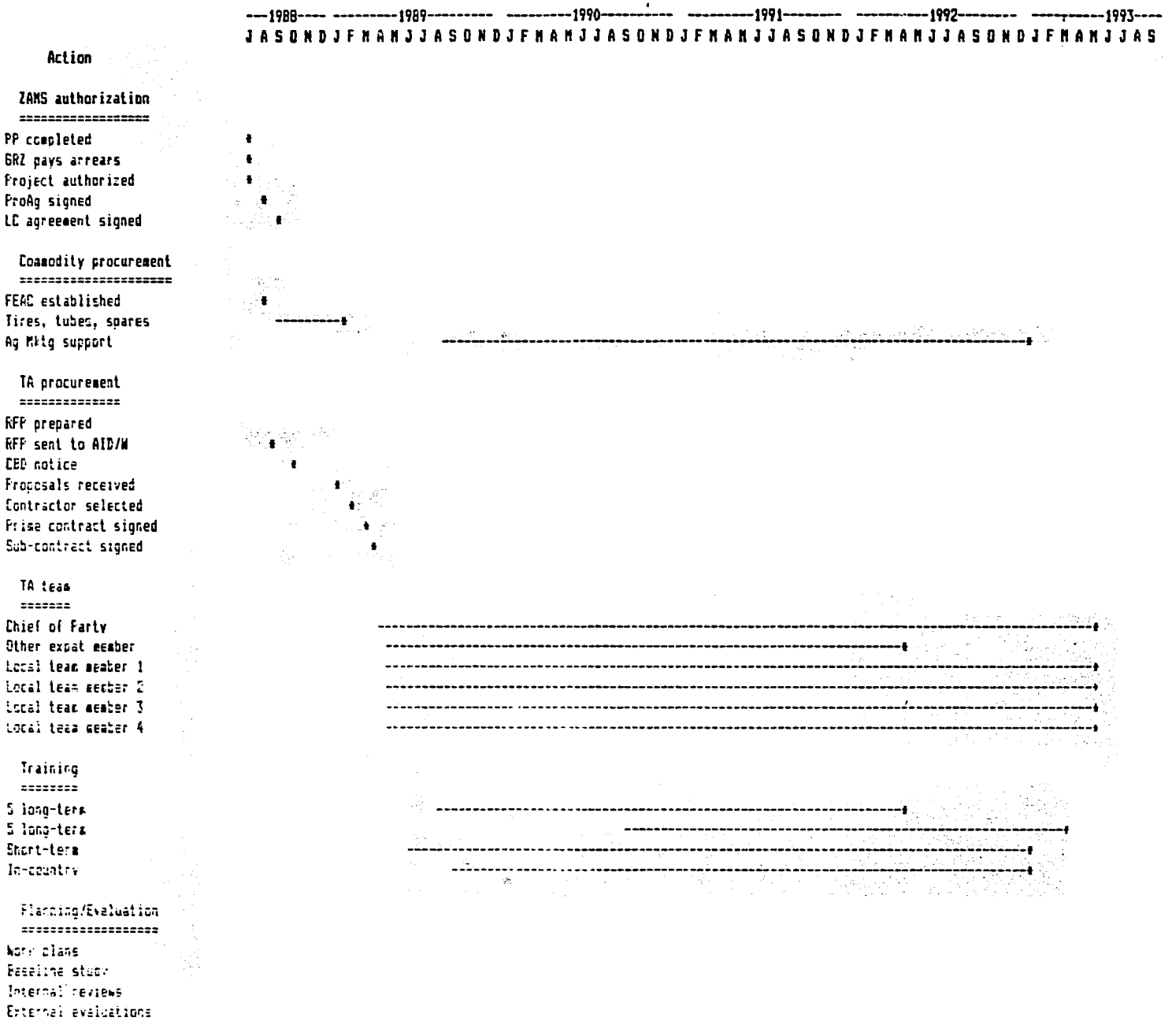
USAID/Zambia's Project Officer for the ZAMS Project will be most directly involved in USAID/Zambia's overview monitoring of the project. He or she will meet regularly with the AMAG Chief of Party to stay abreast of progress and issues. In addition, the Project Officer will call on the Mission's Commodity Procurement Officer and the Training Officer to help monitor the commodity and training components of the project. Other members of the Mission's staff (e.g., the Agricultural Economics Officer) will assist on technical matters, as required).

Under supervision and coordination of the Chief of Party, AMAG will provide regular quarterly reports to both USAID/Zambia and the ZAMS Advisory Council, describing in detail the activities carried out during the quarter, problems and issues that arose during the period, a suggested plan of action to rectify the problems, and an outline of activities planned for the next quarter.

AMAG activities will be within the context of annual work plans, which will have been reviewed and approved by USAID/Zambia and the ZAMS Advisory Council. The work plans will serve as benchmarks to assist USAID/Zambia and the ZAMS Advisory Council with the monitoring process. USAID/Zambia and the ZAMS Advisory Council may request special reports of AMAG on any activities or issues in which there may be concern or particular interest.

Firms using AMAG services will be asked to submit reports with relevant information on the effects of assistance provided.

Figure 2. ZAMS Project Implementation Schedule



PVOs will be required as a part of the Operational Program Grants (OPGs) to carry out detailed, small sub-sample monitoring.

In selected cases, local currency contracts will be used to employ local institutions, such as the Rural Development Studies Bureau (RDSB), to carry out studies of how a particular project activity is progressing, who is benefitting, and to what extent the activity is contributing to project objectives.

VII. SUMMARIES OF ANALYSES

A. Technical Analysis

The Technical Analysis (Annex F) validates the areas of focus suggested in the PID. There are some slight shifts in emphasis. Among the marketing functions, the main emphasis of the project will be on the physical functions of transportation, storage, processing, and handling, as suggested in the PID, and some attention will be given to the facilitating functions, such as improved quality standards. Oilseeds remain as a primary initial focus. Fruits and vegetables, especially processing, are to be given earlier attention than was indicated in the PID, based on conclusions of the analysis that both needs and opportunities exist in this sub-sector. Opportunities for viable interventions in sorghum and millet, if anything, are less easy to visualize than was indicated in the PID, given current pricing policies for maize and maize meal, which limit demand for sorghum and millet. Technical possibilities do exist for interventions in sorghum and millet. Therefore, the door is left open for the project to assist in these commodities when and if changes in pricing policies so warrant. Cassava may offer more opportunity for interventions than sorghum and millet, but possible activities will have to be studied before this might become a focus.

1. Oilseeds

The technical analysis suggests that a good potential exists for marketing interventions, especially in processing. Sunflower seeds can be processed efficiently on a small scale into vegetable oil for human consumption and high-protein cake for livestock. Based on pilot work carried out by various agencies, low-cost hand-operated presses show considerable promise in rural areas. Somewhat larger, but still small-scale, electric or diesel powered presses may also be appropriate in some cases.

Soybeans are more difficult to process into vegetable oil on a small scale. For vegoil purposes, large-scale solvent extraction plants are more efficient. However, for processing whole soybeans, a small to medium-scale extruder has been

satisfactorily introduced into Zambia. At the moment, about 10 of these machines are being used to process whole soybeans into full-fat oilseed cake to be used in livestock feed. The University of Illinois has developed an ancillary machine (expeller) which removes about 3/4 of the oil prior to running the beans through the extruder. This has the dual advantage of salvaging much of the oil and of producing an improved residual cake for either a high-quality human food or for livestock.

Cottonseed is processed more efficiently by large-scale solvent extraction plants. Few, if any, interventions are visualized for ZAMS.

Groundnuts in Zambia are valued more as an ingredient in "relish" or for confectionery purposes than for oil, although a small percentage is processed locally for oil. The small-scale sunflower seed expellers can be used as well for groundnuts.

2. Fruits and Vegetables

From among several options for activities, the following priority interventions are identified for initial emphasis:

- o Processing. This will consist of: (a) helping to establish new firms, especially in processing fruits into juices, concentrates, and squashes for the soft drink industry, with the locus of processing being in areas where the fruit is grown, and (b) assisting existing private firms to increase the quality, efficiency, and production capacity of their processing operations.

- o Market Facilities. This will provide local currency support to district and local councils to construct or rehabilitate market facilities. Emphasis will be on wholesale markets, to improve efficiency of handling and transactions and to improve sanitation, and on establishment of collection points in producer areas, to improve efficiency in handling and transportation. In selected cases, assistance to improve retail market facilities may be provided.

- o Transportation. Road repair and transport will be included as an integral part of the first two interventions to the extent needed to achieve objectives of the project.

A spin-off of the above interventions will likely be some stimulus to increase exports of fresh fruits and vegetables to Europe and to neighboring countries in Africa. A small amount of technical assistance, training, and commodity assistance may

be directed to this export potential, although exports clearly will not be a major thrust of the project. One of the biggest needs is to work with medium-scale farmers who would like to produce for the export market, but who are not able without help to grow and package the quality of produce demanded by the European markets. With help, some of these growers would be able to improve quality sufficiently that one or more of the large exporters would be interested in contracting with them to expand the volume of exports to their mutual advantage. Two kinds of assistance are visualized: (a) technical assistance and training in producing, packing, and handling produce, to achieve the required quality standards, and (b) on-farm cool-rooms and refrigerated trucks, where these are warranted.

3. Minor Crops

Except possibly for the brewery industry, there does not appear to be a substantial opportunity for interventions in marketing of sorghum and millet unless and until pricing policies change. A potential may exist for processing cassava into intermediate products, such as starch, fuel alcohol, or flour for industrial uses; this will need to be studied to determine if such a potential exists in the current price-policy environment. Small-scale rice threshers may be a useful intervention in areas in which rice is grown, both to reduce transportation costs of moving the paddy to central milling facilities and returning the rice to be consumed, and to make the rice more readily available to be consumed in the production areas. The need for and the feasibility of this potential intervention will need to be studied. Beans form a major part of the diets of most Zambians, but are not traded in significant quantities through formal markets. Substantial production potential exists in Northern and Eastern provinces; the feasibility of establishing a more formalized market for beans, to encourage production and distribution of this high-protein food, needs to be studied.

4. Infrastructure

Most of the rural roads are in very poor condition, often unusable in the rainy season, and shunned by truckers during the dry season. Mechanical grading equipment is largely disfunctional. Because usable roads are such an important aspect of efficient marketing, the project will provide assistance to road repair in those areas of the country in which other types of interventions are concentrated. For the most part, this will consist of counterpart currency grants to the agency responsible for road maintenance, with built-in assurances that the resulting repair work will facilitate achievement of the project objectives. To a limited extent, U.S.-made graders may be rehabilitated with project funds, for

use in geographic areas of project focus. This would entail dollar funds for import of spare parts and local currency for labor to do the repair work. A maintenance program would be built into sub-activities for rehabilitating road equipment. The question of recurrent costs would need to be satisfactorily answered as a precondition of this kind of assistance.

To a very limited extent for the hotel and tourist trade, possibly for wholesale or retail markets, and more particularly to facilitate the export of fresh fruits, vegetables, and flowers, a "cold chain" is required to remove field heat at the farm, to keep the produce cool during transit, and to hold it for several hours if necessary. The "requirement" for this kind of infrastructure is considerable. The ZAMS Project will consider assisting with this type of investment only in selected cases in which the benefits would fit squarely with project objectives.

B. Administrative Analysis

The primary implementing entity for the ZAMS Project will be the Agricultural Marketing Advisory Group (AMAG). AMAG will consist of a team of experts and the necessary technical and back-up support staff to assist with project administration and implementation. The Chief of Party, a senior agricultural marketing specialist, will have the responsibility of interacting with the USAID/Zambia Project Officer for ZAMS.

Other organizational possibilities were considered during project design. These involved administration by GRZ ministries, local PVOs or contractors, or making use of centrally-funded projects to provide technical assistance. However, given the scope of the project in commodities, technical assistance and training, it was determined that a U.S. contractor teamed with a local consulting group would provide the best administrative entity. This assessment also took into consideration the large number of GRZ agencies and private organizations that need to be involved in the project

The procurement of goods and services under the project will be handled in a straightforward way. First, USAID/Zambia will request the REDSO Regional Contracts Officer to send out a Request for Proposals (RFP) from potential U.S. contractors willing to provide the consulting services of selected U.S. marketing professionals on a resident basis. Potential contractors will be required to team up with a local Zambian consulting firm or firms as sub-contractors to provide complementary professional and support services.

Technical services will be provided by AMAG under the ZAMS Project. These services will be available within Zambia

to eligible clients on an as-needed basis and will primarily be provided by the long term technical assistance team located in Lusaka. These services will be supplemented by TA provided through AMAG's implementing partners. AMAG will work closely with SIDO and VIS.

A plan for the procurement of commodities is detailed in Annex K: Procurement Plan.

C. Economic Analysis

Due to the nature of the ZAMS Project, which is purposely designed to be flexible enough to shift emphasis to new interventions as the policy environment changes, it is not practical to do a benefit/cost analysis of the project. Rather, the economic analysis for the project consists of a cost-effectiveness analysis plus a set of criteria to be used as a basis for judging the economic worth of particular interventions (Annex H).

1. Cost-effectiveness Analysis

The ZAMS Project is justified on the basis that it is the most cost-effective approach by which to achieve the project's objectives of increased incomes, increased food production, and improved nutrition, through improvements in agricultural marketing. This will be achieved principally through: (a) reduced marketing margins, and (b) increased employment, particularly in rural areas. Essentially, the underlying rationale for each activity undertaken in the project is that it will promote economic competition, improved economic efficiency, and jobs. Alternative foci considered would all be less cost-effective approaches to achieving project objectives. Those considered include: (a) improving the largest food commodity markets, (b) assisting the dominant firms in the food marketing industry, and (c) supporting parastatals in agricultural marketing.

2. Criteria for Domestic Marketing Activities

The following economic criteria are established to ensure that activities under the ZAMS Project are consistent with the underlying rationale for the project. Each activity will require, in essence, an activity-specific justification either in cost-effectiveness or cost-benefit terms.

Criterion # 1: The industry within which firms are to be assisted must be one with a reasonable degree of economic competition.

Criterion # 2: Industries not meeting the economic competition requirement can become eligible industries if and

only if the employment and income benefits associated with the industry outweigh the negative aspects of excessive concentration of market power.

Criterion # 3: Firms receiving technical assistance and commodity support through AMAG would be within industries having met either this economic competition or employment generation requirement; preference will be given to firms operating in rural areas that have met domestic eligibility criteria numbers 1 and 2.

Criterion # 4: The proposed activity must meet minimum economic viability conditions, in addition to financial viability conditions.

Criterion # 5: Import parity prices should be used in calculating whether the minimum economic viability conditions of the marketing activity can be met.

3. Criteria for Export Marketing Activities

Analysis of potential support for export activities requires the consideration of the various exchange rates currently in use in Zambia, as well as use of the distinction between financial and economic viability. Currently, four foreign exchange markets exist in Zambia: (a) the White, or official, market, (b) the Black, or parallel market, (c) the Green market, for trading of foreign exchange earned through non-traditional exports, and (d) the Red, or pipeline debt dismantling market. The White, Green, and Red markets are all legal; the Black market is illegal.

The structure of Zambia's foreign exchange markets generates the possibility for an export activity to be financially profitable, but not economically viable. This leads to a sixth economic criterion related to the valuation of foreign exchange in calculations of economic viability.

Criterion # 6: For activities to be economically viable, both the direct foreign exchange costs and the export proceeds should be valued at a shadow exchange rate which reflects a market valuation of the kwacha relative to the U.S. dollar (i.e., the Green market exchange rate).

D. Social Soundness Analysis

The Social Soundness Analysis (Annex I) contains detailed data on the sociocultural context of the ZAMS Project, beneficiaries, and participation, and implications for design and implementation of the project. One common thread in the analysis merits highlighting: women play an important role in traditional agriculture and in small-scale enterprises, yet they are disadvantaged relative to men in many ways.

In Zambia, women perform 60% to 80% of the labor in traditional food production. Predominantly women sell food, especially fruits and vegetables, in urban retail markets. Historically, certain economic activities in the formal sector have not been readily accessible to women, but women account for 60% of the ownership and 54% of employment in small-scale enterprises. In short, women play an important role in traditional crops and in small-scale enterprises, both of which are foci of the ZAMS Project.

Dominant sociocultural values, attitudes, and practices in Zambia regarding women's responsibilities and roles will affect the extent to which women participate in and benefit from the project. Therefore, special efforts will be made in implementing the project to promote women's participation. Activity selection criteria will emphasize non-discrimination, or affirmative action, for women. Training plans will include realistic targets for women participants.

During the first year of the project, AMAG will develop a monitoring and evaluation system, which will be required for each of its activities. As a part of this plan, firms which receive assistance under the project will be asked to provide baseline information, annual reports, and end-of-project information with, among other items, employment generated by the activity, disaggregated by full-time and part-time workers and by sex.

For each proposed activity, a beneficiary assessment will be made to determine whether the anticipated benefits and beneficiaries are consistent with the ZAMS Project goal and purpose. The assessment will be done either before a feasibility study is undertaken or as an integral part of the feasibility study, but before the sub-project is activated. Criteria are established for an acceptable level and type of benefit incidence on which to base approval of each sub-project. These criteria are described in detail in Annex I, and are summarized as part of "Market Activity Selection Criteria," beginning on page 22 of the Project Paper.

Local-level interventions will be planned with a package approach that includes information dissemination, technical assistance, and training, in addition to possible imported equipment. Those implementing the package, whether NGOs, contracted technical assistance, the GRZ, or some combination thereof, will be required to monitor the program to assure that the package is appropriate, that it is reaching the intended beneficiaries at a reasonable cost, and that it is consistent with the ZAMS Project goal and purpose.

To maximize potential benefits and reach the ZAMS Project's objective of raising rural incomes, information and extension advice may be required to small-scale producers on both production and on-farm processing or packaging. This is mainly to assure adequate quality standards for processing of agricultural commodities, but may also include some advice, for example, on alternative farming systems that would incorporate a cash commodity (e.g., planting of fruit trees, planting a vegetable crop in the off-season, or interplanting) or on use of oilseed cake for livestock.

The AMAG will explore establishing a kwacha fund that would either permit an NGO (via a grant) to provide an extension advisor to a processor, or would permit the processor to hire the extension advisor directly (via a contract with AMAG). The advisor's salary should be met on a declining basis by the project and on an increasing basis by the processing firm, so that at the end of five years the firm is completely recompensing the extension advisor and has established such a position on its staff. This approach applies equally to new entrants and existing firms, including those commercial farms that wish to begin contracting with small-scale outgrowers.

As shown in the social soundness analysis, small scale enterprises (SSEs) provide seven times the employment of large scale enterprises. A 1985 survey identified the lack of imported materials as the primary constraint to the growth and operation of SSEs. Thus, in selecting commodities to be imported under the ZAMS Project, the needs of selected agriculturally-related SSEs will be assessed to assure that they are met.

Experience in Sub-Saharan Africa indicates that small-scale group-owned business enterprises have greater potential for success if undertaken by an existing voluntarily associated group; that is, a group consisting of people who have already had experience working together and resolving problems, and who already have some business and management skills. This means that, for the most part, organizations that have already managed a similar activity are the priority targets for placement of local-level processing equipment.

Twenty pick-up trucks are slated for importation under the project. The primary beneficiaries of these pick-up trucks will be their purchasers. Preference in allocating these will be given to the lowest income stratum that is creditworthy (i.e., emergent farmers). The primary occupation of the purchaser must be farm production or a backward or forward linkage to agricultural production. Also, the truck must have a high probability of being used in transporting agricultural materials as its primary function.

E. Energy and Environmental Sustainability Analysis

The Project Identification Document for ZAMS recommended a negative determination for the Initial Environmental Examination. The negative determination was approved in AID/Washington. (See Annex N.) Notwithstanding this, AMAG will examine each sub-activity prior to its implementation and, if there are potential environmental implications, an environmental assessment will be carried out as part of the feasibility study.

An Energy and Environmental Sustainability Analysis (Annex M) was done for ZAMS. The conclusion is that in general the ZAMS Project will make a positive contribution to the sustainability of agriculture in Zambia through:

- reducing the need for transportation by encouraging processing in rural areas, thus saving both diesel fuel and the investment in transportation facilities;
- using hand-operated processing equipment whenever feasible, thus conserving other forms of energy if they are the constraining resource;
- using electricity (renewable energy) rather than diesel (non- renewable energy) whenever practicable;
- encouraging production practices which capitalize on biological nitrogen fixation and organic methods and which reduce dependence on imported commercial fertilizers and other chemicals; and
- encouraging processing techniques which reduce the need for cooking, thus reducing firewood use.

VIII. EVALUATION ARRANGEMENTS

Two formal, external evaluations are planned: a mid-term evaluation about two years after the technical assistance team arrives, and a final evaluation near the end of the project period. In addition, annual internal reviews will be carried out. The latter will be necessary because of the flexibility which is built into the project to facilitate shifts in focus when policies change or when new opportunities arise.

A. External Evaluations

The ultimate responsibility for the external evaluations will lie with the USAID/Zambia Mission. However, AMAG will be

responsible for planning, organizing, and implementing the collection of baseline data, to provide an objective basis for the evaluations. USAID/Zambia will approve the plan for baseline studies before it is implemented.

One dimension of these studies will be to provide project-specific baselines. Another will entail socioeconomic baselines focused on the immediate areas affected by sub-project activities, to obtain information on incomes, nutritional standards, and employment generated (by gender).

The NGO or PVO responsible for managing specific sub-project activities will be required to have a plan for baseline studies, monitoring, and evaluation. The main information to be collected will be on nutritional status, rural incomes, and employment. A few key variables from existing, regularized data collection efforts, such as CSO surveys, hospital records, and Ministry of Commerce and Industry statistics should be supplemented with project-supported, small-scale, intensive data collection efforts based on sub-samples. Information relevant to the specific activity will be needed. For instance, for a village oilseed processing venture, information would be needed on the number of families benefitting from the activity, the volume of vegetable-oil produced, the volume of oilseed cake produced, and the number of bags of oilseed processed. These kinds of data should be covered in the monitoring plan.

During the first half-year after AMAG is constituted, AMAG will develop its monitoring and evaluation system. Since its activities will be diverse, AMAG will have to specify the particular data points for each type of activity. For example, firms which benefit from fruit processing equipment imported through the ZAMS Project will be required to provide annual reports, which will serve as a monitoring tool, on the volume of output, volume of fruit purchased by the firm, number of outgrowers and their general location, services provided to outgrowers, and employment, disaggregated by fulltime and parttime workers, and by sex. As part of the agreement with a firm, AMAG will require the firm to provide baseline information and annual reports, and assurances of access of evaluators to the firm's records. The plan will be submitted to USAID/Zambia for review and comment to ensure that USAID/Zambia evaluation needs are met. A social scientist with experience in A.I.D. monitoring/evaluation will be requested to review the proposed data sets and collection and analysis plans.

A Consultancy and Training Workshop will identify the kinds of information to be gathered as a basis for evaluating the in-country training component, and at what stages in the training process. AMAG will devise a pre- and post-evaluation form for those who are sent for external training.

USAID/Zambia will recruit an external evaluation team for mid-term and final evaluations with an appropriate skill mix to fully use all baseline data and analyses performed under the project. A major objective of the final evaluation will be to verify sustainability of the project. Recognizing that it may be difficult to obtain adequate measures of sustainability before the project ends, consideration will be given near the end of the project to holding a "split" final evaluation. This would entail a regular evaluation before the technical assistance team departs, and a mini evaluation to assess sustainability eight to twelve months after the PACD.

B. Annual Internal Reviews

The annual reviews will be organized by AMAG. These reviews are to be held just prior to the time that the next annual work plans are to be prepared, and will be an important part of the planning process. The reviews will include the ZAMS Advisory Council members, the USAID/Zambia Project Officer, and representatives of other organizations and institutions involved in project implementation, as well as the AMAG technical staff.

The ZAMS Project will provide for one or two specialists from outside to come to Zambia for two to three weeks prior to the internal reviews, to become familiar with project objectives and activities and, more importantly, to offer ideas on new activities or approaches. They will then participate in a workshop to help conceptualize and structure activities for the next year.

IX. CONDITIONS AND COVENANTS

Other than the standard provisions contained in the Project Agreement (Annex E: Draft Project Agreement), the ZAMS Project does not contain conditions and covenants. The project is designed to operate within the existing policy environment and to take advantage of any changes in policy in the future.

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SUBJECT: ZAMBIA AGRICULTURAL MARKETING SYSTEMS (611-0214) PID

REF STATE

1. SUMMARY. PER REFTEL, ECPR APPROVED SUBJECT PID 3/30/88. PROJECT PAPER APPROVAL AUTHORITY IS DELEGATED TO USAID/ZAMBIA. ECPR WAS CHAIRED BY AFR/PD DIRECTOR C. PEASLEY, AND ATTENDED BY REPRESENTATIVES FROM AFR/SA, PD/SA, AFR/TR/ARD, AFR/DP, PPC/PDPR, GC/AFR, AND OTHERS. DIRECTOR TED MORSE REPRESENTED MISSION AT REVIEW. MAIN ISSUES DISCUSSED INCLUDED NEED TO CLARIFY AND FOCUS PROJECT CONCEPT/STRATEGY; DOMINANCE OF MAIZE PRODUCTION/PROCESSING AND POTENTIAL DISINCENTIVE EFFECTS VIS-A-VIS THIS PROJECT; AND ADEQUACY OF AMAS TECHNICAL ASSISTANCE COMPONENT. DETAILED GUIDANCE FOLLOWS.

2. PROJECT CONCEPT/STRATEGY. PROJECT CONCEPT/STRATEGY SEEMS OPEN-ENDED AND NEEDS SHARPENING IN THE PROJECT PAPER. PP SHOULD PROVIDE MORE DETAIL ON POTENTIAL UNIVERSE AND NUMBER OF BENEFICIARIES; PID STATES GENERALLY THAT EVERYONE FROM PEASANT FARMERS TO PARASTATALS COULD BE INVOLVED. HOW WILL VARIOUS ACTORS

IN THE MARKETING SYSTEM -- THE GRZ, PARASTATALS, FARMERS, PRIVATE SECTOR PROCESSORS/DISTRIBUTORS -- INTERACT?

IN ADDITION, RECOMMEND CONCENTRATION ON LIMITED NUMBER OF CROPS, INCLUDING OILSEEDS AND PERHAPS TWO OR THREE OTHERS MENTIONED IN PID. ECONOMICS OF EACH CROP TO BE INCLUDED SHOULD BE EXAMINED IN RELATIONSHIP TO MAIZE PRICING (SEE PARA. 4 BELOW), SINCE WE WANT TO CONCENTRATE ON CROPS WITH THE HIGHEST ECONOMIC RATE OF RETURN.

TO MEET 611(A) CONCERNS, THE PP SHOULD INCLUDE CRITERIA FOR SELECTION OF T.A. AND NON-CIP COMMODITY INTERVENTIONS FOR THE WHOLE PROJECT, INCLUDING CROPS AND TYPES OF INTERVENTION; PROCEDURES FOR SELECTION; AND ILLUSTRATIVE INTERVENTIONS COSTED OUT AT LEAST EQUAL TO

Best Available Document

THE AMOUNT OF THE COMPONENT (TO JUSTIFY THE ALLOCATED AMOUNT). SUFFICIENT PRE-PP STUDIES AND ANALYSIS SHOULD SUPPORT SELECTION OF CRITERIA. ALSO, ECPR RECOMMENDS THAT FIRST YEAR OF PROJECT ACTIVITIES BE SPELLED OUT IN DETAIL IN PP.

3. STRUCTURE/FUNCTION OF AMAS. PROJECT PAPER SHOULD CLARIFY INSTITUTIONAL OBJECTIVES AND ROLE OF AMAS ADVISORS, WITH REGARD TO MANAGEMENT, ADVISORY SERVICES, PROCUREMENT PLANNING, TRAINING, ETC. IN ADDITION, PP TEAM SHOULD PERFORM INSTITUTIONAL ANALYSIS OF THE FIVE LOCAL MARKETING FIRMS WHICH ARE CANDIDATES FOR HOUSING THE AMAS FUNCTION. PP SHOULD EXAMINE THE EXPERIENCE/SKILLS BASE OF THESE FIRMS, AND ASSESS THE EXTENT TO WHICH THE AMAS T.A. COMPONENT AS ENVISIONED IN THE PID WILL ADEQUATELY SUPPLEMENT THAT LOCAL CAPABILITY. MORE LONG-TERM AND LESS SHORT-TERM T.A. MAY BE APPROPRIATE.

THE PP SHOULD EXAMINE CAREFULLY THE POTENTIAL CONTRACTUAL RELATIONSHIP OF THE U.S. T.A. TO THE LOCAL FIRM(S) (SUBCONTRACT, GRANT, ETC), AND AVOID REQUIRING A PARTICULAR SUBCONTRACTOR OR JOINT VENTURE PARTNER, BECAUSE OF COMPETITION CONSIDERATIONS AND TO AVOID RELIEVING THE PRIME CONTRACTOR OF RESPONSIBILITY.

GIVE SPECIAL ATTENTION TO TRAINING AND LOCAL CURRENCY-FUNDED CONSTRUCTION ACTIVITIES AND HOW THEY WILL BE MANAGED. (MISSION MAY WISH TO CONSIDER NEED FOR A LOCAL-HIRE ENGINEER TO USAID STAFF, TO SUPPLEMENT THE CONTRACT PLANNED WITH LOCAL LUSAKA ENGINEERING FIRM FOR MANAGEMENT OF LC-FUNDED CONSTRUCTION

ACTIVITIES.). IF LOCAL TRAINING ORGANIZATIONS ARE TO BE INVOLVED IN SHORT-TERM TRAINING, PP SHOULD INCLUDE INSTITUTIONAL ANALYSIS OF THESE AS WELL.

4. ECONOMIC SOUNDNESS. IN VIEW OF HIGH PRODUCER PRICES AND LOW CONSUMER PRICES FOR MAIZE AND DOMINANCE OF MAIZE PRODUCTION IN ZAMBIA, PP SHOULD EXAMINE FEASIBILITY OF ASSISTING MARKETING OF ALTERNATIVE CROPS. IT IS CONCEIVABLE THAT DESPITE MARKETING AND COMMODITY ASSISTANCE OFFERED UNDER ZAMS, FARMERS STILL MAY BE RELUCTANT TO SWITCH OUT OF MAIZE PRODUCTION BECAUSE OF ITS RELATIVE PROFITABILITY. ECPR HAS SKEPTICISM OF ECONOMIC FEASIBILITY OF ZAMS BECAUSE OF MAIZE PRICING ISSUE. PP MUST DEMONSTRATE THE ECONOMIC AS WELL AS FINANCIAL SOUNDNESS OF INCREASED PRODUCTION OF TARGETTED CROPS.

5. COMMODITY PROCUREMENT. NON-OIP PORTION OF PROJECT PROCUREMENT WILL REQUIRE ELABORATION IN THE PROJECT

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PAPER. WE FORESEE HUNDREDS OF DISCRETE PROCUREMENT ACTIONS, AND WERE CONCERNED ABOUT MANAGEMENT AND AUDIT IMPLICATIONS OF THESE. PP SHOULD EXAMINE WHETHER U.S.-BASED PSA WILL BE ADEQUATE TO SERVICE THE PROJECT. LOCAL CURRENCY GENERATIONS MUST CONFORM TO A.I.D.'S EXCHANGE RATE POLICY (HB1, SECTION VIII.B), INCLUDING USE OF HIGHEST LEGAL EXCHANGE RATE.

6. OTHER LOCAL CURRENCY ISSUES. MISSION IS ALSO REMINDED THAT PLANNING AND MONITORING OF PROJECTIZED HG-OWNED LOCAL CURRENCY (INCLUDING ENVIRONMENTAL REVIEW) SHOULD FOLLOW AGENCY GUIDANCE ON LC PROGRAMMING CONTAINED IN 87 STATE 387494 (21 OCT. 87). TO EXTENT, LC IS PROJECTIZED, PP WILL NEED TO DEVOTE SPECIAL ATTENTION TO MANAGEMENT IMPLICATIONS (PARA 3 ABOVE).

7. GRZ IMPLEMENTING AGENCY. UNDERSTAND THAT NO PARTICULAR GRZ MINISTRY OR AGENCY IS ENVISIONED AS AN ACTIVE IMPLEMENTING AGENCY. NEVERTHELESS, A GRZ MINISTRY, PROBABLY THE MOF, WILL BE CHARGED WITH APPROVING USES OF GRANT FUNDS, SUCH AS SIGNING PIOC, APPROVING CONTRACTORS, AND OTHER IMPLEMENTATION-RELATED RESPONSIBILITIES. MISSION SHOULD NAIL DOWN PARTICULARS OF ROLE PRIOR TO PP APPROVAL, SO AS TO AVOID MISUNDERSTANDINGS LATER ON. THESE SHOULD BE LAID OUT IN PP AND IN GRANT AGREEMENT.

8. EXCLUSION OF PARASTATALS. PP SHOULD STRESS THAT ADVISORY SERVICES WILL BE TARGETTED TO THE PRIVATE SECTOR. SUPPORT TO PARASTATALS SHOULD BE LIMITED TO

ASSISTANCE ON FORMULATION/IMPLEMENTATION OF STATUTES AND REGULATIONS. ANY OTHER ASSISTANCE TO PARASTATALS WOULD HAVE TO BE IN CONFORMANCE WITH PD 14.

9. BUMPERS AMENDMENT. THE FID STATES THAT CROPS TO BE ASSISTED COULD BE FOR EXPORT. HOWEVER, THE MISSION DEVELOPER STATED HIS BELIEF THAT THE ASSISTANCE WILL NOT BE FOR EXPORTS. WHEN CROPS AND INTERVENTIONS ARE IDENTIFIED, A JUDGMENT ON BUMPERS SHOULD BE MADE AND DOCUMENTED, PREFERABLY IN THE PP. THE PROJECT SHOULD INCORPORATE A MECHANISM FOR MAKING THIS JUDGMENT DURING PROJECT IMPLEMENTATION WHEN NECESSARY, EITHER BECAUSE OF SUBSEQUENT IDENTIFICATION OF CROPS AND INTERVENTIONS OR WHEN THE EXPORT SITUATION CHANGES.

10. BROOKE AMENDMENT. IF BY JULY 1ST MISSION DOES NOT HAVE STRONG INDICATION THAT BROOKE ARREARS WILL BE PAID BY AUGUST, MISSION SHOULD STOP SHORT OF AUTHORIZING PROJECT AND ADVISE AID/W, SO THAT FUNDS RESERVED FOR [illegible] CAN BE REPROGRAMMED.

11. IEE. NEGATIVE DETERMINATION HAS BEEN APPROVED BY [illegible] ENVIRONMENTAL OFFICER AND SENT TO GC/AFR FOR CLEARANCE. WILL ADVISE BY SEPTEL WHEN CLEARED. SHULTZ

Best Available Document

ANNEX B

LOGICAL FRAMEWORK

Project: Zambia Agricultural Marketing Support Project

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
PROJECT GOAL:			
To increase agricultural production, rural incomes and nutritional status through improvements in the agricultural marketing system for both agricultural inputs and outputs.	Increased allocation of farm resources to economically viable activities; increased marketed output; reduction in importation of selected agr. products; increased agricultural exports of selected commodities. In targeted areas: 1) increased rural income, 2) greater availability and reduced cost of selected inputs and outputs, 3) positive change in nutritional status.	Government, private firm and parastatal records and reports, on-site visits, discussions with and reports from local officials. Household and farm budget/expenditure surveys. MOH nutritional surveillance and hospital reports re: nutritional status.	GRZ will maintain producer price incentives; no major drought will occur; population growth will not exceed present levels; GRZ will maintain its priority on agricultural development.
PROJECT PURPOSE:			
To improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.	1) Increased volume of domestic processing for selected agricultural commodities. 2) Reduction in transactions costs for processing and marketing. 3) Expansion of private sector activity in agricultural marketing. 4) Increased GRZ capacity to support private sector marketing. 5) Increase in national transport capacity to carry agricultural inputs and outputs.	Public and private sector firms' records; GRZ statistical reports; transport rate schedules based on a two-way haul; studies of costs and marketing margins to traders and firms, and of timeliness of input supply and payment to farmers. Monitoring of GRZ programs and policies to support agr. marketing.	GRZ will allow direct private sector involvement in marketing and continue FX retention scheme; GRZ will continue FX allocation to the transport sector, and other necessary support services.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
OUTPUTS			
1) Improved access to oil processing facilities in selected rural areas. 2) Expanded intermediate and final agroprocessing capacity. 3) Improved transportation system. 4) Capacity for marketing advisory services increased and operating in-country on sustainable basis. 5) Improved human resources contributing to market system improvements. 6) Improved market and transport facilities. 7) Input supplies provided on time and in desired quantities for use by small-scale farmers. 8) Increased employment.	1) 530 oil expellers/extruders established and functioning. 2) 115 other types of new processing units operating. 20 existing firms expanded. 10 new firms established. 3) 500 vehicles returned to service. 6 mil. ton-miles of truck transport facilitated. 500 scotchcarts produced in use. 4) 50 feasibility studies involving specialists completed. 5) Fee system in place and covering recurrent costs. 6) 10 Masters' degrees completed and participants returned to service. 500 personnel trained (at least 30% women) in-country short courses. 7) 100 kms of roads upgraded. 6 market areas upgraded. 100 storage facilities constructed.	USAID, GRZ and private firms' records and reports and on-site visits. U.S. PVO and Zambian NGO monitoring and evaluation reports.	Recommendations of AMAG staff are sound, accepted and carried out. Trainees identified and sent to training in timely manner. Short course curricula developed and put in place. Timely delivery of imported commodities. Timely access to credit by small-scale farmers and groups. Production technology and ancillary support services available to producers in timely manner.
INPUTS			
1) Commodities: -processing equipment -transport -storage & handling equipment and supplies 2) Technical assistance 3) Training 4) Infrastructure development	1) $3.56m. in processing equipment. $2 m. in tires/truck spares. $250,000 in raw materials for scotchcarts. $1.09m. in handling and storage equipment and supplies. 2) 7 p.y. long-term U.S. TA personnel. 113 p.m. short-term U.S. TA personnel. 16 p.y. local TA personnel. 3) 30 p.y. overseas degree training. 181 p.m. overseas non-degree training. 400 p.m. in-country non-degree training. 4) Up to $700,000 in grader spares K65 million for infrastructure development (road repair, market construction/rehab, storage facilities).	USAID, GRZ and private firms' records and reports, and site visits.	GRZ will facilitate clearance of imported commodities. GRZ continues to allow private sector expansion and continued liquidity in the economy.

Communications should be addressed to the Permanent Secretary

Telephone: LUSAKA 212022

Telegrams: FINANCE, RIDGEWAY

ANNEX C

MEAL/102/11/125

REPUBLIC OF ZAMBIA

MINISTRY OF FINANCE

P.O. BOX 50062
LUSAKA

18th July, 1988.

Mr. Leslie A. Dean,
Director,
USAID/Zambia,
LUSAKA.

Dear Mr. Dean,

ZAMBIA AGRIBUSINESS AND MANAGEMENT
SUPPORT PROJECT (ZAMS: 611-0214)

Zambia welcomes support from donors to help the Government and the Zambian people achieve key objectives of the Interim National Development Plan (INDP), and fulfill the policy of "Growth from Own Resources." The main goal in the INDP's marketing , transport, and storage program is to create and maintain the conditions that will ensure an increase in the operational efficiency in the marketing of agricultural commodities. It is for this reason that we have been working with you and members of your staff to explore new ways in which USAID/Zambia might support increased agricultural production in Zambia.

The proposed ZAMS project is an outgrowth of our discussions in this area. The ZAMS project paper (PP) is based on extensive number of contracts with persons in different Zambian Government Ministries, Parastatals, Non-government institutions, Cooperatives, and Agricultural marketing and processing firms. Interministerial meetings have been held to review the ZAMS PP, and provide comments to USAID/Zambia at various phases of the project design effort.

The ZAMS project addressed key priorities of the Government in a number of respects. For example, the project will:

- Strengthen existing institutions such as cooperatives, SIDO, and VIS, as well as private Zambia firms.

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- Utilise the skills and talents of persons already working in this country, and keep expatriate techinical assistance to a minimum.

- Help reduce the degree of spoilage of agricultural commodities in Zambia by increasing storage capacity, facilitating transport, and increasing processing capacity closer to producer areas.

- Promote marketing activities which can be self-sustaining once A.I.D's contributions are completed.

- Increase the skills of Government employees and Zambian citizens through long and short-term training.

- Generate revenue for the Government and create new employment for Zambian citizens, without requiring additional budgetary resources from the Government either during implementation, or after external support to the project is completed.

- Promote the production of traditional and horticultural crops for which there is a strong demand in Zambia, and for which there is great potential for expanded production.

- Increase import-substitution by eliminating Zambia's import requirements for key agricultural commodities such as vegetable oil and beverages.

- Help alleviate key transport bottlenecks by immediately making available foreign exchange for the purchase of tires, and spare parts, for Zambia's trucking industry.

It is also consistent with the Government's framework for aid mobilization in the INDP that the ZAMS project and aid agreement will not contain any special conditionalities or covenants.

On behalf of the Government of the Republic of Zambia, therefore, I would like to request that the United States Government approve the ZAMS pp, and thereby provide a grant of $15 million over a five year period to carry out the project's goal of increasing agricultural production, rural incomes, and nutritional status. In view of the urgency of this project, it is earnestly hoped that USAID/Zambia will be able to take immediate steps to

realize the project with an obligation od $8 million during the remainder of U.S. fiscal year 1988. I hope this request will meet with favourable consideration, and we look forward to our continuing warm and productive relationships during the implementation of the ZAMS Project.

Yours sincerely,

L. Nkhata
PERMANENT SECRETARY
MINISTRY OF FINANCE

cc: Dr. L. S. Chivuno,
Director-General,
NCDP,
LUSAKA.

Mr. F. X. Nkhoma,
Governor,
Bank of Zambia,
LUSAKA. (with copy of the Project Paper)

ANNEX D

STATUTORY CHECKLISTS

I. 5 C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to: (A) FAA funds generally; (B) (1) Development Assistance funds only, or (B) (2) the Economic Support Fund only.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FY 1988 Continuing Resolution Sec. 526. Has the President certified to the Congre: that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully? NO

2. FAA Sec. 481 (h). (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, or the provision of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government), has the President in the March 1 International Narcotics Control Strategy Report (INSCR) determined and certified to the Congress (without Congressional enactment, within 30 days of continuous session, of a resolution disapproving such a certification), or has the President determined and N/A

certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, and to prevent and punish drug profit laundering in the country, or that (b) the vital national interests of the United States require the provision of such assistance?

3. Drug Act Sec. 2013. (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or major drug-transit country" (as defined for the purpose of FAA Sec. 481(h)), has the President submitted a report to Congress listing such country as one (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country? N/A

4. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government? NO

5. FAA Sec. 620(e) (1). If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or NO

otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

6. FAA Secs. 620(a), 620(f), 620D; FY 1988 Continuing Resolution Sec.512. Is recipient country a Communist country? If so, has the President determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient country from international communism? Will assistance be provided directly to Angola, Cambodia, Cuba, Iraq, Libya, Vietnam, South Yemen, Iran or Syria? Will assistance be provided to Afghanistan without a certification? — No to all parts

7. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent damage or destruction by mob action of U.S. property? — NO

8. FAA Sec. 620(l). Has the country failed to enter into an investment guaranty agreement with OPIC? — NO

9. FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec.5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) if so, has any deduction required by the Fishermen's Protective Act been made? — NO

10. FAA Sec. 620(q); FY 1988 Continuing Resolution Sec. 518. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1988 Continuing Resolution appropriates funds? — Yes. Arrears were paid o/a July 20, 1988

11. FAA Sec. 620(s). If contemplated assistance is development loan or comes from the Economic Support Fund, has the Administrator taken into account the percentage of the country's budget and amount of the country's foreign exchange — N/A

or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

12. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? — NO

13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget? (Reference may be made to the Taking into Consideration memo.) — As of July 20, 1988 Zambia was not in arrears.

14. FAA Sec. 620A. Has the President determined that the recipient country grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism or otherwise supports international terrorism? — NO

15. FY 1988 Continuing Resolution Sec.576. Has the country been placed on the list provided for in Section 6(j) of the Export Administration Act of 1979 (currently Libya, Iran, South Yemen, Syria, Cuba, or North Korea)? — NO

16. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures? — NO

17. FAA Sec. 666(b). Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? — NO

18. FAA Secs. 669, 670. Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)	NO
19. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device?	NO
20. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the Taking into Consideration memo.)	While Zambia was represented and failed to disassociate itself from the communique, this was taken into consideration by the Administrator at the time of approval of the Agency OYB.
21. FY 1988 Continuing Resolution Sec. 528. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States?	NO
22. FY 1988 Continuing Resolution Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior to the resumption of assistance?	NO
23. FY 1988 Continuing Resolution Sec. 543. Does the recipient country fully cooperate with the international refugee assistance organizations, the United States, and other governments in facilitating lasting solutions to refugee situations, including resettlement without respect to race, sex, religion, or national origin?	YES

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? NO

FY 1988 Continuing Resolution Sec. 538. Has the President certified that use of DA funds by this country would violate any of the prohibitions against use of funds to pay for the performance of abortions as a method of family planning, to motivate or coerce any person to practice abortions, to pay for the performance of involuntary sterilization as a method of family planning, to coerce or provide any financial incentive to any person to undergo sterilizations, to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? NO

2. Economic Support Fund Country Criteria

FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest? N/A

FY 1988 Continuing Resolution Sec. 549. Has this country met its drug eradication targets or otherwise taken significant steps to halt illicit drug production or trafficking? N/A

(Clearance: AID/GC/CCM: K. Fries (draft))

II. 5 C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded with Development Assistance loans; and B(3) applies to projects funded from ESF.

CROSS REFERENCES:	IS COUNTRY CHECKLIST UP TO DATE?	YES
	HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?	YES

A. GENERAL CRITERIA FOR PROJECT

1. FY 1988 Continuing Resolution Sec. 523; FAA Sec. 634A. If money is sought to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified?

   Project was justified in FY 1989 CP. A.I.D.'s CN will be submitted in July 1988 and 15 day waiting period allowed to expire before FY 1988 funds are obligated for the project.

2. FAA Sec. 611(a) (1). Prior to an obligation in excess of $500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance, and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

   YES

3. FAA Sec. 611(a) (2). If legislative action is required within recipient country, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance?

   None required

4. FAA Sec. 611(b); FY 1988 Continuing Resolution Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

   N/A

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?	N/A
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.	NO
7. FAA Sec. 601(a). Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.	All project activities, including TA, training and commodities are aimed at promoting private sector agricultural marketing, thereby fostering private initiative and competition as applied to agriculture. The project encourages the use of cooperatives for selected activities and promotes marketing opportunities for an expanded number of individuals and firms. The project directly supports and encourages improvements in the operational efficiency of Zambia's agricultural marketing systems. The project focuses on domestic marketing and therefore is not designed to directly increase the flow of international trade.

8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	A significant portion of the project's TA, training and most commodities will involve participation by U.S. private firms in this foreign assistance program.
9. FAA Secs. 612(b), 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.	The country will contribute K144 million to carry out project activities; this exceeds considerably the amount of local currency which will be generated under the project. All local expenses for implementing the project will be paid for in local currency.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	NO
11. FY 1988 Continuing Resolution Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?	N/A
12. FY 1988 Continuing Resolution Sec. 553. Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?	NO

13. FAA Sec. 119(g) (4) - (6). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?	No to all parts
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)?	N/A
15. FY 1988 Continuing Resolution. If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government?	YES
16. FY Continuing Resolution Sec. 541. If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.?	YES
17. FY 1988 Continuing Resolution Sec. 514. If funds are being obligated under an appropriation account to which they were not appropriated, has prior approval of the Appropriations Committees of Congress been obtained?	N/A
18. FY Continuing Resolution Sec. 515. If deob/reob authority is sought to be exercised in the provision of assistance, are the funds being obligated for the same general purpose, and for countries within the same general region as originally obligated, and have the Appropriations Committees of both Houses of Congress been properly notified?	N/A

19. State Authorization Sec. 139. (as interpreted by conference report). Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision).

When the project is signed, confirmation of the date of signing, including the amount involved and a full text of the agreement will be pouched to State L/T and A.I.D. LEG promptly.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FY 1988 Continuing Resolution Sec. 552. (as interpreted by conference report). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers?

No. The project will support activities primarily for domestic marketing. Any potential activities relating to exports will have to meet this test as one of the key criteria for approval before being considered for support under the project.

b. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural

The PP and its annexes describe fully how the project will directly achieve objectives a-d. Since the project is oriented at strengthening marketing domestically, objective e is not applicable.

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and urban poor to help themselves toward a better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.	
c. FAA Secs. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source of funds (functional account) being used?	YES
d. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?	YES
e. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?	YES
f. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?	YES
g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.	A major component of the project is long-term and short-term training, which responds to all of these concerns.

h. FY 1988 Continuing Resolution Sec. 538. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?	NO
Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?	NO
Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?	NO
i. FY 1988 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization?	NO
If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?	N/A
j. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	YES
k. FY 1988 Continuing Resolution. What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 20 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially	Most of the project's assistance is to support the activities of economically and socially disadvantaged enterprises. Funds to implement the project will be provided taking into account the special capabilities of U.S. institutions com-

disadvantaged (including women)?	posed of groups which are socially or economically disadvantaged. However, no set-aside for 8(a) firms is anticipated. They will be free to bid on technical assistance, training and commodity procurement contracts which will be openly advertised.
1. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (e) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the	Yes. Activities supported by the project will respond to the need for environmental protection and sustainable agriculture.

establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriated protected areas; (j) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k)/utilize the resources and abilities of all relevant U.S. government agencies?

m. FAA Sec. 118(c) (13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b)/take full account of the environmental impacts of the proposed activities on biological diversity? N/A

n. FAA Sec. 118(c) (14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas? NO

o. FAA Sec. 118(c) (15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an NO

environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

p. FY 1988 Continuing Resolution. will come from the Sub-Saharan Africa DA account, is it (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) being provided in accordance with the policies contained in section 102 of the FAA; (c) being provided, when consistent with the objectives of such assistance, through African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (d) being used to help overcome shorter-term constraints to long-term development, to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (e) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning

YES

services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve primary education, and to develop income-generating opportunities for the unemployed and underemployed in urban and rural areas?

2. Development Assistance Project Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest. N/A

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest? N/A

c. FY 1988 Continuing Resolution. If for a loan to a private sector institution from funds made available to carry out the provisions of FAA Sections 103 through 106, will loan be provided, to the maximum extent practicable, at or near the prevailing interest rate paid on Treasury obligations of similar maturity at the time of obligating such funds? N/A

d. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? N/A

3. Economic Support Fund Project Criteria

a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? N/A

b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes? N/A

c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A

Clearance:
AID/GC/CCM: KFries (draft).

ANNEX E

A.I.D. Project Number 611-0214

PROJECT

GRANT AGREEMENT

Between

THE GOVERNMENT OF THE REPUBLIC OF ZAMBIA

and the

UNITED STATES OF AMERICA

for

THE ZAMBIA AGRIBUSINESS
AND MANAGEMENT SUPPORT PROJECT

DATED:

A.I.D. Project No. 611-0214

Project Grant Agreement

Dated

Between

The Government of the Republic of Zambia ("Grantee")

And

The United States of America, acting through the Agency for International Development ("A.I.D.").

Article 1: The Agreement

The purpose of this Agreement is to set out the understanding of the parties named above ("Parties") with respect to the undertaking by the Grantee of the Project described below, and with respect to the financing of the Project by the Parties.

Article 2: The Project

SECTION 2.1. Definition of Project. The Project, which is further described in Annex 1, will consist of assistance to the Grantee to increase agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing systems in Zambia. Annex 1, attached, amplifies the above definition of the Project. Within the limits of the above definition of the Project, elements of the amplified description stated in Annex 1 may be changed by written agreement of the authorized representative of the Parties named in Section 7.2, without formal amendment of this Agreement.

SECTION 2.2. Incremental Nature of Project.

(a) A.I.D.'s contribution to the Project will be provided in increments, the initial one being made available in accordance with Section 3.1 of this Agreement. Subsequent increments will be subject to availability of funds to A.I.D. for this purpose, and to the mutual agreement of the Parties, at the time of subsequent increment, to proceed.

(b) Within the overall Project Assistance Completion Date stated in this Agreement, A.I.D., based upon consultation with the Grantee, may specify in Project Implementation Letters the appropriate time period for the utilization of funds granted by A.I.D. under an individual increment of assistance.

Article 3: Financing

SECTION 3.1. The Grant. To assist the Grantee to meet the costs of carrying out the Project, A.I.D., pursuant to the Foreign Assistance Act of 1961, as amended, agrees to grant the Grantee under the terms of this Agreement not to exceed Fifteen Million United States ("U.S.") Dollars ($15,000,000) ("Grant").

The Grant may be used to finance foreign exchange costs, as defined in Section 5.1, and local currency costs, as defined in Section 5.2, of goods and services required for the Project.

SECTION 3.2. Grantee Resources for the Project.

(a) The Grantee agrees to provide or cause to be provided for the Project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner.

(b) The resources provided by Grantee for the Project will be not less than Zambian Kwacha 144,001,000, including costs borne on an "in-kind" basis.

SECTION 3.3. Project Assistance Completion Date.

(a) The "Project Assistance Completion Date" (PACD), which is September 30, 1993, or such other date as the Parties may agree in writing, is the date by which the Parties estimate that all services financed under the Grant will have been performed and all goods financed under the Grant will have been furnished for the Project as contemplated in this Agreement.

(b) Except as A.I.D. may otherwise agree in writing, A.I.D. will not issue or approve documentation which would authorize disbursement of the Grant for services performed subsequent to the PACD or for goods furnished for the Project, as contemplated in this Agreement, subsequent to the PACD.

(c) Requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters are to be received by A.I.D. or any bank described in Section 6.1 no later than nine (9) months following the PACD, or such other period as A.I.D. agrees to in writing. After such

period, A.I.D., giving notice in writing to the Grantee, may at any time or times reduce the amount of the Grant by all or any part thereof for which requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters, were not received before the expiration of said period.

Article 4: Condition Precedent to Disbursement

SECTION 4.1. First Disbursement. Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

A statement of the name of the person holding or acting in the office of the Grantee specified in Section 7.2, and of any additional representatives, together with a specimen signature of each person specified in such statement.

SECTION 4.2. Notification. When A.I.D. has determined that the condition precedent specified in Section 4.1 has been met, it will promptly notify the Grantee.

SECTION 4.3. Terminal Date for Condition Precedent. If the condition specified in Section 4.1 has not been met within ninety (90) days from the date of this Agreement, or such later date as A.I.D. may agree to in writing, A.I.D., at its option, may terminate this Agreement by written notice to Grantee.

Article 5: Procurement Source

SECTION 5.1. Foreign Exchange Costs. Disbursements pursuant to Section 6.1 will be used exclusively to finance the costs of goods and services required for the Project having: (a) with respect to goods, their source and origin in the United States (Code 000 of the A.I.D. Geographic Code Book as in effect at the time orders are placed or contracts entered into for such goods) ("Foreign Exchange Costs") or in the cooperating country, except as A.I.D. may otherwise agree in writing; (b) with respect to services, their nationality in the Special Free World (Code 935 of the AI.D. Geographic Code Book as in effect at the time contracts are entered into for such services, except that the prime contractor for long-term technical assistance and training shall have the United States as its place of nationality; and, except as provided in the Project Grant Standard Provisions Annex, Section C.1(b) with respect to marine insurance. Ocean transportation costs will be financed under the grant only on vessels under flag registry of the United States or the cooperating country, except as A.I.D. may otherwise agree in writing.

SECTION 5.2. Local Currency Costs. Disbursements pursuant to Section 6.2 will be used exclusively to finance the costs of goods and services required for the Project having their source and, except as A.I.D. may otherwise agree in writing, their origin in Zambia ("Local Currency Costs"). To the extent provided for under this Agreement, "Local Currency Costs" may also include the provision of local currency resources required for the Project.

Article 6: Disbursement

SECTION 6.1. Disbursement for Foreign Exchange Costs.

(a) After satisfaction of the condition precedent, the Grantee may obtain disbursements of funds under the Grant for the Foreign Exchange Costs of goods or services required for the Project in accordance with the terms of this Agreement, by such of the following methods as may be mutually agreed upon:

(1) by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, (A) requests for reimbursement for such goods or services, or (B) requests for A.I.D. to procure commodities or services in Grantee's behalf for the Project; or,

(2) by requesting A.I.D. to issue Letters of Commitment for specified amounts (A) to one or more U.S. banks, satisfactory to A.I.D., committing A.I.D. to reimburse such bank or banks for payments made by them to contractors or suppliers, under Letters of Credit or otherwise, for such goods or services, or (B) directly to one or more contractors or suppliers, committing A.I.D. to pay such contractors or suppliers for such goods or services.

(b) Banking charges incurred by Grantee in connection with Letters of Commitment and Letters of Credit will be financed under the Grant unless Grantee instructs A.I.D. to the contrary. Such other charges as the Parties may agree to may also be financed under the Grant.

SECTION 6.2. Disbursement for Local Currency Costs.

(a) After satisfaction of conditions precedent, the Grantee may obtain disbursements of funds under the Grant for Local Currency Costs required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, requests to finance such costs.

(b) The local currency needed for such disbursement may be obtained:

(1) • by acquisition by A.I.D. with U.S. dollars by purchase.

(2) by A.I.D. (A) requesting the Grantee to make available the local currency for such costs, and (B) thereafter making available to the Grantee, through the opening or amendment by A.I.D. of Special Letters of Credit in favor of the Grantee or its designee, an amount of U.S. Dollars equivalent to the amount of local currency made available by the Grantee, which dollars will be utilized for procurement from the United States under appropriate procedures described in Project Implementation Letters.

(3) by A.I.D. and the Grantee making available such sums as may be necessary from Bank of Zambia Special Account No. 846.

The U.S. dollar equivalent of the local currency made available hereunder will be, in the case of subsection (b)(1) above, the amount of U.S. dollars required by A.I.D. to obtain the local currency, and in the case of subsection (b)(2) above, an amount calculated at the rate of exchange specified in the applicable Special Letter of Credit Implementation Memorandum hereunder as of the date of the opening of amendment of the applicable Special Letter of Credit.

SECTION 6.3. Other Forms of Disbursement. Disbursements of the Grant may also be made through such other means as the Parties may agree in writing.

SECTION 6.4. Rate of Exchange. Except as may be more specifically provided under Section 6.2, if funds provided under the Grant are introduced into Zambia by A.I.D. or any public or private agency for purposes of carrying out obligations of A.I.D. hereunder, the Grantee will make such arrangements as may be necessary so that such funds may be converted into currency of Zambia at the highest rate of exchange which, at the time the conversion is made, is not unlawful in Zambia.

Article 7: Miscellaneous

SECTION 7.1. Communications. Any notice, request, document or other communication submitted by either Party to the other under this Agreement will be in writing or by telegram or cable, and will be deemed duly given or sent when delivered to such party at the following addresses:

AG

To the Grantee:

Mail Address: Permanent Secretary
Ministry of Finance
P.O. Box 50062
Lusaka, Zambia

Alternate address for cables: Finance Lusaka

To A.I.D.:

Mail Address: Mission Director
USAID/Zambia
P.O. Box 32481
Lusaka, Zambia

Alternate address for cables: ZA 40810
USAID Mission Director

With copy for Director,
REDSO/ESA

Mail Address: Director, REDSO/ESA
P.O. Box 30261
Nairobi, Kenya

All such communications will be in English, unless the Parties otherwise agree in writing. Other addresses may be substituted for the above upon the giving of notice. The Grantee, in addition, will provide the USAID Mission with a copy of each communication sent to A.I.D.

SECTION 7.2. Representatives. For all purposes relevant to this Agreement, the Grantee will be represented by the individual holding or acting in the office of the Permanent Secretary and A.I.D. will be represented by the individual holding or acting in the office of Mission Director, each of whom, by written notice, may designate additional representatives for all purposes other than exercising the power under Section 2.1 to revise elements of the amplified description in Annex 1. The names of the representatives of Grantee, with specimen signatures, will be provided to A.I.D., which may accept as duly authorized any instrument signed by such representatives in implementation of this Agreement, until receipt of this Agreement, until receipt of written notice of revocation of their authority.

SECTION 7.3. Standard Provisions Annex. A "Project Grant Standard Provisions Annex " (Annex 2) is attached to and forms part of this Agreement.

IN WITNESS WHEREOF, the Grantee and the United States of America, each acting through its duly authorized representatives, have caused this Agreement to be signed in their names and delivered as of the day and year first above written.

REPUBLIC OF ZAMBIA

By: _____
Gibson G. Chigaga
Minister of Finance
Ministry of Finance

UNITED STATES OF AMERICA

By: _____
Paul J. Hare
Ambassador

By: _____
Leslie A. Dean
Mission Director
USAID/Zambia

Attachments:

Annex 1: Amplified Description of the Project
Annex 2: Project Grant Standard Provisions Annex

IPD

ANNEX 1

AMPLIFIED DESCRIPTION OF THE PROJECT

Except as specifically provided herein, and within the limits of the definition of the Project set forth in Section 2.1, elements of this Amplified Project Description may be changed by written agreement of the authorized representative of the Parties named in Section 7.2 without formal amendment of this Agreement.

I. General Project Description

The project goal is to increase Zambia's agricultural production, rural incomes, and nutritional status through improvements in the agricultural marketing system for both agricultural inputs and outputs. The specific purpose of the project is to improve the operational efficiency of the agricultural marketing system for selected agricultural inputs and outputs in selected geographical areas, and promote market development.

The project aims to improve agricultural marketing systems through technical assistance, training, and the furnishing of commodities. The GRZ will support these efforts by local currency grants (through the use of A.I.D. counterpart funds) for inter alia: in-country training; technical experts; transportation improvement; local storage; and improved produce market facilities.

Anticipated project outputs include the following:

1. Improved access to oil processing facilities in selected rural areas.

2. Expanded intermediate and final agroprocessing capacity.

3. Improved market and transport facilities.

4. Capacity for marketing advisory services increased and operating in-country on a sustainable basis.

5. Improved human resources contributing to market system improvements.

6. Input supplies provided on time and in desired quantities for use by small-scale farmers.

7. Improved transportation system.

8. Increased employment.

An illustrative list of anticipated project inputs includes:

1. Commodities: Approximately $3.5 million in processing equipment; $2 million in tires, tubes, and truck spares; $250,000 in raw materials for scotchcarts; and, $1 million in handling and storage equipment and supplies.

2. Technical Assistance: Approximately 84 person/months in long-term U.S. technical assistance; 113 person/months in short-term U.S. technical assistance (including volunteer executives); and, 16 person/years in local technical assistance.

3. Training: Approximately 30 person/years in overseas degree training; 181 person/months in overseas non-degree training; and, 400 person/months in in-country non-degree training.

4. Infrastructure Development: Up to approximately $700,000 in grader spares; ZK 21.7 million in rural road repairs; ZK 30.3 million in improvement of market facilities; and, ZK 14 million for storage construction.

By the end of the project, it is expected that the following will be achieved: (1) increased volume of domestic processing for selected agricultural commodities; (2) reduction in transactions costs for processing and marketing; (3) expansion of private sector activity in agricultural marketing; (4) increased GRZ capacity to support private sector marketing; and, (5) an increase in national transport capacity to carry agricultural inputs and outputs.

II. Responsibilities of the Participants

A. Contractor Responsibilities

The basic implementing unit for the project will be the Agricultural Marketing Advisory Group (AMAG), which will be constituted through a direct USAID/Zambia contract with a U.S. firm or institution selected through open competition. The prime contractor will negotiate a sub-contract with a consulting group resident in Zambia to provide most of the long-term professional staff, plus the support staff and logistical support. Short-term technicians will be provided either by or through the prime contractor, the Zambian sub-contractor, or the International Executive Service Corps (IESC), depending on the specific requirement and which source has the most appropriate talent to offer.

The prime contractor's Chief of Party will supervise all of the AMAG staff, including short-term technicians provided by both the prime and sub-contractors. The Chief of Party will maintain liaison with the USAID/Zambia Project Officer and the Ministry of Commerce and Industry and will ensure that a close working relationship exists between AMAG staff, SIDO, VIS, IESC, other U.S. PVO's and Zambian NGO's. AMAG will have responsibility for planning and implementing the training program and commodity procurement, except for an initial $2.0 million procurement, which will be handled by USAID/Zambia prior to the arrival of the AMAG technical assistance team.

B. GRZ Responsibilities

The Ministry of Commerce and Industry (MOCI) will be AMAG's principal GRZ counterpart organization. MOCI will carry out day-to-day liaison and monitoring of AMAG with regard to project implementation. Because their objectives complement each other, AMAG will also work closely with two Zambian organizations, the Small Industry Development Organization (SIDO) and Village Industry Services (VIS). Institutional strengthening of these two organizations will be a part of the project. Figure 1 shows the organizational linkages of entities with various responsibilities in project implementation.

Implementation of the project will require a minimum of direct involvement by GRZ agencies other than the Ministry of Commerce and Industry, although considerable interaction with several different agencies will be important to the success of the project. The Project Agreement will be negotiated with and signed by the Ministry of Finance, because of the financial and budgetary implications of a relatively large proportion of the project's dollar funds being used for commodity imports, as well as the programming of counterpart funds. Three line ministries will be especially relevant to implementation of the project: the Ministry of Commerce and Industry, Ministry of Agriculture and Water Development, and Ministry of Cooperatives. The ZAMS Advisory Council is to have a representative at the Permanent Secretary (PS) level from each of these ministries and one from the Ministry of Finance (in addition to the USAID/Zambia Director and the Chief of Party of AMAG). The Council will be chaired by the PS of the Ministry of Commerce and Industry. It will meet periodically to keep abreast of developments in the project and to provide insights to AMAG on potential new interventions, to review AMAG's annual work plans, and to review and approve long-term training programs.

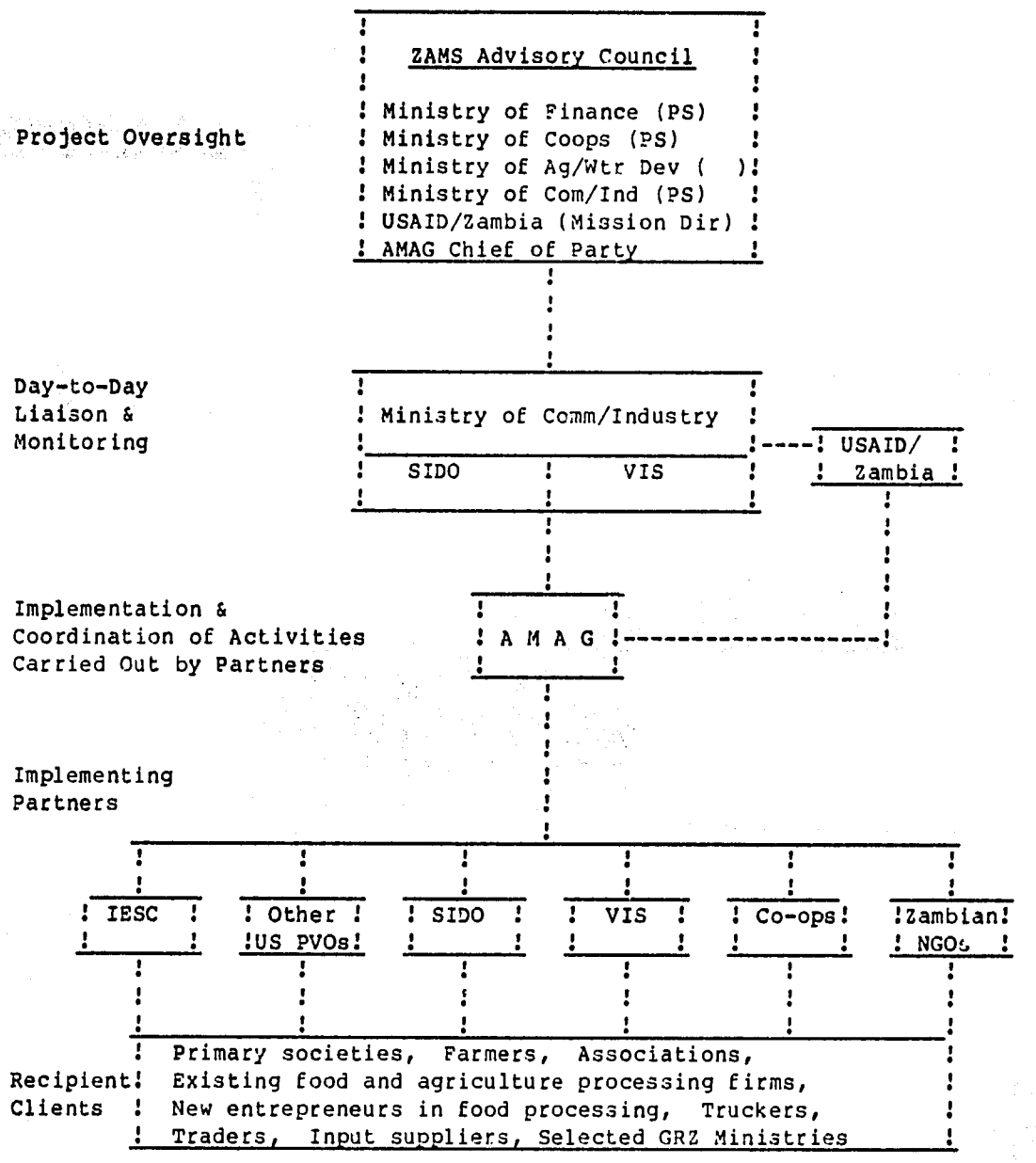
C. USAID/Zambia Responsibilities

The overall responsibility for project implementation will be with the USAID/Zambia Mission Director. A Project Officer will be designated by the USAID/Zambia Mission. This person will monitor activities of the contractor, maintain liaison with the three GRZ line ministries, and participate in the relevant meetings concerning project implementation.

Figure 1.

ZAMBIA AGRIBUSINESS & MANAGEMENT SUPPORT (ZAMS) PROJECT

Organizational Linkages



The Commodity Procurement Officer will take lead responsibility for implementing the initial $2.0 million commodity procurement, for tires, tubes, and spare parts for trucks. Subsequently, he, supported by the RCMO in REDSO/ESA, will be available for consultation on procurement actions taken by AMAG. The USAID/Zambia Training Officer will provide backstopping assistance for long-term and short-term training. REDSO/ESA will provide legal, contracting, and periodic project backstopping. USAID/Zambia will provide housing and housing support services for the non-resident members of the technical assistance team. (All other logistical support services for the technical assistance team will be the responsibility of the contractor.)

USAID/Zambia will be actively involved in development of the annual workplans for AMAG and in review of progress.

D. Responsibilities of Private Sector Institutions

Funds (primarily counterpart local currency) will be provided through the ZAMS Project to enlist the services of U.S. private voluntary organizations (PVOs) and local NGOs--such as the Small Industries Development Organization (SIDO) and Village Industries Services (VIS)--to assist with implementation of selected elements of the project. For instance, there are three American PVOs -- Volunteers in Technical Assistance (VITA), Africare, and Save the Children Fund (SCF) -- which could potentially assist with planning and implementation of the sunflower oil activities of the project. VITA has been working closely with VIS, in pilot work with village-level, hand-powered presses, specifically involved in training in management and accounting. Africare and SCF have experience in implementing field activities in Zambia, and have expressed interest in being involved in helping implement ZAMS field projects.

During project design, the USAID/Zambia Mission had discussions in connection with an unsolicited proposal with representatives of the IESC, including the Vice President for Africa. Agreement in principle was reached with IESC, subject to formal agreement by the GRZ, that IESC will open a country office in Zambia. ZAMS will provide local currency funding and dollar funding for IESC activities which are directly related to ZAMS.

Primary cooperative societies, which are private in the sense that they are owned and operated by the members, will be assisted through the project to implement approved activities within the geographic areas of concentration of activities.

A significant number of private consulting firms resident in Zambia have individuals experienced in various aspects of agricultural marketing, management, accounting, and related disciplines. Some of these are owned partially or wholly by Zambians. Others are either multinational or have parent companies in the U.S. or in third countries. It is planned that AMAG will draw on these firms for specific kinds of short-term consultants when their specialties match project needs.

III. Illustrative Financial Plan

The Illustrative Financial Plan Summary (Table 1) sets forth the planned contributions of the parties. Changes may be made to the Plan by written agreement of the representatives of the Parties identified in Section 7.2 without formal amendment of the Agreement, provided such changes do not cause (1) A.I.D.'s Grant contribution to exceed the amount set forth under Section 3.1, or (2) the Government's contribution to be less than the amount set forth under Section 3.2.

This is an incrementally funded project. Table 2 shows obligations under this agreement for FY 88, and anticipated obligations for future years. Future A.I.D. obligations are subject to availability of funds and mutual agreement of the parties to proceed.

IV. Financing Methods

The general disbursement methods agreed upon for A.I.D. funds, and methods of payment are set forth in Table 3.

Commodity procurement will be divided into two activities: (a) Transportation Sector Support valued at $2.0 million, and (b) Agricultural Marketing/Technical Assistance Support valued at $7.063 million. To facilitate access to the Zambian private sector, A.I.D. Regulation 1 procurement procedures, emphasizing good commercial practice and a minimum of bureaucratic involvement by A.I.D., will be used. Host-country contracting will be utilized between GRZ/AID-approved importers and suppliers of commodities eligible for financing under the agreement. The Ministry of Finance or the Ministry of Commerce and Industries will act as signatory and have primary GRZ responsibilities for monitoring compliance with the terms and conditions of the Agreement. The Commodity Management Officer

TABLE 1: ILLUSTRATIVE FINANCIAL PLAN SUMMARY
($ 000)

ITEM	A.I.D. (FX)	PRIVATE SECTOR 1/ (LC)	GRZ 2/ (LC)	TOTAL
Technical Assistance	2,368	100	3,406	5,874
Training	1,786	50	62	1,898
Transport Sector Commodities	2,000	0	0	2,000
Agricultural Marketing Commodities	6,700	0	0	6,700
T.A. Support Commodities	363	0	0	363
Infrastructure Development	0	0	8,241	8,241
Evaluations/Audits	190	0	0	190
Studies	165	0	190	355
Inflation & Contingency	1,428	0	5,951	7,379
TOTAL	15,000	150	17,850	33,000

Host Country Contribution as a Percentage of the Project's Total is 55%.

1/ Refers to in-kind contributions only.
2/ GRZ contribution (the kwacha equivalent of $17.85 million at an exchange rate of ZK8/$1) is derived mainly from local currency counterpart funds. The counterpart funds include the dollar equivalent of ZK69.6 million ($8.7 million) for commodities and ZK 1.1 million ($0.138 million) for technical assistance and training generated from private sector payments and fees.

TABLE 2: A.I.D. OBLIGATIONS SCHEDULE, BY FISCAL YEAR
($ 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
Technical Assistance	1,855	170	0	343	0	0	2,368
Training	950	45	91	0	0	0	1,786
Transport Sector Commodities	2,000	0	0	0	0	0	2,000
Agricultural Marketing Commodities	2,114	3,195	715	676	0	0	6,700
T.A. Support Commodities	363	0	0	0	0	0	363
Evaluations/Audits	0	0	60	130	0	0	190
Studies	50	67	26	22	0	0	165
Contingency (5.25%)	287	285	60	81	0	0	713
Inflation (5.0%)	381	223	48	63	0	0	715
TOTAL	8,000	4,685	1,000	1,315	0	0	15,000

Table 3: Methods of Implementation of Financing

METHOD OF IMPLEMENTATION	METHOD OF FINANCING	COST ($'000)
Technical Assistance:	Direct Payment	$ 2,368
RFP, A.I.D. Direct Contract		$ 1,968
Grants to U.S. PVOs	Direct Payment	$ 400
Participant Training:		$ 1,786
Long-term U.S., Placement by USAID/Zambia	Credit Transfer to AID/W	$ 720
Short-term U.S. and T.C. Placement by Contractor	Reimbursement to Contractor	$ 637
In-country (for trainers) Supplied by Contractor	Reimbursement to Contractor	$ 429
Commodities: CIP-Type and AID Direct Contract	Bank Letter of Commitment and Direct Payment	$ 8,700
Other Costs: AID Direct Contracts and USAID/Zambia-issued Purchase Orders (e.g. T.A. Support Commodities, Evaluations/ Audits, and Studies	Direct Payment	$ 718
Contingency and Inflation		$ 1,428

in USAID/Zambia will have primary administrative and monitoring responsibilities under the transport sector procurement activity, while AMAG will have similar responsibilities under the agricultural marketing/technical assistance support procurement activity. It is expected that truck tires, tubes, and spares will be the primary commodities eligible for financing under the transport sector support activity. Under the agricultural marketing support activity, a broader list will be eligible, including items such as oilseed expellers, extruders and spares, canning equipment, food and juice processing and packing equipment, small-scale milling equipment, scotchcart component parts, equipment/spares for existing food-processing equipment, various types of trucks, and commercial refrigeration equipment.

Foreign exchange provided by ZAMS to procure eligible commodities will be allocated by the GRZ Foreign Exchange Management Committee (FEMAC).

Payment procedures will be in accordance with A.I.D. Regulation 1. A bank letter-of-commitment/commercial letter-of-credit financing method will be employed to use the commercial banking community to the maximum and to provide a system familiar to both the local importer community and prospective suppliers. To assist with the monitoring and implementation of the project with respect to A.I.D. rules and procedures, a ZAMS Foreign Exchange Allocation Committee will be established. The committee will review A.I.D. requirements such as importers' proforma invoices and dealership agreements to ensure that commodities proposed for importation under this project are in accordance with the terms and conditions of the grant agreement and are therefore eligible for A.I.D. financing. The committee, while having a monitoring and control function regarding A.I.D. procedures and attainment of project objectives, will be completely integrated into the established GRZ foreign exchange allocation system.

If approved by FEAC, a letter will be given to the importer advising the GRZ Foreign Exchange Management Committee (FEMAC) that its concurrence with the ZAMS forex allocation is requested within five working days of the appropriate FEMAC review session. When FEMAC concurrence is received and the import permit is approved, the importer will make a kwacha counterpart deposit equivalent to the value of the importation at a local bank participating in the program. (The local bank will transfer these funds to Special Account No. 846 at the Bank of Zambia.) Upon its review of the deposit receipt, USAID/Zambia will authorize the appropriate local bank to issue a letter of credit to be confirmed through the A.I.D. Letter of Commitment bank designated by the GRZ.

V. Implementation Schedule

The projected implementation schedule for the project appears below. When the technical assistance team arrives in-country, they will prepare an updated and more detailed implementation plan.

Date	Action	Responsibility
7/12/88	Project Paper design completed	USAID
7/19/88	Arrearages paid	GRZ
7/26/88	Project authorized (in the field)	USAID/Director
8/15/88	Project Agreement signed	GRZ/USAID
8/88	RFP prepared for TA	USAID
8/88	ZAMS Foreign Exchange Allocation Committee established	GRZ/USAID
8/88	Determine local bank(s) & U.S. L/Com bank for transport sector support activity	GRZ/USAID
8/88	Guidelines prepared for local importers to participate in trans. sector activity	USAID
9/5/88	RFP sent to AID/W	USAID
9/88	Financing request signed & bank L/Com issued	USAID/GRZ
9/88	First local currency agreement (for ZK 15 million) signed	GRZ/USAID
9/88	Commodity procurement ($2 mil) initiated	USAID
10/3/88	Notice/Solicitation of Proposals for TA appears in CBD	AID/W
1/2/89	TA proposals received	USAID
2/9/89	TA Contractor selected	USAID
3/13/89	TA contract signed	USAID/Contractor
4/1/89	TA sub-contract signed	Contractor/sub-contractor
4/10/89	TA team Chief-of-Party arrives	Contractor
4/15/89	Remaining TA team is mobilized	Contractor/sub-contractor
6/89	First annual work plan completed	AMAG
6/89	First short-term trainees depart	AMAG/GRZ
8/89	First long-term trainees depart	AMAG/GRZ
9/89	Disbursements completed ($2.0 mil)	Local importers
9/89	First in-country training given	AMAG
9/89	Baseline studies contracted	USAID/AMAG
12/89	Baseline studies completed	Local grantee
4/90	First annual internal review	AMAG/GRZ/USAID
6/90	Second annual work plan completed	AMAG
4/91	Mid-term evaluation	USAID
6/91	Third annual work plan completed	AMAG
4/92	Third annual internal review	AMAG/GRZ/USAID
6/92	Fourth annual work plan completed	AMAG
4/93	Final evaluation conducted	USAID
5/93	Last TA team member departs	Contractor
9/30/93	Project Assistance Completion Date	USAID

Figure 2 presents the implementation schedule in a time-sequence format.

VI. Evaluation

Two formal, external evaluations are planned: a mid-term evaluation about two years after the technical assistance team arrives, and a final evaluation near the end of the project period. In addition, annual internal reviews will be carried out. The latter will be necessary because of the flexibility which is built into the project to facilitate shifts in focus when policies change or when new opportunities arise.

A. External Evaluations

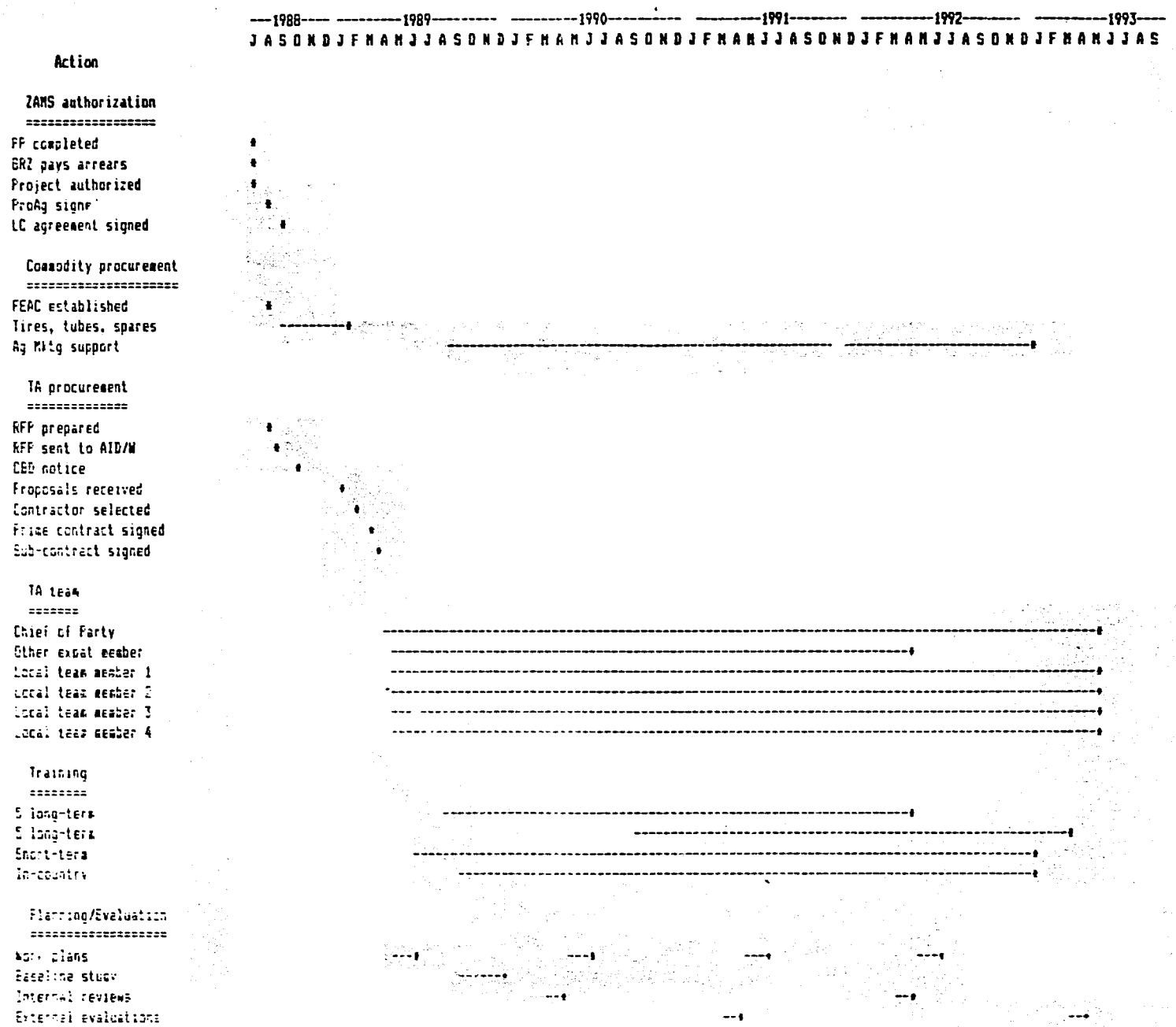
The ultimate responsibility for the external evaluations will lie with the USAID/Zambia Mission. However, AMAG will be responsible for planning, organizing, and implementing the collection of baseline data, to provide an objective basis for the evaluations. USAID/Zambia will approve the plan for baseline studies before it is implemented.

One dimension of these studies will be to provide project-specific baselines. Another will entail socioeconomic baselines focused on the immediate areas affected by sub-project activities, to obtain information on incomes, nutritional standards, and employment generated (by gender).

The NGO or PVO responsible for managing specific sub-project activities will be required to have a plan for baseline studies, monitoring, and evaluation. The main information to be collected will be on nutritional status, rural incomes, and employment. A few key variables from existing, regularized data collection efforts, such as CSO surveys, hospital records, and Ministry of Commerce and Industry statistics, should be supplemented with project-supported, small-scale, intensive data collection efforts based on sub-samples. Information relevant to the specific activity will be needed. For instance, for a village oilseed processing venture, information would be needed on the number of families benefitting from the activity, the volume of vegetable-oil produced, the volume of oilseed cake produced, and the number of bags of oilseed processed. These kinds of data should be covered in the monitoring plan.

During the first half-year after AMAG is constituted, AMAG will develop its monitoring and evaluation system. Since its activities will be diverse, AMAG will have to specify the particular data points for each type of activity. For example,

Figure 2. ZAMS Project Implementation Schedule



firms which benefit from fruit processing equipment imported through the ZAMS Project will be required to provide annual reports, which will serve as a monitoring tool, on the volume of output, volume of fruit purchased by the firm, number of outgrowers and their general location, services provided to outgrowers, and employment, disaggregated by fulltime and parttime workers, and by sex. As part of the agreement with a firm, AMAG will require the firm to provide baseline information and annual reports, and assurances of access of evaluators to the firm's records. The plan will be submitted to USAID/Zambia for review and comment to ensure that USAID/Zambia evaluation needs are met. A social scientist with experience in A.I.D. monitoring/evaluation will be requested to review the proposed data sets and collection and analysis plans.

A Consultancy and Training Workshop will identify the kinds of information to be gathered as a basis for evaluating the in-country training component, and at what stages in the training process. AMAG will devise a pre- and post-evaluation form for those who are sent for external training.

USAID/Zambia will recruit an external evaluation team for mid-term and final evaluations with an appropriate skill mix to fully use all baseline data and analyses performed under the project. A major objective of the final evaluation will be to verify sustainability of the project. Recognizing that it may be difficult to obtain adequate measures of sustainability before the project ends, consideration will be given near the end of the project to holding a "split" final evaluation. This would entail a regular evaluation before the technical assistance team departs, and a mini evaluation to assess sustainability eight to twelve months after the PACD.

B. Annual Internal Reviews

The annual reviews will be organized by AMAG. These reviews are to be held just prior to the time that the next annual work plans are to be prepared, and will be an important part of the planning process. The reviews will include the ZAMS Advisory Council members, the USAID/Zambia Project Officer, and representatives of other organizations and institutions involved in project implementation, as well as the AMAG technical staff.

The ZAMS Project will provide for one or two specialists from outside to come to Zambia for two to three weeks prior to the internal reviews, to become familiar with project objectives and activities and, more importantly, to offer ideas on new activities or approaches. They will then participate in a workshop to help conceptualize and structure activities for the next year.

ANNEX F

TECHNICAL ANALYSIS

1. INTRODUCTION

The Project Identification Document (PID) identified for possible project interventions: oilseeds, sorghum, millet, cassava, and fruits and vegetables. A recent study (Deloitte, Haskins, & Sells, Study of the Oil Seed Sector in Zambia, April 1987) had suggested several possibilities for marketing improvement for various oilseeds. After the PID was written, USAID/Zambia commissioned a study to look more closely at the potential for the other crops identified in the PID (Robert R. Nathan Associates, in cooperation with AGMMARK, Limited, Market Potential for Fruits, Vegetables, and Minor Field Crops, June 1988).

The Technical Analysis draws heavily on the two studies and takes into account additional information garnered by the PP design team in many meetings with farmers, government officials, farmers' organizations, agricultural processors, and others. In general, the Technical Analysis validates the areas of focus suggested in the PID. There are some slight shifts in emphasis. Among the marketing functions, the main emphasis of the project will be on the physical functions of transportation, storage, processing, and handling, as suggested in the PID, and some attention will be given to the facilitating functions, such as improved quality standards. Oilseeds remain as a primary initial focus. Fruits and vegetables, especially processing, are to be given earlier attention than was indicated in the PID, based on conclusions of the analysis that both needs and opportunities exist in this sub-sector. Opportunities for viable interventions in sorghum and millet, if anything, are less easy to visualize than was indicated in the PID, given current pricing policies for maize and maize meal, which limit demand for sorghum and millet. Technical possibilities do exist for interventions in sorghum and millet. Therefore, the door is left open for the project to assist in these commodities when and if changes in pricing policies so warrant. Cassava may offer more opportunity for interventions than sorghum and millet, but possible activities will have to be studied before this might become a focus.

The main government interventions in agricultural marketing are subsidies on inputs, especially fertilizer, and on maize and mealie meal, plus price controls or floor prices for specified commodities. The subsidy for maize is of such proportion that it distorts the entire agricultural commodity market, not just the immediate substitutes for maize such as cassava, sorghum and millet. Even so, substantial opportunity exists for interventions in the physical aspects of marketing.

II. FRUIT AND VEGETABLE MARKETING

A. Consumption

The quantities of fruits and vegetables consumed are very difficult to assess; there are no adequate records on production and consumption.

The last study which gave some information on consumption is the Household Budget Survey carried out in 1985. The figures are imprecise regarding fruit and vegetables. The survey gives the expenditures in cash for households of different incomes and sites in towns and in rural areas.

The expenses for fruit and vegetables are very different from one household to another. The high inflation rates from 1985 make estimation difficult. A rough calculation indicates that the amount expended for fruit and vegetables is about 10% of the expenses for grains, including bread and mealie meal. With an annual consumption of 800,000 tons of maize at 80 ngwee per kg, we obtain a consumption of about 125,000 tons of vegetables at an average price of K4/kg, i.e., 17 kg per capita per year.

In the study of "Vegetable Production and Marketing on the Central Plateau in Northern Province", consumption is given as 23 to 32 kg per capita per year; it is reasonable to keep the mean average of 20kg, and a global consumption of 140,000 tons per year.

The consumption of fruit is very much lower, and given in the same report above as 1% of that of vegetables, i.e., 1,400 tons a year, or, with a higher consumption in the urban areas, around 2,000 tons a year.

The interest of these approximate figures is that they give an average amount of fruit and vegetables produced and marketed by numerous farmers and marketeers involved in this business.

It is difficult to differentiate between the consumption in urban and rural areas.

B. Perishability and Post-Harvest Losses

All the fruits and vegetables discussed in the present study are highly perishable. They are susceptible to many external factors and as cut parts of plants, they perish quickly after harvest. Their shelf life varies from a few days to several months. Losses are usually caused by rotting (bacteria, fungi), senescence, sprouting, withering and bruising.

In the less developed countries, losses in horticulture crops are usually estimated to range from 15 to 50%.

The loss of these fruits and vegetables affects everybody in the marketing process: the producer who receives a price taking into consideration the foreseeable losses, the trader who may lose his margin, and the consumer whose buying price includes a portion of all losses in the marketing process.

The project will consider elements in production, harvesting, packaging transportation and processing that minimize these losses.

C. Description

Fresh vegetables and fruits are consumed throughout the country all through the year. There are few specialized producers of fruits and vegetables for the domestic market, even near large cities. Farmers all over the country produce small quantities of vegetables for their own consumption, but only among a few does it constitute the major commercial farm activity. Vegetable production is more often a sideline from other farm or economic enterprises as it is too high risk except for the most expert producers and marketeers to constitute a major enterprise. Processing facilities, particularly at the village level, will help reduce the risk factor.

Production areas are not well defined. Good climate and favorable soil and water conditions for vegetable production are seemingly present all through the country. Each major consumption center is supplied from areas along the main roads. Vegetable farming and marketing for the domestic market is mostly in the hands of indigenous Zambian farmers and traders.

Most local producers are small, with at most half a hectare of vegetables. Large scale and advanced "commercial" farmers are conspicuously absent in the production of produce for the Zambian population. The expatriate and elite community consuming European-type vegetables and fruits constitute a small market, involving some special producers and marketing channels. Most of the following observations concern the popular Zambian market.

The absence of a green-belt around Lusaka and other major towns is surprising and puzzling to marketing professionals coming from elsewhere. Vegetable production to feed large cities in developing countries often comes from intensively cultivated garden plots around those cities in order to minimize on transport, by far the major marketing cost component. The empty spaces surrounding Lusaka and other Zambian cities are economic anomalies better explained possibly by historical reasons.

Land around Lusaka is owned by the District Councils and their use and allocation is strictly controlled. Housing construction is allowed only according to well planned development schemes, normally by the state-owned housing authorities. Land therefore cannot be easily bought and used.

Farmland all along the major rail line and paved roads was originally allocated in colonial times to expatriate commercial farmers. No major land reform has been made since independence. Today, large scale commercial farmers along the main transport arteries show little interest in vegetable production for local consumption. This is done almost entirely by small African farmers in areas removed from the big cities and the better highways.

Every day it is estimated that 50 to 70 tons of produce arrive in Lusaka, mainly through the Soweto wholesale market. The market displays a wide variety of produce with tomatoes and rape leaves (similar to collard leaves) predominating. Also available were squash, pumpkins, potatoes, onions, melons, beans, green peppers and numerous African vegetables. Very little fruit was present.

The main difficulty encountered by farmers in marketing tomatoes and other vegetables is transport. It is especially difficult to get produce from the farms to the nearest town or roadside collection point. Feeder roads are rapidly deteriorating and motorized transport becomes impossible during the rainy season. Once on the paved road, truck transport to market is eventually available. Some small producers with 8 to 10 boxes will use bus service for transport. From Mumbwa, a major production area, it costs K7 per box for transporting the produce 100 kms to Lusaka.

Farmers ordinarily accompany their produce to the city until it is sold in the market. There are few standing arrangements between farmers and wholesaler traders in the cities for regular vegetable deliveries. A few traders do travel to production areas to bring produce to the city; this occurs especially in time of scarcity.

Except for some village markets in the Copperbelt area, there are no organized assembly markets in the main producing areas, not even in Mumbwa which is providing the bulk of produce to Lusaka.

Wholesale markets in Lusaka and Ndola are utterly inadequate for their functions. They consist of nothing more than an empty space at the entrance of the city where incoming trucks from the producing areas are unloaded, and trading takes place by the roadside. In the rainy season, mud and stagnant water pose a public health menace as well as an economic cost.

Marketing of fresh fruit and vegetables is relatively free from government interference. Prices vary often and quickly in response to market conditions. There are large numbers of producers, traders, and retailers, and no evidence of market concentration among few.

Entry and exit are relatively easy. In Lusaka and Ndola large numbers of small-scale retailers (marketeers) take care of distributing daily supplies of vegetables and fruit among the popular compounds through a network of neighborhood markets.

The role of government poses a problem mainly in two areas: firstly, occasional conflicts between vendors and police and UNIP party vigilantes in an attempt to control prices of commodities. Secondly, the municipalities' inability to build and maintain retail markets for the rapidly growing urban population has led to the proliferation of spontaneous markets which the authorities are threatening to bulldoze. The legalization and improvement of these spontaneous markets should be sought. The Lusaka District Council has proposed that each marketeer put down a roughly 3 x 4 meter slab of concrete for his work area. This is entirely unsatisfactory.

Consumer prices are high relative to income levels. Price fluctuations are also large throughout the year due to irregular supplies, rigidity in demand and seasonal effects.

There is a small fruit and vegetable processing industry consisting of a handfull of firms producing canned products, preserves, juices and jellies. The demand for these products is small compared to the fresh market, and concentrated among the high income and expatriate community. These processors are supplied mainly by a few commercial farmers producing almost exclusively for that purpose. Even though it is a comparatively small market, the local processors cannot meet demand due to their inability to get the necessary foreign exchange to efficiently mechanize their operations.

Fresh fruit and vegetables are also exported by air to Europe and to neighboring countries. The volume is small, roughly 700 tons a year, supplied mainly by a few large commercial farmers with advanced production and packaging technology and good marketing connections in Europe. Their production is aimed at the export market in terms of product selection and high quality. Production below export grade quality is sold to local hotels and restaurants and specialty stores.

Reduction of price fluctuations from seasonal changes in production could be accomplished in several ways. Increasing the diversity and varieties of vegetables in the domestic market to provide a smoother production through the year is one means. Improving the availability and use of fungicides and pesticides during the rainy season and increasing the availability of water pumps and spare parts for irrigation during the dry season also would improve the situation.

Improvement in marketing infrastructure will greatly facilitate transactions, price determination and reduce product losses from excessive and rough handling of produce. The need for a wholesale market in Lusaka is viewed with priority. Ndola and other cities will also be considered. Organization of rural assembly marketing in the main vegetable producing areas also needs to be looked into.

Lack of coordination between producers, wholesalers and retailers is a major constraint to the smooth marketing of fruit and vegetables. Access by market participants to the rather well-functioning telephone system in Lusaka could greatly enhance the flow of information and market coordination. ZAMS will explore what improvements in information flows can be made.

ZAMS will also promote the emergence of high quality commercial entrepreneurs out of the mass of unskilled participants in the market. Promising individual producers and traders will be supported in making marketing-related investments to raise the efficiency of their operations. Existing market associations of traders and retailers will be supported in self-help undertakings to improve their current facilities by providing roof, water, sewage, electricity and telephones to their markets.

Training programs will be conducted for farmers as well as for traders and marketeers to improve the quality, packaging and handling of produce. The network of existing self-help professional organizations will be used as a vehicle for training programs. Simple accounting, stock management, and business procedures have proved popular among small traders in other parts of the world and are expected to be well received in Zambia.

1. Preserved Fruit and Vegetables

A relatively new private company, Rivonia, is the main producer of fruit and vegetable preserves and juices in Lusaka. In six years of operation it has grown to the point of employing 60 semi-skilled workers. Its production is marketed directly to Lusaka supermarkets and foodstores on a contract basis and through NIEC and Mwaiseni to other urban centers. Rivonia reports a good growth potential, but is constrained at the moment by the inability to obtain foreign exchange to import essential processing equipment such as pulping and sieving machines, vacuum cookers, shredders, chippers, dicing machines, oil refiners, a canning line and TA for floor layouts and processing new products. This accounts for some $50,000 of equipment and TA. Rivonia would then employ additional staff and more than double its processing of fruits and vegetables. ZAMS will consider providing the foreign exchange necessary for importing the equipment.

2. Soft Drinks Industry

As a result of the dire scarcity of foreign exchange, Zambia has stopped the importation of syrups and concentrates for soft drinks. There is thus a potential demand for soft drinks using locally produced fruit juices and concentrates. The present availability of raw materials for crushing oranges, grapefruit and pineapple is extremely limited, and the location of the producers is far from the consumption centers. At present the demand for citrus in the smallholder sector far outstrips the seedlings available from provincial MAWD nurseries. ZAMS intervention can help co-ordinate joint development of the industrial capacity along with smallholder production of fruit trees in strategic locations.

3. Fruit and Vegetables for the Export Market

This is a rapidly growing sector in Zambia. It takes advantage of the favorable climatic conditions in Zambia for the production of fruit, vegetables and flowers during the off-season in Europe. Items include strawberries, green beans, okra, ginger, sweet corn, chillies , aubergines, courgettes (suchini), gladioli etc. Exports are entirely in the hands of private concerns, after a futile attempt to establish a parastatal company, ZAMHORT, to do the same. Constraints relate mainly to the ability of producers to have ready access to technical information and to attain appropriate quality standards. Regarding price competition, Zambia has lower labor costs than other regional producers, and at present, a discounted rate for airfreight to Europe.

An Export Diversification Project was identified last year by the World Bank before Zambia's break with the IMF Economic Recovery Program. The project included tobacco, groundnuts, cotton, beef and fruit and vegetables. The concept of the project was to provide foreign exchange through commercial banks for short and medium term loans for the importation of equipment and inputs. These loans would be recovered from the export retentions. The project has now been placed on hold due to the break with the IMF and the World Bank.

Recently, the Bank of Zambia approved up to $12 million in pipeline debt to be dismantled in order to provide kwacha, at a highly favorable exchange rate, to support a horticultural export project. Under this scheme, local currency costs like land clearing and on-farm buildings could be financed by producers wishing to enter the export market. Of course, if the foreign exchange is used for buying up debt, it cannot be used for importing equipment as well.

Airport facilities for pre-shipment, storage and handling are presently inadequate. These facilities are badly needed because exporters are not getting top prices at present, in part due to the decline in quality of their produce when the cold chain is broken on arrival at the airport.

Discussions with major exporters indicate a growing demand for high quality Zambian produce in Europe during December and January. Also, a new scheduled flight of Zambia Airways from Lusaka direct to New York opens that market potential. To supplement and provide more reliable transport, the Zambian Export Growers Association (ZEGA) chartered an aircraft for six months in 1987 for the use of Zambian exporters. It proved to be a profitable venture for them and may be tried again in 1988. A continuing problem is getting sufficient high quality produce to fully utilize the charter and meet market demand. Farm cold storage to immediately cool harvested crops plus a refrigerated truck to transport the crop to the airport is even more essential than airport cold storage, especially if a charter plane is on the ground ready to be loaded.

This farm to plane cold chain would also greatly benefit small commercial farmers wanting to get into export production. Established exporters are willing to buy quality produce from small growers but this can only be accomplished by technical assistance to the emerging growers and a farm to plane cold chain. On-farm cold store and a refrigerated truck to serve two or three farms, plus TA, will be of major assistance to fruit and vegetable exporters.

D. Summary Analysis for Fruit and Vegetables

These are commodities that affect all the population almost daily. Not only the general consuming population but a large number of small farmers are involved in production as a sideline rather than as in some countries where a few large commercial producers concentrated near major consumption areas are the only major producers.

Consequently any general improvement in fruit and vegetable production affects a large portion of the Zambian population. After consideration of a number of options for interventions such as seed improvement, credit programs, production equipment and input supply, three priority interventions were selected for initial application. These are, with a geographic concentration primarily in Central, Eastern and Southern Provinces:

Firstly, improved roads and transport which will help the marketing of all agricultural products. This, as discussed in other sections, would be comprised of truck tires, tubes and critical spares, rehabilitation of U.S. road graders, provision of trucks and pick-ups on a selected basis to cooperatives and growers associations, and local currency and technical assistance to district and local councils to possibly establish a money-generating facility to meet road and grader maintenance costs.

Secondly, the provision of foreign exchange to purchase needed equipment to increase the quality, efficiency and production capacity of fruit and vegetable processing firms such as the Rivonia Farms example. Also foreign exchange would be provided to producers such as the citrus farmer example, to do processing at the production site. The current demand for juice and fruit concentrates makes this particularly viable. In addition to citrus, mango processing may also be possible in the Eastern Province area.

Thirdly, assistance to district and local councils in the provision of covered market places, appropriately located with water, drainage, electricity and storage facilities. These would be primarily local currency costs with a small foreign exchange component for storage and other facilities.

III. OIL SEED PRODUCTION AND MARKETING

A. Review of the Oil Seed Sector

There are five major sources of domestic edible oil in Zambia: sunflower, soybeans, cotton seed, groundnuts and maize. Maize germ requires a very complex extraction process and high capital investment and is thus not considered viable.

All oil seeds with the exception of soybeans are generally cultivated by small scale traditional farmers. Sunflower is the most popular oil seed followed by cotton seed and soybeans, which is a relatively new crop and is being taken up enthusiastically. Groundnuts are grown in small quantities in relation to demand, for direct consumption and food processors as they are mostly used for confectionary purposes.

The supply channels for inputs of oil seeds depend on the type of input and category of user. The Provincial Co-operative Unions (PCU), NAMBOARD, Zamseed, LINTCO and a few private traders are the main organizations responsible for distribution of improved seed, fertilizer, agricultural chemicals and machinery.

1. Review of the Oil Seed Processing Industry - Oil Production System

The oil seed processing industry in Zambia is dominated by Refined Oil Products Zambia Limited (ROP). Recently, several medium-scale (50 mt/day) processing plants have been established by private traders. There are also about 40 small scale expellers located throughout Zambia.

ROP (Premium Oil) Lusaka and ROP Ndola account for almost 70% of Zambia's total installed crushing capacity, but on average utilize only 30% of this capacity.

The major constraints to full utilization of capacity are lack of skilled management, lack of readily available foreign exchange, lack of skilled personnel, irregular availability of spare parts and a poor working environment.

The private medium scale processors operate at 60% of their planned capacity with the exception of ZAMOIL and Robinhood which operate at 50% of their planned capacity. Their main constraints are inadequate management, insufficient infrastructure for seed storage and lack of funds for future expansion, especially auxiliary equipment.

ROP's total crude oil output rose from 2,159 mt in 1980 to 10,630 in 1985. The total refined oil sold by ROP rose from 9,764 mt in 1980 to 15,390 in 1984.

ROP Lusaka (Premium Oil) has just completed a modernization and rehabilitation program that increases their capacity to 37,500 tonnes for a 150-day season and greatly increases the efficiency of oil extraction from soybeans.

The medium and small scale expellers which were not even in operation in 1980 are increasing rapidly in importance.

2. Oil Seed Sector Impact and Constraints

Oil seed producers operate within a framework of limited capital input, an inadequate extension network and inefficient marketing channels. In addition to this, the low producer prices have been a disincentive to increased output. The projected 1988/89 prices are more of an incentive to producers; they are being increased as follows:

Comparison of GRZ 1987/88 and 1988/89 Floor Prices for Selected Oil Seeds

		Prices in Kwacha		
Commodity	Unit	1987/88	1988/89	% Increase
(1) Sunflower	50kg	90	146	62
(2) Soybean	90kg	217	280	29
(3) Groundnuts	80kg	265	323	22
(4) Cotton	1kg	3	3.6	20

Source: MAWD

(1) The 62 percent increase in sunflower is seen as a definite incentive for increased production.

(2) Soybeans are a major rotation crop of commercial farmers, and with expansion of extruders and an oil extraction attachment will further increase demand.

(3) Groundnuts are at a 3:1 ratio to the corn price which has traditionally been the margin to increase groundnut production.

(4) Cotton demand is increasing domestically and major large scale export oriented production is being developed in the Gwembe area, all of which will increase seed availability.

The oil seed processors suffer from ungraded, poor quality seed which causes excessive wear on the machines. The present combination of machines at ROP are not in line with the marketed output of oilseeds. For example, the sunflower processing capacity is far in excess of production and cotton seed too low in relation to its availability for crushing.

The Government and indeed ROP are aware of these bottlenecks in the oil seed sector. They have taken several policy decision to overcome these problems.

Zambia appears to have sufficient processing capacity in view of the total oil seed production. An improvement in the operations of the existing plants to 60% utilization of planned capacity will absorb all the increased oil seed production up to 1990. The problem is not one of processing but of distribution and transportation costs. Project emphasis will be on small oil seed expellers and extruders in remote villages that currently do not get oil and cake returned to the village due to transportation costs and urban demand. PVOs and NGOs, with staff in the field, will assist with implementation and management of the activity.

3. The Oil Seed Processing Industry

The Small Scale Processors: Forty small scale oil seed expellers exist in Zambia with capacities ranging from 20 kg to 180 kg per hour.

The small scale oil extraction industry does not have a formalized marketing system. In most cases processor/owners either grow their own sunflower or buy directly from farmers in the region.

There is no problem with the disposal of oil or seed cake in the rural areas and consumers do not have a preference for refined oil as opposed to the crude filtered oil produced by the small scale presses. The emphasis is on availability of oil.

SIDO and ZCF are involved in the promotion of small-scale expellers. These organizations provide advisory services to the small scale entrepreneurs and will cooperate with the ZAMS Project.

4. Evaluation of Development Potential

Currently there are no specific clear policies for the promotion of small scale processing ventures. Apart from a few advisory organizations there is no special institutional support to this sub-sector.

The attractiveness of imported machines is very sensitive to the exchange rate. The locally manufactured machine is financially preferable, but profitability is very sensitive to price and cost increases.

There are many areas in Zambia which can produce sufficient oil seeds to justify the operations of small scale expellers, particularly Southern and Central Provinces for sunflower and Eastern Province for groundnuts. Soybeans are primarily produced by the large irrigated commercial farmers, particularly in the rainy season in rotation with dry season irrigated crops. They are and will continue to be more popular with small farmers, as processing and methods of home consumption are developed. The small extruder discussed later will help fill this technology gap.

The major constraints to the development of this sub-sector include:

(1) lack of organizational and institutional support;
(2) lack of research and coordination of sectoral development;
(3) limited access to credit;
(4) insufficient oilseeds for processing; and
(5) poor backup services for provision of spare parts and maintenance.

Local and foreign funds can be used for introduction of suitable makes of small scale expellers and coordination of the development of this sub-sector. Promotional campaigns such as LINTCO has done with 15,000 small farmers, who now produce over 5,000 tons of soybeans annually, can be mounted to encourage production of oilseeds in the rural areas.

B. Production of Oil Seed Crops

1. Sunflower

Sunflower is grown principally by traditional smallholders and, to a small extent, by emergent and commercial farmers. Smallholders in the Southern Province produce 32% of the total national crop and Eastern Province smallholders contribute 24%, while Central and Lusaka Provinces grow a further 27%. The area of sunflower planted in 1985 is estimated by MAWD to have been 64,000 hectares. The average national yield is generally low in comparison to outputs achieved by experimental plots in Zambia.

According to ZAMARE staff, sunflower is currently the most popular oil seed crop in Zambia and appears to be the best suited for cultivation in the country. The reasons for this are:

(a) it is suitable for late planting and thus avoids labor constraints during maize planting;

(b) it is a low input crop with relatively good yields in comparison to other crops, even with very little management;

(c) it has a higher oil content than other oil crops; and

(d) the extraction process is easier than for other oil seed crops, especially for village-scale oil extraction plants.

Sunflower production in Zambia increased rapidly from 1980 to 1985, and declined sharply in 1986. This is thought to be due to good rainfalls during this season when farmers went back to growing maize. From 1982 to 1985 Zambia experienced low rainfall all over the country and farmers planted sunflower in preference to maize as it is less susceptible to drought.

As most sunflower is marketed through official channels, total production figures for the country are fairly accurate. However, average yields and hectarage figures do not appear to correlate with other information.

2. Soybeans

Soybean production was mostly confined to large scale commercial farmers until 1980 when an extension program was designed to assist the small scale farmers. Soybean production in the country increased from 1,295 mt in 1979 to 14,700 mt in 1985 (GRZ statistics). The 1987 production was 45,000 tons with 1988 projections being 6,300 tons from small farmers and 50,000 tons from commercial farmers according to CIDA experts working with soyabean production.

Soybean has been introduced to small scale farmers through the development of varieties which do not require seed inoculation. The number of small scale farmers growing soyabean increased from almost nil in 1980 to over 15,000 in 1987 (LINTCO Reports). In 1983, LINTCO was given the responsibility for soyabean expansion among small scale farmers and it has achieved a significant increase in production by the small scale sector. Central, Eastern and Southern Provinces grow about 50 percent of the national output. Lusaka and Copperbelt Provinces contribute the other 50 percent.

3. Cotton

Cotton growing is effectively confined to the Southern, Central and Eastern Provinces, where it grows well on the plateau areas and in the Gwembe and Luangwa valleys. Seed cotton is primarily produced as a fibre for the textile industry and cotton seed is a by product. The crop is produced mainly by small scale farmers and by a few commercial farmers.

4. Groundnuts

Two main varieties of groundnuts are grown in Zambia, these are:

(a) Chalimbana (confectionery type), and,
(b) Makulu Red (oil seed type).

Production of the Chalimbana variety is concentrated in the Eastern Province, which produces over 90 percent of the national output. Production outside Eastern Province is on very small plots cultivated by women for subsistence purposes. Makulu Red is preferred for oil extraction because of its shape and size, but it does not grow well in high rain areas. Imported seeds or fertilizer are seldom used due to lack of financial resources. Availability of family and hired labor, specially for shelling, is a major constraint to increased production because groundnuts are always grown as a garden crop with less priority than other crops. Traditionally, only women grow groundnuts to supplement their kitchen requirements and sell any surplus for cash.

Although groundnuts have a high oil content, they are produced in small quantities in relation tq their demand for confectionary purposes. They are seldom available for oil extraction and the high demand makes their price uneconomical for oil processing.

C. Marketing of Oil Seed Crops

Marketing of agricultural produce in Zambia is dominated by parastatals and Provincial Co-operative Marketing Unions (PCMU's). The National Agricultural Marketing Board (NAMBOARD), the Zambia Seed Company (ZAMSEED), the Lint Company of Zambia (LINTCO) and the PCMU's share responsibility for agricultural produce marketing for all categories of farmers.

1. Sunflowers

In theory, all purchases of sunflower at farm level should be carried out by primary co-operative societies. In practice, with the exception of the Eastern Province Co-operative Union, primary societies lack the organization and equipment to carry out this function. Therefore, all sunflower purchases are made by PCMU's directly. There are a large number of buying depots at provincial, district and village level in addition to mobile depots for the remote areas.

Sunflower bought from farmers by PCMU's is sold directly to processors. NAMBOARD is used more as a residual buyer. Processors also buy directly from farmers.

2. Soybeans

The marketing channels used in soybeans are similar to those of sunflower. The Co-operative Unions are the main buyers at provincial level for supply to processors. NAMBOARD acts as the buyer of last resort. Occasionally farmers sell their soybeans directly.

3. Cotton Seed

LINTCO provides packing material for seed cotton through their input depots and farmers are responsible for transporting the seed cotton to the nearest LINTCO depot. LINTCO gins the seed otton and sells the cotton seed, which is a by-product, to oil seed producers or farmers for stockfeed.

4. Groundnuts

Marketing of groundnuts is largely free from control. This means that farmers can sell their produce to the highest bidder and the PCU's are buyers of the last resort. The only exception is Eastern Province where ECU has the monopoly for buying groundnuts. Eastern Province produces 90% of the total marketed output. The Eastern Co-operative Union estimate that they handle less than 20% of the total marketed output and 80% is sold through unofficial marketing channels. Farmers receive higher prices and quick cash at their "door steps" from private traders. They have to pack the groundnuts in sacks to market through the Eastern Co-operative Union, but private traders buy from buckets or drums packed by farmers.

D. Review of the Oil Seed Processing Industry: Small-Scale Processors

The Deloitte, Haskins, & Sells Oil Seed Report (April 1987) included an in-depth survey of the small scale oil expellers 40 expellers with capacities ranging from 20 kg bags per hour to 180 kg bags per hour were identified.

The survey involved identification and location of all existing small scale expellers to determine their oil crushing capacity and examine their development. This was done mostly by personal interviews with owners as very little data is available elsewhere. Questionnaires were not considered suitable as most of these processors are located in rural areas and most operators found it difficult to answer fixed questions on paper.

N. McFarlane's study of the Oil Seed Sector, 1983, examined the possibility of introducing small-scale expellers to produce oil. He found that the small-scale expellers can effectively utilize local raw materials and alleviate the serious shortage

of edible oil in the rural areas. The GRZ Task Force Report also recommends small scale expellers as the only economic way of making edible oil available in the rural areas.

Until 1982 there were few small scale oil expellers in Zambia, although some individuals and donor agencies funded a limited number of small scale expellers on an experimental basis. Since 1982 the number of small expellers has increased dramatically. In 1985 especially, a number of religious groups in rural areas funded small-scale expellers as a means of alleviating oil shortages in their regions.

Introduced over the past few years, soya extruders and extractors are a new solution to the problem of processing soybeans at other than large solvent plants, with any degree of efficiency. These were developed several years ago by the University of Illinois and made commercially viable by Instrapro, also an Illinois firm. These extruders have been used extensively in India, Sri Lanka and in numerous other developing and developed areas. The extruding concept is the basis for the various soya milk, full fat flour, meat extenders, weaning foods and snack foods produced from soybeans.

With the technical assistance of CIDA, the University of Illinois, and Instrapro, two companies in Zambia have purchased and installed a total of ten extruder units with a ten ton per day soybean capacity each. Considerable research has been conducted in Zambia by GRZ hospitals and the Food and Nutrition Commission (FNC) to make use of the food material from the extruders in baby and weaning foods and other human applications. SoyNutrients, a Lusaka-based Zambian firm, expects official approval from the FNC to produce food for baby and weaning uses in July 1988.

Pending approval for the baby and weaning food applications both Zambian firms have been producing livestock feed, meat extenders for sausage manufacturers, and soya flour for bakers. For SoyNutrient this has amounted to 40 tons per day to National Milling for livestock feed, 80 tons per month for meat extenders and 30 tons a month for flour.

The product is formed by forcing cleaned beans through an extruder under extreme pressure and 300 degrees F. temperature. It is a rapid process that under the heat results in an almost liquid meal ready for mixing with other products. The heat reduces the urease and trypsin inhibitor levels to acceptable amounts and retains the full nutrient complement. An additional device for expelling 75% of the 20% fat in the extruded material is available. This results in a more compatible product for mixing with other foods and vitamin/mineral premixes to produce a complete nutritionally balanced diet.

The engineer for SoyNutrients has had several years experience working with soya foods in India. He sees the possible development of soya foods in Zambia along the same lines as in India with a major contribution to institutional feeding for people at risk. Such agencies as CARE, UNICEF, UNDP and the World Food Program could make excellent use of locally-produced soya food products for either in-country or regional use. It is in the human food area that his company sees its future. They are currently equipped only for bulk distribution and need equipment for retail packaging before they are able to enter the retail market.

Other equipment needs are for dehullers, fine grinders and premixers. The extruder costs about $30,000. With a complete package of ancillary equipment the cost is between $60,000 and $70,000. The goal of SoyNutrients is to produce 100 tons per month of baby and weaning foods. They expect to produce a better product at a lower price.

The soy extruder will require much investigation and planning to make it a viable village level technology; however, there have been many successful projects in other developing countries that can be used for information and training.

No formal marketing system for the small-scale expellers was identified. In most cases processor operators either grow their own sunflower or buy directly from the farmers in the region. In some cases, as in Mazabuka, the owners encourage their workers to grow sunflower and bring it to the expeller. They then crush the oil seed, retain the cake and give the crude oil to the grower. This has encouraged the women in the area to plant small plots of sunflower as they see immediate tangible benefits.

Some of the small-scale processors in urban areas have storage problems due to lack of covered space. These operators buy from farmers at the beginning of the marketing season and supplement this by buying from the Provincial Co-operative Unions at other times of the year.

There is no formal marketing system for the crude oil and seedcake output. All the small-scale expellers in the rural areas, without exception, use 210 liter drums for storing clean, cloth-filtered oil and simply siphon oil into containers brought by the consumers. The price charged is usually the same as the prevailing ROP price. The small operators produce about 32 liters of oil per day. None of them have any problems in disposing of this output. In fact, all indicate that they cannot meet the demand from their surrounding villages.

The small-scale expeller operators in urban areas, on the other hand, have to compete with the large-scale processors. They have to pack their oil in 2.5 liter or 5 liter plastic bottles and send them to retail outlets for sale. There are no on-the-gate sales as they feel this encourages pilfering and private selling by their workers. Occasionally, they have problems in disposing of their stock, especially when ROP is operating well. In one particular instance, a small manufacturer could not find a market in Lusaka and had to transport his oil to Chisamba, about 60 kms from Lusaka, for sale. Sale of seed cake does not present a problem in either the rural or urban areas.

IV. MINOR CROPS

A. Cassava, Millet, and Sorghum

The Robert R. Nathan fruit, vegetable and minor crops report concluded that the prospects for promoting cassava, millet, and sorghum consumption and production through improvements in their marketing system are questionable at present. Although these crops have not had direct government intervention, they suffer the indirect consequences of official fostering of maize production, marketing, and consumption.

Cassava, millet and sorghum are minor field crops from the perspective of the national agricultural economy. Although in some regions each of these crops can be of some importance in production and in the diet, their overall value is dwarfed by maize. The three crops together add up to 133,000 hectares, or barely one sixth of the 780,000 hectares planted to maize.

These crops are basically subsistence crops whose consumption takes place mainly within the producing household, and when sold, they are traded within the village or zone of production. Very little is traded outside the immediate region of production. Sales of sorghum in the 1988 harvest are anticipated at 24,000 bags, or 9 percent of total sorghum production. For maize the marketed output is forecast at 11,200,000 bags or 73 percent of overall production. For ever kilogram of maize in the market there are 2 grams of sorghum. The relative marketing of millet and cassava is even less than for sorghum. Among traditional farmers fifty five percent of the maize is sold out, compared with only 9 percent of cassava 8 percent of millet and 4 percent of sorghum.

Official statistics on cassava, millet and sorghum are too imprecise to make definite evaluations of past trends in area, production and sales. It is even riskier to foresee how these variables will evolve in the future. But the general evidence indicates that production of these three crops has suffered

persistent decline in the past decade. Drought in the 1986-87 crop year might have shocked traditional farmers into increasing planting of sorghum and millet instead of maize in drier areas.

The relatively low importance of cassava, millet and sorghum in farm production reflects a corresponding decline of these products in the regional diets. There is no empirical data on this, since the last detailed food consumption survey was done in 1969. There is, however, ample anecdotal evidence that food consumption patterns have changed drastically over the last decade or two. The dominance of maize is a relatively recent phenomenon, coming as a slow but steady displacement of other foods.

The usual explanation for the decline in consumption of cassava, millet and sorghum (CMS) is that these staples are inferior foods. Nutritionally these staples are roughly equivalent to maize in calories, but less rich in other nutrients. But general taste preferences do favor maize. Nevertheless, the high price of these three products in urban markets as compared to the heavily subsidized mealie meal, together with the real decline in urban income levels in the past decade, do not agree with the view of CMS as inferior foods. More likely, their reduced consumption is better explained as the result of the much lower subsidized prices for mealie meal. Their drop in consumption is therefore fully consistent with consumer behavior towards normal foods.

Neither storage nor transport of cassava, millet and sorghum receive any help from the government. Traders interested in dealing in sorghum would have to pay for these services, which would rebound on higher prices for consumers and lower for producers.

The obvious conclusion is that maize production, marketing and consumption are so favored by government pricing and subsidies, that any crop that can be substituted for maize cannot remain competitive. The disappearance of cassava, millet and sorghum consumption in urban areas, and to a lesser extent in rural areas, is directly attributable to these policies. As long as these pricing and subsidies policies persist, the outlook for increased production and consumption of cassava, millet and sorghum will remain bleak.

One of the principal uses of sorghum in production areas is the manufacture of local beer, chibuku. Beer brewing is only permitted in rural areas. In urban concentrations the government has a state monopoly on the manufacture of beer, both the bottled kind and chibuku. At the moment the most likely potential market for sorghum is in the manufacture of chibuku by National Breweries. The government is pressing the

brewery to switch to sorghum as a potential way of saving on the subsidies on maize. The brewery prefers maize because of its cheaper price. The current break-even controlled price of K.45/liter charged by the national beer monopoly does not allow National Breweries to pay a premium to farmers for good quality sorghum. The brewing industries' requirement of 27,000 tons per year would effect many small farmers who traditionally grow sorghum. They would grow more if an incentive was paid. The AGMMARK report estimates 60,000 to 80,000 farmers would be involved, primarily in Southern Province.

Cassava production is concentrated in Luapula, perhaps the most remote of all provinces with regard to the urban markets of Lusaka and the Copperbelt. The small amount of cassava in Lusaka originates in the Western Province. One existing market for cassava from Luapula and Northwest provinces is the export of dry chips to Zaire's Southern Shaba area. This trade could possibly be expanded in the future given the high demand and prices for cassava in Lubumbashi.

In summary, the opportunities for CMS, in the present price structure, are very limited. A case could be made that a premium paid on sorghum would be cheaper than using highly subsidized maize for beer making. Also, an increase in price for preferred sorghum-based beer could pay the incentive price paid to small farmers. The prices both for beer and sorghum should be set to cover all costs plus a reasonable profit. This is an activity that would require little project resources other than TA for production and marketing of quality sorghum and could have a major effect on an otherwise stagnant industry and its 60,000 to 80,000 traditional producers.

B. Rice and Beans

Beans form a major part of the diet of most Zambians but are not traded in any substantial quantity through the formal market. High production in the Northern Province probably reflects the lack of animal proteins in that region, but it is unlikely that the province is suited for cash production. More likely, the Eastern Province would be more responsive to incentive pricing.

The main production area for rice is also the Northern Province, and to a lesser extent the Eastern and Western provinces. High prices of rice would indicate a good potential demand, but poor quality makes Zambian rice less preferred to the imported rice from Malawi. The problem is one of mixed varieties in the planting material and late harvest and processing which permits excessive drying, resulting in stress fractures in the grain. The result of mixed varieties and stress fractures is excessive breakage at milling and poor quality milled rice.

Malawi had the same problem a few years ago but, with grading and incentive pricing, corrected it. The Italian Government which is providing four central rice mills in Western Province is aware of the problem and is taking the necessary steps and providing incentives to correct the problem. The Netherlands has a similar program and incentives in Northern Province.

The potential for village level rice milling has not been investigated but will be considered by AMAG as one of several studies on remote village marketing and processing needs.

V. INFRASTRUCTURE: ROAD TRANSPORT AND MARKETPLACES

Marketing infrastructure is provided by state and public institutions -- roads and markets -- or by private individuals and associations -- stalls, stores and trucks for transport.

A. Roads

In Zambia, the tar roads linking the regions and the main towns are in reasonably good condition, as are the main roads in the consumption/production areas, and the roads from special production centers to the towns.

However, aside from the main roads, most of the rural roads are in a very poor condition, often unusable in the rainy season. Truckers refuse to drive on some of these roads for fear that they will damage their trucks.

In other areas, where mostly small farmers are living and producing, the main roads are useable by trucks or even pick-ups and cars, but the farmers have to convey their products to the nearest main road using head haulage or oxcarts.

All these rural roads are very important to agricultural production, because they are numerous and short and as soon as the produce is brought to the main road it is comparatively easy to reach the markets.

Road building and maintenance is mainly a government activity - either central, provincial or district. The tradition of local road maintenance very seldom applies. If the district road grader is broken down, no local maintenance occurs. Canada (CIDA) is in the process of rehabilitating 61 district council graders supplied by CIDA a number of years ago.

There are some 80 Caterpillar graders previously supplied by the U.S. of which possibly half could be rehabilitated. The practicality of this activity will be investigated by AMAG along with the general needs of road maintenance. The

rehabilitation of 40 graders would provide the needed number of graders in the country, according to the CIDA engineer. Poor roads are a major constraint to efficient marketing and the project will determine the most practical of options available and the best way of organizing a solution to poor roads.

B. Trucks, Pick-Ups, and Scotch Carts

There is a reasonable supply of trucks, yet during the peak harvest season lack of spare parts and tires causes major shortages of truck transport. The importation of trucks and other transport vehicles is very limited due to foreign exchange constraints. Consequently repair is a major industry which is also limited by the availability of spares. Perhaps more than any one item, a lack of tires and tubes sidelines many transport vehicles.

The project will consider the importation of about 20 pick-ups, to be used in areas of project focus. To benefit a larger number of farmers, the procurement of scotch carts (pulled by oxen) and their component parts for local manufacture will be included as a project possiblity. The scotch carts would be distributed into areas where there is other project activity to contribute to generally improved marketing facilities.

C. Packaging

For transport and sales, fruit and vegetables are packed mainly in wooden crates or in bags. The wooden crates are used mostly for tomatoes, one of the more fragile items. The crates are manufactured by individual carpenters, from various hardboards. Although similar, the sizes vary slightly from one to another making it difficult to stack them in trucks. These crates contain 15 to 18 kg of tomatoes. Usually the crates are owned by the farmers, and after having sold the produce at the wholesale market, the retailers place the tomatoes, with not much care, into other packing units, such as baskets or metal tins in order to return the crates to the farmers.

Bags of different qualities and sizes are used in farm to market transport for most other fruits and vegetables. They are of various origins such as fertilizer bags for leafy vegetables (rape, pumpkin leaves etc.,), jute bags for heavy vegetables, and plastic net bags for smaller quantities of the same vegetables and for fruit such as citrus and avocado pears.

Packing materials for fresh fruits and vegetables are locally manufactured but expensive. The project will investigate the provision of improved packaging materials for fresh fruit and vegetables.

D. Physical Markets

As a general rule, market facilities are built by public institutions such as district or town councils. Sometimes they are built and organized by traders' associations, and they are not always officially authorized to operate.

1. Village Markets

Some "village markets" exist in the Copperbelt region in villages with sufficient vegetable production. The farmers bring their produce to be sold to traders who come from the towns. These village markets operate once or twice a week and the working days of the various markets are distributed over the week so as not to conflict.

There are no such markets in other production areas, even in the relative distant Mumbwa area, one of the most important producer areas for Lusaka.

2. Wholesale Markets

Places where fruit and vegetables are offered wholesale exist in some large towns, such as Lusaka and in the Copperbelt region. The present infrastructure of these so-called wholesale markets is non-existent, reduced to simple plots of land where some wholesalers have decided to operate.

3. The Soweto Wholesale Market in Lusaka

The large Soweto Market in Lusaka is a combination of different markets, including two wholesale markets - one legal, the other unrecognized, i.e., a consumer market with food and all other commodity stores and an area with a gathering of illegal street vendors.

The first wholesale market was designed and built beside the retail market. Shelters and stalls are utilized by wholesalers and petty wholesalers to store bags of heavy vegetables, potatoes, sweet potatoes, onions, groundnuts, etc. and some daily crates and bags of more perishable items like tomatoes, cabbages, oranges etc. The wholesalers sell vegetables to retailers, street vendors and consumers.

The expansion of the town, with an increase in the number of traders and dealers, causes overcrowding and the wholesalers shifted their operations to other locations nearby.

On this site vegetables are unloaded from trucks and marketed without multiple handling. The farmers usually sell in bulk to the wholesalers who in turn sell to the retailers or

to commission agents. Also petty wholesalers sell fruit and vegetables bought from the farmers or other traders at this site.

The site is relatively large with assigned locations for the main commodities; early in the morning operations are very brisk with the unloading of farmers' produce and the purchase by the retailers from all the town retail markets.

However, the location for this large wholesale market is not authorized. It is not supervised by any institution or comm ttee. The bare uneven land has no fixtures/fittings and it is very rarely cleaned. Discarded and spoiled vegetables are rotting on the ground, and the site is dirty and unhygienic. There is no shelter to protect vegetables, fruit or people against sun or rain. In the rainy season the soil turns to mud and the holes are full of dirty, stagnant water. Nevertheless the trading is very active year round, and any simple improvements would be of benefit.

Discussions with the Lusaka District Council indicated their strong interest in establishing a proper wholesale market on the Soweto site. Follow-up discussions will be necessary during project implementation. Such an activity would have a beneficial impact on the producers, marketeers and consumers of Lusaka.

4. Fruit and Vegetable Retail Markets

These are usually specialized markets for fruit and vegetables, often next door to markets for other perishable foods such as fish and meat. They have been set up in high population areas, or near large compounds. Because of the distance between the various compounds each town has numerous markets. A 1987 report on "Marketing of vegetables in Lusaka" in 1987 indicated there are 69 markets in Lusaka.

Out of the 69 markets only 21 have been designed and recognized by the Lusaka town council. The others have been set up or built by traders individually or in associations. Under these conditions, the various markets in town are of different designs, management, etc., adapted to the compound, the ward, or the population density in which it exists and its average income. Numerous markets are built of concrete, with stalls and tables and are well maintained. Other markets are simple rows of corrugated iron shelters. Some are run by the town council market committee, others by traders, cooperatives or unions. They are regularly cleaned, even where the correct facilities (water taps, sewage disposal) do not exist.

5. Other Marketing Tools

Scales are not used in the wholesale markets, even in Lusaka's Kamwala Market which is the wholesale market for dry beans, groundnuts and dried fish. In a few retail markets scales are utilized either for direct sale or for preparing pre-weighed packets.

In the marketing process storage is an indispensable tool for regularizing the supply and adapting it to the demand. In Zambia, storage of fruit and vegetables is not much used due to the possibl year round production of most of the vegetables. Nevertheless it is useful and is utilized for a few vegetables, which are cheap and relatively easy to store such as onions and potatoes, by the farmers for part of their marketable production.

Refrigeration of perishable fruit and vegetables. It is not used for domestic marketing due to the high investment and many traders dealing daily in small quantities of produce.

Farmers who export vegetables and fruit to Europe are equipped with their own cold stores, as a part of the necessary "complete cold chain" from farmers to consumers. At present, a gap exists by the lack of cold storage facilities at Lusaka airport.

ANNEX G
ADMINISTRATIVE PROCEDURES AND ANALYSIS

I. BACKGROUND AND CONTEXT

An analysis of the administrative structure of the ZAMS Project must be performed within the overall context of management constraints in A.I.D.'s development assistance effort, and the financial or administrative burdens any new project might impose on key GRZ ministries.

Given declining Congressionally-appropriated budgets, staffing priorities and smaller A.I.D. direct hire staffs, USAID/Zambia needs to ensure that the project does not impose a significant management burden upon the limited USAID/Zambia direct hire staff. In addition, current constraints on the Mission's staffing levels and responsibilities, as well as project administration, are likely to increase should the GRZ periodically fall under the restrictions of the Brooke Amendment during the life of the project. Consequently, planning for the administrative arrangements of this project reflects the need to minimize the administrative burden on USAID/Zambia direct hire staff.

Likewise, the relationship of the project to the GRZ must take into account a number of concerns. First, the project must be designed to operate through, and strengthen existing institutions. Second, the project must internally generate resources which will ensure sustainability. To avoid increasing budget deficits, or contributing to inflationary trends, the project must not require additional budgetary allocations by the GRZ. Third, project administration must be structured to minimize the management burden the project might potentially impose on key GRZ ministries whose staff already has a heavy workload with current project oversight responsibilities.

Therefore, the administrative analysis of the ZAMS Project is conducted with these overall concerns in mind.

II. COMPOSITION OF THE AGRICULTURAL MARKETING ADVISORY GROUP (AMAG)

AMAG will serve as the primary implementing entity for the ZAMS Project, operating under the Ministry of Commer and Industry (MOCI). Since the project focuses on strengthening existing institutions, AMAG will dissolve when the project is completed. Since their objectives complement each other, AMAG will work very closely with SIDO and VIS. Figure 1 in the ZAMS PP shows the organizational linkages of AMAG to other agencies with various responsibilities in project implementation.

AMAG will consist of a team of experts and the necessary technical and back-up support staff to assist with project administration and implementation. AMAG's professional staff will be composed of six different kinds of specialists in agricultural marketing. A U.S.-based group, as prime contractor, will provide the team leader and one other long-term technical adviser (geographic code for TA prime contract procurement is 000: U.S.). The remainder of AMAG's professional staff and all of the support staff will be drawn from one or more firms resident in Zambia, on a sub-contract basis (geographic code for TA sub-contract procurement is 935). (Supplementary Annex 3: Institutional Analysis of Agricultural Marketing Firms in Zambia, contains a profile of some 22 firms which have specialists related to various aspects of agricultural marketing.)

Specifically, the AMAG team will consist of a senior agricultural marketing specialist, who will serve as Chief of Party; a transportation specialist; a food technologist; an agricultural engineer; a management and training specialist; and a commodity procurement specialist. (For a description of these positions, see Annex K: Procurement Plan.)

III. ADMINISTRATIVE LINKAGES AMONG KEY ACTORS IN ZAMS

A. Relationship of the GRZ with ZAMS

The GRZ's relationship with the ZAMS Project is one of providing project oversight through a ZAMS Advisory Council, and day to day liaison and monitoring through the MOCI. AMAG's Chief of Party will have the responsibility of interacting with the ZAMS Advisory Council, the MOCI, and its relevant component entities such as SIDO and VIS. Implementation of ZAMS will require a minimum of direct involvement by GRZ agencies other than the Ministry of Commerce and Industry (which will be the main GRZ counterpart for the project) although considerable interaction with several different agencies will be important to the success of the project.

The Project Agreement will be negotiated with and signed by the Ministry of Finance, because of the financial and budgetary implications of a relatively large proportion of the project's dollar funds being used for commodity imports, as well as the programming of counterpart funds. Three line ministries will be especially relevant to implementation of the project: the Ministry of Commerce and Industry, Ministry of Agriculture and Water Development, and Ministry of Cooperatives. The ZAMS Advisory Council is to have a representative at the Permanent Secretary (PS) level from each of these ministries and one from the Ministry of Finance (in addition the USAID/Zambia Director and the Chief of Party of AMAG). The Council will be chaired by the PS of the Ministry of Commerce and Industry. It will meet a minimum of twice a year to keep abreast of developments

in the project and to provide insights to AMAG on potential new interventions, to review AMAG's annual work plans, and to review and approve long-term training programc.

The GRZ's role in this project will also be to provide counsel to AMAG regarding ways and means of ensuring that the marketing impr vements which occur through ZAMS are consistent with the food security needs of the people of Zambia. In addition, the GRZ will receive on a regular basis information from or through AMAG which is useful to the GRZ for policy making purposes. For example, information regarding maize storage might encourage the GRZ to re-assess the economic and financial viability of storage policies and practices, particularly in view of the existing pricing incentives for farmers not to store.

B. Relationship of AMAG with USAID/Zambia

The overall responsibility for project implementation will be with the USAID/Zambia Mission Director, who will be a member of the ZAMS Advisory Council. A Project Officer will be designated by the USAID/Zambia Mission. This person will monitor activities of the contractor, maintain liaison with the three GRZ line ministries, and participate in the relevant meetings concerning project implementation.

AMAG's Chief of Party will have the responsibility of interacting with the USAID/Zambia Project Officer for ZAMS. Specifically, the Chief of Party will seek USAID/Zambia's concurrence on: (a) the proposed use of kwacha funds which exceeds a level determined by the USAID/Zambia Mission; (b) proposed use of all foreign exchange under ZAMS; (c) proposed client and activity selection based upon financial, economic and social criteria established for the project (see Marketing Activity Selection Criteria in section III of PP); and (d) annual budgets and workplans for AMAG. The Chief of Party will also report to the USAID/Zambia Project Officer on: (a) suggested internal administrative arrangements for AMAG; (b) the use of kwacha funds which fall below a level determined by the USAID/Zambia Mission; (c) the need to initiate non-funded PIO/Ps by the USAID/Zambia training officer for out of country training; (d) quarterly accounting statements of AMAG's revenues and expenditures; (e) partial fee waiver justifications, if any, for AMAG clients; (f) review of technical performance of team members; and (g) periodic assessments of the contribution of Operational Program Grant (OPG) or counterpart currency funded Private Voluntary Organizations (PVOs) to the accomplishment of ZAMS Project's goals.

Technical issues related to client and activity selection will involve close coordination between AMAG, the MOCI, the Project Officer and the USAID/Zambia technical backstop officers (i.e., Agricultural Economics Officer, Commodity Management Officer). This arrangement allows for the efficient use of USAID/Zambia staff. USAID/Zambia technical officers will provide technical counsel and support in a way that promotes the achievement of the project's goals. The Project Office will be engaged in project implementation issues of an administrative nature which have a direct impact on AMAG's ability to achieve the project's goals.

A few other organizational possibilities were considered when planning the project. These involved administration by local PVOs or contractors or making use of centrally-funded projects to provide technical assistance. However, given the scope of the project in commodities, technical assistance, and training, it was determined that a U.S. contractor teamed with a local consulting group would provide the best administrative entity. This assessment also took into consideration the large number of GRZ agencies and private organizations that need to be involved in the project and the necessity for cooperation with the International Agricultural Research Centers (IARC's), A.I.D.'s Collaborative Research Support Programs and regional research and technical assistance centers. Moreover, these other options to USAID/Zambia would still have required considerable Mission support activity. With the complexity and potential diversity of this project, close USAID/Zambia Mission involvement and oversight is considered essential.

Procurement of Goods and Services

The procurement of goods and services under the project will be handled in a straightforward way. First, USAID/Zambia will request the REDSO Regional Contracts Officer's help to prepare, and then send out a Request for Proposals (RFP) from potential U.S. contractors willing to provide the consulting services of selected U.S. marketing professionals on a resident basis. Potential contractors will be required to team up with a local Zambian consulting firm or firms as sub-contractors to provide complementary professional and support services. The specific nature of the contractor-subcontractor relationship proposed will be a key component of a successful bid. The winning bid will be determined on the basis of cost, services provided and the nature of the Zambian subcontractor(s) involved. All computers, vehicles and other marketing-related support items shall be provided through the contractor and sub-contractor(s) selected, rather than through USAID/Zambia. However, USAID/Zambia will provide local housing and a benefit package for the two U.S. contractor long-term employees equivalent to that received by other USAID/Zambia contractors in Zambia.

Technical Assistance: Technical services will be provided by AMAG under the ZAMS Project. A plan for the procurement of technical services in included in the Procurement Plan (Annex K). These services will be available within Zambia to eligible clients on an as-needed basis and will primarily be provided by the long term technical assistance team located in Lusaka. As mentioned earlier, eligibility criteria have been established which will determine which firms are eligible to receive technical assistance through AMAG. Additional technical assistance will be available to assist AMAG on a short-term basis, based on consultancy needs identified by AMAG. Short-term technical assistance identified by AMAG which requires foreign consultants may be provided directly by the contractor or through the International Executive Service Corps (IESC).

Commodities: A plan for the procurement of commodities is also detailed in Annex K: Procurement Plan. The procurement arrangements discussed here are intended to address the concerns expressed during the ECPR Review held in Washington in March 1988, that the Project Paper should present a detailed procurement plan, particularly for the non-CIP portion of procurement. Administrative aspects of procurement will involve the Commodity Management Officer (CMO), the Project Officer, and the Chief of Party. The CMO of USAID/Zambia will have primary responsibility for implementation of the transport sector support program. This program entails the initial procurement of truck tubes, tires and spare parts.

The proposed approach was selected for initial commodity procurement given delays which would otherwise occur in commodity procurement if initial procurement actions waited until the AMAG was in country. It is also reasonable for the USAID/Zambia Mission to build into the implementation plan the added safeguard of hiring a local accounting firm in the event that the end-use monitoring process for these initial procurement actions becomes burdensome for the CMO.

Commodity procurement actions which occur after technical assistance services become available will be handled primarily through AMAG. The Contractor selected will have the primary responsibility of ensuring that commodities are procured in accordance with A.I.D. rules and regulations. To meet this responsibility, the Contractor will be required to provide a back-up support system in the United States through which suppliers and prices of U.S. source commodities can be identified. Back-up support related to A.I.D. rules and regulations will also be provided by USAID/Zambia on an as-needed basis. The USAID/Zambia CMO will be involved to ensure that commodities are acquired and shipped according

to A.I.D. rules and regulations. The Project Officer and technical backstop officers will also review the suitability of requested commodities based on A.I.D. and project-specific selection criteria.

It is envisaged that the CMO, Project Officer and technical backstop officers, including the REDSO RCO, will be heavily involved in providing initial administrative assistance to AMAG in learning the relevant A.I.D. procedures and requirements. Assistance which might be required from A.I.D.'s Regional Legal Adviser at REDSO/ESA and A.I.D.'s Management Bureau (M/SER/OP) will be arranged through the Mission's CMO.

The commodity portion of ZAMS will generate a significant amount of kwacha counterpart funds. The USAID/Zambia Mission and the GRZ have been programming counterpart funds since 1984 with good success. The Mission has a formal agreement with the GRZ on the procedures to be followed. This process has just been reviewed favorably by auditors and seems to be working well. Therefore, programming counterpart funds should not pose any significant difficulties for the Mission.

Training: It is anticipated that the Management and Training Specialist on the AMAG team will be primarily responsible for identifying and administering both short and long-term training activities. It is expected that the Specialist will identify both individuals in need of training as well as appropriate training activities. Moreover, it is expected that the contractor selected to implement the ZAMS Project will provide stateside back-up support to AMAG for U.S.-based training programs.

Consulting Fees: Professional fees will be paid by certain firms for the technical services rendered by AMAG. These fees will contribute to the availability of local currency for project purposes and will not be considered as additional remuneration to either the individuals or contracting firms implementing the ZAMS Project. Once the Project Agreement has been signed, USAID/Zambia will establish a fee schedule consistent with the nature of the benefits contemplated from the services provided. If the benefits of the assistance will be captured by an individual firm because of the nature of the assistance, the fee will be no higher than the equivalent value of services provided by other Zambian consulting firms. The actual fee charged, however, will be determined by AMAG on the basis of ability to pay. For consulting services provided to public sector entities, the fees will be waived because of the public good nature of the anticipated benefits.

An example of the latter case might be that of a small-scale farm-oriented agricultural training center that is trying to improve the marketing skills of small-scale farmers. Activity selection by AMAG, however, will be based on the activity's having conformed to the set of marketing activity selection criteria, which ensures that the activity is a contribution to the achievement of the project goal. These criteria do not imply in any way that activity selection will be determined on the basis of which firms can pay the highest fees. AMAG will provide a brief written justification to USAID/Zambia of the reasons for waiving or lowering the consulting fees on a case-by-case basis when AMAG waives or lowers its consulting fees.

C. Relationship of Private Sector Institutions with ZAMS

Funds (primarily counterpart local currency) will be provided through the ZAMS Project to enlist the services of local organizations, such as the Small Industries Development Organization (SIDO), and Village Industries Services (VIS), and U.S. private voluntary organizations (PVOs) to assist with implementation of selected elements of the project. Primary cooperative societies, which are private in the sense that they are owned and operated by the members, will be assisted through the project to implement approved activities within the geographic areas of concentration of activities.

A significant number of private consulting firms resident in Zambia have individuals experienced in various aspects of agricultural marketing, management, accounting, and related disciplines. Some of these are owned partially or wholly by Zambians. Others are either multinational or have parent companies in the U.S. or in third countries. (A profile of some 22 companies is given in Supplementary Annex 3: Institutional Analysis of Agricultural Marketing Firms in Zambia.) It is planned that AMAG, with MOCI and USAID/Zambia concurrence, will draw on these firms for specific kinds of short-term consultants when their specialties match project needs.

1. Relationship of Zambian NGOs with ZAMS

In addition to SIDO and VIS, it is anticipated that other selected Zambian NGOs (e.g., private associations, civic groups, and religiously affiliated agencies) will assist with implementing ZAMS activities, including providing regular reports on accomplishments and problems. Zambian NGOs have considerable experience in agricultural marketing initiatives, and are especially effective in implementing projects at the rural, smallholder level.

Grants of kwacha counterpart funds will be made to Zambian NGOs by AMAG, based on the same evaluation criteria for proposals employed for U.S. PVOs. In cases where a Zambian NGO is operating in partnership with a U.S. PVO, counterpart funds can be provided by AMAG either separately to the Zambian NGO, or as part of a grant provided to the U.S. PVO. AMAG's decision on this matter will be taken after consulting with the the MOCI and the USAID/Zambia project officer. The decision will be made on the basis of which course best facilitates effective project implementation and accountability.

2. Relationship of U.S. PVOs with ZAMS

U.S. PVOs can play an important role in achieving the project's objectives. For instance, there are three American PVOs -- Volunteers in Technical Assistance (VITA), Africare, and Save the Children Fund (SCF) -- which could potentially assist with planning and implementation of the sunflower oil activities of the project. VITA has been working closely with VIS, in pilot work with village-level, hand-powered presses, specifically involved in training in management and accounting. Africare and SCF have experience in implementing field activities in Zambia, and have expressed interest in being involved in helping implement ZAMS field projects. U.S. PVOs currently working in Zambia (e.g., Africare, VITA, and Save the Children Fund) will be elgible to apply for grants to expand their activities in connection with agricultural marketing.

The U.S. PVOs will be expected to carry out activities which are endorsed and monitored by AMAG, the MOCI, and USAID/Zambia. Also, they may function as importers of AMAG-approved commodities under the Regulation 1 procedures used under the project.

Each U.S. PVO grant proposal will be evaluated by AMAG, the MOCI, and the USAID/Zambia Mission, using competitive selection procedures, based on its ability to help achieve the project's goal of improving agricultural production, rural incomes, and nutritional status through agricultural marketing improvements. Part of the evaluation will include an assessment of: the U.S. PVO's ability to support the technical and commodity needs suggested in the proposal; and, consistency of the PVO's activities with the ZAMS project objectives. Each proposal will indicate the types of assistance provided by the U.S. PVO itself, in addition to any assistance which may be needed from the project. AMAG, the MOCI, and USAID/Zambia will also make a determination of the extent to which local currency funds should be used to support the U.S. PVO's activities.

During project design, the USAID/Zambia Mission had discussions in connection with an unsolicited proposal with representatives of the IESC, including the Vice President for Africa. Agreement in principle was reached with IESC, subject to formal agreement by the GRZ, that IESC will open a country office in Zambia. It is anticipated that USAID/Zambia and the GRZ will be in a position to respond positively before AMAG is constituted. (IESC is already conducting a limited number of projects in Zambia.) The IESC principals and the Mission agree that ZAMS would benefit from the kinds of short-term, experts that IESC can provide, and that ZAMS offers a basis for IESC to "hit the ground running." ZAMS could provide local currency funding and dollar funding for IESC activities which are directly related to ZAMS. Specific activities which are carried out by IESC with project funds will still need to be subject to the request or endorsement, and oversight of AMAG, within criteria set by the MOCI and USAID/Zambia.

ANNEX H
ECONOMIC ANALYSIS

I. INTRODUCTION

The ZAMS Project may be justified on the basis of improving the competitive nature of input and output industries in Zambia. USAID/Zambia believes that a high degree of monopolistic and oligopolistic power within agricultural industries exists in Zambia. This has a number of negative consequences, economic and otherwise. In the strict economic sense, concentrated market power results in excessively high product prices and, consequently, the resulting inefficient allocation of scarce societal resources. More specifically in the case of Zambia, the country's current economic difficulties suggest the need for more efficient allocation of resources which encourages the growth of agriculturally related input and output industries. This is particularly important given Zambia's agricultural potential and the current problems of a decline in per capita incomes and lack of food availability, both of which contribute to secondary problems of dietary inadequacy.

This project is designed within an economic environment in which the demand for food is currently affected by a 60% to 70% rate of inflation, a population growth rate of 3.6%, an economic growth rate of .5% and a decline in per capita incomes of 2.1% in the last year. Assuming an income elasticity for food of 0.8, the estimated overall growth in the demand for food is 2.3% per annum, despite declines in per capita income. On the average, unless the supply of food grows faster than this 2.3% rate, food prices determined by market forces will continue to rise. This, however, does not take into account fluctuations that occur as a result of changes in marketing margins. Specifically, market price changes will either be exacerbated or mitigated by increasing or decreasing marketing margins, respectively. Within the context of slow rates of economic growth and declining incomes, it is particularly apparent that increasing marketing margins contribute to further declines in both nominal and real incomes. Consequently, the need exists to ensure that marketing margins are economically justified, and wherever possible, reduced through operational improvements and efficiency gains.

A second major economic factor suggests the need for a project which has an employment generation thrust. Aside from the employment potential offered through small scale farming, an underdeveloped area of employment potential exists within agricultural marketing, particularly village and district based activities. This exists not only because agriculture has been neglected in Zambia relative to copper, but because the focus

of agricultural activities has almost exclusively been on agricultural production. The GRZ's emphasis on parastatal involvement in marketing activities, rather than private sector involvement, results from both generally low societal incomes and a desire to stabilize prices for basic agricultural inputs and food commodities.

Consequently, private sector marketing has been discouraged and at times outlawed, as in the case of the nationalization of many of the larger privately owned maize mills in December 1986. Although the prevailing perception about private sector marketing in Zambia is that it contributes to higher consumer prices (and therefore that it is "exploitative"), this project can demonstrate the income possibilities achieved through the creation of jobs in a way which emphasizes the positive aspects of private sector marketing.

A third major economic problem relates to the scarcity of foreign exchange. Zambia simply cannot afford to inefficiently utilize foreign exchange by creating financial incentives for marketing activities which result in a net outflow of foreign exchange.

A major socioeconomic factor also contributes to the importance of this project. Rural-urban migration continues to occur in Zambia at a rate which far exceeds the absorptive capacity of urban areas in both employment and infrastructural terms. Consequently, this project must be oriented toward marketing improvements which do not exacerbate the existing urbanization problem. This can be done if the employment generation which occurs in this project occurs primarily in rural as opposed to urban areas.

Finally, a major agricultural economic problem in Zambia relates, ironically, to the lack of food availability in some rural areas. Expanding domestic markets for food, i.e. increasing food production, will also be a major thrust of the project. This orientation is consistent with Zambia's need to meet her food security requirements. (Zambia's need to meet her food security requirements in terms of price stability has been discussed previously in the context of lower product prices in competitive markets.) This project is designed to address food security needs by expanding the availability of new and existing foods, particularly in rural areas, and by contributing to the reduction of prices through operational gains within competitive industries and through operational as well as pricing efficiency gains in less competitive industries. Moreover, this project makes a significant contribution to resolving the classic food price dilemma which vexes Zambian policy makers. It does so by focusing on the problem of shrinking the marketing margin component of the relative price ratio between producer and consumer prices.

II. ECONOMIC JUSTIFICATION FOR THE PROJECT

A legitimate concern was raised in AID/W during the ECPR review of the ZAMS Project Identification Document regarding the extent to which this Project could be economically justified in view of the current pricing distortions introduced by the GRZ on the most important food items, particularly maize. This analysis suggests that marketing improvements can nonetheless be identified which achieve the Project's goal and purpose if the implementing organ carefully applies a number of economic criteria to the selection of particular marketing interventions.

In view of the above, the project will have a restrictive focus on only those industries and firms where marketing improvements will indeed lead to improvements in income, food availability and food consumption for the rural poor. This will necessarily involve identifying only those areas where marketing efficiency gains will lead to greater employment, and therefore, the achievement of the project goal. Consequently, the project will not generally deal with input and output industries and products that are subject to GRZ-determined price controls. This restriction will not apply to agriculturally related industries which are affected by GRZ floor pricing arrangements unless floor prices are de facto controlled prices. To the extent that the policy environment changes in Zambia and selected industries are decontrolled, the industry focus for the ZAMS Project may change.

In monopolistic or oligopolistic industries, assistance will not be available to firms with existing excessive levels of marketing power, but rather, to remove barriers to entry for new firms within those industries. This will involve identifying the factors which constitute effective barriers, and where possible, reducing them. An example might relate to the organization of what appears to be a highly concentrated small-scale farm implement manufacturing industry in Zambia. To the extent that foreign exchange constrains new entrants from buying the manufacturing equipment needed to compete with the dominant firm in the industry, the project could effectively make a contribution in making the industry more competitive and thereby achieving price and quality improvements.

The ZAMS Project may be justified on the basis that it is the most cost-effective approach by which to achieve the project's objectives of improved agricultural production, rural incomes, and nutrition through improvements in the agricultural marketing sector. This will be achieved principally through:

(1) reduced marketing margins, and (2) increased employment, particularly in rural areas. Essentially the underlying rationale for each and every activity undertaken in this Project is that it promotes economic competition, improved economic efficiency, and jobs. Alternative foci, such as: (1) improving the largest food commodity markets, (2) assisting the dominant firms within an industry, and (3) supporting parastatals in marketing, would all be less cost-effective approaches in achieving the objectives of the project.

Improving the largest food commodity markets would entail involvement in markets which are largely influenced by the Governments' (both national and local) pricing policies. Given the inherent impossibility that resources can be allocated efficiently due to the absence of price signals, the first alternative approach is not cost-effective, since marketing margins would not reflect the economic costs of marketing services performed. The second approach is less cost-effective since supporting the dominant firms could result in higher marketing margins than would otherwise occur in an economically competitive environment. The third alternative is also a less preferred project orientation for the same reasons stated in the first alternative. In summary, the project's formulation is more likely than either of the other alternatives to enhance the likelihood that the project goal will be met, because the approach conforms to rational economic criteria.

III. SUPPORT FOR DOMESTICALLY-ORIENTED MARKETING ACTIVITIES

Given the illustrative nature of the specific activities identified in this project paper and the project's inherent requirement for flexibility, a traditional cost/benefit analysis of the project is not possible. However, certain criteria will be established under ZAMS to ensure that the project activities are consistent with the underlying economic rationale for the project. Each of these activities will require, in essence, an activity-specific justification, either in cost-effectiveness or cost-benefit terms. The nature of these analyses will largely depend upon the ability to quantify benefits and costs to some reasonable degree. This will be closely linked with the ability to justify the project activity on the basis of discrete criteria.

Unless otherwise stated, these criteria will apply to the selection of activities by AMAG. These criteria will apply to domestic as well as export-oriented activities. Since the project's main focus will be on improvements in domestic marketing capabilities, the eligibility criteria for selection of domestic activities will now be discussed.

Domestic Eligibility Criterion #1: The Industry within which firms are to be assisted must be certified as conforming to the economic competition requirement.

Discussion: It is essential that studies of the industrial organization of the following markets be undertaken as an initial project activity. Of particular importance will be the small-scale farm implement industry, the baking industry, the scotchcart industry and the sunflower and soybean processing industries. These and other industries will be studied in order to determine information about the structure, size and location of firms and potential firms within the industry. Based upon these studies, an attempt will be made to focus technical assistance and commodity selection upon those industries that are either economically competitive or have the potential of being so. Data and information regarding the nature of the various industries will provide a data base for determining the industrial focus of the Project.

Domestic Eligibility Criterion #2: Industries not meeting the economic competition requirement can become eligible industries if and only if the employment and income benefits associated with the industry outweigh the negative aspects of excessive concentration of market power.

Discussion: A second-best situation may arise in the event that highly concentrated industries generate considerable employment, particularly in rural areas where the income, food availability and consumption gains of the Project are targeted.

Domestic Eligibility Criterion #3: Firms receiving technical assistance and commodity support through AMAG should be within industries having met either this economic competition or employment generation requirement. Preference will be given to firms operating in rural areas that have met domestic eligibility criteria both #1 and #2.

Discussion: Assistance will only be provided to firms in the industries having met the certification requirement to ensure that project goals of improving incomes, food availability and improved nutrition are met. In highly concentrated industries where pricing efficiency gains are not possible, consumers of the industries' products experience lower real incomes than would be the case if the same product were produced within a competitive industry. In this sense, contributing to certain industries would result in an erosion, rather than an increase in rural incomes.

Domestic Eligibility Criterion #4: The activity must meet minimum economic viability conditions, in addition to financial viability conditions.

Discussion: Since the commodity support being provided is at the official exchange rate and the technical assistance provided to some firms will not be costed at its full value, financial viability will require that the activity result in a discounted net profit (pecuniary benefits) over the life of the equipment provided with the equipment (and spares) valued at the official exchange rate, and the technical assistance costed at the actual charges. (For a discussion of the various exchange rates operating in Zambia, see the section entitled Structure of Foreign Exchange Markets in Zambia which follows.)

To judge the economic viability of the activity, however, we define two criteria. First, is a Minimum Economic Viability (MEV) criterion which is the same as the financial viability criterion, except that the shadow exchange rate (Green Market exchange rate) is used to value the equipment (and spares) provided by ZAMS. The second criterion is a Preferred Economic Viability (PEV) criterion which values the TA at its full cost. As a minimum, AMAG/ZAMS activities must satisfy the Minimum Economic Viability criterion. In cases where the MEV is satisfied, but the PEV is not satisfied, it must be shown that there are other benefits not accruing to the direct beneficiary which would ensure that the PEV is satisfied, e.g., new employment generation sufficient to generate a discounted income stream sufficient to make PEV positive.

Domestic Elibibility Criterion #5: Import parity prices should be used in calculating whether the minimum economic viability conditions of the marketing activity can be met.

Discussion: Ceteris paribus, heavy government intervention in producer markets to favor farm gate prices for selected commodities will diminish the attractiveness of growing substitute crops on the same land. In the absence of demand considerations, the net effect of this is to reduce the supply of the non-controlled items, and therefore, increase their farm-gate price. When demand considerations are introduced at the retail level, the problem is further complicated by the fact that the heavily subsidized prices at the consumer level will result in a decrease in the demand at the retail level for substitutes whose retail prices are not subsidized. The net effect of a reduced supply and reduced demand upon the market determined price for non-price controlled items is ambiguous in the absence of empirical estimates. Essentially, this could result in a false indication of the economic worth of a particular marketing acitvity. In order to deal with this problem, import parity prices should be used in calculating the economic feasibility of selected marketing activities.

IV. SUPPORT FOR EXPORT ACTIVITIES

Certain criteria can also be established for use of foreign exchange to ensure that the activities undertaken by AMAG will generate positive net benefits and create activities which are economically viable. The analysis of potential support for export activities requires consideration of the various exchange rates in use in Zambia at the current time, as well as use of the distinction between financial and economic viability.

A. Structure of Foreign Exchange Markets in Zambia

Currently, there are four active foreign exchange markets in Zambia; i.e., the White or Official Market, the Black or Parallel Market, the Green Market for the trading of non-traditional export earnings retentions, and the Red or Pipeline-Debt Dismantling Market. The White, Green and Red Markets are all legal markets for foreign exchange, while the Black Market is illegal. In addition, each of the markets has its own exchange rate and legal restrictions for trade.

In the White or Official Market, the exchange rate is currently fixed at K8/US$ and foreign exchange is allocated by the GRZ's Foreign Exchange Management Committee (FEMAC). In principle, all foreign exchange transactions, except those involving the retained portion of non-traditional export earnings, are channelled through the official market.

Trade on the Black or Parallel Market is illegal, but still flourishing with an exchange rate of roughly K30/US$-K35/US$. These exchange rates include a risk premium since this foreign exchange market is illegal.

The Green Market is used for the free trade of title to funds acquired by non-traditional exporters through the 50% retention scheme for these exporters. While the use of the foreign exchange traded in this market must be approved by the FEMAC, the price of the foreign exchange is freely negotiated between the title-holder and title-purchaser. While the Green Market exchange rate is variable, depending on the different purchase negotiations, the current "prevailing" rate is K25/US$.

The Red Market allows the use of the non-traditional export earnings to purchase Zambia's commercial debt (pipeline debt) at a discount on international financial markets. This debt is then exchanged at the Bank of Zambia for kwacha equal to the official exchange rates times the full face value of the debt instrument. Since the purchase of the debt instruments is currently at 20% of face value, the exchange rate in this market is now K40/US$. The utilization of the Red Market is limited to a few of the larger non-traditional exporters with contacts in the major financial centers.

While the original purpose of the export retention scheme was to provide exporters with access to foreign exchange to finance necessary imported inputs for their export production, many exporters are now selling their retentions for kwacha in the Green or Red Markets and then receiving foreign exchange allocations for their foreign exchange costs from FEMAC at the official rate.

B. Implications for Export Activities

It is not expected that the ZAMS project will carry out activities aimed at increasing agricultural marketing for export. However, there may be some indirect linkages to exports of fresh vegetables to Europe during the Northern Hemisphere winter.

The structure of Zambia's foreign exchange markets generates the possibility for an export activity to be financially profitable, but not economically viable. Based on interviews with non-traditional exporters, it is known that under the current, multiple-market system exports are financially profitable, but this would not be the case if the official exchange rate was applied to export proceeds. This situation arises due to the fact that direct foreign exchange costs are acquired at the official exchange rate (K8/US$), while a higher effective exchange rate for the export proceeds (approximately K16.5/US$) is achieved by selling the retained foreign exchange in the Green Market. In effect, this arrangement thus provides a major financial incentive for non-traditional exports. For these activities to be economically viable, however, the use of foreign exchange should be based upon its economic value (i.e. shadow price). Given the current structure of Zambia's foreign exchange markets, the Green Market exchange rate provides an ideal estimate of the shadow exchange rate. Consequently, a sixth economic criterion needs to be established.

Foreign Exchange Use Eligibility Criterion #1: In the calculation of economic viability, both the direct foreign exchange costs and the export proceeds should be valued at a shadow exchange rate reflecting a market-valuation of the kwacha relative to the US$.

Discussion: To illustrate the problem, define the following variables:

FXC = Foreign exchange production costs/unit produced;
KC = Kwacha production costs/unit produced;
OER = Official Exchange Rate (K/US$);
GER = Green Market Exchange Rate (K/US$);
EER = Effective Exchange Rate (K/US$) = (OER + GER)/2; and
P = Export Price in US$/unit.

Using the above variables, interviews with current exporters imply the following known relationships:

(1) OER x FXC + KC EER x P; and
(2) OER x FXC + KC OER x P.

Inequality 1 simply states that under the current, multiple-market system exporting is profitable, while inequality 2 states that export activities completely valued at the official exchange rate are not profitable. Rearranging inequalities 1 and 2, gives:

(1') KC (OER x P) x [(EER/OER) - (FXC/P)]; and
(2') KC (OER x P) x [1 - (FXC/P)].

Likewise, the condition for economic viability is given by:

(3) GER x FXC + KC GER x P, or

(3') KC (GER x P) x [1 - (FXC/P)].

Inequalities 3 and 3' are actually simplified statements of the requirement for economic viability since it assumes that none of the kwacha costs (KC) arises from imports; i.e., there are no indirect foreign exchange production costs. While this is definitely not the case, information concerning indirect foreign exchange production costs is not available.

Inequality 1' illustrates one of the major problems with the current system: it can be financially profitable to export a product which directly uses more foreign exchange than is produced by its sale, due to the fact that the effective exchange rate earned exceeds the official exchange rate. From inequality 3', it is seen that this condition would result in an economically non-viable activity.

Thus, a necessary but insufficient condition for the economic viability of an export activity is that the direct foreign exchange production costs valued at the shadow exchange rate (i.e. Green Market Exchange Rate) be less than the unit price of the export commodity valued at the same rate.

To ensure that ZAMS provides support only to economically viable export activities, one criterion for the support of any export activity by AMAG will be that AMAG conduct an analysis of the activities which should show that inequality 3 or inequality 3' is satisfied. If this condition is not satisfied, then ZAMS will not provide support for the export activity in question.

ANNEX I
SOCIAL SOUNDNESS ANALYSIS

I. SOCIOCULTURAL CONTEXT

The Social Soundness Analysis (SSA) is intended to address questions of benefit incidence and participation in A.I.D. projects. This social soundness analysis will provide background on the socioeconomic context for agricultural production and marketing in Zambia. It will then discuss the benefits that are anticipated from the Zambia Agribusiness and Management Support Project (ZAMS), expected participation in the project and sociocultural feasibility, drawing on the description of the social landscape presented in the first section. Finally, the SSA will review the implications of the foregoing for project design, including recommendations for criteria for sub-project selection to assure that the project meets its objectives from the socioeconomic perspective.

A. Structure and Distribution of the Population and Farms

Only some 52 percent of the Zambian population of about 7 million people live in the rural areas and the other 48 percent reside in urban areas. Three-fourths of the urban dwellers live in towns of over 60,000 people and most are found in Central, Copperbelt and Lusaka Provinces. The urban population is heavily dependent on the market to obtain almost all of its food and beverages. GRZ controlled prices of essential commodities have been geared to subsidizing this market, especially with regard to maize meal, the major staple food.

Partially because of male migration to urban areas and for off-farm employment, 27 percent of all Zambian households are headed by females (1980 Census); a large number of these are in rural areas. According to a 1982-83 farm survey, the percentage of female-headed households in the rural areas of Eastern, Southern and Central Provinces was 33 percent, 16 percent and 15 percent respectively.

The agricultural production sector consists of four groups: large commercial farms of over 40 ha., medium commercial farms of 10-40 ha., small commercial farms of 1 to 10 ha. and "traditional" farms of variable land size, but characterized by non-mechanized production techniques and low levels of purchased input use. These groups differ in terms of the kinds and volume of crops grown, and the type of technology employed. The value of farm produce, income levels, and access to credit declines from the large size commercial farms to traditional farms.

Table I.1 gives information on the farm units and farm population by province and by farm category. Southern, Central and Eastern Provinces contain 88 percent of the large commercial farms, 88 percent of the medium sized ones, and 80 percent of small sized commercial farmers, whereas only 23 percent of the traditional farms are located in these provinces.

The large size commercial farms are associated with a modern, capital intensive system of production. They are heavily dependent on imported agricultural inputs such as tractors, fertilizers and insecticides. Almost all of their output is marketed. The main crops grown on these farms include maize, tobacco, sunflower seed, cotton, soybeans and horticultural crops. Beef, milk and pork are also primarily supplied to the market by these farms. The large farms may be owned by a firm, rather than an individual and this category includes firms which are subsidiaries of diversified holding companies. In addition, there are some large farms, usually crop-specific, that are state-owned and most of which operate in partnership with foreign-owned, private companies.

The medium and small size commercial farms are often referred to as those owned by emergent farmers, that is, those who sell between 50 to 100 percent of their crop and who practice some or all of the improved technology characteristics of large commercial farmers but whose scale of operation is smaller. Emergent farmers produce mainly maize, beans, groundnuts, cotton and vegetables. They also rear livestock. The number of emergent farmers and the hectarage cultivated by them has more than doubled in the last 15 years as "traditional" farmers have moved into this category and as small commercial farmers have advanced into the medium sized commercial farmer group.

The bulk of the farms (76%) and most of the farm population (64%) fall within the "traditional" or subsistence category, producing mainly for domestic consumption. In recent years a large proportion of the traditional farmers have switched from producing cassava, finger millet and sorghum to growing maize for sale and consumption because of the advantageous market price. Traditional farmers also produce beans, groundnuts, and various types of vegetables and often keep livestock. Only a small proportion of these farmers use improved production technology. Family labor is the main input.

An understanding of the role of women in agricultural production, marketing and selection and preparation of food for the household is important to achieving the ZAMS Project's objectives of improving rural incomes and nutritional status. Various case studies document that women are predominantly

TABLE 1.1

Farms units and farm population by province and by farm level (1980)

Level / Province	Large-Scale Commercial (> 40 ha)		Medium-Scale Commercial (10-40 ha)		Small-Scale Commercial (1-10 ha)		Traditional Farming Sector		Total	
	Farms	Pop	Farms	Pop	Farms	Pop	Farms	Pop	Farms	Pop
Southern	320	16 000	8 000	76 000	49 900	374 100	7 500	33 900	65 720	500 000
Central	300	15 200	7 630	72 500	21 400	160 500	18 400	82 800	47 730	331 000
Lusaka	90	4 300	1 910	18 100	4 300	32 300	13 400	60 300	19 700	115 000
Copperbelt	-	-	490	4 700	2 000	14 900	17 900	80 400	20 390	100 000
Eastern	20	1 000	3 100	29 500	27 000	202 700	80 900	363 800	111 020	597 000
Western	-	-	-	-	5 450	40 800	85 400	384 200	90 850	425 000
N/Western	-	-	80	800	2 900	21 900	53 600	241 300	56 580	264 000
Luapula	-	-	50	500	2 050	15 300	73 600	331 200	75 700	347 000
Northern	-	-	90	800	7 400	55 500	111 900	503 700	119 390	560 000
Total	730	36 500	21 350	202 900	122 400	918 000	462 600	2 081 600	607 080	3 239 000

Source: Food Strategy Study, 1981, MAWD.

ZAMS Source: Agricultural Baseline Data for Planning, 1983, MAWD

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engaged in small scale traditional agriculture, where they contribute some 60-80 percent of the labor on food production. A study by Due and Mudenda in 1982 reporting on women's labor contribution is based on a sample from Mpika in Northern Province; a traditional farming area, Mazabuka, in Southern Province where average farm size is expanded by use of oxen and plows and tractor-hire operations; and Mumbwa in Central Province where the agricultural practices are mid-way between the other two areas. To control for variation, only monogamous families were included and female-headed households constituted 14 percent of the sample. The women spent 6.6 hours on average per day in agriculture during the farming season, compared to 5.7 hours/day for men, whereas children on average spent 5.3 hours/day. In addition women also spent an average of 4.1 hours per day on other household activities. It was noted that farm females of all ages allocated more hours per day to agriculture than males during the farming season. Almost all of the farm families in each of the sampled areas grew maize, beans, and groundnuts. Other crops tended to vary, especially comparing the Northern Province site with those in the other two provinces.

B. Structure of Production of Fruits, Vegetables and Oil Seed Crops

Virtually all farmers and even some town/urban households grow some vegetables and/or fruits for domestic consumption. The commodity system, from input supply to production and points of marketing transactions, especially with regard to the domestic market, however, is not clearly known and understood. The commercial production of fresh fruits and vegetables is concentrated around the major centers of population. While the vegetable growers appear to be mainly medium and small sized commercial growers, the commercial production of citrus fruits seems to be on a more restricted basis and undertaken on medium and large sized farms.

Production of vegetables for export is dominated by about five well established commercial farming enterprises which have diversified into horticultural exports over the past few years as a means of securing the 50 percent foreign exchange retention incentive applicable to non-traditional export earnings. A few of these operations have tried buying from smaller scale farmers but have encountered difficulties due to inadequate quality, handling and packaging.

The structure and distribution of oil seeds crops is better understood. As Table I.2 shows, except for soybeans it is primarily traditional farmers who produce these crops, although on a smaller scale than the other farmers.

The number of small scale farmers growing soybeans has increased from almost nil in 1980 to over 5,000 in 1985. Cotton is grown mainly by small scale farmers and a few commercial farmers. Small scale farmers dominate because it requires high labor input which makes cotton production unattractive to commercial farmers. Typically the small growers have 1 hectare or less under cotton. In regards to groundnuts, a confectionary type - the Chalimbana variety - dominates production and most of it is concentrated in Eastern Province, although in other provinces women grow groundnuts on a smallscale mainly for domestic consumption.

TABLE I.2

Structure of Production of Oil Seed Crops
by Type of Farm

	Sunflower	Soybeans	Cotton Seed	Groundnuts
Large Commercial	1%	80%	1%	0.5%
Medium Commercial	3	10	2	0.5
Small Commercial	6	5	10	10
Small Traditional	90	5	87	89
Total Percent	(100)	(100)	(100)	(100)

Source: Study of the Oil Seed Sector in Zambia for USAID: Database, by Deloitte Haskins & Sells, March 1987. Although this source uses different labels for the farm size, the data are drawn from the same source as Table I.1, hence the original names have been kept.

Production of oil seed crops occurs predominantly in Eastern, Southern and Central Provinces. Lusaka Province, however, is significant in terms of production of soybeans, primarily on large commercial farms.

TABLE I.3

Geographic Distribution of the Production of Oil Seed Crops by Percentage of Total Crop Produced in 1986

Province	Sunflower	Soybeans	Cotton Seed	Groundnuts
Eastern	30%	4%	10%	50%
Southern	30	29	48	21
Central	32	19	36	8
Lusaka	7	38	5	2
Other	1	10	1	19
Total %	(100)	(100)	(100)	(100)
Total Metric Tonnes	25,000	12,600	19,407	18,184

Source: Study of the Oil Seed Sector in Zambia for USAID: Database, by Deloitte Haskins & Sells, March 1987.

Sunflower seed is currently the most popular oil seed crop. The reasons for this are:

- it is suitable for late planting and thus avoids labor constraints during maize planting; however, with the improved hybrid seed the earlier the planting the higher the oil content;
- it is a low input crop with relatively good yields in comparison to other crops; often it is not weeded, but the improved hybrid seed requires a higher level of inputs; and
- it has a higher oil content than other oil crops and the extraction process is easier, especially for village scale operations.

The area of sunflower planted in 1985 was estimated by MAWD to be 64,000 hectares. However, due to the relative depression of the price offered for sunflower seed to the producer, hectarage planted fell to 57,200 in 1986, 31,600 in 1987 and an estimated 39,853 in 1988, with a concomitant decline in output (44% decrease between 1986 and 1987). In May, 1988, a 62% increase in the producer price for sunflower in the 1988-89 crop year was announced, and it is anticipated that this will have a very favorable effect on hectarage planted and aggregate production levels and may encourage the adoption of higher-yielding hybrid varieties.

C. Marketing of Crops

The Due and Mudenda study reports that the household decision to sell farm produce varies: in 32 percent of the families the female interviewees responded that the husband decides, in 12 percent the woman decides and in 47 percent they decide jointly. On average, the females generated more income than males and contributed a higher proportion (55%) to the household cash income than males (this latter figure may be higher than the nationwide average). A case study of the Chikuni Fruit and Vegetable Producers' Cooperative Society in Southern Province, which consists of some 70 members, indicates a different pattern. Of the 45 percent of the respondents who were female, the majority were growing vegetables and fruits on land which each had obtained in her own right from relatives or village headmen, rather than from husbands. Of those who produced cooperatively with their husbands, some had their own fields. The study found that female cooperative society members, whether married or not, controlled the income accruing from sale of the produce to the society. In joint family ventures, the wife had some control over income, especially where she had her own field, although producing jointly.

Maize is the most common crop sold by small commercial and traditional farmers in all regions. Regrettably, no recent nation wide household data are available. A household survey carried out in 1976 (Mather and Honeybone) compares data from Central, Southern and Eastern (CSE) Provinces with those from Northern, Luapula, Western and Copperbelt Provinces. The data indicate that maize was the most common crop sold in both groups of provinces; otherwise sunflower was the most common crop sold in the CSE Provinces (17 percent of the households) whereas groundnuts were the most common crop sold in the other provinces (9 percent of the households).

A small scale farmer survey undertaken in 1983 covering sites in one district each of Western and Eastern Provinces found that 58 percent of the Eastern Province and 50 percent of the Western Province samples sold some crops the previous season. The study points out that even though households sell some crops they are not necessarily self reliant in food: 43 percent and 30 percent of the interviewees in Western and Eastern Provinces respectively, or 33 percent of all those interviewed, did not produce enough food for domestic use. These figures reflect the dimensions of the situation throughout Zambia. Recently, because of the very attractive selling price for maize, households have been selling a larger proportion of their crop and then purchasing maize meal as needed. Overall one can conclude that most of the farmers, even the "traditional" farmers are involved to some extent in marketing food crops.

The common channel of marketing crops tends to vary by locality due to access to viable options and is likely to vary by type of crop. The two formal organizations authorized to buy peasant produce are Cooperative Unions and the National Marketing Board (NAMBoard) but the prices offered by these institutions are "floor prices" and are not attractive for most crops. Moreover, there are often delays in payment to producers. Therefore, many farmers prefer to sell their crops either in kind or cash to individual buyers who visit the farm or village or to traders in market places. In Eastern Province the most common outlets were individuals (25%), cooperatives (18%) and market (13%) in comparison to Western Province where the most common outlets were individuals (28%) and NAMBoard (13%) (Chilivumbo et. al, 1983:348). A 1976 study of two vegetable markets functioning in Lusaka, one in a high cost area of town and the other in a low income area, reveals that the source of supply of vegetables is primarily the wholesale market but also 56 percent of marketeers obtain at least part of their supply from nearby farmers.

At the main Lusaka wholesale market for fruits and vegetables - Soweto - numerous farmers come to sell their produce to the marketeers who are mainly female. However, a system has developed whereby a group of mostly unemployed youth aggressively buy the bulk of the produce from the farmers and within a short time resell their supplies to the women wholesale marketeers at inflated prices. For example, pockets of rape were purchased by the young men at K15 per pocket and immediately resold to the regular marketeers at K25 per pocket. Such practices go on unabated (Mwila, 1988).

The cooperative unions have marketing depots to receive crops for sale from farmers and to distribute farm inputs. However, most farmers, being well outside a reasonable distance of the depots, are not serviced by them.

The Provincial Cooperative Marketing Unions (PCMUs) and in some cases their member primary cooperative societies play a major role in purchasing maize from farmers. In addition the Eastern Province Cooperative Union, through its primary societies, purchases sunflower seed at the farm level for a big oil processing plant which it owns and runs. In the other provinces the marketing for sunflower seeds is less well organized and the PCMUs directly intervene by having a number of buying depots at provincial, district and village level in addition to mobile depots for the remote areas. These other unions sell the sunflower seed directly to NAMBoard for ultimate delivery to processors, or the processors buy directly from farmers and the PCMUs.

The marketing channels for soybeans are similar to those for sunflower. LINTCO, rather than the PCMUs, has the responsibility of marketing soybeans for the small scale farmers. LINTCO supplies inputs to these farmers on a seasonal credit basis and recovers the loan from the purchases at its depots. LINTCO is also involved in provision of inputs to cotton growers and purchases cotton seed at its depots. In contrast with the other oil seed crops, the marketing of groundnuts is largely open. Farmers can sell to the highest bidder and the PCMUs are used as buyers of the last resort.

Transport of crops is largely done by the cooperatives and parastatals, although some private transporters also operate. The fleet of vehicles is hampered by the bad condition of many roads and lack of spares, and it is not uncommon for the more remote areas and areas with the worst roads not to be served. Farmers usually transport their produce to a nearby depot or market place. The means of farmer transport varies from headload to scotchcarts and vehicles. The latter two modes may involve hiring. No systematic data are available on the number and distribution of scotchcarts, which serve not only to carry produce to the market but also to haul it from the field after harvest. The 1976 Marter and Honeybone study showed that 13 percent of the households owned scotchcarts and 7 percent hired scotchcarts. Information indicates that the ownership levels are higher nowadays and that the demand is also significant. One study classified it as a sellers' market. In regard to ownership, it can be assumed that males rather than females are the dominant owners of scotchcarts due to their cost and the need for either substantial capital or credit in order to purchase them.

D. Market Places and Marketeers

Market places vary in loci of management and in facilities. Most are located on land allocated by the district or town council. Some have sprung up spontaneously near sites of population growth, although these are usually officially recognized later by the council and become registered and managed as cooperatives. Some market places are nothing more than open spaces upon which regular traders have erected semi-permanent structures and periodic vendors use the ground and make-shift tables to display their goods. Open space markets also arise adjacent to well-established market places which are too small to meet the demand by vendors.

There are market structures built and managed by local councils and market facilities which are cooperatively managed although located on land allocated by the town council. The cooperatively managed markets tend to have a significant level

of involvement of the political party. In fact, local party officials usually are instrumental in getting the council to officially recognize the existence of the market. In these and often other market places the vendors must have a party card and those without are refused entry. Since the cost of a card is quite low, about K1.50, this is not a financial burden. Little documentation exists on market places and marketeers outside of greater Lusaka, whereas several studies have been carried out this past decade on marketeers in various markets in the Lusaka area. A brief study (Mwila 1988) of Eastern Province carried out in preparation for the ZAMS Project produced like results.

In Lusaka the most significant trading point for fresh fruits and vegetables is the Soweto market which is a wholesale and retail market open seven days a week. The market contains approximately 1,000 approved stalls, but the number of people who sell there daily is more than double this figure. The stalls are located in an enclosed building, whereas the other vendors are located in small enclosed stalls and the open air adjacent to the building. The physical conditions are poor. There is no electricity supply and only one often inoperable toilet each for males and females. The poor sanitary conditions are not much different from most other market places.

In both the council and cooperative markets the "legal" or authorized vendors are those who pay a small daily levy or rent a stall or shop on a regular basis. Evidence for Soweto market and others indicates that the demand for a permanent place exceeds the supply. A 1981 report on Lusaka's Chawama township market, which is run by a marketeers' cooperative society, distinguishes between those who pay rent and those who do not pay and "illegally" use the open space within the enclosed market boundaries. The latter are predominantly those who bring produce from their kitchen gardens on an irregular basis, whereas the authorized vendors mainly purchase from wholesalers. There is also a fair amount of street vending. The time and location of this activity is finely tuned to customer demand, so, for example, in Lusaka many street vendors appear in the downtown office areas just at closing time to market produce to homeward-bound commuters (Mwila, personal communication).

Security at markets, such as through access to locked stalls or a night guard, is classified by marketeers as one of the top considerations regarding where they sell. The most important consideration, however, tends to be location in relation to where they reside.

The various studies on retail markets in the Lusaka area indicate some gender-specific aspects of marketing. There is specialization by sex and it is predominately women (around 80%) who sell food, especially fruits and vegetables. The female marketeers are usually over 30 years old, married and sell on a fulltime basis. About half of the women have had no formal schooling and virtually none has access to credit to invest in expanding the business. For most women vending is long-term occupation, whereas the men often enter marketeering as a temporary occupation. This picture may be changing, however, as the formal sector employment outlook worsens and more unemployed young men find work in the informal sector as middlemen in the wholesale market and as retail street vendors (Mwila 1988).

E. Household Income and Expenditure

The 1985 Pilot Household Budget Survey by the Zambian Prices and Incomes Commission divided its sample into five types of areas corresponding to assessments of physical amenities. These were: (1) high cost areas (occupied by high-income earners); (2) low-cost areas (low and medium income earners); (3) site and service areas (specific housing schemes - generally low to medium income); (4) township areas (rural district or sub-district headquarters, again roughly comparable to the low and medium income areas); and (5) rural areas. For purposes of this analysis, the three intermediate groupings of low-cost, site and service and township will be amalgamated into a low-cost urban category, so that there will be three categories: high-income (urban), low-income (urban) and rural.

Table I.4 shows the percentage distribution of reported cash income over four income brackets for the three categories of households. Table I.5 shows the value of in-kind gifts and barter trade accruing to the three categories of households. The cumulative resources entering the households come from three major sources: (1) wages or salaries; (2) self-employment and business sales; and (3) transfers. Table I.6 shows the relative estimated mean incomes deriving from all sources to the different income brackets. (All tables in this section are derived from the Pilot Household Budget Survey, 1985.)

TABLE I.4

Distribution (%) of Reported Monthly Cash Income

Income Bracket (Kwacha/mo.)	High Income Urban	Low Income[1] Urban	Rural[1]
0 - 99	7%	15%	82%
100 - 499	45	71	16
500 - 999	40	8	*
1,000+	8	2.3	**

[1] Original source table did not total 100% in this column.
* less than 2% ** less than 1%
n = 1462 households

TABLE I.5

Monthly Reported Value of Gifts and Barter Trade

	High Income Urban	Low Income Urban	Rural
Gifts Received	K4,075	K4,305	K8,082
Gifts Given	4,291	4,537	7,767
Barter Trade Rec'd.	39	166	2,042
Barter Trade Given	16	160	2,367

TABLE I.6

Relative Estimated Mean Income to Households from Different Sources

Source	High Income Urban	Low Income Urban	Rural
Salary/Wages	88%	67%	31%
Self-Employment Business & Sales	12%	32%	64%
Transfers to HHs	*	1%	5%

* less than 1%
n = 1652 households

Although these income figures are not firm, the relationship among the three categories of households and the relative sources and levels of income within each category should be roughly accurate and provide insight into the means by which each category finances its basic needs. Thus, it can be clearly seen that in terms of cash income, the bulk of the sample in high-income urban areas earned between K100 and K999 per month, while in rural areas, very few households reported monthly incomes over K99. In addition, rural households appear much more dependent on gifts as a source of wealth to the household, but may even lose a little on barter trade. Conversely, wealthier urban households take in more than twice as much, on average, in barter trade as they give out, thereby allowing an opportunity to accumulate wealth. Overall, for urban areas it would appear that gift exchange is a means of redistributing income and cementing social relations, not a means of wealth accumulation. For rural households, barter also appears to be a redistributive mechanism, although the figure given for the particular month may reflect some seasonality. Moreover, rural incomes, by virtue of being generated through self-employment or sales rather than wages, may be less vulnerable to the effects of inflation than those of the high- and low-income urban households.

Analysis of expenditure data in the 1985 survey is more thorough, and expenditure data appear to be more reliable. Differences among high-income urban, low-income urban and rural were found in allocation of income among purchases of food, beverages, tobacco, rent, fuel and transportation. Households in high-income categories spend proportionately less on food, beverages and tobacco than other households. Conversely, they spend relatively more on rent, fuel and lighting. This is consistent with economic theory, which suggests that as incomes rise, the relative share devoted to food purchase will fall. Moreover, the consumption patterns of food items is also consistent with economic development theory. For high-income households, meat constitutes almost one third of the expenditures for food, and bread and cereals absorb only 12.5% of the average food budget. Although products produced in rural areas such as eggs, milk, fruits and vegetables are not purchased as much by rural households as they are in urban areas, it cannot be assumed that they are not eaten as much, because auto-consumption was not covered in the survey. Finally, the share of cash expenditure for maize meal is lower for low-income urban consumers than for rural consumers, and lowest of all for high-income urban consumers. All urban consumers demonstrated in their responses a strong preference for the more expensive breakfast meal, again consistent with economic development theory which suggests that the demand for higher quality food will grow with income growth. Tables I.7 through I.9 illustrate these phenomena (Source for all tables: Pilot Household Budget Survey, 1985.)

TABLE I.7

Relative (%) Cash Expenditures on Basic Household Items

Item	High-Income Urban	Low-Income Urban	Rural
Food/Beverages/Tobacco	45.4%	52.7%	55.3%
Clothing & Footwear	7.9	12.2	14.7
Household Goods & Furn.	3.2	8.1	5.3
Rent/Fuel/Transport.	32.9	21	19
Health/Educ./Other	10.6	6	5 7

TABLE I.8

Relative (%) Cash Expenditures on Food

Item	High-Income Urban	Low-Income Urban	Rural
Bread/Cereals	17.5%	23.1%	23.5%
Meat	31.1	19.9	14.3
Fish	7.2	15.6	28.5
Milk/Eggs	6.3	5.3	1.2
Oil/Fats	13.3	7.4	4.3
Roots	1.7	1.7	2.0
Fruits/Veg.	1.5	12.6	9.0
Sugar	2.0	3.5	5.9
Coffee/Tea	0.7	0.4	0.3
Other	5.1	2.5	1.15

TABLE I.9

Maize Meal Consumption

	High-Income Urban	Low-Income Urban	Rural
Maize meal as % all cash expenditure on food	5.2%	12.5%	19%[1]
Kwacha/HH spent on maize meal	K14.6	K18.77	K6
Percent spent on breakfast meal	89%	65.7%	19%

[1] Does not include home-grown produce.

These buying patterns for maize meal persisted through the 1985-87 macroeconomic reform period. A 1986 survey (MAWD & RDSB) to assess the impact of GRZ policies on the socioeconomic conditions of urban households found that 54.8 percent of respondents expressed a preference for breakfast meal, and 71.2 percent of them actually purchased it on a regular basis, notwithstanding a growing price differential at that time between breakfast and roller meal. This would indicate a high price inelasticity for maize meal, which in turn suggests that the commodities that ZAMS is targeting, such as fruits and vegetables, may face fluctuating demand in the coming years. Moreover, in response to another question in the same survey, the majority of respondents perceived a sharp increase in their cost of living, particularly in food, clothing and transport. The survey indicated that many families were buying smaller quantities of some basic food items such as cooking oil, which resulted in a higher unit cost to the consumer. Although prices on such basics have once again been controlled, this is leading to scarcities in certain commodities as production falls off. Inflation, which has been very high in the 1985-88 period, also has a significant impact on household purchasing power. The foregoing macroeconomic conditions are likely to mean that consumers will not be able to afford as much variety in the diets and their nutritional status, particularly for vulnerable groups such as children under the age of five, is likely to decline.

F. Food Consumption and Nutrition

There are no recent data on either food consumption nor nutrition which present a national overview. The Food Strategy Study of the Ministry of Agricultural and Water Development (1981) draws on the 1974 population study and urban household budget surveys, rural surveys and special studies dating back to 1975 and 1976. Rough information on food consumption from these sources indicates that the consumption of wheat flour, fat, sugar and milk is increasing while consumption of other foods, except vegetables, is declining. The Food Strategy Study indicates that annual consumption of vegetables per capita increased in the large urban centers and townships between 1967 and 1975.

Because of the change in economic conditions, some adjustments may have occurred in consumption patterns during recent years. For example, people report a change from millet, sorghum and cassava consumption to an increase in consumption of maize as the staple food. Difficulty in securing vegetable oil may have decreased its use. Consumption of vegetable oil is estimated to average one bottle (.75 liters) per week for an average family of 7 people.

There has been a general deterioration of the nutrition situation with corresponding increases in morbidity and mortality in both rural and urban areas. In 1980, 6.4 percent of the total admissions of children in hospitals throughout the country were attributed to protein energy malnutrition and other nutritional disorders. These causes comprised approximately 18 percent of the total deaths in children in 1980 compared with 13 percent in 1978 (GRZ/UNICEF, 1986).

A nutritiona survey using the weight-for-age indicator in 30 randomly selected national clusters found in 1984 that 28 percent of the 392 children aged 0-59 months were below the 80 percent Harvard Standard. Moreover, 32 percent of the children in the 0-11 months category were below this standard which indicates either poor weaning or poor nutrient value of weaning foods (GRZ/UNICEF, 1986).

Information from 1984 collected through the National Nutrition Surveillance Program shows that 27 percent of the children under five years old were below the 80 percent line and 17 percent were losing weight. The areas with the highest levels of malnutrition are Northern and Luapula Provinces with varying annual rates for North Western, areas which are more isolated and underserved.

G. Structure of Agribusiness

Agribusiness firms may be divided among three broad analytical categories according to ownership and size of operation. They are the public sector, the large-scale private sector (catering to or consisting of farms of 40+ hectares, and/or employing more than 50 persons) and the small-scale/ micro-enterprise private sector. Some of the public sector firms have private shareholders, many of which are multinational companies.

1. Public Sector

A partial list of agriculturally-related public sector firms would include the holdings by Indeco as shown in Table I.10

TABLE I.10
GRZ Holdings Through Indeco
- Proportions of Ownership

Company	% Indeco Ownership	Shareholder	% Shareholder Ownership
AFE Ltd.	98	So. Prov. CMU	2
Choma Milling Co. Ltd.	100	NA	
EC Milling Co. Ltd.	100		
Ghirardi Milling Co. Ltd.	100		
Indeco Estate Development Company Ltd.	100	NA	
Indeco Milling Ltd.	100	NA	
Mpongwe Development Co. Ltd.	51.3	Unknown	48.7
Mulungushi Investments (subsidiary of CCM)	51	Unknown	49
MWinilunga Cannery (Z) Ltd.	100	NA	
National Breweries Ltd.	51	Heinrichs Syndicate	49
National Drum & Can Co. Ltd.	100	NA	
National Milling Co. Ltd.	51	Abercon Nominees	24.5
		Spillers Ltd.	24.5
Poultry Processing Co. Ltd.	51	Hybrid Poultry Farm	49
Robinhood Products Ltd.	100	NA	
ROP (1975) Ltd. (also. Premium Oils Ltd.)	100	NA	
Supa Baking Co. Ltd.	100	NA	
United Milling Co. Ltd.	100	NA	
Zambia Breweries Ltd.	55	John Labatt's	20
		Zamanglo	25
Zambia Coffee Co. Ltd.	100	NA	
Zambia Pork Products Ltd.	100	NA	
Zambia Seed Co. Ltd.	40	Zambia Co-op Fed.	20
		Zambia Seed Producers	20
		Swedi Fund	10
		Svaloef AB	10
Zambia Sugar Co. Ltd.	78	Tate & Lyle	11
		Commonwealth Dev. Corp.	11

Sources: Indeco Annual Report and Accounts, 1987.
ZIMCO: Zambia's Force for Growth (1985).

In addition to the Indeco holdings, there are four GRZ crop marketing boards that are responsible for specific commodities. These include the National Agricultural Marketing Board (NAMBoard) - maize; the Lint Company of Zambia (LINTCO) - cotton and soybeans; the National Tobacco Company (NATCO) - tobacco; and the Zambia Horticultural Products Ltd. (ZAMHORT) - fruits and vegetables. The other GRZ-dominated marketing channel is the Provincial Cooperative Marketing Union structure, with a union in each province. These are multi-purpose organizations that handle input supply and short-term credit as well as some preliminary processing and marketing.

2. Large-Scale Private Sector

There are two multinational agroprocessing firms, Lyons Brooke Bond and Copper Harvest. There are also at least five large-scale (40+ hectares) commercial farms that process and market their own commodities. These farms include Lendor Agricultural Holdings, Lummus, Walkover Farms, Whitbi Enterprises Ltd., and Galaunia Farms. There are some diversified investment companies such as ITM International that have an agricultural subsidiary (in this case, the Chibote Group). Further, several large-scale commercial operations owned by individuals process and market the major commodity that they produce; this is particularly true of beef and swine operations. In addition, there are several private membership organizations whose subscribers are mainly large-scale commercial farmers, and whose activities are related to agricultural input and output marketing, including the Commercial Farmers' Bureau, the Midlands Cooperative Society Ltd. and the Zambia Export Growers' Association. There is one additional private processing firm, Rivonia Ltd., which is relatively new and employs more than 50 people in the production of marmalades, jams, jellies, sauces, juices and the like from a variety of fruits and vegetables.

With respect to the public sector and large-scale private sector operations, social issues such as hiring practices (e.g., discrimination vs. affirmative action), local vs. expatriate ownership and management, extension of benefits, terms of employment (i.e., rates of compensation, length of the work day and week, occupational safety, length of probationary period, availability of annual and sick leave and appropriate practices in permitting employees to take such leave, maternity leave, training opportunities, etc.) remain to be researched. These are issues that are very closely linked to the not uncommon perception of the private sector as exploitative (in this case, of labor) and are a vital part of the sociocultural feasibility of the project.

3. Small-Scale and Micro-Enterprises

A 1985 nationwide sample survey of small scale enterprises (SSEs) in the Zambian rural sector divided small-scale enterprises into manufacturing, service and vending activities. Among the manufacturing industries related to agricultural marketing are:

Foods	Bakery, confectionery, butchery
Traditional Beers	Traditional beer brewing
Sweet Beers	Brewing of a form of traditional beer with little or no alcohol content

Relevant service industries include:

Restaurants	Catering of food
Bars	Retail of traditional or modern beers
Trade	Wholesalers, grocers and various retail shops or activities.

Vending is defined to include the sale (hawking or peddling) of all types of products, but mainly foods, metal, garment and wood/charcoal).

According to the study, the SSE sector is dominated by beverages, forest-based enterprise and vendors, which combined account for 80 per cent of all of the enterprises. Moreover, within the enterprise groups, traditional beer brewing accounts for 94 per cent of the beverages produced, groceries and other food shops account for over 43 per cent of trade and food vendors for 80 per cent of all vending. Thus, food processing and marketing activities account for a sizeable share of SSE activity.

Table I.11 gives the geographic distribution of SSEs among small town, rural towns, and rural areas.

TABLE I.11

Geographic Distribution of Small-Scale Enterprises

	Small Towns	Rural Towns	Rural Areas
Manufacturing	37.8%	49.1%	86.9%
Services	11.5	9.8	4.5
Vending	50.7	41.1	8.6

According to the survey report, beverages and forest-based activities are dominant in rural area , while vending predominates in towns. It points out that the activities supported in the rural areas are those (beverages, forest-based products, metals and ceramics) which require traditional skills and utilize mostly local materials. This means that entry into these enterprises should be relatively easy and that the level of activity can respond quickly to market demand, both of which are positive features in the context of the ZAMS project.

In terms of employment potential, the report compares the approximately 540 companies on the Central Statistics Office list of registered large scale industries (LSI), which cumulatively employ approximately 60,000 persons, with the small scale industry (SSI) sector, which, according to extrapolations made from the SSE study, employs about 263,000 persons. Table I.12 gives the comparative values for the selected enterprise groups with relevance to agricultural marketing.

TABLE I.12

Comparison of Industries and Employment
Registered Large Scale Industries & Small Scale Industries

Enterprise Groupings	(A) Number of Enterprises		(B) Number of Employees		SSI Share (%)of	
	LSI	SSI	LSI	SSI	(A)	(B)
Food	111	6,683	16,559	14,341	98.4	46.4
Beverages	25	86,459	3,840	132,441	99.9	97.2

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As can be seen from the above table, food processing for local consumption has important employment benefits in the rural areas. The report suggests that most of the employment is full time, with an adjusted figure of about 292,000 full-time equivalent adult workers.

The survey analysis includes a section on women in the SSE sector in Zambia. The following paragraphs are excerpted from the study:

> Historically, certain economic activities in the formal sector are not readily accessible to women as they are to their male counterparts. This could be due to lack of skill, time, finance or just cultural habits excluding them from participation in such activities.
>
> By contrast skill and capital requirement in the informal sector is usually minimal and the schedule of labor requirement may easily accommodate other family chores especially if the business can be operated from the home. . . . The smallest capital requirement, for example, may be an effective barrier to entry even in the SSE sector. Also, there are certain activities even in the SSE that are not yet open to women either as proprietors or workers. By and large, though, the SSE sector is increasingly providing more employment and ownership in business than the formal or large scale sector.
>
> The role of Zambian women in SSE ownership and employment is shown in Table [I.13]. Overall, they account for 60 percent of the ownership in SSE activities and 54 percent of the employment. They are particularly dominant in beverages, ceramics, garments and vending in that order. . . . Their involvement in catering as owners is also low (14 percent) but this is probably not due to lack of acumen for trading on their part as can be seen from their wide involvement in trading and vending. These differences may be due to some enterprise groups requiring more skills not yet found among females or due to some enterprises being in traditional male professions.
>
> . . .Major enterprise types of which [women] account for over 90 percent of the ownership are knitting, beer brewing and pottery. They also account for over three-fourths of the ownership in confectionery (sweets) and food vending.
>
> Women tend to dominate in employment those enterprise groups that they dominate in ownership. . . .However, in each enterprise group the proportion of female employment

is always less than that for ownership, except in catering, which may mean that enterprise groups are generally more open to female ownership than female employment. The average number of females in the total labor force was 8 times greater in female owned enterprises than in male owned enterprises.

At the enterprise type level, the following are prominent in female employment: beer brewing (90 percent of all workers), pottery (90), knitting (80), food vending (70), confectio ery or sweets production (67), bakery (46) and food retail (34)

. . . . In fact, female employment in beer brewing is so dominant that if it is excluded from Table [I.13], the proportions of female employment and ownership in the SSE sector fall respectively to 18 and 40 percent (from 54 and 60 percent respectively). . .and in the manufacturing subsector, their proportions fall to 27 and 30 percent respectively.

The proportion of all SSE enterprises owned by women in the small towns and rural townships is identical, 74 percent. By contrast, the proportion in the rural. . .areas is only 60 percent. The difference is primarily due to vending activities (with a high female ownership share of 59.4 percent nationally), which accounts for 40-50 percent of all SSE activities in the towns.

Enterprises owned by females tend to be small. The average size of the labor force in a female owned enterprise was 18% less tha' the corresponding size in male owned enterprises. They account for 64 percent of all enterprises with a labor force of up to 5 but only 44 percent of those with 10 workers or more. They tend to have fewer part-time but more child workers compared with their male counterparts. . . . Also only 0.4 percent of them had any powered machinery compared with 1.5 percent for males. although males tend to work a little longer in the year than females, the difference is less than 10 percent. . . . Not only is SSE activity not the major source of income for three-fourths of the females (compared to one-half for males) but over 90 percent of them (87 for males) do not have another SSE activity as a secondary source of income. Agriculture or the outside employment of other family members may be the main source of additional family income.

The 1980 population census showed that the proportion of female workers in the formal sector was only 7.6 percent. Assuming this proportion still holds, it means that the SSE sector employs five and one half times as many full-time equivalent female workers (151,000 to 28,000) as does the formal sector. In fact, since the formal sector figure makes no adjustment for part-time labor and since the present survey did not include enterprises in the major towns and rural areas in Lusaka and the Copperbelt, the magnitude of the female employment should be much higher than indicated here -- proportionally about 202,000 or seven times that of the formal sector (Milimo & Fisseha 1986:51-55).

The SSE survey report also reviews problems mentioned by small-scale entrepreneurs. The most frequently mentioned problem is shortage (directly or indirectly) of imported raw materials. As the report points out, many SSE products require small amounts of imported materials or materials made from imported ingredients. These requirements are easy to overlook, as they comprise a fraction of the overall imported goods necessary. The second most important constraint cited by survey respondents was transport. Thirdly were tools, spare parts and machinery, which are related to the foreign exchange shortage.

The ZAMS Project proposes to address all three of these constraints, but in order to reach small-scale enterprises, which appear to have the greatest potential for maximizing employment generation, the project will have to establish and adhere to criteria that will emphasize meeting the foreign exchange needs of such enterprises, as well as of more "visible" large-scale firms. These criteria would include employment generation potential, identification of clientele as predominantly urban or rural poor, ease of entry for women, and creditworthiness. On the last point, small enterprises may have more difficulty securing access to capital, which may require the project to liaise with other organizations providing credit and making the information available to SSEs that wish to participate in ZAMS.

TABLE I.13

THE MAGNITUDE OF FEMALE PARTICIPATION IN THE SMALL SCALE ENTERPRISE (SSE) SECTOR

Enterprise Groupings	Shares (%) of Females in Ownership and Employment Within Each SSE Group							
	Small Towns		Rural Towns		SEAs		Overall	
	Ownership	Employment	Ownership	Employment	Ownership	Employment	Ownership	Employment
Garment	80.6	74.9	80.0	80.5	74.4	73.2	74.6	73.3
Forest-Based	14.1	12.3	23.1	18.8	11.6	12.0	11.8	12.1
Metals	6.9	7.7	6.4	3.4	5.6	4.3	5.6	4.3
Repairs	5.1	6.7	4.9	2.5	0.0	0.0	0.1	0.1
Foods	86.3	64.4	76.0	58.7	68.8	51.5	69.2	51.8
Traditional Beers	98.2	89.5	98.3	91.4	98.7	91.1	98.7	91.1
Sweet Beer	99.1	93.3	99.2	90.1	90.6	78.4	90.8	78.8
Leather	1.3	4.4	0.0	0.0	0.0	0.0	0.0	0.1
Ceramics	21.9	14.5	33.3	31.4	93.5	86.7	91.6	84.9
Other Manufacturing	6.3	21.2	0.0	3.3	0.0	0.0	0.1	0.3
TOTAL Manufacturing	70.8	58.4	74.3	65.5	62.2	56.2	62.7	56.6
Restaurants	51.4	54.6	28.1	42.0	----	----	37.4	47.0
Bars/Taverns	26.7	28.5	26.8	41.6	11.1	16.7	11.6	17.0
Trading	42.4	38.7	36.3	31.4	31.0	24.0	31.2	24.0
Other Services	20.2	12.0	9.1	2.4	4.8	8.0	5.1	8.0
TOTAL Services	39.8	36.7	33.6	31.2	18.6	14.8	22.0	17.7
Vending	84.2	74.5	82.5	73.6	58.6	59.4	59.3	59.8
GRAND TOTAL	74.1	61.1	73.7	62.5	59.9	53.6	60.3	53.8

Source: 1985 SSE Study

II. BENEFICIARIES

The beneficiary analysis focuses on the three major types of inputs -- commodities, technical assistance and training -- and also briefly looks at the tentative geographical distribution of benefits. Very little attempt is made to quantify beneficiaries, but recommendations for methodologies to be used in assessing benefits of various sub-activities are developed, and suggestions for minimum acceptable levels of benefits for sub-activities are proposed.

In general, beneficiaries may be divided into those who will be directly affected and those who will benefit indirectly. In the direct category are those whom the project inputs directly touch, whereas indirect beneficiaries will be those who feel a secondary effect from the impact of the project inputs on the primary beneficiaries. For example, if transport is more frequently available for hire to farmers who wish to market some of their production, the operator of the transport service, who may have purchased some of the A.I.D.-provided truck tires would directly benefit, while the farmer will benefit indirectly because the opportunity cost to marketing his or her surplus will have diminished, as he or she will not have to stand at the roadside for two days waiting for a for-hire vehicle to pass by.

A. Commodities

1. Nation-wide

Tires and truck spares are to be sold to customers from all regions of Zambia. These items relate to transportation for agricultural inputs and outputs. The immediate beneficiaries will be the truck owners, whether large or small operators, who will be able to return their vehicles to service and derive income from commodity transport. The indirect beneficiaries, as noted above, will be purchasers of inputs and/or purveyors of produce, whether at the farm-gate, wholesale or retail level, whose access to the necessary transport will be increased both in terms of quantity and timeliness.

In addition to the tires and truck spares, 20 pick-up trucks are slated for importation under the project. The primary beneficiaries of these pick-up trucks will be their purchasers, and ZAMS should condition their purchase on several criteria: (1) that preference in purchase be given to the lowest income stratum that is creditworthy (i.e., emergent

farmers); (2) that the primary occupation of the purchaser be farm production or a backward or forward linkage to agricultural production; and (3) that the truck have a high probability of use in transporting agricultural materials as its primary function. Secondary beneficiaries of the pick-up truck should be the drivers that are frequently employed to drive the trucks and other farmers who have more transport available for hire as a result.

2. Targeted Local-Level Areas

Oil and rice mills, cassava chippers, scotchcarts, on-farm and regional market storage, road and market upgrading and possibly pick-up trucks are all targeted to specific geographic areas in order to create a synergistic effect. Oil and rice mills will have a specific geographic radius of service. The small, hand-operated oil mills will meet the annual oil consumption needs of about 100 households of six persons each. Since family size varies (up to an average of nine members per household), the estimated 500 oil mills provided by the project will likely benefit somewhere between 300,000 and 320,000 rural poor individuals. Benefits will take the form of improved nutritional status from an increase in fats in the diet and increased income either through savings realized from not having to purchase oil, or from sale of oil or the cake by-product. There may be some incremental benefit for those who own livestock in improved nutritional status of the livestock and thus a potential improvement in household income at the time of sale or slaughter of the animal. In addition, six to eight people are usually employed by each mill; thus up to 4,000 jobs may be created by this component.

In regard to other village or local-level interventions, the larger, diesel-powered oil mills will produce a yearly oil supply for 200 to 400 households, so approximately 24,000 to 72,000 individuals will benefit. In addition, households will benefit by the sale or use of the oil and seed cake. The service capacity of the rice mills is at this time unknown. Similarly, the radius of outgrower participation in small juice extracting facilities is also unknown at present, but estimates can be made in the course of AMAG (or other) feasibility studies.

Five hundred farmers/small entrepreneurs will benefit by the importation of materials for the production of ox-carts (scotchcarts). In addition, an unspecified number of existing ox-carts will be returned to service. Rural residents who purchase ox-carts may realize income in two ways from them, either by using them to transport their own inputs and produce

and or by rental of space in the cart for others' inputs or products. It is likely that both approaches will be used, as is the common pattern now. Indirectly, others who require purchased inputs or have produce to haul will benefit by greater availability and more timely delivery of inputs and pick-up of products.

Although ox-carts are a desirable and appropriate form of technology to reach small-farmer clientele, project implementation will have to address a number of constraints to assuring that this equipment reaches it target beneficiary. Studies of ox-cart demand note several issues with respect to the potential benefit flows from ox-carts. The lack of availability of spares means many ox-carts go out of service. Also, there is a lack of local-level knowledge about the repair of ox-carts, owing to the fact that the production sites are not located in rural areas. The concentration of ox-cart manufacturers around major urban areas makes them less accessible to rural residents, both in terms of physical access and of price. The lump-sum nature of the payment required for ox-cart purchasers, and the perceived high cost for rural peasants, as well as limited credit access by small farmers are constraints to reaching the desired beneficiary pool. Thus, it is likely that better-off farmers or small scale entrepreneurs in rural areas will benefit most directly from the scotchcarts, that there will be little employment generation unless the production facilities are very localized, and the only benefit that will accrue to the traditional or small emergent farmer is in the quantity and timeliness (and perhaps the proximity) of the haul-for-hire service. Because of women's generally restricted access to credit, it is unlikely that many women will directly benefit from ox-cart ownership, although they may benefit significantly in terms of time saved in shortening the wait for transport of produce to market by improved scotchcart availability. Improvement in benefit distribution would require a more thorough investigation, and subsequent dialogue with banks and cooperatives to assure that adequate credit will be made available to those will no credit histories or other impediments to obtaining institutional credit for ox-cart purchase, or to open local businesses in scotchcart manufacture or repair. In order to achieve greater benefit spread, project scotchcarts should be targeted on those who do not already own one, but who have the cash or qualifications needed for credit. A second criterion might be distribution to areas (within a given geographic "cluster") that are poorly served by and/or inaccessible to motorized vehicles.

Improved road maintenance (local currency for repair; foreign exchange for grader spares) is another anticipated commodity that will provide local-level benefits. The key constraint to additional small-scale economic activity has been identified as poor transport (see for example, Fleuret 1988, R.R. Nathan 1988). Much of this transport problem is due to lack of road maintenance, making production areas inaccessible to input suppliers or traders. Moreover, trade between major growing areas and major population areas is also constrained by poor roads. The benefits of road upgrading are likely to affect a large number of rural inhabitants by providing improved access to input supplies at reduced cost to the purveyor, as well as improved access to a variety of markets, thus introducing some competition among purchasing agents and possibly improved prices to farmers. This effect will have to be studied more carefully during project implementation.

The upgrading of markets is likely to be concentrated on urban wholesale and retail markets and rural assembly markets. This upgrading will benefit directly the vendors in the markets, and the district councils or voluntary associations that run the markets. Indirectly, the urban consumers will benefit. As noted in the Sociocultural Context section, Zambia has a high urban population rate (48%) So, for example, in 1980, Lusaka had a population of 538,469 (700,00 at present); Kitwe 314,794; Ndola 282,439; Mufulira 145, 869 and Chingola 143,635. As noted in the body of the PP, per capita GDP has declined in the last 10 years. Thus, a safe assumption is that an increasing number of the urban residents are living at or below the poverty line, and assistance in providing greater quantities of dietary items ancillary to the staple, such as fruits, vegetables and oilseeds at lower cost by reducing marketing costs and increasing competition will have a positive impact on at least half the population in the urban areas cited above. Interventions which improve market facilities, including upgrading sanitary conditions and permitting more vendors to enter the market, should reduce morbidity and increase nutritional standards for the urban poor.

3. Targeted Industries

The beneficiaries of the targeted industries - fruit and vegetable canning and processing; large-scale commodity hauling and storage; commercial soybean processing; medium-scale oil processing and cassava chipping, for instance - will be firstly the owners of the firms, secondly the employees of the firms and thirdly the firms' suppliers and clientele. For the mostpart, these groups of beneficiaries do not include the rural poor majority; however, potential benefit to the urban poor through employment and better access to more nutritious

foods should not be overlooked. The anticipated benefits and beneficiaries of each sub-project should be assessed and quantified as part of the feasibility study and monitored during the course of the sub-project implementation. The kinds and magnitudes of anticipated benefits should be spelled out. Dimensions of the beneficiary assessment should include: (1) rural vs. urban; (2) farm vs. non-farm; (3) direct vs. indirect; (4) gender; and (5) income levels. All should be quantified to the maximum extent feasible. The magnitudes should be fed into the economic analysis of each sub-project to determine viability. Finally, an assessment should be made as to whether the anticipated benefits and beneficiaries are consistent with the ZAMS Project goal and purpose.

B. Technical Assistance

1. AMAG

Beneficiaries will include the clients of AMAG, whether individuals or firms. The degree of benefit will depend upon the degree of subsidization of the consulting services by the project, and by the extent to which AMAG provides assistance in all phases of business start-up or expansion (vs., for example, providing only the feasibility study on a full fee basis).

2. NGOs

The primary beneficiaries of the local-level NGO sub-projects will be the individuals or groups who purchase the oil expelling or rice milling equipment. They will receive training and technical assistance in the operation of the mill, in bookkeeping and business management and other necessary skills. The secondary beneficiaries will be rural residents who have a functioning mill in their areas.

IESC will be an additional source of advice to firms, and as such, firm ownership and management should benefit directly from its involvement. Secondarily, suppliers and clients of firms serviced by IESC should benefit, but this benefit will be very indirect and difficult to quantify.

C. Training

Approximately ten employees of the GRZ will directly benefit by receiving long-term masters' level training in subjects related to marketing. This will improve their professional skills and make them eligible for positions of higher responsibility on their return to Zambian government service. It will also give them greater mobility in public or private sector employment. It will strengthen those GRZ institutions to which they are assigned.

The 70 employees (target of at least 30% female) of firms and government, or individual entrepreneurs, trained in offshore short courses will also benefit directly. They, too, will have upgraded professional skills and increased career opportunities, though to a lesser degree than those who receive long-term training. Similarly, those 600 (target of at least 30% female) employees of the same types of organizations who receive short-term in-country training will receive like benefits, but to a slightly lesser degree than those who are sent abroad. At the local level, those approximately 900 individuals (target: up to 30% women) who receive training in management and operation of the oil mills will benefit directly.

D. Geographic Distribution of Benefits

Apart from examining the impact of the inputs planned under ZAMS, an analysis of the geographic distribution of benefits is also warranted. Due to agroclimatic conditions, certain commodities predominate in certain regions, so a commodity focus will, perforce, allocate project benefits to specific regions. The regions can then be examined in terms of the relative balance of rural and urban population and the relative number of farms in the large commercial, medium commercial, emergent and traditional categories.

Commodities identified in the project thus far include sunflowers, soybeans, rice, cassava and fruits and vegetables. The three most productive provinces for each commodity are as follows:

TABLE II.1

Geographic Distribution of ZAMS-Targeted Commodities

Commodity	Three Provinces of Highest Production[1]
Sunflower	Central, Southern, Eastern
Soybeans	Lusaka, Southern, Central
Rice	Western, Northern, Eastern
Cassava	Luapula, Northwestern, Northern
Fruits & Vegetables	Lusaka, Central, Copperbelt[2]

[1]Listed in order of highest to lowest production figures.

[2]Mwila, personal communication

Sources: Study of the Oil Seed Sector In Zambia: Database, 1987.
Agricultural Baseline Data fo Planning, 1983.
Zambia Agricultural Marketing Support Project: Market Potential for Fruits, Vegetables and Minor Field Crops.

Table II.2 shows the relative rural and urban population breakdown for all provinces in Zambia. Comparison with Table II.1 shows that soybean production is concentrated in a region with a proportionally higher urban population; otherwise the targeted commodities are produced in relative rural areas.

The Deloitte, Haskins and Sells study of the oil seed sector also breaks down production by size of farm. This disaggregation shows that for sunflower, the majority in each province is grown by small scale traditional (SST) farmers (89% of production in Central Province, 91% in Southern and 90% in Eastern), with small scale emergent (SSE) producers being the next most important in terms of levels of production. For soybeans, however, large scale commercial farms dominate production (91% in Lusaka Province, 70% in Southern and 75% in Central). Interestingly, small scale traditional farmers are the next largest category of producers (5% of production in Lusaka, 23% in Southern and 13% in Eastern), but their levels of production pale in comparison to the large scale commercial producers. On the other hand, groundnuts, are also favorably weighted toward small scale traditional, and small scale emergent farmers in the three regions of highest production (SST: 98% in Eastern Province, 98% in Southern and 94% in Central; SSE: 2% in Eastern, 2% in Southern and 6% in Central).

Similar data are not available for the other commodities, but rice and cassava can be examined in terms of the general distribution of farm size within the three provinces of highest production. Table II.3 presents the results of this analysis.

TABLE II.2

Total population per province and division rural/urban 1000 persons 1969, 1980: C.S.O. and 1985-2000 projections

Province	1969 Total	Rural	Urban	1980 Total	Rural	Urban	1985 Total	Rural	Urban
Central	359	293	66	514	331	183	600	365	235
Copperbelt	816	72	744	1 249	100	1 149	1 484	117	1 367
Eastern	509	496	13	656	597	59	746	662	84
Luapula	336	328	8	413	347	66	462	368	94
Lusaka	354	80	274	694	115	579	900	142	758
Northern	545	531	14	678	560	118	756	595	161
N/western	232	232	-	302	264	38	340	290	50
Southern	496	433	63	686	500	186	802	552	250
Western	410	400	10	488	425	63	526	450	76
Total	4 057	1 192	5 679	3 239	2 440	6 616	3 5[illegible]1	3 075	~~7 745~~ 6614

Province	1990 Total	Rural	Urban	2000 Total	Rural	Urban
Central	720	411	309	997	498	499
Copperbelt	1 751	135	1 616	2 430	182	2 248
Eastern	882	760	122	1 210	978	232
Luapula	526	408	118	700	507	193
Lusaka	1 108	163	945	1 581	213	1 368
Northern	867	647	220	1 167	794	373
N/Western	380	319	61	500	387	113
Southern	937	626	311	1 284	785	499
Western	574	479	95	743	591	152
Total	7 745	3 950	3 795	10 612	4 935	5 677

Source: Food Strategy Study; Ministry of Agriculture & Water Development, 1981.
ZAMS Source: Agricultural Baseline Data for Planning, 1983, MAWD

Table II.3

Farm Size Distribution for Major Rice- and Cassava-Growing Provinces

Province	Large-Scale Commercial	Medium Scale Commercial	Small Scale Emergent	Traditional
RICE				
Western	-	-	6%	94%
Northern	-	*	6	94
Eastern	*	3%	24	73
CASSAVA				
Luapula	-	*	3	97
Northwestern	-	*	5	95
Northern	-	*	6	94

* less than one per cent

Source: Ncube, P.D. in Agricultural Baseline Data for Planning, MAWD 1983.

The purpose of analyzing benefit incidence by commodity and geographic region is to point up that commodities will to some extent be self-targeting in terms of benefiting the rural poor majority, but may conflict with a geographic focus undertaken for management considerations. Thus, an emphasis on sunflower, rice and cassava is likely to have the desired positive impact on incomes of the rural poor, whereas soybean processing may be justified at least partly in terms of improving consumption and nutritional status of the urban poor. Notwithstanding the possibility of some employment generation from this activity, it must be clearly shown that urban poor consumers are, indeed, buying soy products, or can afford to buy such products, before assistance to the soybean industry is warranted. A similar analysis should be done for various types of fruits and vegetables proposed for assistance under the project at an early stage in project implementation. For example, what size of farm in which agroecological zone produces fruit, and what are the prospects for small-farm outgrowing? What size farm produces the majority of the vegetables (by major category - i.e., leafy greens, root crops, legumes, curcurbits, etc.) that are produced for the urban

market? Crops should then be selected for assistance under ZAMS that have the highest probability of self-targeting toward small-scale producers if the rural income objective is to be reached.

III. PARTICIPATION

A. Design Stage

The needs of the intended beneficiaries have guided the design of the project. The design team interviewed more than 45 people in the public and private sector, visited market places, drew on special reports undertaken as preliminary work for the design effort, and met with top government officials. Other studies and reports provided information on the needs of Zambian households and marketeers as expressed directly or indirectly by them.

B. Project Implementation

The project incorporates several mechanisms for obtaining participation to guide implementation of the project. Overall there will be a special advisory council, composed of top officials from the key GRZ ministries, which will help guide AMAG and its activities. Especially during the first year of operation, AMAG is expected to make its services widely known to potential clients through distribution of brochures, newspaper articles, radio and television interviews and contact with key organizations throughout the country. Thereafter, in regard to advisory services, feasibility studies and commodities, participation will be to a large extent through self-selection, that is individuals and firms will come forward and request assistance, thus indicating that their needs might be met by these.

The training carried out under the project will be based on operating procedures such as training needs, assessments and activity evaluations that will be specified at a Consultancy and Training Workshop which will bring together the technical staff of AMAG and in-country consultants. Such procedures are expected to include obtaining the views and needs of potential trainees, obtaining feedback from the trainees and making the requisite adjustments based on the feedback.

As part of any feasibility study for the upgrading of certain market places the views of different categories of marketeers should be sought. The users' views on the most crucial elements, such as storage and water, ought to guide plans for upgrading. Also, other feasibility studies should solicit the views of the intended participants, e.g., growers.

Under the NGO sub-project it is also anticipated that participation in growing the oil seed crop and in ownership of the oil processors will be through self-selection, although some willing participants may be turned down because they do not meet the necessary criteria. It is expected that the mode of ownership and management and of operating the processing facilities will depend heavily on the views expressed by those who will be involved and experience gained. The NGO sub-projects will include a strong monitoring component to feed into the decision-making process.

During the first year of the project AMAG will develop a monitoring and evaluation system, and identify data points required for each of its activities. For example, firms which benefit from the importation of processors ought to be required to agree in writing to provide certain baseline information, annual reports covering certain information (such as volume and value of production, and employment disaggregated by fulltime and parttime workers and sex), and end-of-project information.

IV. SOCIOCULTURAL FEASIBILITY

A. Geographic Coverage

Because the ZAMS Project is focused on improving the operational efficiency of the agricultural marketing system, implicitly the project will benefit those areas which are already integrated into this system. Even though the marketing system includes regions which are net purchasers of agricultural produce, as well as the net surplus areas, it is anticipated that most of the project inputs will be concentrated in certain regions (Central, Southern and Eastern Provinces), although, as noted above, if the project assists certain commodities such as rice and cassava, other regions will be involved. The CSE regions are already better off in terms of rural incomes and services, due to some extent to agroecological conditions which favor production of cash crops.

As discussed above in the sociocultural context section, over three quarters of the commercial farms are located in the CSE Provinces, which produce 92 percent of the sunflower seed and 52 percent of the soybeans. Thus, project inputs associated with oil seed crops will occur in these provinces. Also, it is likely that AMAG advisory services and other project commodities will be demanded from entrepreneurs taking advantage of the commercial orientation in Southern, Eastern and Central Provinces.

The project may import several small rice mills to facilitate processing in areas near production. Since rice is

grown primarily in Northern and Western Provinces, as well as Eastern, some project benefits may occur in these regions.

In regard to fruits and vegetables, since they are produced throughout the country, it is not possible to project the provincial distribution of any project benefits occurring from associated interventions. Neither is it possible to project other requests for advisory services and commodities to be filled by AMAG, nor the distribution of spare parts, tires and tubes for the transport sector. Each individual feasibility study, and the project monitoring and evaluation system, however, will incorporate aspects to document the geographic distribution of the direct and indirect project benefits.

B. Involvement of the Private Sector

The large number of small and micro-level enterprises in rural areas, as well as business activities in urban centers, testifies to the willingness and to some extent ability of Zambians to respond to opportunities that will be made available by the project. But, the small and medium sized Zambian entrepreneurs may not have the necessary management and marketing skills to expand their businesses or to diversify. Also, the willingness of entrepreneurs to invest, for instance, in agroprocessing plants, transport and storage will depend on their confidence in the GRZ not to drastically change conditions under which the private sector operates, such that their investments would be negatively affected.

Because large scale entrepreneurs already have access to resources similar to those to be provided by the project, the project is designed to assist the medium to small Zambian entrepreneurs and through NGO implemented sub-projects to help develop entrepreneurship capabilities in rural areas. Even though some of the non-ethnic Zambian business people may fall into the former category and be Zambian citizens, since most are involved in the wholesale and retail trade for non-agricultural products, it is less likely that many will request assistance from the project. When AMAG has technical assistance skills which are not otherwise available locally, it may provide services to the large firms, including non-Zambian owned firms, at commercial rates. But a minimum of 75 percent of the firms receiving project assistance are anticipated to be owned by black Zambians.

C. Group/Cooperative Ownership of Small Oil Extractors

The project contains a component in which NGOs in collaboration with appropriate GRZ entities will provide a package of inputs to establish production of sunflower oil on a commercial basis in rural production areas. The package will consist of provision of technical information to producers, business training centered on managing the agroprocessing business, and assistance to the potential owners in securing credit from existing facilities.

Experience in Sub-Saharan Africa indicates that small scale group-owned business enterprises have greater potential for success if undertaken by an existing voluntarily associated group comprised of people who have experience working together and resolving problems, and who already have some business and management skills. Because of this, great care will need to be given to site selection and the criteria used for group selection.

Currently there are at least ten "pilot" schemes experimenting with sunflower oil expressors, but these receive a high level of oversight and management assistance - for example, oil press units run by religious missions. A feasibility study comparing two of these shows a significant difference in the internal rate of return. At Sinanjola 5 groups of 6 women each have been formed. Each group works one day a week during approximately 8 hours, processing one (50 kg) bag of sunflower seed. On average they daily produce eleven bottles of .75 liters of oil and eleven cakes. In comparison, in the Kasisi mission project 6 boys are employed for 8 hours a day for five days a week. On average they process 3 bags a day which produces 33 liters of oil. Dr. Gaillard (1987), who carried out the feasibility study, concluded that both organization and quality of seed significantly affected the level of oil extraction.

Under the ZAMS Project the NGOs are expected to draw on experience gained in various pilot projects, including their own, in order to set criteria. It is expected that they note the difference between loci of ownership and loci of management; that is most of the management should probably not be done on a group basis but rather delegated or contracted to someone with experience. Otherwise, social rather than economic factors are likely to take precedence, for example, in disci lining labor. Furthermore, while several people would be willing to be an owner due to the prospects of the benefits, a much smaller proportion would have the business orientation required to help ensure that the oil expeller operation is sustainable.

D. Gender Factors

Gender factors significantly influence a woman's self-perception as well as the receptivity of males to accepting, permitting and promoting the advancement of females as well as males. Various sociocultural values, attitudes and practices that relate to women's responsibilities and roles affect the extent to which women will participate and benefit from the project.

The socialization process in Zambia has imparted a different set of roles and expectations for men and women. The highest value is placed on a female being a wife and mother, which requires that she care for her husband and home, and bear and raise children. Most men feel it is their duty to control the activities within the home including the decision as to whether or not their wives should have a job. Because of economic pressures in the family, women do enter wage employment, become self-employed or work as unpaid workers in enterprises owned by their husbands. Most women as well as men conceive of women working only in terms of assisting their husbands in supporting the home or benefiting their respective families. Very few women work because they want personal satisfaction from the work (Mwenda, 1985).

There are some obvious limitations on women working, such as the general prohibition of night work. There are also some discriminatory policies, for example, married women working in the formal sector do not receive the same housing benefits as equivalent male workers, even if the husband is not living and working in the same town. Usually financial institutions do not entertain requests for loans from married women unless the application is accompanied by a consent form signed by her husband. In regard to farmers, a male rather than female household member is usually the registered member of a cooperative society and hence has access to credit even though the females may actually produce the crops.

The ZAMS Project design takes into account the general lack of access to credit by women through its NGO sub-projects which will help groups secure loans for processing equipment and scotchcarts. Nevertheless, it is anticipated that promotional work will need to be done in the communities to gain the acceptance and permission of husbands for their wives to be involved. While the project does not prohibit men from being members of the group which owns the agroprocessor, because women perform most of the agricultural labor and are responsible for provision of food for their families, at least two-thirds of the members and the majority of committee members ought to be female. Furthermore, as part of the monitoring and evaluation of the NGO sub-projects information should be obtained on the control over the disposal of cash income earned by women, either as producers, processors or owners of the enterprise, in order to document the degree and ways women benefit from the project.

Unless the criteria for allocation of assistance from AMAG and of other project-secured commodities and the feasibility studies carried out under the project include a gender dimension, it is unlikely that a significant proportion of the direct and indirect beneficiaries from these project inputs will be women.

The project does include targets for the training of women. Thirty percent of those trained in overseas short-term courses should be female. This is considered reasonable and feasible since agricultural marketing covers a wide range of specific topics and hence covers a large potential of possible candidates. Thirty percent of the in-country short course trainees are also targeted to be females. Since women are the main food producers and traders/marketeers, the courses on relevant topics should be composed primarily of women.

V. IMPACT

In assessing potential impact of the ZAMS Project, it is important to keep in mind the overarching macroeconomic framework and the extent to which that will affect spread effect, replicability and sustainability. The issue of relative pricing for different agricultural commodities grown by farmers in Zambia is an important element. Perhaps equally important is the foreign exchange picture, which is likely to affect sustainability for those (usually smaller) individuals and firms without reliable arrangements for access to foreign

exchange. A brief analysis of each of the individual components of impact follows:

A. Spread Effect

Two kinds of spread effect could be expected from the project: (1) increased production moving through market channels improved under ZAMS; and (2) increased consumption of nutrients currently underutilized in the diet of Zambia's poor. The local-level processing equipment is less dependent on the pricing structure because it can be consumed by the producing households or bartered and need not be assigned a kwacha value. It is therefore even more likely to lead to increased oil and cake production at the local level, and may even lead to an increase in acreage allocated to sunflower seed production (i.e., more small-scale farmers actually planting sunflower, rather than a higher level of acreage per individual). Rice and cassava may have similar prospects.

Increased production of fruits and vegetables, which are not subject to the same pricing constraints as the other commodities, may occur if the demand for them increases, largely through ZAMS processing and transport interventions. Again, more farmers may enter into fruit and vegetable production if the demand is raised. However, spread effect may be negligible if a few large growers dominate expanded market share, and the project must include criteria for assistance to small-scale farmers in order to reach its goal of raising rural incomes.

Zambia has a high proportion of urban poor, whose dietary status has been worsening as inflation eats away at income, and as unemployment continues to rise. Although the ZAMS interventions are not actually likely to lower prices, they can help to hold prices steady by reducing costs in the marketing chain that would ordinarily be passed along to consumers. Spread effect in terms of nutritional benefits should be good, if marginal.

B. Replication

Unless more foreign exchange becomes available, many of the ZAMS interventions entailing imported commodities will not be replicable, and it is debatable whether, in different macroeconomic circumstances the project would be replicated using the same design approach. Under other circumstances, the local-level processing equipment, and the "package" approach to making it available, would for reasons outlined in earlier sections having to do with participation, benefit incidence and sociocultural feasibility, appear to have an excellent

chance of replication, but as they require imported raw materials, the prospects are much less positive.

The approach to considering the development of a new firm or geographic focus for market center development should be replicable using Zambian planning and implementation resources. The approach ZAMS has outlined to technical assistance may be one that other countries in the region could look to in building up their indigenous, private sector capacity for development of the agricultural marketing system. Further, the in-country training courses should also be replicable.

C. Sustainability

The fluctuations in relative prices and the chronic shortage of foreign exchange beg the question of sustainability with any of the interventions that require imported commodities. However, in terms of processes, ZAMS has a brighter outlook. For example, by the end of the project, AMAG should have developed a clientele who will be accustomed to demanding feasibility studies and technical assistance on a fee-for-service basis when setting up a business. The training may also help in assuring that firms are financially and economically viable, and that there is a larger cadre of Zambians available to carry out management functions.

D. Benefit Distribution

In terms of the equitable distribution of benefits, much will depend on the sub-activities chosen within ZAMS, all of which cannot be predicted at this time. Therefore, it will be important to build into the criteria for both feasibility studies and the design of sub-activity interventions a consideration of benefit flows and an emphasis on making them as equitable as possible, as indicated in the Benefits and Sociocultural Feasibility sections of the foregoing analysis. Overall, project activities should have as a general criterion equality of access to project inputs, and should emphasize those agricultural commodities and market structures that favor small scale producers, or alternatively, employment generation if the project goal is to be achieved.

VI. IMPLICATIONS FOR ZAMS DESIGN AND IMPLEMENTATION

A. Beneficiary Analysis in all Sub-Project Activities

Although the ZAMS Project design has established categories of activities that may be undertaken during the life of the project, it is impossible to predict in advance precisely which industries or firms ZAMS will assist, and

exactly which commodities will be targeted. Therefore, the project should establish criteria for an acceptable level and type of benefit incidence on which to base approval of each sub-project.

The beneficiary assessment should include the following minimum information:

- o types of benefits anticipated (i.e., direct income, employment, lowered costs, improved nutrition);
- o magnitude of benefits (i.e., how many beneficiaries will be reached and with what increment over heir current living standards/incomes); and
- o identity of beneficiaries, including at least these dimensions:
  - -- rural vs. urban;
  - -- farm vs. non-farm;
  - -- direct vs. indirect;
  - -- gender; and
  - -- income stratum.

All dimensions should be quantified to the maximum extent feasible.

After collection and analysis of the above data, an assessment should be made as to whether the anticipated benefits and beneficiaries are consistent with the ZAMS Project goal and purpose before a feasibility study is undertaken or a sub-project activated.

A sliding fee schedule should be established for service to AMAG clients. Criteria for the fee schedule should include relevant beneficiary characteristics as well as economic and financial viability of enterprise. Suggested criteria for maximum subsidization might include:

- o new entrants in a given entrepreneurial activity;
- o indigenous Zambians;
- o service to remote, or currently unserved geographic locations; and
- o high employment generation potential, with consequently high secondary benefit incidence.

At the same time, AMAG will have to conserve its services for those who appear to have actual potential for establishing a firm. Thus, a criterion such as proven creditworthiness or minimal entrepreneurial training and experience might be used to screen those who are unlikely to have the capacity to actualize a business proposition.

B. Assessment of Firms' Employment Policies and Practices Prior to AMAG Assistance

Related to the above issue is the question of a firm's employment policies and practices. This is particularly important in the Zambian environment in which the private sector is often viewed as exploitative. It is suggested that an early AMAG study be undertaken to provide a baseline of information on existing firms in selected industries regarding the number and types of employees, employment policies and practices, benefits, etc.

Criteria for AMAG assistance to firms should include:

- o non-discrimination in employment;
- o affirmative action for women and minorities;
- o adequate and equitable compensation and benefit packages; and
- o safe conditions of employment.

These criteria should be reflected in both firm policy and practice. In the case of new entrants proposing enterprises, AMAG should assist firms to develop appropriate and fair employment policies and monitor their implementation.

C. Package Approach to Local-Level Interventions

In view of the poor track record of past interventions (e.g., village-level hammermills), which have been introduced without appropriate information, technical assistance and training, it has generally been agreed that the establishment or enhancement of local-level processing will require the following minimal input package:

- o technology (i.e., hardware) of the appropriate scale;
- o technical assistance in:
  - -- organizing for purchase, use and management;
  - -- securing capital or credit for equipment purchase;
  - -- running the equipment;
  - -- running the business; and
  - -- allocating the profits;
- o training in:
  - -- equipment operation; and
  - -- business management; and
- o information dissemination, particularly to farmers, concerning quality control, terms under which commodities will be processed, and in some instances use of improved production technology.

Therefore, no local-level intervention should be planned under ZAMS without a package approach that includes information dissemination, technical assistance and training.

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In addition, those providing the package, whether NGOs, contracted technical assistance, the GRZ or some combination thereof, should be required to monitor the program to assure that the package is appropriate, that it is reaching the intended beneficiaries at a reasonable cost, and that it is consistent with the ZAMS Project goal and purpose.

D. Extension Services by Firms to Small-Scale Producers

In order to increase the benefit incidence and reach the ZAMS Project's objective of raising rural incomes, information and extension advice may be required to small-scale producers on both production and on-farm processing or packaging. This is mainly to assure adequate quality standards for processing of agricultural commodities, but may also include some advice, for example, on alternative farming systems that would incorporate a cash commodity (e.g., planting of fruit trees, planting a vegetable crop in the off-season or interplanting) or on use of oil seed cake for improving the condition of livestock.

It is therefore proposed that under ZAMS consideration be given to establishing a kwacha fund that would either permit an NGO (via a grant) to provide an extension advisor to a processor, or would permit the processor to hire the extension advisor directly (via a contract with AMAG). The advisor's salary should be met on a declining basis by the project and on an increasing basis by the processing firm, so that at the end of five years the firm is completely recompensing the extension advisor and has established such a position on its staff. This approach applies equally to new entrants and existing firms, including those commercial farms that wish to begin contracting with small-scale outgrowers.

E. Meeting the Foreign Exchange Needs of Small-Scale Enterprises

As has been shown in the social soundness analysis, small scale enterprises (SSEs) provide seven times the employment of large scale enterprises. A 1985 survey identified the lack of imported materials as the primary constraint to the growth and operation of SSEs. Thus, in selecting commodities to be imported under the ZAMS Project, it is important to assess the needs of the agriculturally-related SSEs to assure that they are also met.

F. Conditions of Assistance to Groups/Cooperatives

Two particular issues arise with respect to assistance to cooperatives: (1) assuring that the cooperatives are genuinely

private and truly voluntary associations; and (2) assuring that groups or cooperatives are not overextended by the provision of assistance.

The past record of management of small scale processing operations by artificially created groups is poor in Zambia. Thus, before placement of equipment with a particular group, its history and terms of incorporation should be thoroughly investigated to assure that it is a truly voluntary association that will work collaboratively toward a successful small scale enterprise. The desired impact would be twofold: (1) to broaden and make more competetive the number of market outlets for goods normally handled by cooperative unions or groups; and (2) to try to assure a higher probability of sustainability, as groups that form voluntarily for a specific purpose (e.g., oil seed processing) have a higher probability of surviving through time and remaining financially viable than an artificially created group (Esman and Uphoff 1985[?]). This criterion is also consistent with the economic objective of the project, which is to broaden the competitive nature of agricultural marketing.

Secondly, experience in Sub-Saharan Africa indicates that small scale group-owned business enterprises have greater potential for success if undertaken by an existing voluntarily associated group, that is people who have already had experience working together and resolving problems, and which already has some business and management skills. This means that, for the most part, organizations that have already managed a similar activity are the priority targets for placement of local-level processing equipment.

G. Conditionality on Purchase of Pick-up Trucks

Twenty pick-up trucks are slated for importation under the project. The primary beneficiaries of these pick-up trucks will be their purchasers, and ZAMS should condition their purchase on several criteria: (1) that preference in purchase be given to the lowest income stratum that is creditworthy (i.e., emergent farmers); (2) that the primary occupation of the purchaser be farm production or a backward or forward linkage to agricultural production; and (3) that the truck have a high probability of use in transporting agricultural materials as its primary function.

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ANNEX J
ENERGY AND ENVIRONMENTAL SUSTAINABILITY ANALYSIS

The ZAMS Project will be contributing to the sustainability of agriculture in a number of ways. The project will increase productive employment and real per capita incomes of small-scale farmers and other rural inhabitants. Components of the project will contribute to sustainable agricultural activities. Some of the project components and activities will have specific impacts on the areas in which they are initiated. When shown to be successful those activities will spread to nearby areas, and then to more distant locations.

One component of the project, the oilseed sector, will increase agricultural sustainability in a number of ways. Local processing of soybeans and sunflower seeds will reduce the transportation required and increase the availability of oil, food and animal feed at the local level, as well as increase the incomes of farmers and laborers involved in the processing.

One of the major constraints to marketing in Zambia is the lack of transport and the poor condition of the roads. By processing soybeans and sunflower seeds locally, the local demand for cooking oil and animal feed can be met without the need to transport the oilseeds to a central processing plant, and then go through the urban-based marketing system to return the items to local consumers.

One of the problems with the central processing method is that the processed items do not get back to the local producers. Without local processing, the producers may to some extent get discouraged and reduce their production of oilseeds, especially sunflowers. With local processing, both the oil and the cake can be used locally. Any surplus can be sold in adjacent areas or transported to district or provincial towns or, in the case of raw vegetable oil, it can be sent to the oil processing plant for refinement. By encouraging local production of soybeans and sunflowers, total oilseed production would be increased and Zambia will come closer to producing enough vegetable oil from domestic crops to meet the demand.

Encouraging the growing of soybeans will definitely contribute to sustainable agricultural production by reducing the need for imported fertilizer for other crops grown in rotation with the soybeans. Importation of commercial fertilizer has been a problem in Zambia since Independence. Given the existing shortage of foreign exchange (forex), the importation of fertilizer is a serious burden on the country, and a heavy drain on the limited forex. Any action that reduces the need for forex will make a contribution to the economy of the country. The contribution to be made by greater soybean production could be helpful then, both to the individual farmer and the country as a whole. The farmer that grows soybeans will need less fertilizer and thus be more able to grow crops with a minimum of external inputs.

Soybean extruders on a local level will process the soybeans ready for consumption without the need to cook the soybeans using fire wood. Fire wood shortages are beginning to appear wherever the population is concentrated. Thus the soybean extruders will reduce the pressure on the fuel wood supply and slow the rate of tree removal.

The availability of cake from the processed sunflower and soybeans will add to the agricultural sustainability in that area because the more animals there are in an area the more manure there is available for increasing crop production and also reducing the need for imported commercial fertilizers. The cake will also contribute to easing the transportation problem by providing supplementary feed for oxen used for transport. Some of Zambia's maize crop can only move from the producers' fields by ox cart. The cake can also be used for chickens, pigs and fish, again improving the self sufficiency of agriculture in the local area.

The oilseed processing equipment will improve cooperation among the people in the locality and thus make another contribution to sustainability.

Improving local incomes by processing oilseeds at the local level will reduce the tendency of people to migrate from the rural areas because of lack of opportunity and amenities. As the local incomes improve, more stores and goods will become available, thus making the area somewhat more attractive.

The sunflower crop is an ideal crop for the small farmer in many ways. It is easy to grow and requires few inputs to achieve acceptable yields. Marketing sunflower seed has been a problem in the past because of low prices, transportation problems and lack of interest by the processing companies in buying the oilseed. With local processing, these problems are solved or substantially alleviated. The price of the oilseed is of less importance if the seed is processed locally and the oil is used by the farmer or sold locally without involving transportation. There is less of a transport problem if only the surplus oil is carried from the local area and income is generated in the area by the processing. There would be no problem marketing the raw vegetable oil as there has been with selling the seeds.

Improving the fruit and vegetable marketing sub-sector will enhance farming sustainability by improving the small farmer's income and giving him alternative cash crops.

There is presently a new organization in Zambia to promote the growing of fruit, vegetables and other crops by organic methods, i.e., without the use of commercial, imported fertilizers, insecticides and herbicides. This is the ultimate in sustainable agriculture and in so far as the project assists this small movement towards organic farming, it will be contributing further to local, regional and national sustainability.

ANNEX K
PROCUREMENT PLAN

I. COMMODITY PROCUREMENT

A. Transport Sector Support

1. Description of Activity

A CIP-like activity will quickly disburse $2 million in foreign exchange to address the major constraints to agricultural marketing caused by the lack of inputs such as truck tires, tubes and spares. The objective of the assistance will be to maximize speed and efficiency in procuring and distributing these essential resources by utilizing the local private sector business and banking community in much the same way as past Commodity Import Programs in Zambia. However, a significant difference exists between this transport sector support and a traditional CIP. While a CIP primarily provides balance of payments support and quick disbursements, this activity is critically linked to the overall project objective of increasing the efficiency and productivity of agricultural marketing in Zambia. First, timing of this support is a key factor to the success of the project. Implementation will commence as soon as funds are obligated, thus helping to relieve a major impediment to agricultural marketing even prior to the arrival of the technical assistance team. In addition, counterpart funds to support initial activities of the TA team will be generated up front as transport sector importers pay the kwacha cover equivalent to the value of the imported commodities.

2. Procurement Method and Responsibilities

Procurement will be implemented under Regulation 1 procedures used extensively and successfully in past Commodity Import Programs in Zambia. A.I.D. financing will be limited to private sector importers so informal procurement procedures under Regulation 1, Section 201.23, will be utilized. As in all Regulation 1 procurements, commodities will be procured using host country contracting between importers and suppliers. Since this segment of the project will be implemented prior to the selection of the AMAG consultants, the Commodity Management Officer assigned to USAID/Zambia will have the primary responsibility to manage A.I.D.'s implementation function. USAID/Zambia will monitor issuance of the bank letter of commitment, local currency generations and programming, disbursements, and general compliance with Regulation 1 procedures.

Foreign exchange provided by ZAMS to procure eligible commodities will be allocated by the GRZ Foreign Exchange Management Committee (FEMAC). To assist with the monitoring

and implementation of the project with respect to A.I.D. rules and procedures, a ZAMS Foreign Exchange Allocation Committee will be established. The committee will review A.I.D. requirements such as importers' proforma invoices and dealership agreements to ensure that commodities proposed for importation under this project are in accordance with the terms and conditions of the grant agreement and are therefore eligible for A.I.D. financing. The committee, while having a monitoring and control function regarding A.I.D. procedures and attainment of project objectives, will be completely integrated into the established GRZ foreign exchange allocation system.

The ZAMS procurement procedure will start with an advertisement in local newspapers advising the local private sector business community that A.I.D. financing is available for truck spare parts, tires, and tubes made in the U.S. Interested parties will be advised to visit USAID/Zambia to discuss ZAMS operating procedures and to submit relevant documents such as proforma invoices, dealership agreements, etc. for review. (These documents are required by A.I.D. regulations and are not meant to duplicate the FEMAC review of documentation.) If USAID/Zambia determines that a proposed procurement is eligible for financing under ZAMS, the importer will be given a letter addressed to FEMAC to: (1) explain that A.I.D. will provide the required financing, and (2) request an expedited approval of the forex allocation through the no-funds window.

The importer will then proceed through the standard GRZ forex allocation procedure of submitting required documentation to a local commercial bank and paying the required kwacha into a suspense account at that bank. Pursuant to FEMAC approval, the importer will submit documentation substantiating that approval to USAID/Zambia. USAID/Zambia will then request the approval of the ZAMS Forex Allocation Committee for A.I.D. financing. If approved by the committee, the importer's bank will be formally advised to: (1) transfer the appropriate deposit of kwacha from the suspense account to the Special Account at the Bank of Zambia, and (2) issue a letter of credit to be confirmed through a U.S. bank at which an A.I.D. Letter of Commitment has been established.

The ZAMS Forex Allocation Committee will be comprised of a USAID/Zambia representative, a representative from the Aid and Loans Management Section (ALMS) of the Ministry of Finance, a representative of the Bank of Zambia, and a designee of the Permanent Secretary of the Ministry of Commerce and Industry. The ZAMS committee will meet on a regularly scheduled basis or as required to ensure effective implementation of the project.

In conformance with Regulation 1 informal procedures and GRZ rules, the ZAMS committee will require that the importer submit 3 offers to document that reasonable competition was solicited and considered by that importer. In conformance with

GRZ procedures, only one offer will be required for import permits under $20,000. Alternatively, an importer could submit proof that he is an authorized or exclusive dealer or distributor for a particular supplier, and thus be required to submit an offer from that supplier only.

As detailed above, requests approved by the ZAMS Forex Allocation Committee for financing under this project will follow normal GRZ channels for approval of import permits, verification of tax clearances, record keeping and monitoring by the Bank of Zambia, etc. GRZ controls will be implemented by routing forex allocations through FEMAC for approval, and through the normal import permit procedures at the Ministry of Commerce and Industry. USAID/Zambia will implement controls at several stages. Forex will be controlled by the initial USAID/Zambia authorizations for local banks to issue letters of credit, and through reports from those banks on drawdowns against the letters of credit. Also, USAID/Zambia will record local currency deposits in a Special Account ledger prior to authorizing banks to issue letters of credit. This procedure is in accord with an A.I.D. Regional Inspector General's audit of FY 1980-1985 Zambia CIPs.

The Commodity Management Officer will act as liaison between the GRZ and the importer community. REDSO/ESA will provide legal guidance and M/SER/OP will provide technical support as needed, such as review and approval of commodity eligibility, price, componentry, etc., on the A.I.D. Form 11. The Ministry of Finance or the Ministry of Commerce and Industry, as the official representative of the GRZ, will act as signatory and will be responsible for compliance by the Grantee with terms and conditions of the agreement.

Several additional issues should be addressed in this and any other Regulation 1 import program in Zambia. First, an evaluation of the FY 1983-1985 CIPs indicated certain confusion regarding the A.I.D. requirement to place insurance within the authorized source for procurement, in this case, Geographic Code 000 (U.S.). While the GRZ normally requires that all imports be insured with the Zambia State Insurance Corporation and an affiliate based in England, an automatic waiver of this rule is granted when commodities are financed under a bilateral agreement such as ZAMS. Guidance on this point must be disseminated to all importers under this project (e.g., in a pamphlet detailing how to participate as importers under the program). Second, USAID/Zambia must implement ZAMS in full agreement with GRZ restrictions with respect to routing of imports through the Republic of South Africa. Current GRZ import licenses are being issued with the restriction "This import permit is not valid for routes through the Republic of South Africa". Thus, if the GRZ continues this current policy of forbidding routing of commodities through RSA, A.I.D. must

carefully review the issue of excluding discharges of cargo at South African ports in reviewing the availability of U.S. flag vessels to lift cargoes financed under this agreement. [N.B. This issue is currently being reviewed by AID/W/GC in conjuction with M/SER/OP. The project will be implemented in accordance with their guidance.]

3. Source and Eligibility of Commodities

The source of commodities for the $2.0 million transport sector support component of this project will be the U.S. (000). Due to the focus on the transport sector, a narrow range of commodities, including but not limited to truck tires, tubes and spares, are envisaged as eligible for financing. However, any commodities related to the transport sector and contained in the A.I.D. Commodity Eligibility Listing in Handbook 15 will be included for financing as deemed appropriate by USAID/Zambia. A.I.D. will retain the right under the Forms 11 and 282 to review transactions for each commodity for eligibility, suitability, price and componentry.

4. Method of Financing

The A.I.D. standard financing procedures as specified in Regulation 1 section 201.51 will apply. The method of financing will be the bank letter of commitment - commercial letter of credit which has been successfully used in past A.I.D. import assistance to Zambia. The GRZ, in consultation with USAID/Zambia, should choose a U.S. bank to receive the Letter of Commitment and a local bank(s) to issue letters of credit through the designated U.S. bank soon after the project is approved. Otherwise, project implementation could be delayed.

In compliance with Regional Inspector General (RIG) audit guidance related to past CIPs, USAID/Zambia will authorize issuance of each letter of credit only after confirmation by the participating local bank(s) that Special Account deposits of counterpart kwacha, equivalent to the value of the importation, have been made by importers. This will facilitate a USAID/Zambia accounting system for Special Account deposits and ensure that past problems with timely deposits are avoided. The minimum value of transactions will be set at $10,000, unless authorized by A.I.D. on an ad hoc basis under unusual circumstances. However, it is expected that most letters of credit will be authorized for amounts greatly exceeding the minimum. To monitor disbursements of forex as well as Special Account deposits, USAID/Zambia will require the local participating bank(s) to provide a monthly or bimonthly report. Additional monitoring will be accomplished by review of Bank of Zambia monthly statements for the Special Account and the AID/W/FM W-214 report for forex disbursements.

5. Commodity Arrival and End-Use

Both the GRZ and USAID/Zambia have sufficient controls and systems to ensure prompt processing of commodities through customs and proper maintenance of records to satisfy requirements of A.I.D. Regulation 1. GRZ customs officials closely monitor both air and road shipments to ensure that importers clear all goods through customs quickly and in conformance with specifications and quantities authorized under import permits. Customs systematically accounts for all air shipments by matching lists of consignments provided by airlines with shipping documents presented by clearing agents. Similarly, all road shipments entering Zambia are consigned to authorized clearing agents at the borders before customs officials will allow entry into the country. Customs at the border send records of each shipment to customs officials located at destination points in Zambia where a physical inspection and clearance of goods take place in warehouses of designated clearing agents. If either road or air shipments are not cleared in 14 days, customs officials notify importers to quickly produce required documents to complete clearance procedures. In addition to the profit motive of private sector importers, customs auctions off goods not cleared, so A.I.D. rules specifying customs clearance in 90 days are generally easily met. Customs officials keep detailed records of all transactions for at least 3 years, in conformance with A.I.D. Regulation 1.

The GRZ monitors importation by matching consignments with quantities and specifications on import licenses during customs clearance. (Note that the GRZ uses a commodity classification schedule similar to the U.S. Department of Commerce "Schedule B" and the AID "Commodity Eligibility Listing". This GRZ commodity classification book can be used as a handy tool by USAID/Zambia in monitoring the import process for conformity with A.I.D. arrival accounting requirements.) As consignments are cleared, quantities are ticked off import licenses so that total imports cannot exceed those authorized. Since import licenses are built into the process of applying for forex, the GRZ system provides a complete loop to control and monitor imports. In the case of this activity, the ZAMS Foreign Exchange Allocation Committee (and USAID) will have a copy of the import permit on file. Thus, the Commodity Management Officer at USAID/Zambia will be able to monitor the A.I.D.-financed imports by also tying into this loop. Verification that eligible commodities were imported can be accomplished by comparing the import permit with records of goods cleared at customs. Due to the relatively limited amount of funds ($2 million) allocated to this activity, it is anticipated that this process and additional end-use checks at local businesses will be carried out by USAID/Zambia on a sample of transactions large enough to ensure that suitable

commodities are efficiently imported and resold within one year. If this monitoring process becomes a management burden for the Mission, a local accounting firm will be hired to carry out the work using kwacha counterpart funds.

6. Duration of Activity

It is estimated that all disbursements will be made within 12 months of obligation of funds.

B. Agricultural Marketing/Technical Assistance Support

1. Description of Activity

Procurements will directly support the ZAMS Project's technical assistance in agricultural marketing by providing imports required by AMAG clients to further their agricultural marketing activities. AMAG will be responsible for coordinating imports with clients' needs and marketing programs to insure that only appropriate commodities are financed. While any commodity on the A.I.D. Commodity Eligibility Listing deemed appropriate by AMAG and USAID/Zambia would be eligible for financing, it is expected that commodities such as the following will be imported.

- o Small-scale food processing equipment;
- o Small-scale sunflower oil expellers;
- o Ancillary equipment for soybean extruders;
- o Equipment to establish small-scale juicers;
- o Ancillary storage for the above processing units;
- o Spares for existing food-processing equipment;
- o Spares and service for new processing equipment;
- o Equipment to improve the utilization of existing installed capacity;
- o Steel and other items for local manufacture of oilseed expellers and scotchcarts;
- o Coolers to extract field-heat from fresh produce;
- o Equipment for on-farm packing and handling sheds;
- o Refrigerated storage units (cool rooms);
- o Spare parts for U.S.-made road graders;
- o Miscellaneous items such as: tarpaulins, scales, trolleys, cash registers and safes.

The spare parts for graders will be the subject of a feasibility study. If determined appropriate, rehabilitation of graders could be implemented by a local dealer of U.S. road graders, e.g., the Caterpillar authorized representative. The activity could be implemented under a separate local currency agreement with the Ministry of Decentralization acting on behalf of various district councils which have the responsibility for maintaining key systems of agricultural

feeder roads. The agreement for rehabilitation would be in kwacha to pay for materials, labor and profit to the dealer. One alternative might be to provide the Caterpillar dealer with a forex allocation sufficient to bring in kits of parts to (1) rebuild deadlined Cat graders and (2) provide normal maintenance for three years. USAID/Zambia could then work out the local currency agreement with the Ministry of Decentralization (on behalf of district councils) to provide kwacha sufficient to pay the Caterpillar dealer for actual rehabilitation work and a 3 year maintenance contract. Estimated forex costs per unit are in the range of $35,000, as opposed to $114,000 for a new unit landed in Zambia. The forex cost per unit for the maintenance spares could run around $5,000, making a total forex cost to the project of $40,000 per unit. Local currency costs per unit are estimated at K464,000. This would be comprised of K320,000 to cover the dealer's local currency cost of importing the necessary rehabilitation and maintenance spares, K60,000 to cover rehabilitation costs and K84,000 to cover 12 quarterly service checks under the 3 year maintenance contract.

In accordance with Regulation 1, incidental services will be eligible for financing if specified in the purchase contract and if offered at the prevailing price. Under this activity, these services, defined as supervision of installation or erection of equipment or training of personnel in operation and maintenance, are expected to be an integral part of specialized training provided by the project.

The concept behind this procurement activity is that people learn best by doing, in this case, with proper guidance in good commercial practice provided by AMAG. Although AMAG will have a typical consultant's role in assisting clients to determine what to buy, and if necessary, in helping to solicit competitive quotations, the clients will be the buyers. In a similar manner to importers under the Transport Sector Support activity, clients will request that letters of credit be issued to suppliers and will be responsible for tracking shipments, customs clearance, arrival accounting and installation/start-up of equipment financed by A.I.D. AMAG will provide any necessary assistance in its role as marketing consultant to train clients in these procurement functions comprising good commercial practice.

2. Procurement Method and Responsibilities

To facilitate easy access to the private sector, informal procurement procedures under A.I.D. Regulation 1 will again be used. Thus, importers of commodities approved by AMAG will be able to participate in an A.I.D.-financed program in which the rules and regulations follow normal commercial channels. While this is project assistance with a clear focus on furthering

specific agricultural marketing objectives, the aim is also to stimulate private sector activity and train clients in good commercial practice. Informal procurement procedures under A.I.D. Regulation 1 are ideal for this activity because they require only that clients solicit offers from a reasonable number of suppliers and fairly consider each offer received. Alternatively, if a local private sector business is an exclusive dealer of a supplier, only one quotation will be required, without a waiver of competition. As explained under the Transport Sector Support activity, this process is in conformity with normal GRZ procedures so the project should be easily learned by AMAG's private sector clients. While they are not a major thrust of the project, any public sector clients of AMAG (e.g., provincial cooperatives) would be required to use competitive bidding in accordance with provisions of Regulation 1 and Handbook 11 as applicable. AMAG's role in the procurement process will be relative to the degree of the client's procurement experience. While they are not expected to comprise a major portion of AMAG's clients, some local firms may be relatively sophisticated in commercial practice and will require little if any procurement assistance/training from AMAG. With these more experienced clients AMAG will only review commodities for suitability. On the other hand, AMAG will assist clients inexperienced in international trade to solicit and evaluate quotations, apply for import permits, establish letters of credit, track shipments, clear goods through customs, start-up equipment, etc. Likewise, AMAG will monitor competitive bidding procedures used by public sector entities to ensure that all A.I.D. rules and regulations are followed. An up front determination will have to be made on a case-by-case basis by AMAG and USAID/Zambia as to whether institutions such as coops are public or private sector. It is recommended that the major criterion in this determination be the function of the organizations which have a public/private sector split of ownership. If these institutions operate along private sector, profit making lines, they should be treated as private for implementation of this project.

Clients will pay the kwacha equivalent of the value of imported commodities, along with any consultant's fees owed for AMAG services, into a Special Account. Consultant's fees will be negotiated by AMAG with each client, based on the client's ability to pay. The fee will include helping with the procurement process, as well as with consulting on technical and management aspects of the activity unde. consideration. In the course of assisting clients to procure certain items, it may be necessary for AMAG to enlist the services of the U.S.-based home office coordinator of the project to do market research and obtain quotations on behalf of the client. The prime contract for technical assistance will include a component for home-office backstopping of the ZAMS project;

this component will include time for assisting in the procurement function as well as for technical backstopping.

While the type of assistance offered by AMAG is unusual under procurements governed by A.I.D. Regulation 1, it is necessary in this case for several reasons. First, problems in securing adequate competition from U.S. suppliers could arise among less experienced importers due to the potentially complex nature and variety of imported commodities necessary to support agricultural marketing ventures. Second, problems in adherence to good commercial practice could arise in isolated instances due to the possible inexperience and lack of sophistication of clients new to the field of agricultural m rketing and international procurement.

AMAG will have primary day-to-day procurement implementation responsibilities (similar to those of the Commodity Management Officer under the Transport Sector Support Activity). To assist AMAG in this monitoring function, it is suggested that USAID/Zambia request data management assistance from REDSO/ESA to help AMAG install a commodity procurement tracking system similar to the one established at USAID/Zimbabwe. A.I.D. will maintain normal review procedures contained in the Forms 11 and 282 to ensure the eligibility and suitability of commodities. In addition, the Commodity Management Officer at the Mission, the Regional Legal Advisor and M/SER/OP will be available to offer any required assistance. The Ministry of Finance or the Ministry of Commerce and Industry will represent the Grantee and have responsibility for compliance by the GRZ with terms and conditions of the agreement. Forex allocations will once again be reviewed by the ZAMS Foreign Exchange Allocation Committee, with one exception. AMAG will be represented in the group. FEMAC will again approve foreign exchange allocations.

3. Source and Eligibility of Commodities

The source of commodities will be primarily the U.S. (Code 000). However, as required to meet project objectives, commodity procurement from Code 935 will be allowed, subject to written concurrence of USAID/Zambia. (Code 935 includes the Free World.) As a Schedule A post under DOA 551, USAID/Zambia will exercise authority to implement DFA procurement authorities in accordance with A.I.D. policies and procedures. Therefore, source/origin waivers are not included in this project paper.

The Mission has established this procurement plan to assure that purchases are made from the U.S. to the maximum extent practicable. The Mission will implement the expanded procurement tracking system CIMS which should be on line by the time procurements under this activity commence around July

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1989. While Code 935 is authorized for DFA-funded procurements, we believe that most non-U.S. equipment will have their source/origin in the more restrictive Geographic Code 941 where small scale technology is appropriate. (Code 941 includes the developing countries.) These items would most likely be comprised of village rice mills, cassava chippers, small scale oil seed expellers and extruders, components for scotchcarts, and spares for this group. Pick-up trucks would fall under the Southern Africa blanket vehicle waiver. Other items expected to be financed under the project, such as large scale oil seed expellers and extruders, commercial canning equipment, seeds, packaging equipment and grader spares, are available in the U.S. Although commodities to be financed will primarily be those listed above in the Description of Activity, any commodities included in the A.I.D. Commodity Eligibility Listing will be eligible for financing if deemed appropriate by AMAG, USAID/Zambia, and the Ministry of Commerce and Industry.

A.I.D. will again exercise standard reviews and approvals of commodity eligibility, suitability, price and componentry by using the Forms 11 and 282. However, M/SER/OP has advised that it wishes to transfer the Form 11 review of non U.S. commodities to the Mission.

4. Method of Financing

A.I.D. standard financing procedures as specified in Regulation 1, Section 201.51 will apply. The method of financing will be a bank letter of commitment - commercial letter of credit. To alleviate the administrative burden, transactions and letters of credit will not be approved for less than $10,000, unless authorized by USAID/Zambia in special cases. An attempt will be made to consolidate small value procurements into larger units such as bulk importation by cooperatives of small scale oil expellers for resale to coop members. Consolidation of requirements into larger transactions, such as through cooperatives which serve a multitude of small enterprises as well as individuals, will reduce administrative efforts and greatly increase the efficiency of distributing small value items. USAID/Zambia will be responsible for coordinating with the Ministry of Finance or Ministry of Commerce and Industry to establish the bank letter of commitment and identify a local participating bank(s). Counterpart fund deposits into the Special Account would be jointly monitored by AMAG and USAID/Zambia using statements issued by the participating local bank(s) and the Bank of Zambia, and an in-house accounting system to record local currency deposits as letters of credit are approved by AMAG. Forex disbursements would be monitored using the W-214 and reports from the participating local bank(s). All other monitoring functions undertaken by USAID/Zambia under the Transport Sector Activity will be carried out by AMAG.

5. Commodity Arrival and End-Use Monitoring

AMAG will utilize GRZ customs reports and import licensing procedures and physical checks, as described under the Transport Sector Support Activity, to monitor the efficiency of the customs clearance process, the actual receipt of what was financed, and its timely utilization. However, an additional step in the AMAG monitoring process would be necessary to ensure that commodities were effectively used by clients to achieve the specific objectives of the various agricultural marketing activities. It is anticipated that U.S. PVO's and local NGO's will be involved in this reporting function.

6. Duration of Activity

It is estimated that for agricultural marketing support $1.1 million will be disbursed in FY-89, $2.5 million in FY-90, $1.7 million in FY-91 and $0.4 million in FY-92.

C. Technical Assistance Team Support

1. Description of Activity

As explained above, the AMAG team will operate as a marketing consultant with an office in Lusaka. This technical assistance will be provided by a U.S. organization which will be expected to subcontract with a local consultancy. The local firm will provide specialized technical knowledge and the type of experienced logistic support which can only be provided by an established enterprise familiar with Zambia. AMAG will operate under the umbrella of the Ministry of Commerce and Industry.

2. Procurement Method and Responsibilities:

The purpose of subcontracting with an established local firm is to gain from its existing expertise and resources in the environment where the project will be implemented. Experienced logistic support will be a primary contribution by the local firm and will substantially modify the way in which equipment in support of the AMAG team will be acquired. It is envisaged that the local firm will be responsible for the provision of an office, vehicles, office furniture and equipment, personal computers, office supplies, and most other logistics required by AMAG to operate as a consultant. The solicitation will stipulate that the contractor (subcontractor) shall provide required resources as specified in the RFP and will ask for the rate at which those resources will be charged by the contractor throughout the duration of the contract. In effect, contractors will be including physical as well as human

resources on a time-rate basis in their proposals. While major items would be paid for on a time-rate basis, it is recommended that consumables such as office supplies, utility bills, etc., be provided on a cost reimbursement basis.

This procedure will provide a number of significant advantages. First, a private sector firm already in business in Zambia will undoubtedly be able to provide items such as vehicles and office equipment more quickly and efficiently than could USAID/Zambia or a traditional TA consultant purchasing on behalf of a grantee using Handbook 11 or 14 procurement rules. Since AMAG will only exist for this project, it will be more efficient and cost effective to require the contractor to come to the job with all necessary resources, and leave with everything once the work and project are completed. One restriction on the equipment supplied by the contractor should be contained in the RFP. Institutions submitting proposals should be advised that all equipment being provided by the contractor for logistic support to the project should have its source and origin in countries included in A.I.D. Geographic Code 935 (Special Free World).

Another advantage is quicker and more efficient mobilization. Prospective contractors can start making tentative arrangements for necessary logistics with local subcontractors during the preparation of proposals. This will also encourage prime contractors to subcontract with local firms with a proven record for logistics support as well as technical capability, and should relieve the Mission of past problems like maintenance and safeguarding of vehicles.

This method of acquiring logistical support places a main element of project success directly into the hands of AMAG and removes the USAID/Zambia Executive Officer from the past purchasing and troubleshooting role. While it is expected that the Executive Office will still provide housing and security for prime contractor staff, a tremendous load of day-to-day monitoring will be transferred from the Mission to the contractor.

A final plus to the arrangement is the objectivity and comparability in evaluating proposals. Quality versus cost of required physical resources can be evaluated in the same way as for human resources and other components of a proposal. An example based on recent USAID/Zambia project implementation experience will illustrate the cost effectiveness of this concept. A comparison will be made between the cost of vehicles provided by the construction contractor under the Kafue-Chirundu Road Project and the cost of purchasing similar vehicles under the ZATPID project. Under the road construction project, the local contractor is providing Datsun pick-ups and maintaining each of them for $1,395 per month throughout the 18 month duration of the contract. Thus, the total cost to the project is $25,120 per vehicle ($1,395 per month x 18 months).

Similar light weight vehicles were procured under the ZATPID project at approximately the same time. The CIF Lusaka cost was approximately $18,000. However, this did not include the high maintenance cost and the administrative burden on USAID/Zambia. Thus, to adequately compare buying against a lease style arrangement, several increases in cost must be included in the $18,000 price of ZATPID vehicles. The staff time by USAID/Zambia in procuring and tracking the shipment, if charged at overhead rates applied by technical assistance contractors or procurement services agents, would increase the cost by at least $1,000 to a total of $19,000. If one adds in all the other intangibles involved with the ZATPID vehicles over an 18 month period such as safeguarding, hiring and firing costs and salaries of drivers, replacing stolen or damaged vehicles, etc, the $19,000 cost of purchasing actually comes out to a figure well in excess of $22,000.

To compare the cost of buying against having the contractor provide equipment, it is necessary to reduce the $25,120 cost for the vehicles under the construction contract to allow for annual maintenance provided in this lump sum. At a conservative figure, under rugged conditions, spares, tires, labor etc., would actually cost at least $2,000 per year. This cost would amount to $3,000 for the duration of the construction contract. The actual cost to the construction project would therefore be reduced by approximately $3,000 to $22,000.

It is difficult to fine tune all of the cost savings gained by transferring the administrative burden away from USAID/Zambia due to theoretical impediments such as accounting for differing project lives in comparative cost calculations. However, it is clear from our experience that having the contractor provide vehicles and other logistic support facilities, at least in this instance, will provide a simpler and more cost effective method of acquisition. Since the provision of vehicles and other materials to support the TA team is so small in proportion to the main thrust of commodities under this project, it will be prudent to relieve A.I.D. of the administrative burden so total effort can be directed toward project objectives.

3. Source and Eligibility of Commodities, Other Issues

Source and eligibility criteria for technical assistance team support are not applicable as the prime contractor will provide all resources from his (or his subcontractor's) own inventory. Any requirements under Section 636(i) of the Foreign Assistance Act, as amended, to utilize U.S.-made vehicles will be covered under the Southern Africa blanket waiver.

Other issues such as the method of financing, commodity arrival and end use monitoring will be the sole responsibility of the contractor/subcontractor.

II. PROCUREMENT OF TECHNICAL SERVICES

As discussed elsewhere in the paper, long-term technical services will be required to form the Agricultural Marketing Advisory Group (AMAG). These services will be provided by contracting with a U.S. institution (consulting firm or university). The RFP will stipulate that a certain portion of the technical assistance and all local logistic support services will be performed under a subcontract with an established local agricultural marketing consultant firm resident in Zambia. The philosophy behind the U.S. prime and local subcontracting arrangement is to (1) utilize those strengths in advanced technology available in the U.S. and (2) gain from and support the unique specialized technical expertise, knowledge of the local agricultural marketing environment, and experienced logistic support and institutional capability of an established local private sector firm. It will be important that the chief of party, who must be provided by the prime contractor, have significant agricultural marketing and project implementation experience in developing countries (preferably in Africa). All long-term technical assistance personnel should have relevant experience in developing countries. Long-term professional personnel provided by the local subcontractor should have relevant experience in Zambia. The prime contractor must be able to provide both technical and commercial market research/analysis services in the U.S. and areas in the developing world where transfers of appropriate technology may be made applicable to the scenario in Zambia. The prime contractor must have access to a wide range of short-term technical experts in project-related areas.

The prime contractor should subcontract with a local firm which has the capability to provide four of the six professionals on the AMAG, as well as the required administrative and support staff. If the firm resident in Zambia is able to provide only three of the six professional staff, special justification will have to be provided as part of the contractor proposal. The local subcontractor should also have the ability to provide required logistic support facilities such as an office, vehicles, office furniture and equipment within one month after the arrival of the chief of party. Since the physical facilities, excluding the office, will be provided from the inventory of an established firm, this timeframe is realistic. (The office set up by AMAG will be a separate office facility from that of the in-country subcontractor.)

A direct contract is proposed because the nature and function of AMAG will be best suited to a contractual relationship not tied closely to any one given ministry. While AMAG will fall under the purview of the Ministry of Commerce and Industry, it will function as a consulting enterprise and will draw its clients predominantly from the local private sector. However, officials from the Ministry of Commerce and Industry have expressed a strong interest in the activity because it furthers GRZ objectives to improve agricultural marketing efficiency and the development of various types of agricultural small-scale enterprise.

The AMAG team will be composed of six professionals, three administrative specialists, and a support staff of drivers and secretaries as required. For further details on the exact technical make-up of AMAG personnel see the illustrative scopes of work at the end of this annex. Additional clarification on the functions of the group are included in Section I.B.2 of this annex and in Annex G: Administrative Procedures and Analysis.

In soliciting proposals for the technical assistance, the RFP should provide specific information on a number of key issues. The intent of the project is to place as much emphasis as practicable on utilizing local expertise and local currency funding. This is especially relevant for the composition of the proposed team. The evaluation criteria will be weighted heavily in favor of those proposals including not more than 2 expatriates. Likewise, in the provision of logistic support such as office space, office furniture, etc., by the contractor, the evaluation criteria will be weighted in favor of those proposals with a higher portion of costs to be paid in kwacha. The proposed relationship between the contractor-subcontractor vis-a-vis required local logistic and technical support must be clearly spelled out in the RFP to allow the prime contractor to establish a proposed subcontract with a competent local firm. Details of the institutional analysis of local enterprises with appropriate expertise should be provided to those firms which will submit proposals.

Proposals will be jointly evaluated by the GRZ, USAID/Zambia, REDSO/ESA, and AID/W. For further details on the time frame for the procurement of the AMAG group, and their mobilization/demobilization, see Section V, Implementation Plan, Subsection F, Implementation Schedule.

Short-term technical assitance will be provided by the prime contractor. It is envisaged that, in addition to the International Executive Service Corps (IESC), short-term assistance be drawn from institutions such as U.S. PVOs, local

NGOs or GRZ agencies. Preference will be given to local institutions in the selection of short-term technical assistance.

The RFP should also define the proposed inter-relationship between AMAG and institutions which will provide short-term technical assistance. In particular, prospective firms submitting proposals should be advised of the availability of a certain number of person months of technical assistance in various aspects of agricultural marketing to be provided under separate financing through IESC (to be determined prior to issuance of the RFP). To assist with preparation of proposals, the RFP might also present a listing of institutions which have Zambian expertise in areas relevant to project objectives since it is envisaged that they will be an integral part of the AMAG effort to disseminate information and appropriate technology. PVO's will also assist with project implementation, monitoring and reporting.

The design team has reviewed options for participation of Gray Amendment entities in the implementation of the project, including joint ventures or sub-contracts with larger firms and/or institutions. The USAID/Zambia Mission Director certifies, by submission of this PP, that the Project's procurement plan was developed with full consideration of maximally involving such organizations in the provision of required goods and services and that the project is appropriate for minority or Grey Amendment contracting. Involvement of Gray Amendment organizations will be determined through the procedures for open competition and the selection criteria included in the RFP. The CBD notice and the RFP for this activity will contain the following statement:

> "A.I.D. encourages the participation to the maximum extent possible of small business concerns, small disadvantaged business concerns, and women-owned small business concerns in this activity as prime contractors or sub-contractors in accordance with Part 19 of the Federal Acquisition Regulation. In this respect, it is anticipated that A.I.D. will make every reasonable effort to identify and make maximum practicable use of such concerns. All selection evaluation criteria being found equal, the participation of such concerns may become a determining factor for selection."

An illustrative set of job descriptions of the six person AMAG professional staff follows:

* Senior Agricultural Marketing Specialist: This individual will be the Chief of Party for the ZAMS Project team. He/she will have the following four principal responsibilities:

(1) interacting with the ZAMS Advisory Council, Commerce and Industry, SIDO, VIS, participating PVOs and NGOs, as well as the various clientele groups requesting services from AMAG in ways that facilitate the attainment of the Project's goal and purpose;

(2) ensuring that the eligibility criteria for marketing activity selection are met and that AMAG services are available to clientele groups on an equitable basis;

(3) managing the implementation of the technical assistance, training and commodity procurement components of the ZAMS Project; and

(4) working with the USAID/Zambia Project Officer to ensure the successful implementation of the Project. Specifically, the Chief of Party will seek USAID/Zambia's concurrence on: (a) the proposed use of kwacha funds which exceeds a level determined by the USAID/Zambia Mission, (b) proposed use of all foreign exchange under ZAMS, (c) proposed client and activity selection based upon financial, economic and social criteria established for the Project (see Economic and Social Soundness criteria in Section III. D.), and (d) annual budgets and workplans for AMAG. The Chief of Party will also report to the USAID/Zambia Project Officer on: (a) suggested internal administrative arrangements for AMAG, (b) the use of kwacha funds which fall below a level determined by the USAID/Zambia Mission, (c) the need to initiate non-funded PIO/Ps by the USAID/Zambia training officer for out of country training, (d) quarterly accounting statements of AMAG's revenues and expenditures, (e) partial fee waiver justifications for AMAG clients, if any, (f) review of technical performance of team members, and (g) periodic assessments of the contribution of Operational Program Grant (OPG) or counterpart currency funded Private Voluntary Organizations (PVOs) to the accomplishment of ZAMS Project's goals.

* Agricultural Engineer: The agricultural engineer will provide a broad range of expertise needed to address a range of anticipated engineering needs. In particular, this expertise will be required to address problems related to scale-appropriate processing capabilities for commodities such as sunflowers, soybeans, fruits, vegetables, breads and weaning foods as well as for input manufacturing capabilities related to small-scale farm implements. The engineer will also be responsible for identifying appropriate transportation and storage technologies related to food preservation, such as through the establishment of the mechanical backbone of a cold chain for perishables.

* Food Technologist: The food technologist will provide the team with the capability to identify new product formulations in such product areas as breads, locally-based weaning foods and processed fruit and beverages which are economically viable to produce, affordable to consumers and nutritionally beneficial. This individual will also be responsible for identifying food handling and processing activities which will improve the healthfulness of important foods (e.g., oils with lower levels of aflatoxin). Moreover, the food technologist will ensure that sanitation and safety considerations are reflected in both food handling and food processing interventions.

* Transportation Specialist: This individual will deal primarily with existing transportation problems and to some extent with storage problems. The specialist will be responsible for identifying appropriate on and off-road, rail, sea and air transportation interventions which address particular problem areas and with infrastructural problems related to roads and road maintenance. He/she will work closely with the mechanical engineer on storage problems as they relate to the transportation chain.

* Management and Training Advisor: This individual will identify improved management practices which can be supported through various training programs offered both in Zambia and abroad. Moreover, this individual will also identify training and educational programs which are appropriate for improving the ability of private and public sector employees to analyze both general and specific agricultural input and commodity subsector problems.

* Procurement Specialist: The procurement specialist will provide interpretation of A.I.D. Handbooks 1 B and 15 and A.I.D. Regulation 1, will develop equipment requirement/specifications, will analyze potential equipment suppliers and carry out market research and solicitation of quotations as required. As is required by the varying sophistication of clients, the specialist will assist clients in the evaluation of offers. This individual will also be responsible for assisting clients in the application process for import permits in Zambia and no-funds forex allocation procedures, in the establishment of commercial letters of credit and liaison with the banking community, in tracking procurements, and filing insurance claims. Experience will be required in dealing with international shipping, including freight forwarders and local clearing agents, as well as a working knowledge of the Zambian customs clearance process, arrival accounting and receiving/inventory of equipment.

ANNEX L
TRAINING PLAN

The purpose of training is to enable individuals, workgroups, and organizations to perform their assigned functions adequately. The ZAMS Project accomplishes this through in-country workshops, consultancies and on-the-job training (OJT) and through external learning opportunities in the United States and third countries.

I. IN-COUNTRY ACTIVITIES

One of the first activities will be a Project Implementation Workshop which will be conducted for key representatives of government agencies and other organizations that will be involved in implementation of the project. The goal of the workshop will be to clarify project implementation and monitoring roles of the various parties who are directly responsible for project execution and of those whose cooperation and understanding of the project will indirectly impact on the successful attainment of project objectives.

A similar activity will be a Consultancy and Training Workshop which will bring together the technical staff of AMAG (American and Zambian) and other in-country consultants (e.g., individuals from UNZA and MSB) who may be called upon to provide consultancies and training. This workshop will be used to clarify working relationships, to establish standard operating procedures (e.g., training needs assessments, resource assessments, activity evaluations), and to assess consultancy and experiential training skills. This may result in a series of follow-up programs in-country or in the region to develop the capacity of indigenous groups to provide consultancy and training services to the government and local firms.

These two types of workshops are critical because, in the first instance, it will establish a basis of mutual understanding and for managing the project and, in the second instance, will develop Zambian expertise for carrying on technical assistance after the project terminates.

Other training and consultancy activities will be stimulated by the identification of performance problems that result from inadequate understandings and skills in carrying out organizational and individual functions. These problems may result, for example, from skill deficiencies, task assignment inefficiencies, workgroup process problems, and organizational arrangements. Those who will be trained will be from selected groups of farmers, cooperative members, private marketing and processing firms, equipment dealers, market traders, and relevant government organizations. The AMAG staff, in consultation with the ZAMS Advisory Council, will establish procedures for determining and documenting training needs and for the recruitment and selection of participants for in-country training and consultancy.

Areas for training and consultancy will be in technical areas such as storage, processing, packaging, and assembly, and in management areas such as inventory control, bookkeeping, accountancy, delegation, and performance appraisal.

II. EXTERNAL TRAINING

Long-term (i.e., academic) training is planned for GRZ officials who will occupy positions upon return that are key in the development of the nation's agricultural marketing system. In addition to formal education, this group of participants may be brought together during their studies in the U.S. for practical management or experiential methods training with other Zambian colleagues sent to the U.S. to participate in the same short-term training program. Such a training event helps bridge the gap in understanding and expectations that arise when individuals are overseas and separated from their organizations for an extended period of time.

Short-term (i.e., non-degree) training of up to three months will be provided to individuals working in the government, agricultural marketing firms, and training organizations. Selection of participants will depend upon the analysis of training needs and performance improvement opportunities. As with in-country training, short courses--either in the U.S. or in other countries such as India, Kenya, Nigeria or Mexico--will be offered to persons with the expectation that they will return with knowledge and skills not only to improve their individual performances but also the performances of workgroups with which they are associated.

III. IN-COUNTRY TRAINING RESOURCES

There are training institutions in Zambia that could be utilized in implementing the in-country training program and which provide some of the courses required as part of their regular offerings. From past experience these institutions are willing to provide training even when adjustments or modifications in course content may be required to fit specialized needs. Nonetheless, the ZAMS Project likely will need to provide some training in experiential and interactive methods and in course design using these methods. This will require, at least initially, short-term technical assistance to conduct experiential training workshops and to work alongside Zambian counterparts as they begin to apply experiential training designs and methods.

Also, while in most cases the physical facilities are quite adequate, assistance will be required in obtaining the appropriate instructional materials and equipment. The stated desire by local institutions and the GRZ is to encourage the development of local capacity to provide appropriate training on an on-going, sustainable basis. USAID/Zambia supports this objective and views the ZAMS Project as a means for strengthening local training resources.

Some of the local institutions traditionally used or proposed for in-country training are the Cooperative College, Management Services Board, ZIMCO Institute of Management, Zambia Institute of Technology (now part of the Copperbelt University), ZCCM, PAID/ESA and the President's Citizenship College in Kabwe. In order for those in the provinces and rural areas to avail themselves of the training, these instititions could be requested to provide some of the training in conjuction with cooperative unions, private voluntary organizations, provincial governments, or other such organizations with access to facilities in or near small towns or villages.

A. Cooperative College

The Cooperative College in Lusaka is the center for cooperative education and training in Zambia with the overall objective of promoting cooperative leadership. The college is the venue for educational activities related to cooperative management and administration. Participants in the College courses are drawn from the cooperative movement throughout the country.

The College has good physical accommodations for training small to medium sized classes. It has four classrooms with a capacity of 30 each, additional small group meeting rooms, a range of audio visual equipment, dining and sleeping facilities for 94 and a well equipped library (8,000 volumes) on cooperative-related subjects.

USAID/Zambia recently sponsored an Agricultural Marketing course at the Cooperative College, implemented by the National Cooperative Business Association. The experience in offering the course resulted in first-hand information on the strengths and constraints in utilizaing the College. The constraints are minor compared to the benefits and can be easily corrected in the future during the planning phase. Timing is the critical element in working with the College in order to fully utilize College resource persons and facilities and to ensure the level of participation desired from the trainees. Outside trainers will be required to work with College trainers to ensure a successful program.

B. Management Services Board

The Management Services Board (MSB) is a training, consultancy and research firm based in Lusaka. Since 1981 it has grown in its ability and willingness to foster sound management practices through management training for parastatals and other sectors of the Zambian economy. Over the past three years it has shown an admirable willingness to be responsive to the management needs as they relate to the GRZ efforts to restructure the economy.

In their established training program, they offer courses in areas such as financial management and accounting, marketing management, export management, agricultural and transport management, marketing research and forecasting and a host of other topics relevant to the ZAMS Project. They are also flexible enough to respond to specific client requests for tailored programs.

MSB has worked in collaboration with other national and regional organizations, such as the Eastern and Southern Africa Management Institute (ESAMI) in Arusha, Tanzania, to offer increasingly attractive and relevant courses.

C. ZIMCO Institute of Management

The ZIMCO Institute of Management, about 15 kms. outside Lusaka along the Kafue Road, was established specifically to address the management needs of those parastatal companies that fall under the Zambia Industrial and Mining Corporation (ZIMCO), the holding company for more than 109 parastatals. It offers general management and business technique courses and what is categorized as Functional Management courses, which includes transport and marketing management relevant to the ZAMS Project. In order to respond to the current and on-going crisis in transportation, the Institute has just introduced courses leading to the qualifying examinations of the Chartered Institute of Transport. ZIMCO is recognized as a leading institution for management training in Zambia.

D. Pan-African Institute for Development/ East and Southern Africa (PAID/ESA)

PAID/ESA was created in 1979 and serves 15 countries in eastern and southern Africa. PAID's efforts are specifically targeted to support rural development activities and has among it offerings a course in the management of small-scale enterprises which addresses general business and management topics, market research, and export marketing.

PAID's strength may lie in in its long involvement in designing and implementing appropriate courses for rural communities and may be helpful to ZAMS in ensuring the participation of specific target groups in interactive training programs.

E. Other Training Resources

Training facilities are available in the Copperbelt, such as those associated with the Zambia Consolidated Copper Mines (ZCCM) and the Zambia Institute of Technology (ZIT) which has recently been placed under the auspices of the new Copperbelt University (formerly the University of Zambia, Ndola campus in Kitwe). The Kasisi Agricultural Training Center (KATC) is one of the more promising agricultural training centers in Zambia. KATC has a small staff and modest facilities, but its

orientation toward creating and testing appropriate technology (e.g., the "Flintstone" scotchcart) merits support. Farm Training Institutes (FTIs) at the provincial level have reasonably good facilities for training small farmers. Also, the Monza and Mpika Colleges of Agriculture have very good facilities which might be used to train groups of people in the areas where these are located.

In Lusaka, the National Institute for Public Administration has staff which might be used for certain types of training, plus facilities. The Commonwealth Youth Center at UNZA would be a good facility for workshops of up to 50 or 60 persons.

The President's Citizenship College in Kabwe is often utilized for in-country training programs; other venues for training are some of the country's lodging and resort areas which have conference or training facilities such as Musungwa Lodge in the Kafue National Park, Siavonga and hotels in Livingstone.

IV. EXTERNAL TRAINING RESOURCES

ESAMI, the Eastern and Southern Africa Management Institute located in Arusha, Tanzania, has conducted courses in Zambia in collaboration with local institutions--most recently with MSB. ESAMI has established relevant courses as a result of its familiarity with management-related problems of the region. Representatives of the institute have made concerted efforts to stay abreast of problems and developments in Zambia and appear well prepared to respond to requests for assistance in training in many of the areas identified under the ZAMS Project.

MAMC, the Mananga Agricultural Management Centre headquartered in Mhlume, Swaziland, is extending its training services to the region--most recently in Malawi where it is conducting management training for an A.I.D.-funded project with the Ministry of Agriculture. MAMC is being encouraged to intensify its outreach program and continues to be a recipient of World Bank and European donor assistance. As the institutional name implies, development of agricultural organizations and firms is its primary focus.

IITA, the International Institute of Tropical Agriculture located in Ibadan, Nigeria, is considering the delivery of certain courses in the region. An IITA course that relates to the ZAMS Project is the Food Crops Utilization and Nutrition course which is concerned with household utilization of crops and with small scale oil processing and extraction.

ICRISAT, the International Crops Research Institute for the Semi-Arid Tropics based in Andhra Pradesh, India, is opening a training center in Zimbabwe as a way of responding to SADCC needs. ICRISAT will be working in Zimbabwe on such areas as food grain storage.

MDC, the Management Development Centre, Khartoum, Sudan, conducts courses in general and financial management and conducts management and financial audits for businesses and parastatals. Over 40% of its clientele in the Sudan are businesses, a few of which are agricultural enterprises. The Centre is structured somewhat along the lines of MSB but has considerable autonomy in terms of budget allocation and income generation. It was established by Trinity College, Dublin, Ireland, which may have a relationship to the Institute of Public Administration which is conducting management training in Zambia. The Centre is staffed with persons who are well trained in experiential training methods and who have been working the local agricultural university in developing technology consultancy and management programs for businesses in the Sudan. The ZAMS Project might use consultants and trainers from MDC and, at the same time, promote intra-African linkages that could be mutually beneficial.

In a similar vein, there are management institutions such as the Institute of Development Management in Mzumbe, Tanzania, and the Institute of Development Management in Gaborone, Botswana, with expertise that could be employed in the ZAMS Project with the secondary objective of building professional networks within Africa. Equally, there are agricultural universities with specializations such as Sokoine University, Morogoro, Tanzania, which is developing expertise in agricultural mechanics for the SADCC area and might be called upon for assistance.

IMI, the International Marketing Institute located in Cambridge, Massachusetts, schedules a six week Marketing Management Program in Boston each summer. Topics include product policy concepts, new product development, sales management, pricing, forecasting, etc. The program usually is comprised of participants from many countries and uses experiential methods such as case studies, study groups, skill building exercises and company visits. IMI also delivers tailor-made courses overseas, most recently in Burma where 43 executives attended a three week marketing management program focused on export marketing.

The Kellog Graduate School of Management, Northwestern University, Evanston, Illinois, conducts executive management courses in the summer each year. In addition, it provides overseas technical assistance at a nominal cost through a graduate internship program. MBA graduate students can be requested to provide consultancies and to develop/lead training programs.

Land O'Lakes, Inc., Arden Hills, Minnesota, delivers stateside and, occasionally, overseas agribusiness management training. The U.S.-based courses are restricted to no more than a dozen participants so that attention can be given to individual needs. The program is oriented toward cooperative agribusiness management and focuses on such topics as financial management, managing human resources, time management, communications, strategic planning, production management, and sales managment.

The International Center in cooperation with the School of Business Administration, California State Polytechnic University, Pomona, offers a private enterprise development/new venture creation workshop in April-May in the U.S. It is aimed at persons working for the government or large firms who wish to start their own enterprises. No prior education in business is required. Topics covered include problem solving, situation and environmental analysis, small firm policy formulation, governmental relations, financial planning and financial statements, and market analysis.

AMI, the Atlanta Management Institute, Atlanta, Georgia, is a new firm which most recently conducted a women's enterprise development workshop for A.I.D. It is an African-owned endeavor, staffed with experienced trainers, some of whom were formerly involved with the Institute of Training and Organizational Development, University of Pittsburg. AMI has established an office in Dakar, Senegal, and plans to continue both a U.S. based and African based outreach program.

In May 1988, the National Cooperative Business Association, Washington, DC, conducted a cooperative marketing course and executive seminar in Zambia. The final report prepared by NCBA demonstrates that the firm has a good feel for the contraints related to marketing in the country and that it can deliver the kind of participatory, experiential training envisaged by the ZAMS Project.

USDA/OICD/ITD, the U.S. Department of Agriculture, Office of International Cooperation and Development, International Training Division, Washington, DC, has received direct Congressional funding to develop a middle-income training program. This program ties together resources in the USDA, such as the Agricultural Marketing Service and the Food and Drug Administration (for exposure to the process of formulating governmental policy, standards, and grading regulations), with U.S. university resources (such as Rutgers for horticulture and Cal Poly, Pomona, for agribusiness), and with U.S. industry (visits to processing firms are most frequently requested, but there are limits to which U.S. industry will reveal processing technology).

More than 110 U.S. universities offer academic degrees in agribusiness and 22 U.S. universities have academic programs in agricultural technologies (see Peterson's Guide to Four-Year Colleges, 1987, available in the Training Office, USAID/Zambia). Nearly 100 non-degree programs of two weeks to nine months are offered by U.S. universities and organizations in the areas of general business management, accounting, banking and finance, executive development, financial management, human resources management, industrial management, international business, marketing and sales management, and technology management (see Institute of International Education's Specialized Study Options in the U.S.A., 1986-1988, also available in the Training Office).

V. MANAGEMENT OF ZAMS TRAINING

The Management and Training Specialist on the AMAG team will have primary responsibility for managing in-country and external training activities and seeking assistance for the planning and delivery of training. For long-term training in the U.S., the ZAMS Project might use the services of A.I.D.'s Office of International Training which has two subcontractors--Partners for International Education and Training (PIET) and the USDA/OICD/ITD. PIO/Ps can be prepared in collaboration with the Training Office and sent to OIT asking it to forward the documents to one of the subcontractors. U.S.-based short-term training could be handled in the same manner.

Alternatively, ZAMS could contract directly with a stateside organization (e.g., a major university, USDA/OICD/ITD). The advantage of such an arrangement is that it tightens the lines of accountability and allows the project to establish performance standards in the contract (e.g. timeliness of cable responses and AETR submissions, thoroughness of TIPs). The contractor selected must have access to and familiarity with three types of U.S. training resources--agribusiness, organizations with training capability in agribusiness and agritechnology, and U.S. government. In addition the contractor must be able to identify, orient and manage short-term T.A.s, some with technical agricultural expertise and others with experiential training expertise. An able stateside contractor would certainly lighten the administrative requirements associated with U.S. based training and could also help backstop the AMAG team with in-country training.

Short-term training to be conducted in Third Countries is somewhat more complicated. Some USAID Missions have had experience in receiving participants from other USAID Missions, but most are not staffed to handle large numbers of participants and to keep updated on capabilities of local training institutions. Therefore, the ZAMS Project will have

to make direct inquiries of selected institutions for consulting or training services with copies of inquiry to the local Training Office in the Receiving Mission. For this reason, institutions such as ESAMI, MAMC, IRRI and ICRISAT are attractive resources as they have established residential training programs for foreign participants.

In-Country training programs are even more management intensive. The logistics, training needs assessments, and local resource arrangements require the development of contracting and coordination mechanisms that are effective and equitable. For this reason, the Consulting and Training Workshop will be a critical step in launching the project. The project will utilize consultants to design and conduct this initial workshop.

VI. SUMMARY OF ZAMS TRAINING PLAN

Tables 1, 2, and 3 in Section III of the Project Paper summarize the ZAMS Training Plan.

ANNEX M

FINANCIAL PLAN

This annex provides six tables detailing the project's financial plan. Table I provides a financial plan summary denominated in dollars for the LOP. Table II contains a schedule of A.I.D. obligations in dollars by fiscal year. Table III details the A.I.D. projected accrued expenditures in dollars by fiscal year for A.I.D.-funded activities. Table IV identifies the sources of local currency by fiscal year denominated in Zambian kwacha. Table V details the projected expenditures of this local currency by fiscal year in Zambian kwacha. Finally, Table VI provides a listing by fiscal year for A.I.D.-financed commodities in dollars. The totals in Tables III to VI are rounded numbers.

The technical assistance costs were based on other USAID/Zambia-funded projects and prevailing local costs. S&T/IT estimates were used to calculate participant training costs for U.S. training. All commodity costs estimates were based on vendor price lists and informal quotations. Evaluations, studies, and contingency were estimated based on USAID/Zambia's prior experience. Contingency for dollar costs was calculated at roughly 5.25% per annum beginning in FY 88. Inflation for dollar costs was calculated a rate of 5% per annum, beginning in FY 88 for obligations and FY 89 for expenditures.

TABLE I:. FINANCIAL PLAN SUMMARY
($ 000)

ITEM	A.I.D. (FX)	PRIVATE SECTOR 1/ (LC)	GRZ 2/ (LC)	TOTAL
Technical Assistance	2,368	100	3,406	5,874
Training	1,786	50	62	1,898
Transport Sector Commodities	2,000	0	0	2,000
Agricultural Marketing Commodities	6,700	0	0	6,700
T.A. Support Commodities	363	0	0	363
Infrastructure Development	0	0	8,241	8,241
Evaluations/Audits	190	0	0	190
Studies	165	0	190	355
Inflation & Contingency	1,428	0	5,951	7,379
TOTAL	15,000	150	17,850	33,000

Host Country Contribution as a Percentage of the Project's Total is 55%.

1/ Refers to in-kind contributions only.

2/ GRZ contribution is derived mainly from local currency counterpart funds. The counterpart funds include the dollar equivalent of ZK69.6 million ($8.7 million) for commodities and ZK 1.1 million ($0.138 million) for technical assistance and training generated from private sector payments and fees.

TABLE II: A.I.D. OBLIGATIONS SCHEDULE, BY FISCAL YEAR
($ 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
Technical Assistance	1,855	170	0	343	0	0	2,368
Training	950	745	91	0	0	0	1,786
Transport Sector Commodities	2,000	0	0	0	0	0	2,000
Agricultural Marketing Commodities	2,114	3,195	715	676	0	0	6,700
T.A. Support Commodities	363	0	0	0	0	0	363
Evaluations/Audits	0	0	60	130	0	0	190
Studies	50	67	26	22	0	0	165
Contingency (5.25%)	287	285	60	81	0	0	713
Inflation (5.0%)	381	223	48	63	0	0	715
TOTAL	8,000	4,685	1,000	1,315	0	0	15,000

TABLE III: FINANCIAL PLAN - A.I.D. PROJECTED ACCRUED EXPENDITURES BY FISCAL YEAR
($ 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
Technical Assistance	0	348	719	669	471	161	2,368
Long-Term	0	209	462	462	374	121	1,628
Short-Term 1/	0	139	257	207	97	40	740
Participant Training	0	337	555	504	307	84	1,786
Long-Term	0	144	288	216	72	0	720
Short-Term	0	193	267	288	235	84	1,066
U.S.	0	84	105	126	126	84	525
Third Country	0	24	32	32	24	0	112
In-Country	0	85	130	130	85	0	429
Transport Sector Commodities	500	1,500	0	0	0	0	2,000
Agricultural Marketing Commodities	0	1,120	2,453	1,699	1,035	394	6,700
Oilseeds	0	396	495	693	297	99	1,980
Fruits and Vegetables	0	186	608	406	300	120	1,620
Transportation	0	275	1,000	75	0	0	1,350
Other Interventions	0	263	350	525	438	175	1,750
T.A. Support Commodities	0	63	75	75	75	75	363
Office Rent	0	12	24	24	24	24	108
Vehicles	0	25	25	25	25	25	125
Office Furniture & Equipment	0	6	6	6	6	6	30
Computer Equipment	0	2	2	2	2	2	10
Household Furniture & Appliances	0	18	18	18	18	18	90
Evaluation/Audits	0	0	30	90	30	40	190
Studies	0	45	60	30	30	0	165
Contingency (average 5.25%)	34	193	212	169	93	11	713
Inflation (5%)	0	187	213	168	106	40	715
TOTAL	534	3,793	4,317	3,404	2,146	805	15,000

1/ Up to $400,000 can be retained by USAID/Zambia to support the dollar costs of U.S. PVOs.

TABLE IV: LOCAL CURRENCY SOURCES BY FISCAL YEAR
(Zambian Kwacha 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
1. Generations from Commodity Sales	4,000	20,956	19,624	13,592	8,276	3,152	69,600
Transport Sector	4,000	12,000	0	0	0	0	16,000
Agricultural Marketing	0	8,956	19,624	13,592	8,276	3,152	53,600
2. Generations from Services Sales	0	278	505	413	200	74	1,469
Short-Term Technical Assistance	0	258	475	383	180	74	1,370
Short-Term Training	0	20	30	30	20	0	100
3. Private Sector In-Kind	0	150	325	300	250	175	1,200
Technical Assistance	0	100	250	200	150	100	800
Training	0	50	75	100	100	75	400
4. GRZ In-Kind	12	44	59	52	44	31	242
5. Account 846 1/	10,957	11,673	13,363	18,026	13,276	4,194	71,490
TOTAL	14,969	33,100	33,877	32,383	22,046	7,626	144,001
TOTAL (US$ equivalent)	1,871	4,138	4,235	4,048	2,756	952	18,000

1/ USAID/Zambia and the GRZ program local currency counterpart funds on a "first-in, first-out" basis. Therefore, it is estimated that much of the local currency used to support project activities will be derived from generations from previous A.I.D. funded programs/projects. The total amount in item 5 reflects the net draw down from Account 846 after accounting for generations under the ZAMS project.

TABLE V: LOCAL CURRENCY EXPENDITURES BY FISCAL YEAR
(Zambian Kwacha 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
1. Technical Assistance	0	5,171	7,759	9,209	5,120	791	28,049
AMAG Professional Staff (4)	0	1,000	2,000	2,000	320	160	5,480
AMAG Support Staff (8)	0	273	430	430	390	345	1,868
AMAG Logistical Support	0	164	234	234	176	113	921
Local Cost Support	0	131	290	290	232	73	1,016
Private Sector In-Kind Support	0	100	250	200	150	100	800
IESC	0	703	1,055	1,055	352	0	3,164
Other U.S. PVOs	0	900	1,200	1,500	900	0	4,500
Zambian NGOs	0	1,900	2,300	3,500	2,600	0	10,300
2. In-Country Training	0	98	156	164	147	92	655
Trainer Salaries	0	8	13	10	8	3	40
Per Diem	0	14	24	19	14	5	76
Transportation	0	11	19	15	11	4	60
Training Facilities	0	4	6	5	3	1	19
Training Materials	0	11	19	15	11	4	60
Private Sector In-Kind Support	0	50	75	100	100	75	400
3. Infrastructure Development	14,000	15,500	13,175	10,850	8,525	3,875	65,925
Road Repairs	0	6,200	4,650	4,650	3,875	2,325	21,700
Market Construction	10,000	4,650	3,100	2,325	1,550	0	21,625
Market Rehabilitation	4,000	1,550	1,550	775	775	0	8,650
Storage Facilities	0	3,100	3,875	3,100	2,325	1,550	13,950
4. In-Country Studies	0	320	480	400	240	80	1,520
5. GRZ (In-Kind)	12	44	59	52	44	31	242
Personnel	12	24	24	24	24	24	132
In-Country Training	0	20	35	28	20	7	110
6. Contingency (6.8%)	957	1,443	1,477	1,412	961	333	6,584
7. Inflation (47%)	0	10,525	10,771	10,296	7,010	2,425	41,027
TOTAL	14,969	33,100	33,877	32,383	22,046	7,626	144,001

TABLE VI: AID COMMODITIES 1/
($ 000)

ITEM	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	TOTAL
TIRES, TUBES, SPARES, ETC.	500	1,500	0	0	0	0	2,000
OILSEEDS							
Sunflower Oil Expellers		20%	25%	35%	15%	5%	
500 Hand-operated	0	(100)	(125)	(175)	(75)	(25)	(500)
at 1000 each	0	100	125	175	75	25	500
20 Elec/Diesel-operated	0	(4)	(5)	(7)	(3)	(1)	(20)
at 30,000 each	0	120	150	210	90	30	600
Soybean extruders	0	(2)	(3)	(4)	(2)	(1)	(10)
at 65,000 each	0	130	163	228	98	33	650
Spare Parts	0	40	50	70	30	10	200
Sunflower seeds	0	6	8	11	5	2	30
SUBTOTAL	0	396	495	693	297	99	1,980
FRUITS AND VEGETABLES		15%	20%	30%	25%	10%	
Rivonia expansion	0	6	18	16	0	0	40
Rivonia Canning Unit	0	0	10	0	0	0	10
Fruit Juice Processors	0	(4)	(5)	(8)	(6)	(3)	(25)
at 30,000 each	0	113	150	225	188	75	750
Cool-room hardware	0	(2)	(2)	(3)	(3)	(1)	(10)
at 20,000 each	0	30	40	60	50	20	200
Reefer Trucks	0	(1)	(1)	(2)	(1)	(1)	(5)
at 50,000 each	0	38	50	75	63	25	250
Vegetable Seeds	0	0	0	30	0	0	30
Spare Parts	0	0	100	0	0	0	100
Packing/Handling equipment	0	0	240	0	0	0	240
SUBTOTAL	0	186	608	406	300	120	1,620
TRANSPORTATION							
Pick-up trucks (4WD)	0	(10)	(10)	0	0	0	(20)
at 20,000 each	0	200	200	0	0	0	400
Scotchcart Components	0	(150)	(200)	(150)	0	0	(500)
	0	75	100	75	0	0	250
Spare Parts for graders	0	0	(20)	0	0	0	(20)
at 35,000 each	0	0	700	0	0	0	700
SUBTOTAL	0	275	1,000	75	0	0	1,350
OTHER INTERVENTIONS		15%	20%	30%	25%	10%	
Village rice mills	0	(15)	(20)	(30)	(25)	(10)	(100)
at 5,000 each	0	75	100	150	125	50	500
Cassava chippers	0	(2)	(2)	(3)	(3)	(1)	(10)
at 25,000 each	0	38	50	75	63	25	250
Miscellaneous items	0	150	200	300	250	100	1,000
SUBTOTAL	0	263	350	525	438	175	1,750
TOTAL COMMODITIES	500	2,620	2,453	1,699	1,035	394	8,700

1/ Excludes technical assistance support commodities.

ANNEX N

Initial Environmental Examination

Project Country: Zambia

Project Title and Number: 611-0214: Zambia Agricultural Marketing Support (ZAMS)

Funding: FY88 through FY91
Grant $15,000,000

IEE Prepared by: James G. Snell
Mission Environmental Officer

Environmental Action Recommended:

Positive Determination_____

Negative Determination XXX No adverse actions affecting the environment

(See justification attached)

Action Requested by: Ted D. Morse
Mission Director
Date: 3/18/88

Concurrence: X
Bureau Environmental Officer
Bessie L. Boyd, AFR/TR/ARD

Approved: X

Disapproved:_____

Date: 04/06/88

Clearances: GC/AFR [signature] 4/19/88
M.A. Kleinjan

USAID/Zambia/AD: L.A. Dean
USAID/Zambia/PDO: A. Van Egmond

Initial Environmental Examination

Description of Project

Zambia is facing serious problems in the marketing of it agricultural products. Part of the problem lies in inappropriate macroeconomic policies, part in inappropriate sectoral policies and part in the inefficiency of the operational aspects of agricultural marketing. The proposed $15,000,000 project will address the issues by providing technical assistance, training and commodities to the agricultural marketing subsector. To the extent possible, the assistance will be directed towards the private sector.

The commodities to be procured under the project are processing machinery and equipment, storage and materials handling equipment, trucks, and small spare parts. None of these commodities are expected to impact negatively on the environment as all have previously been imported into Zambia and contribute to the existing functioning economic structure. The TA and training will have no impact on the environment.

Recommended Environmental Action

In accordance with AID Regulation 16, paragraph 216.2(a)(2)(iii), a negative determination is recommended on this activity.