

PROJECT AUTHORIZATION

Name of Country: Zaire Name of Project: Area Food and Market Development
 Number of Project: 660-0102

1. Pursuant to Section 103 of the Foreign Assistance Act 1961, as amended, I hereby authorize the Area Food and Market Development Project, 660-0102, for Zaire, involving planned obligations of not to exceed \$15,000,000 in grant funds over a six year period from the date of authorization subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange costs for the project. The planned life of the project is ten years from the date of initial obligation.
2. The project consists of technical assistance, commodity, and training support to Bandundu-area non-governmental organizations to improve their capacity to extend improved planting material and agronomic practices, and to disseminate improved agricultural processing technologies in rural areas. The project will facilitate marketing in the area by identifying transportation infrastructure needs, and, possibly, by developing a marketing credit institution. Project funds will also be directed to area secondary towns to improve such functions as are deemed critical to rural development.
4. Commodities financed by A.I.D. under the project shall have their source and origin in the United States except as A.I.D. may otherwise agree in writing. Except for ocean shipping the suppliers of commodities or services shall have the United States as their place of nationality, except as A.I.D. may otherwise agree in writing. 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.
5. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement, the Cooperating Country shall furnish 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 8.3. of the Project Agreement, and of any additional representatives together with a specimen signature of each person specified in such statement.

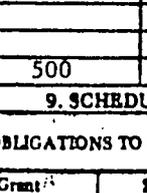
Clearances:

A. D/DIR, ASLezin _____
 B. JRivera, PRM _____
 C. RKing, CONT _____
 D. HLBraddock, DEO _____
 E. RJPeters, ARD _____

Signature

Richard L. Podol
 Richard L. Podol
 Director, USAID/Zaire

Official File Copy

AGENCY FOR INTERNATIONAL DEVELOPMENT		1. TRANSACTION CODE A A = Add C = Change D = Delete		Amendment Number		DOCUMENT CODE 3					
PROJECT DATA SHEET				2. PROJECT NUMBER 660-0102		3. PROJECT TITLE (maximum 60 characters) Area Food and Market Development					
COUNTRY/ENTITY Zaire				BUREAU/OFFICE AFR							
PROJECT ASSISTANCE COMPLETION DATE (FAED) MM DD YY 02 01 95				7. ESTIMATED DATE OF OBLIGATION (Under "B" below, enter 1, 2, 3, or 4) A. Initial FY 85 B. Quarter 2 C. Final FY 90							
8. COSTS (\$000 OR EQUIVALENT \$1 =)											
A. FUNDING SOURCE		FIRST FY			LIFE OF PROJECT						
		B. FY	C. L/C	D. Total	E. FY	F. L/C	G. Total				
AID Appropriated Total											
(Grant)		(500)	()	(500)	(15,000)	()	(15,000)				
(Loan)		()	()	()	()	()	()				
Host Country			1,340	1,340		10,000	10,000				
Other Donor(s) Local NGOs						1,000	1,000				
TOTALS		500	1,340	1,840	15,000	11,000	26,000				
9. SCHEDULE OF AID FUNDING (\$000)											
APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT			
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan		
ARDN	100	000				15,000		15,000			
TOTALS						15,000		15,000			
10. SECONDARY TECHNICAL CODES (maximum 8 codes of 3 positions each)							11. SECONDARY PURPOSE CODE				
240		021		023		039		041		070	
SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)											
A. Code		BRW		BSW		PVOU		PVON		TECH	
B. Amount											
PROJECT PURPOSE (maximum 480 characters)											
<p>To increase agricultural production, marketing, and processing in Central Bandundu.</p>											
SCHEDULED EVALUATIONS						12. SOURCE/ORIGIN OF GOODS AND SERVICES					
Interim		MM YY		MM YY		Final		MM YY			
02 87		02 92		09 94							
						<input checked="" type="checkbox"/> 000		<input type="checkbox"/> 941		<input type="checkbox"/> Local <input type="checkbox"/> Other (Specify)	
AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment)											
17. APPROVED BY						18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR A/D/W COMMENTS, DATE OF DISTRIBUTION					
Signature:  Title: Mr. Richard L. Podol Director USAID/Zaire						Date Signed: MM DD YY 12 16 95					
						MM DD YY					

AREA FOOD AND MARKET DEVELOPMENT PROJECT
(660-0102)

Table of Contents

I.	PROJECT SUMMARY.....	3
	1. Purpose, background, and description.....	3
	2. Summary of other project aspects.....	4
II.	PROJECT RATIONALE AND LOCATION.....	5
	A. Rationale.....	5
	B. The Project Area.....	10
III.	PROJECT DESCRIPTION.....	16
	A. Project Goal.....	16
	B. Project Purpose.....	17
	C. Project Beneficiaries.....	18
	D. Project Elements.....	19
	1. The Project Implementation Unit (PIU).....	20
	2. Intermediate Management Organizations (IMOs).....	21
	3. Production.....	23
	4. Processing.....	27
	5. Marketing.....	29
	6. Research and Information.....	31
	7. Training.....	36
	8. Role of Area Towns.....	41
	9. Project Outputs.....	43
IV.	PROJECT MONITORING AND EVALUATION ARRANGEMENTS.....	45
	A. Baseline, midline, and endline studies.....	45
	B. Evaluation Schedule.....	46
	C. Monitoring Summary.....	48
	1. Implementation Monitoring.....	48
	2. Project Management Monitoring.....	48
	3. Micro Impact Monitoring.....	49
	4. Project Area Monitoring.....	49
V.	PROJECT ANALYSES.....	50
	A. Technical Analysis.....	50
	1. Agronomy.....	50
	2. Production.....	50
	3. Processing.....	51
	4. Farming Systems Research.....	52
	B. Financial Analysis.....	53
	C. Social Analysis.....	56
	D. Economic Analysis.....	57
IV.	ADMINISTRATIVE ARRANGEMENTS.....	58
	ANNEXES.....	following page 61

BEST AVAILABLE DOCUMENT

PART I: PROJECT SUMMARY

1. Purpose, background, and description

This project is designed to contribute to AID's central objective of meeting the needs of the poor majority through sustainable and broadly based economic growth. It will be sited in Bandundu, one of the nine regions of Zaire. Central Bandundu is one of the two areas currently designated for concentration of USAID's development assistance to agricultural production in Zaire (the other being Shaba Region).

The goal of this project is to raise the standard of living of the rural population of central Bandundu. It shares this goal with the companion Agricultural Marketing Development Project (660-0098) initiated in FY 1984.

The purpose of the project is to increase agricultural production, marketing, and processing in central Bandundu. This area is, by Sub-Saharan African standards, densely populated and agriculturally productive. The main food crops are cassava, corn, peanuts and other grain legumes, oil palm nuts, and rice. Other crops include coffee, fibers, rubber, and vegetable crops.

Traditionally, farming and land use systems in the Bandundu region were stable, ecologically sound, and efficient. The population/land ratio and predominantly subsistence production permitted the extended fallow period required by the slash and burn system of agriculture. Although soils in the region are generally poor in organic matter and nutrients and are often unstable, they provided adequate yields under traditional conditions.

However, the average density of the rural population in the project area has increased, rising from 18 inhabitants per km² in 1970 to 26 inhabitants per km² in 1982. This has led in many places to a significant increase in the surface area under cultivation and to a soil-depleting shortening of the fallow period.

The project will mobilize 10 to 15 intermediate management organizations (IMOs), including local PVO's and private firms, as the mechanisms for delivery of development assistance. It will work with organizations that: (1) are innovative and development oriented; (2) have long been established in the region; and (3) will continue long after the end of the project. This project will expand their capacity to provide agriculture-related training and extension services, to obtain support goods and services, trained personnel, and appropriate technologies and credit, and to facilitate the processing and marketing of surplus production. In short, the project will strengthen the existing institutional and physical infrastructures in a way that will promote sustainability and reinforce commitment to the agricultural development of the region.

Initial interventions and participating organizations will be based on the results of ongoing marketing, institutional, and household income/consumption surveys to be completed during the first year of the project. The project will work first with one institution (in effect a prototype for subsequent institutional collaboration), carefully assess the

BEST AVAILABLE DOCUMENT

success of initial interventions, and then gradually expand the number of participating institutions and refine the interventions. Continuous appraisal through ongoing research of the effectiveness of the various project activities will enable flexible and appropriate responses to problems and opportunities as they arise.

2. Summary of other project aspects

a. Grantee. The grantee will be the Government of Zaire. The project agreement will be negotiated with the Department of Agriculture and Rural Development.

b. Financial summary and term of project. The project will begin in FY 1985 and terminate in FY 1995. Total life of project costs are estimated at \$26,000,000. A.I.D. will provide \$15,000,000, the GOZ, \$10,000,000, and local non-governmental organizations, \$1,000,000.

c. Summary findings. The technical, economic, and financial analyses indicate that the project is technically feasible, economically viable, and financially sustainable.

d. Project issues. Three major issues were identified during the AID/W review of the project: (1) the nature and capacities of the local implementing organizations; (2) the ability of these local organizations to assume post-project recurrent costs; and (3) USAID's capacity to manage the project. These issues are addressed in the project paper and were resolved as follows: (1) the local organizations vary widely in capacity; the project team will tailor a program to develop the management and technical skills of each participating institution; (2) post-project recurrent costs will range from eight to ten thousand dollars a year per IMO; this sum is well within the capacity of the missions with which the project will work; (3) project management will require 75 percent of one USDH's time; this burden can be assumed within present and projected personnel ceilings.

e. Bidders for the main institutional contract (technical assistance) may include, but will not be limited to, small, disadvantaged, and women-owned firms, as this would prejudice the success of the project. It is anticipated that such firms will, in any case, provide a significant portion of the short-term technical assistance planned.

f. Waivers required. Waivers will be sought on a case by case basis to purchase commodities that are not available from the United States. Total non-US purchases are not expected to exceed one percent of total life of project costs.

g. Major conditions precedent and covenants. Project support to individual IMOs will not begin until formal agreement is reached outlining the respective roles and responsibilities of the IMO and the project implementation unit.

h. Project team members: The project team will consist of five members, as follows:

- (1) a chief of party, who will be a development management specialist;
- (2) an executive officer, who will be an administration, procurement and personnel management specialist;
- (3) an extensionist/sociologist;
- (4) an agronomist; and
- (5) a research and information specialist.

BEST AVAILABLE DOCUMENT

PART II: PROJECT RATIONALE AND LOCATION

A. Rationale

Over the past decade the Government of Zaire has initiated a number of programs to improve agricultural sector productivity. The Agricultural Recovery Plan aims to increase food production to attain nutritional self-sufficiency through improved research, extension, transportation infrastructure, and services. At the same time, the GOZ has come to recognize, both in policy and practice, that effective outreach to rural areas depends on private enterprise and the PVO communities. Two-thirds of the country's schools and four-fifths of its rural health zones are administered or supervised by private voluntary organizations, and much of the effective agricultural extension is done by agro-industrial firms. These organizations receive only policy guidance and minimal financial support from the GOZ.

The GOZ's macroeconomic reforms of 1982 and 1983 included the lifting of price controls on agricultural products, the removal of restrictions on interregional trade, a major devaluation and, equally importantly, a shift to a floating (market) exchange rate. These measures have eliminated built-in subsidies of imports and shifted the rural-urban terms of trade in favor of rural areas. While further reforms in the agricultural sector, such as the complete elimination of the practice of imposed crops, are still desirable, the overall macroeconomic climate is much improved.

The Bandundu Region is one of the most agriculturally productive regions of Zaire. Since the opening of the paved road from Kinshasa to Kikwit in 1978, Bandundu has eclipsed Bas-Zaire as the largest supplier of basic foodstuffs to Kinshasa. Its existing transportation links to Kinshasa, as well as to secondary cities in the two Kasais and Shaba, permit the marketing of its surplus production towards these demand centers. Nonetheless, increased production, marketing, and processing of the area's agricultural production is severely constrained by the poor state of the road and river transportation network, by the dearth of high-yield disease-resistant varieties of basic crops, by the absence of effective agricultural extension services, and by the unavailability of appropriate processing equipment and mechanical know-how.

USAID concentrates its development assistance to Zaire in those priority sectors where it can make the most significant contribution, especially agriculture and health. In the Bandundu region, USAID's activities are mutually supportive in their impact. This project will be the capstone of USAID's program in Bandundu. It will use existing local non-governmental organizations to extend improved agricultural production, marketing, and processing technology to the small farmers and traders of the project area. Urban functions that support rural development will also be strengthened under the project. The improvements to river and road infrastructure of the area will be supported by the companion Agricultural Marketing Development Project (660-0098), and by two ongoing Agricultural Marketing Development Projects (660-0026 and 660-0028). The Area Food and Market Development Project will support and be supported by activities undertaken by the Basic Rural Health (660-0086), the Area Nutrition Improvement (660-0079), the Private Voluntary Organization Economic Support (660-0097), the Applied Agricultural Research

and Outreach (660-0091), the Fish Culture Expansion (660-0080), the Combatting Communicable Childhood Diseases (698-0421), and the Family Planning Services (660-0094) Projects. These projects are working closely to improve the capacity of local organizations to extend basic services in the project area.

The activities to be undertaken through this project will be coordinated with other donor and GOZ activities in the area. These will include CODAIK, the IDA-assisted Kwango-Kwilu Integrated Agriculture Development Company, which is the authority responsible for coordinating the agricultural, rural, and economic development of the Kwango and Kwilu sub-regions of Bandundu.

The goal of the project is to raise the standard of living of the rural population of central Bandundu through the strengthening of local organizations' technical and administrative capacities to extend the benefits of improved agricultural production practices and inputs, rationalized marketing services, and enhanced processing and storage to small farmers and merchants. This goal is consequent upon USAID strategy in Zaire as well as consistent with GOZ development objectives.

The experience of USAID in Zaire, notably in northern Shaba, has been that coordinated interventions to upgrade transportation infrastructure and to provide improved plant material can lead to dramatically increased production and, through increased competition among traders and lower transport costs, higher farmgate receipts. This immediately benefits the producing target group and, through the incentives for continuing production increases, can benefit the national economy. Research and extension work undertaken by PRONAM (Programme National Manioc) indicates that yields can be increased by 40 to 100 per cent through the use of improved varieties and practices. The introduction of appropriate processing equipment and practices decrease spoilage and can increase the value added that is retained in rural areas. Higher prices, increased production, and improved processing raise farmer incomes, improving rural welfare while enlarging the market for manufactured goods. The production and income increases in household food and cash availability reduce vulnerability to malnutrition and financial distress.

Bandundu plays a critical role as a supplier of food to Zaire's major consumption center, Kinshasa, and to other urban centers to the east and southeast. The relatively high population density of the project area limits the yield increases that can be achieved using traditional agronomic practices, or by expanding the total area under cultivation. If present patterns of land usage continue, many areas of Central Bandundu will experience falling agricultural production and income, gradual impoverishment, and increased levels of outmigration, particularly of youth and males. At the same time, declining yields associated with soil depletion will reduce the region's exports to urban centers and increase Zaire's dependence on imports to meet demand for basic foodstuffs. Parts of the project area are already suffering high levels of malnutrition and declining yields. The project area's dual role of providing a livelihood for its 850,000 inhabitants and serving as a breadbasket for Kinshasa cannot be sustained without a concerted effort to improve agricultural production, marketing, and processing.

Within the project area is an extensive network of development-oriented non-governmental organizations. These predominately religious organizations have a variety of programs in the priority areas of education, health, and agriculture. The network of such organizations provides a solid institutional basis for the introduction of new agricultural practices and technologies.

In addition to the considerations of market access, population pressure, malnutrition, declining yields, and viable local development institutions, Bandundu was chosen as an area of concentration for USAID because project activities can be monitored and supported without imposing an unacceptably onerous management burden on USAID. Appendix 4 provides a detailed description of sites considered for the project, and lists the criteria applied.

The marketing system of the project area is complex: On the one hand a substantial volume of surplus production passes through a series of middlemen (traders who walk or ride bicycles, regional traders in small trucks, wholesalers in Kikwit, transporters from Kinshasa, and Kinshasa wholesalers and retailers); on the other hand many Kinshasa traders buy directly at the farmgate. High margins are the rule: for example, farmers receive between 20 and 40 % of retail price for their manioc. Preliminary analysis suggests, however, that for most crops merchant market power plays an insignificant role in explaining the spread. High costs are a result of poor availability of parts and fuel, deteriorated infrastructure, and the need for skilled mechanics and managers to effectively market the area's production. Credit is available to the larger, usually Kinshasa-based merchant on a limited basis, and, to a much lesser extent, to small traders for crop purchases.

Village-level processing of food crops relies largely on human muscle. Simple mills are a rarity in rural Bandundu and the arduous tasks of soaking, drying and packing cassava for consumption or sale are performed by women with only the most primitive of tools. In certain areas, bicycles, pushcarts, and mills have been introduced by local groups and have dramatically reduced the energy and time required to process cassava. Cassava processing studies further indicate that simple drying techniques could decrease spoilage and increase the consumer appeal and price of the product. Appendix 8 contains two studies on cassava processing in Bandundu. The project will also identify and exploit labor-saving or profit-increasing processing technologies for other area crops.

Food production practices in most of the area still follow the traditional slash and burn pattern. In areas where population pressure is greatest and/or soils poor, there are clear signs of deteriorating yields. Much of the area has reached or will in the next decade reach a critical transition period where traditional producers will either be incorporated into a more modern dynamic agricultural economy or find themselves increasingly marginalized and impoverished.

The cycle of crop planting, harvesting, processing and marketing in Bandundu continues year-round. The annual food crops (corn, peanuts, rice, and gourd seeds) are sold during the official food marketing campaign, which begins in April and extends to June/July, when coffee marketing begins. Cassava has its own seasonal cycle of production that is determined by the availability of labor, the long processing and drying periods, and the marketing cycle. Peak harvesting periods occur from May to August and January to February (see Table 1 for a sketch of the food-crop calendar). Women are the major agricultural producers in the area. The extent to which men are involved in planting and harvesting varies significantly between ethnic groups, crops, and geographic areas.

B. The Project Area

The project area, Central Bandundu north and south of the Kasai river, covers a surface area of approximately 32,000 square kilometers (Map 2) with a 1982 population of approximately 850,000 (Table 2). The landscape is rolling savannah plateaus interspersed with gallery forests in the many valleys. The forests become denser as the plateaus slope down from the southwest to the Kasai river basin. The many rivers and their tributaries complicate road construction and maintenance but encourage the transport of goods by boat.

The project area includes the following collectivities:

Kwilu Sub-Region

Idiofa Zone:	Banga, Kapia, Kalanganda, Bulwem, Sedzo and Mateko
Bulungu Zone:	Due, Kilunda, Kwilu-Kimbata, Luniungu, Mikwi and Nkara
Bagata Zone:	Kidzweme and Manzasai

Mai-Ndombe Sub-Region

Kutu Zone:	Batere and Kemba.
------------	-------------------

This area has been defined and determined by the Kasai and Kwilu rivers and their tributaries by which there is direct access for foodstuffs to the markets in Kinshasa and in secondary cities to the east. The project area is linked to Kikwit, Idiofa and the river ports of Panu, Mangai, and Dibaya-Lubwe by the roads being improved under the earlier Agricultural Marketing Development Projects (660-0026 and 660-0028), and to Kinshasa by a paved road from Kikwit.

The population density is high for Zaire, ranging from 11 to 71 people per square kilometer in the rural areas. The average density for the project area is 26 per square kilometer compared with a national average of 11. The population density has increased significantly in the last decade, up from an average of 18 in 1970. Women form 53 percent of the population, although in some areas this is as high as 59 percent.

The region is ethnically diverse, more so than most other regions of Zaire. Ethnic groups in the project area include the Yansi, Mbala, Mbounda, Dinga, Ngoli, Lori, Ngwi, Pende, Hungana, Pindi, Mputu, Suku, Songo and Sakata. These diverse groups speak different though related languages and have different histories, social organizations, and cultural practices.

The rainfall averages from 1,400 to 1,700 mm annually with two distinct rainy seasons, October to December and March to May. There is a short dry season in between and a long dry season from June to September. Itinerant, slash-and-burn agriculture is practiced throughout the area with multiple

ZAIRE

Echelle : 4/12.000.000



MAP 2

D/DEO

AREA FOOD AND MARKET DEVELOPMENT (1980-1985) PROJECT AREA



Legende

- Limite des collectivités
- - - - - Limite des Sous-région
- - - - - Limite de la région
- TTTTT Limite du pays
- ==== Route asphaltée
- ==== " en Construction
- ==== " non-asphaltée

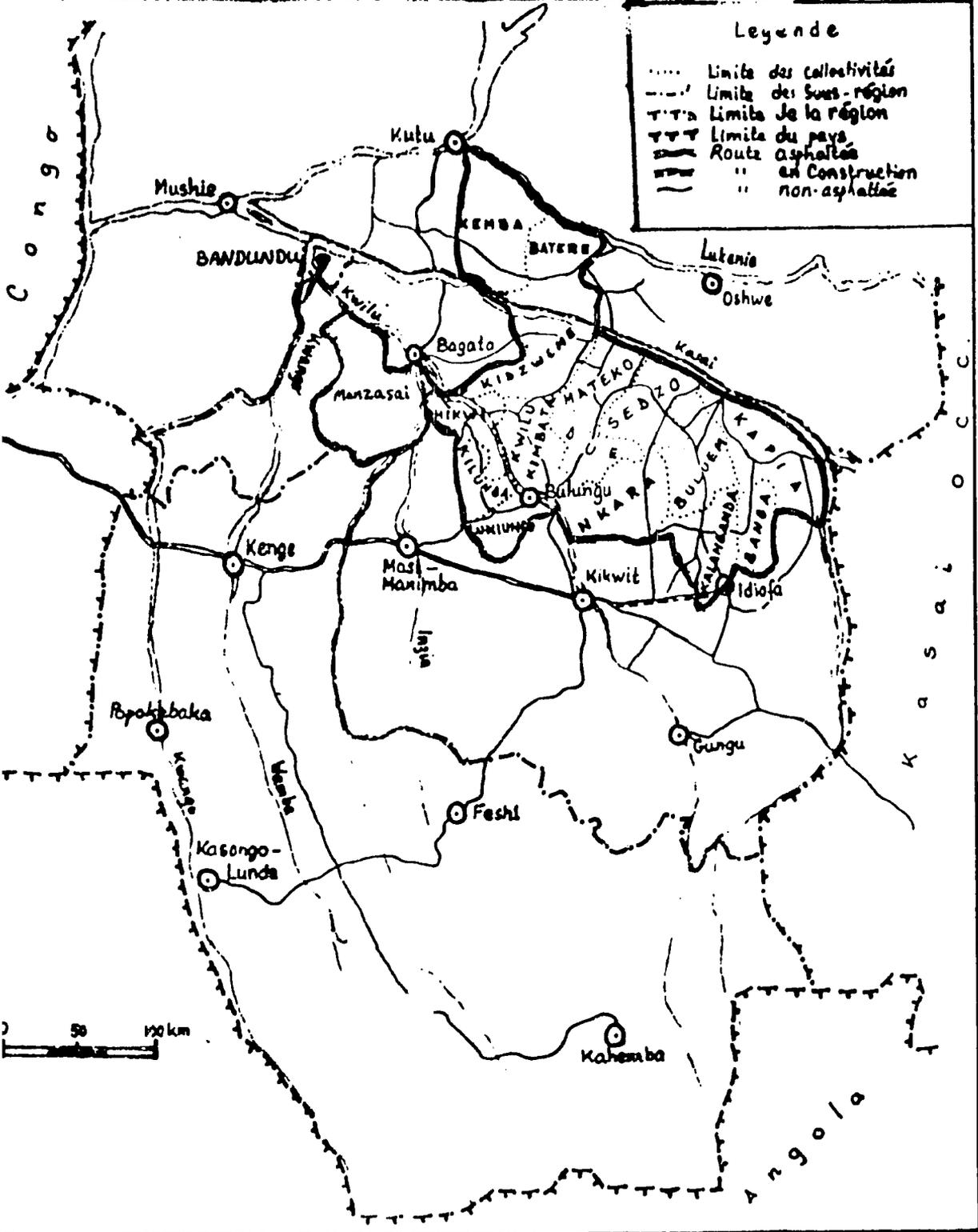


TABLE 2: PROJECT AREA POPULATION 1982

	MALE	FEMALE	TOTAL POPULATION	SURFACE AREA (sq. km)	POPULATION DENSITY
<u>Kwilu Subregion</u>					
<u>Idiofa Zone</u>					
Collectivité:					
Banga	26,341	29,038	55,379	1,675	33.0
Kapia	24,845	28,609	53,454	1,133	47.2
Kalanganda	28,540	33,378	61,918	1,423	43.5
Bulwem	24,766	25,108	49,874	3,044	16.4
Sedzo	26,590	32,549	59,139	3,050	19.4
Mateko	25,313	28,327	53,640	1,590	33.7
Subtotal - Idiofa	<u>156,395</u>	<u>177,009</u>	<u>333,404</u>	<u>11,915</u>	<u>28.0</u>
<u>Bulungu Zone</u>					
Collectivité:					
N'ra	30,937	34,838	65,775	1,100	59.8
Due	18,474	26,165	44,639	900	49.6
Kwilu-Kimbata	32,938	36,697	69,635	1,900	36.6
Lunungu	19,981	22,554	42,535	1,300	32.7
Kilunda	26,374	30,081	56,455	800	70.6
Mikwi	21,996	24,979	46,975	700	67.1
Subtotal - Bulungu	<u>150,700</u>	<u>175,314</u>	<u>326,104</u>	<u>6,700</u>	<u>48.7</u>
<u>Bagata Zone</u>					
Collectivité:					
Kidzweme	20,488	24,469	44,957	2,538	17.7
Manzasai	24,459	28,409	52,868	3,404	15.5
Subtotal - Bagata	<u>44,947</u>	<u>52,878</u>	<u>97,825</u>	<u>5,942</u>	<u>16.5</u>
Subtotal <u>Kwilu S/R</u>	<u>352,042</u>	<u>405,201</u>	<u>757,243</u>	<u>24,557</u>	<u>30.8</u>
<u>Mai-Ndombe Subregion</u>					
<u>Kutu Zone</u>					
Collectivités:					
Kemba	29,113	29,939	59,052	4,962	11.9 ¹
Batere	<u>14,678</u>	<u>15,854</u>	<u>30,532</u>	<u>2,565</u>	<u>11.9¹</u>
Subtotal - <u>Mai-Ndombe</u>	<u>43,791</u>	<u>45,793</u>	<u>89,584</u>	<u>7,527</u>	<u>11.9¹</u>
<u>TOTAL</u>	<u>395,833</u>	<u>450,994</u>	<u>846,827</u>	<u>32,084</u>	<u>26.4</u>

¹ Average population for Kutu zone; it is believed these two collectivités are much more densely populated.

cropping patterns. The staple food crops, both root crops (manioc) and cereals and grain legumes (corn, rice, and peanuts), are the main cash crops and are generally the most important source of rural cash incomes. Other cash crops include coffee, oil palm (nuts), fibers, and rubber.

The majority of the rural population is engaged in agriculture, predominantly itinerant agriculture. The small farmers are hard-working and responsive to economic incentives within certain cultural constraints. The surface area under cultivation has increased from about 6 percent in 1960 to at least 25 percent in 1984, although this figure appears to be much higher in parts of the project area. The fallow period has fallen from the traditional 20 years to 3 to 5 years on the savannah and 2 to 3 years in the forest. The soils are fragile, and uncontrolled bush burning and soil erosion have increased in recent years. Yields have dropped significantly according to the village farmers. Official GOZ production and marketing statistics, which do not necessarily reflect these phenomena, are believed to be influenced more by political considerations than by observed or measured realities.

The capital of the region, Bandundu City, with a population of approximately 100,000, is situated on the Kwango river, between the Kwilu and Kasai rivers. The largest city in the region, with a population of 156,000, and the area's financial and commercial capital, is Kikwit, 525 kilometers from Kinshasa by paved road and 925 kilometers by river. A number of other small market and agricultural towns also provide essential administrative, commercial, and social services to the rural population. A significant part of the rural population, particularly the youth, reside in these areas for certain periods.

Rural settlement is in villages ranging in size from 20 to over 5,000 people. Villages (officially referred to as localities) are grouped into groupements where a traditional Chef de groupement is appointed from among the Chefs de village or by other traditional means. These in turn are grouped into collectivities, the lowest level of modern centralized administration. The Chef de collectivité and his advisory council are elected. The next levels of government are the zone, the subregion, and finally the region, which is directly answerable to the national government in Kinshasa. Each Regional Governor is also the Regional President of the single national political party (Mouvement Populaire de la Revolution (MPR)). The party structure extends down to the village level, with a committee in each village headed by a dirigeant. Collectivities generate their income directly through local taxation. Higher levels of government receive a portion of the collectivity revenues but are mainly funded from the national budget.

Services, transport, and communications are poor although in colonial times they were relatively well-developed (for the needs of the then much smaller population). Roads and river channels are poorly maintained; the vehicle fleet has deteriorated; fuel supplies are uncertain; there is a dearth of repair and maintenance facilities; credit is scarce; telecommunication services no longer exist. The poor condition of most of the rural roads causes vehicles to depreciate very quickly, lowers vehicle utilization rates, increases transport costs and time, and leaves certain potentially productive agricultural areas without assured access. The general macroeconomic

situation restricts trader/transporter access to foreign exchange for new vehicles and spare parts. Large commercial firms with access to Kinshasa financial markets are able to borrow for vehicle and crop purchases. The credit cooperative of the Communauté Baptiste du Zaïre de l'Ouest (CBZO) meets some credit needs of small traders and farmers and has 15 branches in Bandundu Region. This organization does little to meet investment needs because of the very low loan limit (\$1,250) and short maximum repayment period (1 year). River transportation is not well organized, and is unreliable and time-consuming. All these factors constitute formidable constraints to improved agricultural marketing in the project area.

The agricultural extension service agents are ill-trained, ill-equipped and ill-paid. They serve mainly as enforcers of the laws requiring farmers to plant a certain area with a certain crop, a rational system under colonial management but retained to the present with only adverse consequences for production. Private agro-industrial firms do some effective extension work, but generally for a single crop. Missions in the area are limited geographically and constrained by their lack of access to planting material and agronomic information. Processing facilities are available only in the towns and on some mission stations.

The economic and social structures of the region, particularly in the central collectivities of Idiofa zone, were seriously damaged by the 1964 Mulelist rebellion. The nationalization of the economy in the early 1970s led to the rapid deterioration of economic structures elsewhere in the project area. The 1979 "demonetization" (i.e., change in currency bills without adequate compensation to the holders of old bills) virtually wiped out any cash savings of the area's small farmers and traders. Sharp increases in population unaccompanied by improved land management and agricultural practices, adverse terms of urban/rural trade, badly deteriorated public services, and the lamentable state of the transport systems have meant a lowering of the quality of rural life.

PART III: PROJECT DESCRIPTION

A. Project Goal

The goal of the project is to raise the standard of living of the rural population of central Bandundu.

There are many dimensions of people's standard of living, but for the rural village farmers a production surplus, as well as good health (including nutrition) and access to basic consumer goods and education are important measures.

The project will strengthen the capacity of local non-governmental institutions to provide agricultural extension, marketing (particularly credit), and processing services to the target group. Increased activity in these areas will encourage farmer production, trader competition, and local processing. This upgrading of basic services, coupled with transportation infrastructure improvements to be undertaken through the Agricultural Marketing Development Projects (660-0026, 0028, and 0098), is expected to increase the quantity and price of local farmers' production. Household income and food availability would increase accordingly.

Success in achieving this goal will depend on the identification of appropriate interventions, on the capacity of local institutions to implement the interventions, and on the ability of traditional systems to effectively adopt the innovations. Success will also depend on the balanced development of the area through the provision of rural services, the development of financial and social institutions, the development of secondary and market towns, and the diversification of the rural economy.

B. Project Purpose

The purpose of the project is to increase agricultural production, marketing, and processing in central Bandundu.

In order to achieve this purpose the project must be able to identify appropriate interventions and intermediate management organizations (IMOs) capable of making the interventions work within the socio-cultural context of rural Bandundu. USAID is presently conducting or preparing to conduct research on various aspects of the project area's traditional systems. Research subjects include nutritional status and causes of malnutrition, production, income, consumption patterns, market access, land tenure, rural-urban dynamics, and migration and remittances. These studies will help determine interventions, assess the impact of ongoing interventions, and provide a basis for corrective action when such action is indicated.

The success of the project in achieving its purpose also depends on the timely implementation of: the Agricultural Research and Outreach Project (660-0091), which is identifying and disseminating improved varieties of cassava, corn and dry legumes; and the three Agricultural Marketing Development Projects (026, 028 and 098), which are supporting improvements to the area's road and river transportation infrastructure. Finally, project purpose achievement depends on the maintenance of a macroeconomic regime which does not skew rural-urban terms of trade against area farmers.

C. Project Beneficiaries

The initial project beneficiaries will be the institutions participating as IMOs. These will receive in-service training, technical assistance, and work-related commodities. Ultimate beneficiaries will be the traditional cultivators and small to medium-sized traders of the project area. A survey of the collectivities in the project area (see Appendix 2 for initial analysis of survey data) gave the following distribution of agricultural holders by sex and age:

<u>Age</u>	<u>Number of Female Holders</u>	<u> Holders as per cent of total female population</u>	<u>Number of male holders</u>	<u> Holders as percentage of male population</u>	<u>Total holders in age group</u>	<u> Holders as percentage of population in age group</u>
15-24	17,930	25	2,615	4	20,545	15
25-34	36,199	74	12,606	35	48,805	57
35-54	49,838	87	16,828	43	66,666	69
55 or more	17,739	79	4,171	20	21,910	51
TOTAL	121,706	61	36,220	22	157,926	43

While the above figures do not reflect the fact that virtually everybody in rural Bandundu is employed at least part-time in agriculture, they do show that women are the primary agricultural workers. Further analysis of the Small Farmer Survey will provide more detail on intraregional, intertribal and intercrop variation in sex roles. Women will be the prime beneficiaries of most project interventions, and particularly of labor-saving technology activities (e.g. cassava mills).

The small and medium scale area traders will benefit from marketing improvements (physical infrastructure and credit) to be supported through the project. To be defined by further study, appropriate credit interventions probably will target traders ranging from those with one bicycle or none to those with a truck or two.

D. PROJECT ELEMENTS

The three main project components are production, marketing, and processing. Three other project elements give general support to these components and are: research and information, training, and rural-urban linkages. The implementing agencies will be area-based non-governmental institutions qualified to serve as intermediate management organizations (IMOs). The production interventions will focus on basic foodcrops, particularly on cassava, the staple of the area. The outreach capacity of local IMOs will be strengthened as necessary through commodities, training, and technical assistance, so that they can effectively propagate improved planting material and agronomic practices. Marketing interventions will take two forms: physical infrastructure improvement and credit. This project will identify critical bottlenecks caused by deteriorated roads and water crossings and the companion Agricultural Marketing Development project (660-0098) will carry out necessary improvements. In addition, during the first year of project activity, further study of area credit requirements and of potential and actual financial service providers will determine the magnitude of a project credit component. The project processing component will build upon the experience of area institutions and on the appropriate technology work of the Kinshasa-based USAID-supported PVO, the "Study Center for Social Action" (CEPAS). The project will place a priority on identifying and disseminating technologies that reduce labor requirements for processing cassava and that improve the quality of marketed cassava. See Appendix 8 for preliminary studies of cassava processing.

20

1. The Project Implementation Unit (PIU)

The following is an outline of the staffing of the project team. The project descriptions (following) and Part VI, Administrative Analysis, describe the roles and responsibilities of each division and staff member.

The PIU will consist of six divisions, as follows:

a. General administration (PIU/GA) is staffed by two expatriates, the chief of party, who will be an experienced development management specialist, and the executive officer; and by three Zairians, one logistics coordinator and two accountants.

b. The Production Division (PIU/PD) is staffed by two expatriates, an extensionist/sociologist/economist and an agronomist; and by eight Zairians, four agronomists and four extensionists.

c. The Marketing Division (PIU/MD) is staffed by two Zairians, a financial analyst and a marketing specialist.

d. The Processing Division (PIU/PCD) is staffed by a Zairian rural technology specialist.

e. The Training Office (PIU/TO) is staffed by a Zairian non-formal education specialist.

f. The Research and Information Division (PIU/RID) is staffed by an expatriate data management/research specialist and by a Zairian agricultural economist.

g. The project plan envisages substantial amounts of short-term technical assistance for research, management and technical training, and specialized support to component activities.

2. Intermediate Management Organizations

The project will use existing project area organizations to reach traditional cultivators. The organizations supported by the project to increase production, marketing, and processing in the project area will play a dual intermediate management role. First, in collaboration with the project implementation unit (PIU), they will direct project resources to the target group. Second, they will draw on development organizations in regional centers and Kinshasa for local area development. The identification of qualified IMOs will be based on a comprehensive survey of area institutions. The following criteria have been established to identify organizations to participate as IMOs in the project: They should: 1) already be involved in agricultural programs or seriously interested in starting; 2) focus on village cultivators, emphasizing food crops, crop diversity, and appropriate technologies; 3) have the institutional capacity to administer and implement project activities; 4) have Zairians in positions of authority and responsibility; 5) be accepted and respected by local area villagers; 6) be interested in working with the project; 7) make a commitment to train additional Zairian staff within the project framework; 8) make an institutional commitment to sustain project-fostered activities beyond IOP; and 9) have a significant geographic zone of influence.

The project will work through local institutions for several reasons: The IMOs have experience in and good regional knowledge of Bandundu; they have in most cases developed good working relations with the local population; they have reputations for honesty and genuine concern for the villagers; and, most have been in the area for generations and will continue to be active long after the project ends. Almost all the ongoing rural development activity in Bandundu in education, health, and agriculture is being performed by such non-governmental organizations.

The local IMOs will have varying strengths and weaknesses. For example, some institutions have good administrative skills, but concentrate on a single crop. Others have highly developed agricultural outreach services but inadequate bookkeeping. The individual strengths and weaknesses of each IMO will be assessed by the PIU and short-term management advisors and a plan will be drawn up to augment their strengths and correct their weaknesses. In this way, a series of subprojects will be developed.

Current activities of potential IMOs vary widely. Some have demonstration fields and small agricultural extension projects (Ipamu, for example). One has an appropriate technology program that builds and distributes hundreds of bicycles and pushcarts to women cultivators and traders (Bokoro). Several have breeding programs for cows, small animals, and bees (Lusekele). Others do extensive road and bridge construction, maintenance, and repair (DPP, CBB).

The IMOs' agricultural activities will be expanded during the project. Initially, the emphasis will be on the organization of extension services and the development of the institutional capacity of the IMOs to provide these services. For example, land capability studies, personnel training, and collection of local baseline data will be undertaken. As these are completed, the project emphasis will shift to village-level assistance to increase yields, marketing, and processing.

The project will contribute to the expansion of IMO activities in several ways. A Zairian rural development specialist and a Zairian agronomist will be located at each IMO. These staff members will be recruited from the large pool of agronomists/extension agents trained at national and regional agricultural and rural development institutions. The IMO will assume the recurrent costs of these positions (salary, overhead) and the project will fund training and equipment. The project will provide short and long term participant and in-country training for IMO staff. One of the most important functions of the PIJ will be to forge communication links between area IMOs and central development organizations, such as CEPAS (Kinshasa) for appropriate technology advice and training, ITPK (Kikwit) for mechanics training and repair facilities, ITAK (Kikwit) for agricultural training and demonstrations, and the national cassava, corn, grain legume and rice research programs for high-yield, disease-resistant plant varieties. By PACD the IMOs will be expected to deal directly and routinely with these development service organizations.

3. Production

The project will concentrate initial production improvement efforts on the basic food crops and on those aspects of the village cultivator's production that offer the greatest scope for increasing yields through relatively unsophisticated techniques of better crop and land management. These techniques will require only simple and inexpensive inputs on the part of the small cultivator; the focus will be on the improvement of basic agricultural and associated practices, which require little or no cash but which can bring visible results, and on the dissemination of the improved varieties developed by the four national agricultural research programs. This approach relies on the design, mobilization, and support of an effective extension system that will reach, regularly and effectively, the majority of the village cultivators in the project area. The main objective of this service will be to increase food production. It should have a considerable effect in stimulating broad-based income increases.

The sociological requirements of such an extension system include the following:

- a. It must be based upon the cultivator's wants and needs.
- b. Its staff extension personnel must understand village conditions, people, and customs; they must be energetic, capable, and well trained.
- c. The service must function in a socially and culturally diverse population, subject to specific economic, cultural, and technological constraints; it must be able to adjust its support, means of communications, and advice to these different situations.
- d. The clientele should be the small farmers, mostly women, and should not be disproportionately young or old, nor from only wealthier rural households.
- e. It must be able to mobilize traditional communications networks in the rural communities, drawing on factors which can assist the dissemination of information, because attitudes towards changes of practices will depend as much on this as on the technical appropriateness of the recommendations.
- f. It must function within the context of local farming systems; these are learned methods of optimizing economic and social welfare in a high risk, low resource situation; changes in that system will have implications for all its social and economic groups.
- g. It must be able to address the villages as complete social systems, not just as collections of individual cultivators; agricultural production is not only an individual activity but is also a function of such basic institutional considerations as the land tenure system, the authority structure, systems of values and social obligations, codes of conduct governing individual and group behavior, and belief systems relating to the role of the ancestral and other spirits.

- h. It should be an organization not only for but also of the cultivators themselves. Means of bringing together cultivators for extension delivery purposes may, in the long run, form a basis for the delivery of other services such as land management or agricultural credit. Thus, the creation of a viable way of grouping cultivators may have social, economic, and institutional consequences beyond the immediate objectives of an extension activity; these groupings might form the basis of the transition to a more permanent form of agriculture.

The design and support of an appropriate outreach system for each IMO will be conditioned in part by the governmental extension services operating in the project area: that of the Department of Agriculture and Rural Development (DOA), and the supplementary agronomists employed by each collectivity. There are also private extension services such as, for example, that of CODAIK and that trained and employed by CBZO at Lusekele Agricultural Station.

The nature of the project-assisted extension services will be a function of the institutions participating as IMOs and will also vary between ethnic groups and geographic areas. The PIJ will help all IMOs to establish positions for a rural development specialist and an agronomist (except where such positions may already exist). The project will support the training and commodity costs for these positions while the IMO will pay the salaries. Once trained, these IMO employees will constitute the core of each IMO's extension service. Variations in the agricultural outreach capacity of the participating IMOs will be taken into account. For example, it may be desirable in the area served by the Lusekele Agricultural Station to rely exclusively on the extension service organized and funded by CBZO. Other IMOs, however, may not be able initially to assume the full financial and management responsibilities required by an extension service. In such cases, other possibilities will be explored and negotiated between the IMO and the PIJ. It is unlikely, except perhaps in areas where CODAIK is upgrading the DOA extension service, that the central government's agricultural extension workers would be relied upon. There are two basic approaches to the village farmer that an IMO might take (the type of approach adopted by each IMO may depend on the working relationship the IMO has with area officials and villagers):

- a. The IMO core staff may be able to work with the local agricultural agent in certain collectivities. Training and transportation could be provided under the project to appropriate collectivity staff who would work closely with the team of the participating organization, and serve as liaison offices between the IMO and the villages. Since collectivity staff are locally recruited, they might be able to contribute to the sociological and cultural requirements of the project. However, the success of the project depends on the ability of the extension service to create a favorable social climate for change, and many of the collectivity agents have been steeped in the colonial tradition of telling farmers what they must do, and most serve as tax collectors. It

is clear that cultivators in the project area already know many of the simple techniques and practices that the project will want to promote (mulching, planting in mounds, fallow periods, weeding, etc.) so that it may not be the primary purpose of the extension service to bring such information but rather to work with the cultivators so that the practices begin to be followed, without being imposed.

b. A more promising approach in most cases would be for the IMO to work with each village in the project area to identify a resident extension agent who would be responsible for working with the village cultivators. This person would be trained by the project and the IMOs; and IMO personnel would regularly spend time (a week or longer) living in the village and working with the village extension agent. This approach requires study at the village level in the areas concerned. Of particular importance will be the choice of an appropriate agent: There are a number of traditional figures, such as the Mama Kahuma and the Chef de Terre, who might be able to facilitate positive change within the traditional framework. The scope of these traditional roles varies widely among, and perhaps within, ethnic groups. Short-term farming systems and other research will examine the nature of village decision-making as it relates to land use and cultivation practices.

A major task of the extension service will be to introduce high-yield, disease-resistant plant varieties, and to promote farming practices that will improve the long and short term soil productivity of the area; to thereby encourage a gradual transition from an itinerant to a sustainable sedentary system of agriculture.

The IMOs, in addition to supervising an agricultural extension service, may serve as centers for demonstration trials and variety multiplication plots. The PIJ will establish and foster close working relationships between the IMOs and the national food crop research programs. In particular, the regional cassava research and demonstration center, which is located in Kiaka (just south of Kikwit) and is supported by USAID under the Agricultural Research and Outreach Project (660-0091), will be used as a source of agronomic information and improved cassava cuttings for the area IMOs.

The project will support and upgrade an area agricultural training institution, probably the Technical Agricultural Institute of Kikwit (ITAK), that will be responsive to the short and long term training needs of the IMO-supported extension services. The PIU will be responsible for establishing institutional links between this center and individual IMOs.

Project inputs for this element are:

- One long term expatriate agronomist.
- One long-term expatriate extensionist (sociologist/economist) (Half-time attributable to this component)
- Four Zairian rural development specialists.
- Four Zairian agronomists.
- One long term expatriate research and information specialist (part time only on the project production component).
- Eight person months of short term technical assistance in farming systems research.
- Short term technical assistance for soils analysis as required, (up to one person year).
- Long and short term in-service, in-country, and participant training as required.
- Commodities, particularly vehicles, motorcycles, bicycles, and other equipment for the extension services.

3. Processing

The project will promote the introduction of processing facilities to reduce labor requirements and to increase the value added that is retained in the region.

Local commercial processing of food crops presently taking place within the region is confined to the husking of rice and the milling of corn and cassava in Idiofa and Kikwit. Palm oil processing is done mainly by agro-industrial firms but to some extent also by village-based enterprise. The rudimentary state of urban and rural infrastructure significantly raises the investment requirements for large-scale commercial processing in the area. Even in the towns, firms must usually supply their own electricity and water. This, coupled with the scarcity of long-term investment credit, limits the opportunities for major investments in food processing in the project area. Some agro-industrial firms in the region have indicated that, if these constraints were lifted, they would begin to invest. The project will pursue the institutionalization of an appropriate credit facility (see marketing below). Other donors are considering physical infrastructure investment (water and power) in Kikwit. USAID will encourage such investment.

Apart from commercial processing, the project will assist in developing techniques to improve present village processing and storage practices, and will introduce technologies to reduce the time spent by women on food processing tasks. Continuing cassava processing studies (See Appendix 8) will inform the project's extension work in appropriate technology. The types and costs of small-scale processing mills available in Zaire (or producible in the region) will be investigated and thought given to ways in which they might be introduced at the village level, particularly by means of existing or ad hoc women's groups. There is considerable experience, particularly in West Africa, of the village-level introduction of hand or diesel-powered mills. A number of missions in the project area have installed small mills. The effectiveness and outreach of such arrangements will be appraised for replication. The possibilities of mobile mills going from village to village, and of mills run by truck engines, will be explored.

In addition to mills, there are a number of possible interventions that might significantly reduce the labor and time required for processing and handling of food crops, and that could improve the quality of the final product. These include bicycles and pushcarts for hauling produce, improved drying techniques, and simple storage facilities. The PIJ will study successful interventions in Bandundu and elsewhere in Zaire and Africa and, as appropriate, promote their introduction through IMOs.

The project will concentrate initial efforts to improve processing on cassava because this crop: a) is the major staple food of the project area; b) presently requires long and exhausting hauling and processing before it can be consumed or marketed; and c) suffers considerable post-harvest losses, particularly when not properly cured.

The Kinshasa-based Study Center for Social Action (CEPAS), a member of the Abidjan-based INADES-Formation group, has considerable experience in applications of appropriate technology to rural Zaire. Over the last five years, CEPAS, with USAID support, has developed an extensive library, training program, and correspondence courses for appropriate technology. The PIU will establish and strengthen communications links between this institution and the IMOs. The project will contract with CEPAS for seminars and training courses in central Bandundu as well as for further research on appropriate technologies.

The project will also work with the Professional Technical Institute of Kikwit (ITPK), which operates a mechanics school and garage. This regional center will train IMO and village personnel in the repair and maintenance of simple labor-saving devices, such as mills, bicycles, handcarts, and manioc drying frames. In some cases the school workshop may be able to produce such devices for sale to missions and villages. The PIU will forge institutional links between this center and the IMOs.

The project inputs for this element will be:

- One Zairian appropriate technology specialist, who will test appropriate technology innovations and, in collaboration with the IMOs and ITPK, adapt them to local conditions.
- One long-term expatriate research and information specialist (part-time).
- One expatriate extensionist/economist and four Zairian extension agents who will promote the use of improved technology through IMOs.
- Financial assistance to individual IMOs for the dissemination of appropriate technology such as mills, bicycles, and pushcarts.
- Commodities, training, and appropriate short-term technical assistance for ITPK.

5. Marketing

The project will support two principal market improvements for central Bandundu.

The first of these is the identification of physical constraints to surface transportation of area produce. Once these constraints are identified, they will be addressed by the companion Agricultural Marketing Development Project (660-0098), with the necessary work to be performed by experienced contractors (missions or companies). The bulk of the 098 contribution will be for road repair and bridge construction.

The second principal market improvement activity of the project is credit. Presently, only Kinshasa-based traders and a few of the largest area traders have access to short-term (usually three months) credit for crop purchases during the marketing campaign. Medium-sized, area-based traders (commonly with only one or two vehicles), have no access to either marketing or investment credit. AID/ST's ongoing Small Farmer Market Access Project (SFMA) is investigating the relative importance of large and medium-scale traders in project area food marketing. The results of this study will inform the project's support for the extension of credit to traders.

Small traders who walk, ride bicycles, or rent space in trucks or on boats, also have little or no access to credit. If a suitable credit component is established under the project, it is expected that these small and the medium-sized local traders will be the target beneficiaries.

Potential credit providers include the national Development Finance Bank (SOFIDE), the Agricultural Credit Bank (BCA), and the Bandundu-based CBZO savings cooperatives. SOFIDE, created in 1971 with World Bank support, is a major source of local development financing in Zaire. SOFIDE extends short- and long-term credit for major investments in agriculture, industry, and trade in Zaire, but does not have the capacity or outreach to lend to the smaller traders and producers of rural Bandundu. The Agriculture Credit Bank, created in late 1982, has included in its mandate the extension of credit to small operators involved in village agricultural production, processing, and marketing. It remains to be seen whether this institution will develop the organizational capacity to fulfill this mandate. CBZO is a local cooperative savings association with 15 branches in Bandundu. It is not now able to provide investment credit because of its very low loan ceilings, short repayment schedules, and rates of interest on deposits that are too low to attract significant long-term savings.

The PEU will further explore the credit needs of area traders and investors, and will assess potential implementing institutions. If it is determined a) that lack of credit is as serious a constraint to marketing and processing in the project area as appears to be the case from preliminary surveys, and b) that an existing institution can be upgraded at reasonable cost, then the project will fund a program to improve and extend credit availability in the area. Possible approaches include the opening of a window for marketing loans at CBZO and the establishment of a line of credit to CBZO from SOFIDE or the BCA.

Project inputs to this element include:

- One long-term Zairian credit specialist.
- One long-term expatriate research specialist (part-time)
- Six to eight person months of short-term technical assistance;
- Additional technical assistance, commodities, training, and local-currency financing as required if a viable credit mechanism is identified.

6. Research and Information

This section reviews the prior, ongoing, and planned research in support of project activities, and describes the role of the PIU's research and information division.

a. Prior, ongoing, and planned project research

The following studies were undertaken during the design of 102:*

- 1) a survey of potential project sites (see Appendix 4);
- 2) a sample survey of small farmer households and their village environments (Appendix 2)
- 3) an inventory of area institutions (see Appendix 1);
- 4) two rural-urban profiles of secondary towns in the area (Appendix 5);
- 5) an analysis of area soil capability (Appendix 6);
- 6) two cassava processing studies (Appendix 8)
- 7) a credit background study (Appendix 9)
- 8) a farming practices study (Appendix 10);
- 9) a marketing study (Appendix 11);
- 10) a study of local administration (Appendix 13);
- 11) an assessment of agricultural schools in the area; (Appendix 12);
- 12) reports of various exploratory visits to a number of project area sites;
- 13) a project development requirements study (Appendix 3);
- 14) a proposed project management and information plan (Appendix 14).

*The rather voluminous appendices are not generally circulated with this project but are available for reference in Zaire at USAID and the project (Kikwit) and in A/D/W at AFR/CA and AFR/PD/CCWAP.

Although some of these studies are not yet complete, and others will be supplemented over the life of the project, the project now has at its disposal a good deal of useful background material on the area. This material has provided the basis for project design and will continue to inform project development over the life of the project.

In addition to these studies, a number of other research activities are planned. These include 1) migration and remittances, 2) effect of urban marketing services on rural productivity, 3) credit, 4) land tenure systems (see Appendix 7 for terms of reference), 5) farming systems 6) nutrition (consumption) economics, and 7) baseline, midline, and endline surveys.

The research can be divided into background, technical, and impact studies. Some span more than one of these categories.

- (1) Background studies are those that give general information on the project area. They may identify constraints but, insofar as they prescribe rather than describe, they are considered technical. They include the site survey conducted in 1983, the small farmer village and household survey, the institutional inventory, two rural-urban profiles, and over a dozen special trip reports.

(a) The survey of potential project sites (Appendix 4), completed in August 1982, was designed to guide USAID in its selection of a location for a major agricultural production project. Bandundu, Bas-Zaire, Kasai Occidental, and Shaba, were surveyed in depth after being identified in a preliminary national survey of Zaire's nine regions. The selection criteria applied were agricultural productivity, population density, institutional support, market access, attractiveness, ease of support, financing requirements, constraints to development, beneficiaries, complementarity to other AID, GOZ, and other donor activities, and sustainability. Bandundu was chosen as the site for 102 based on this survey.

(b) Numerous trips were made to the area from 1982 to 1984 in support of project planning. The follow-up reports contain a wealth of qualitative and quantitative area information. Abstracts, as well as the complete reports, on file at USAID, will serve as background material for the PIU.

(c) The Small Farmer Survey, administered in early 1984, will furnish household-level information on division of labor, resource allocation, income and wealth distribution, land tenure systems, and consumption patterns. The comprehensive data analysis will be completed in April 1985. Initial findings and the questionnaire are attached as Appendix 2. The survey will serve as a guide and a check to the PIU and the IMOs as they identify and test various interventions. It also provides some baseline data against which project progress will be measured.

(d) The Project Development Requirements paper (See Appendix 3) describes ongoing design requirements and technical assistance needs. It will be useful as a guide to continuing research requirements and potential interventions.

(e) The Institutional Inventory, begun in September 1984 and scheduled for completion in March 1985, will provide a detailed description of all area institutions involved in rural development. Based on this inventory, the project will engage the IMOs that will implement the project. (See Appendix 1)

(f) Two rural-urban studies, completed in March and November 1984, give a detailed description and analysis of the actual and potential roles of area secondary cities in rural development. They provide background material on the rural-urban functions of Kikwit, Bandundu City, Bulungu, Bagata, Idiofa, and Dibaya-Lubwe. These reports are attached as Appendix 5.

(g) An assessment of agricultural education in the area was performed by CENACOF (the national training institution supported by USAID's Development Manpower Training Project, 660-0068) in mid-1984. This report, which highlights the formidable problems facing the agricultural education establishments of the area and identifies institutes that might be capable of usefully absorbing assistance, is attached as Appendix 12.

(h) Migration and remittances: In collaboration with AID/ST, USAID plans to conduct a study of rural-urban migration and associated remittances. This study will complement the rural-urban profiles completed in 1984. It should help determine the scope of the project's urban activities by answering such questions as whether migrants can effectively act as agents for positive change when they return to rural areas.

(i) A report on local administration discusses government organization at the local level (See Appendix 13). The report describes the different government levels (i.e. collectivité, groupement) and gives case studies. The history of the decentralization process is recounted with case examples. Finally the political and financial structure of the zones and collectivities is discussed.

(j) Land Tenure: The Land Tenure Center (University of Minnesota) will conduct a series of reconnaissance missions in 1985 to study the constraints to and opportunities for area development posed by the traditional land tenure system. This initial study may lead to further research to inform possible future project interventions. The terms of reference for the Land Tenure Study are included as Appendix 7.

(k) The farming practices report describes farming practices and constraints to agricultural production in Bandundu (See Appendix 10). After an evaluation of these constraints, preliminary recommendations are made to alleviate the problems.

(l) The Small Farmer Marketing Access Project (S&T/RD) prepared a valuable report on food transportation in Bandundu (See Appendix 11). The recommendations of this report were incorporated into the Agricultural Marketing Development Project (660-0098) and will inform the road infrastructure component of 102.

(m) Credit - This study examines existing credit sources and users (See Appendix 9). The clientele, credit terms, collateral requirements, and interest rates of each credit institution are examined. This report will provide general background for the more detailed credit study to be conducted in 1985.

(n) Effect of urban marketing services on rural productivity. This study will examine the likely effects of possible project-assisted improvements to urban marketing service infrastructure on the productivity of rural areas. It will be supported by S&T/RD's Rural-Urban Dynamics Project. A baseline survey is contemplated for 1985 in collaboration with SFMA.

(o) Nutrition economics. USAID plans to study, in collaboration with the S&T-funded Nutrition Economics Group, the effects of project interventions on household consumption patterns. This study will examine the link between project-induced production and income increases, and nutritional status. This research should begin in the first year of the project and continue periodically thereafter as appropriate. It will be carried out in close collaboration with the National Nutrition Planning Center (CEPLANUT), which is supported by the USAID-funded Area Nutrition Improvement Project (660-0079).

(p) Michigan State University, through its AID/ST-assisted Food Security Project, tentatively plans to organize a research program in the project area to begin in 1986. This research would examine food policy issues as informed by conditions at the village level, and will also be coordinated with CEPLANUT.

(2) Technical studies are those that propose interventions to overcome constraints to development. These include the soils, cassava processing, farming systems research, marketing, and credit studies.

(a) A soils study (Appendix 6) was undertaken during project design to determine the general state of the soils in Bandundu and what needed to be done to maximize fertility in the short and long terms. A number of solutions were proposed, ranging from the development of a sophisticated soils laboratory and introduction of chemical fertilizers to the more modest suggestion that improved agronomic practices (mulching, planting in mounds, weeding, etc.) be disseminated by the IMO-supported extension services.

(b) Two studies of cassava processing were done in 1983 and 1984 and are attached as Appendix 8. They suggest that there are a number of cost-effective, labor-saving, processing interventions that could significantly improve the quality and decrease the perishability of cassava.

(c) An in-depth analysis of the Bandundu and Kinshasa cassava market is programmed for 1985 under the Small Farmer Market Access Project. This analysis will be drawn on for project interventions.

(d) Additional research on farming systems in area villages will take place during the first 18 months of the project. In addition to refining the project's understanding of present cultural practices, this research will investigate village decision-making, and will recommend appropriate extension methods.

(e) A credit feasibility study will take place, possibly in collaboration with S&T/RDRI's centrally-funded rural credit project, during the first year of the project. This study will further define area trader and producer credit needs and the local institutional capacity to meet those needs. The findings will permit the PEU to decide on the scope and mechanics of the project credit component.

b. The role of the PIU Research and Information Division (PIU/RID)

Major responsibility for research oversight and follow-up will devolve on the Research and Information Division (RID) of the PIU. This division will coordinate on-going research with the relevant line division of the PIU, and make recommendations for the application of results. In addition to this coordinating role, the division may engage in research itself, or in collaboration with other project activities such as those of ODAIK or CEPLANJT. The RID will also play a principal data-gathering role for project impact evaluations, area trends, and marketing research. The RID also will direct the project data analysis to be performed with O98 support in Kinshasa.

c. Impact Evaluations. The project will fund two sorts of impact evaluations: direct project impact on selected villages; and general area trends. These will entail baseline, midline and endline studies. They are discussed in Part IV, Monitoring and Evaluation, below.

d. The project inputs to the Research and Information component include:

- One long-term technical advisor
- One Zairian with a background in survey techniques and computer analysis.
- Surveyors as required.
- 90 person-months short-term technical assistance.

7. Training

The primary objective of the project's training program will be to develop effective, IMO-supported extension services for the entire project area. These extension services will be associated with individual IMOs but the agents may not be directly employed by the IMOs. The project will also fund training in appropriate technology applications and production, mechanics, accounting, credit management and survey techniques and statistics. Thus, the production, processing, marketing, and research and information components of the project will each have an associated training program.

The principal target groups for training are the staffs of the PIJ and the IMOs (including extension agents who work with, if not directly for, the IMOs). The project will support short-term participants, and both long- and short-term in-country programs for selected trainees.

a. Production (extension training)

The primary output of the project will be effective area extension services supervised by local non-governmental organizations. The bulk of the training planned by the project is therefore directed at the development of the extension service. Three categories of training are planned: short-term participant, long-term in-country, and short-term in-country.

(1) PIJ training. The Zairian members of the PIJ production division (four agronomists and four extension agents) will be trained in the following areas: management, training, agronomy/extension.

(a) Management: The National Center for Development Training (CENACOF) and USDA administer annually a variety of short (4-6 week) training courses in various aspects of management of agricultural projects. The Zairian professional PIJ production division staff will attend these in-country courses as appropriate.

(b) Training: CENACOF also offers courses for trainers. Since a major role of the production division will be to train IMO extension agents, the Zairian production team members may be given short courses in training methodology.

(c) Agronomy/extension. CIAT, IITA, WARDA, and other international agricultural research institutions offer short courses in various aspects of tropical agriculture. Each of the eight PIJ agronomists and extension agents will attend one such course in year two or three of the project and another in year four or five. The PIJ will determine the appropriate subject matter, location, and timing of this training according to project requirements and staff needs. The PIJ staff will also attend the annual in-country farming systems research seminars that will be funded by the Applied Agricultural Research and Outreach Project (660-0091) beginning in 1986.

(2) IMO training. The training needs of individual IMOs will vary widely. The PIJ will work out a training program for each IMO separately. Subjects included in these training program may include financial and personnel management, agronomy, and extension methodology.

(a) Financial and personnel management. The PIJ will evaluate, through audit or other suitable means, the capacity of each IMO to manage its finances and supervise an extension service. A program will then be developed to address any identified deficiencies in these systems. Technoserve, which receives USAID support through the Private Management Support OPC (660-0112), and CENACOF/USDA both offer relevant in-country management training courses.

(b) Agronomy/extension.

The project will arrange for annual refresher courses for IMO extension agents in agronomy and extension methodology. In addition, IMOs that are not yet active in agriculture, or those that wish to expand their technical agricultural staffs, may wish to propose candidates for degree training in these fields. The PIJ and IMOs will schedule long-term training so that most IMOs have at least two trained agriculturalists as a core staff before the PIJ begins active work with the IMO.

The Technical Agricultural Institute of Kikwit (ITAK) has been identified as the most likely center for both long- and short-term agronomist and extension agent training. The PIJ will assess ITAK's capacity to respond flexibly and professionally to IMO training requirements and will provide financial and technical support to upgrade the institution accordingly. Another possible training center is Lusekele Mission agricultural station, which has a promising ongoing village extension agent training program.

(c) Village agents. The project will support seminars and workshops by individual IMOs for the village agents mobilized for local extension work. As the project expands, the PIJ may organize larger conferences for representatives of villages throughout the project area.

(d) The following presents in tabular form the production training component of the Project:

Production component training plan

<u>Institution</u>	<u>Subject Matter</u>	<u>Target Group</u>	<u>Courses/Trainees</u>	<u>Duration</u>	<u>Frequency</u>
CENACOF	Personnel/financial management	IMO supervisory staff	1-2	4-6 weeks	Every 2 years
	Training	PIJ agronomists/extension agents	1-2	6-8 weeks	Annual
CENACOF/USDA	Agronomy/Extension	PIJ & IMO extension agents, agronomists	5-8	4-6 weeks	Quarterly
Technoserve	Financial Management/Accounting	PIJ & IMO financial staff	1-2	TBD	TBD
ITAK	Agronomy/Extension	IMO-nominated candidates for agricultural staff position	1	1-3 years	Annual start
	Agronomy/Extension	IMO & PIJ extension agents, agronomists	2-8	2-4 weeks	TBD, at least two per year
IMO	Agronomy/Extension	Village-based extension agents	2-4	1-2 weeks	TBD, at least one per year in area
IITA	Farming systems research	PIJ & IMO extension agents, agronomists, IMO supervisory staff	1-3	4 weeks	3-5 a year
IITA(Nigeria) WARDA(Liberia) CIAT(Columbia) Other IARCs	Crop-specific extension	PIJ agronomists, extension agents	2	2-6 weeks	Function of specialty

b. Processing

Two types of training are planned for IMO staff under the project processing component: Long- and short-term technical training for IMOs that need additional trained mechanics to repair and maintain vehicles and other machinery; and short-term training in the use, dissemination, and maintenance of mills, pushcarts, and other appropriate technology equipment.

(1) Technical training

The Professional Technical Institute of Kikwit (ITPK) is one of the best-known mechanics school in Zaire. Its present program is centered around a high-school program leading to a degree in mechanics. The majority of the students are migrants from rural Bandundu who hope that the training they receive at the institute will get them jobs in Kinshasa. Only the luckiest succeed: Most return to their villages with skills for which there is little village-level demand.

The project will support modifications to ITPK's present program to make it more responsive to rural (and IMO) needs. The project will fund short courses in relevant areas, such as repair and maintenance of bicycles, simple mills, and other devices presently used or being introduced in the project area. Additionally, the possibility of ITPK manufacturing useful tools (hand mills for cassava and corn, for example), and training others in their manufacture, will be examined. Also the prospect of short courses tailored to specific IMO needs will be explored.

(2) Appropriate technology training

The project will encourage the introduction of simple labor-saving technology through IMOs. The major central institutional resource for this effort will be the Kinshasa-based Center for Social Action (CEPAS). CEPAS has good rural technology library and an active rural training program. It administers correspondence courses developed by INADES-Formation, the Abidjan-based appropriate technology institution. The PIJ will contract CEPAS to train IMO staff in appropriate technology design, extension, and maintenance.

(3) The following table summarizes project-sponsored training in mechanics and appropriate technology:

<u>Institution</u>	<u>Subject Matter</u>	<u>Target Group</u>	<u>Courses/Trainee</u>	<u>Duration</u>	<u>Frequency</u>
ITAK	General Mechanics	IMO staff	1	1-3 years	Annual
	Specialized Mechanics (Repair of simple machines)	IMO staff and IMO-nominated villagers	1-4	2-8 weeks	2-4 per year
CEPAS	Appropriate technology applications, design, repair, maintenance	IMO/PIJ staff	1-4	1-3 weeks	1-4 per year

c. Marketing

If further studies confirm the feasibility of a project credit component, then the project will fund participant, in-country, short and long term training as required. The extent and nature of such a training program will not be known until year 2 of the project, after credit studies have been completed.

d. Research and information. The principal research and information training subject areas are survey techniques and data analysis. The Zairian research manager will be given participant and in-country FSR, statistics, and data analysis training as appropriate. An in-country training program for project surveyors will also be organized by the PIJ.

e. Project inputs to this component include:

- One Zairian non-formal education specialist.
- One expatriate Research and Information Specialist (part-time only on this component).
- Foreign exchange and local currency for participant and in-country training.
- Short term technical assistance to establish or administer training programs as needed.
- Local currency funding for limited construction and/or reconstruction of ITAK and ITPK.
- Foreign exchange and local currency funding for commodities, such as machine tools, textbooks, and educational aids, for ITAK and ITPK.

B. Role of area towns

In 1984 USAID conducted a series of studies to identify the functions of Bandundu towns that lend support, actually or potentially, to agricultural production and rural development programs. In addition to Kikwit, the subject of a major study, research centered on two towns that are within the project area, Bulungu and Dibaya-Lubwe, and on three others that are of regional importance, Idiofa, Bandundu City, and Bagata.

Kikwit will be the site of several pilot project interventions. It is the financial and commercial center of the region, has the area's highest urban population, and, because of its position at the end of the paved road from Kinshasa and of the navigable portion of the Kwilu river, is a natural trading crossroads.

Project support will be directed at three Kikwit-based institutions: ITAK for agricultural production, ITPK for agricultural processing and mechanics training, and CBZO for marketing credit. ITAK and ITPK are regional and national educational centers for agriculture and mechanics respectively, CBZO is a rural savings cooperative with thirteen branch offices outside of Kikwit (plus two in Kikwit). (Appendix 5 provides a detailed description of these three institutions and proposes a work plan for each.)

The PIU's Production, Training, and Research and Information Divisions will work with ITAK to develop innovative short- and long term agricultural programs that are responsive to IMO and rural needs. The project may fund a portion of the costs of the construction of the new ITAK campus, presently suspended owing to lack of funds.

The PIU's Processing, Training, and Research and Information Divisions will work with ITPK to develop its capacity to provide appropriate training for artisan mechanics, to conduct research and development for small agro-industry, and to manufacture spare parts and simple machinery.

The PIU's Credit and Research and Information Divisions will work with CBZO to develop a means of providing credit for small scale agricultural transport, marketing, and transformation. In the first year of the project, a careful analysis will be made of area credit needs.

Studies to date indicate that many rural youth spend one or two years in a regional secondary town and then return to their villages. The project will support studies of urban-rural migration and remittances to determine whether training programs for rural migrants can have a positive development impact in rural areas. If they can, pilot interventions will be undertaken through ITAK, ITPK, Oxfam, and perhaps other organizations to train these youth in rural agricultural and off-farm employment skills.

This project will also identify interventions to facilitate Kikwit's role as a marketing center. Specific interventions will depend on the conclusions and recommendations of the Small Farmer Market Access Project studies, which will be available in 1985, and of an S&T-funded study of the impact of the Kikwit market on rural production. Funding for any recommended and approved infrastructure improvements (such as warehouses or fuel depots) will come from the supporting Area Marketing Development Project (660-0098). Institution-building interventions (such as improving the capacity of a local garage to service vehicles) may be funded by either 098 or 102.

If pilot programs in Kikwit are successful, consideration will be given to expanding these programs to Idiofa and Bulungu. Idiofa has a dynamic entrepreneurial element and an emerging agro-industrial sector that might be encouraged by increased availability of credit, and by infrastructure improvements. Appendix 5 contains detailed proposals for interventions in Idiofa and other area secondary centers.

Project inputs specific to this component include:

- Short-term technical assistance for ongoing studies of area rural-urban dynamics.
- Short term technical assistance for the design of pilot urban interventions.

1/3

9. Project Outputs

Shown below are the categories and types of outputs, with a preliminary estimate of their magnitudes. The outputs and their magnitude will be refined based on the findings of ongoing research and the results of the first project evaluation.

a. Production component outputs:

- 20 IMO personnel trained in financial and personnel management;
- 15 IMO agronomists and 15 IMO extensionists trained in management, training, and agronomy/extension;
- 10 IMO-based variety multiplication programs in place;
- 100 village extension agents given short-term training in extension of improved varieties and practices;
- 180 villages with IMO-sponsored demonstration plots.
- Communications channels established between IMOs and the following development resource institutions: PRONAM, PNL, PNM, PNR, and ITAK.

b. Processing component outputs:

- Two prototype small mills developed or identified;
- 500 small mills distributed in project area;
- Bicycles and push carts introduced where terrain and social mores permit;
- Ten short courses in the repair and construction of simple labor-saving devices given at ITPK.
- 100 IMO and village agents trained in repair and maintenance of mills, bicycles, pushcarts, and other simple processing and handling equipment;
- Five IMO-based mechanics trained in the repair and maintenance of vehicles and other sophisticated equipment;
- Communications channels established between all IMOs and the following Kinshasa and Kikwit based institutions; CEPAS, ITPK.

c. Marketing component outputs:

- Identification of critical bottlenecks to area food marketing (098 will fund necessary improvements to area infrastructure);
- Local priority transport infrastructure needs identified for action by Project 098.
- Credit study recommendations implemented.

d. Research and information outputs:

Data generated by studies analysed and provided to PIJ. Recommendations of studies implemented by appropriate PIJ divisions.

PART IV. Project Monitoring and Evaluation Arrangements

A. Baseline, midline, and endline studies.

This project and the companion Area Marketing Development Project (660-0098) share a Monitoring and Evaluation Information Service that will be responsible for collecting the baseline, midline, and endline data against which the success of both projects will be measured. Major responsibility for organizing, coordinating, and overseeing various research elements (including marketing, production, income, and consumption surveys) rests with the 192 PIJ. 098 will support the development of a central data analysis capacity for the processing of information gathered through these surveys.

A baseline study of the area is planned for the first year of project implementation. This study will complement the Small Farmer Survey, carried out in 1984, by concentrating on area food production, income, and consumption patterns, and will be supplemented by marketing and nutrition studies supported by AID/S&T. Data will be gathered both for the villages that will be the objects of initial IMO interventions and for the central Bandundu region as a whole. This two-pronged approach will allow USAID and the PIJ to assess both project-induced impact and general area trends (though it is not expected that the baseline will permit a disaggregation of exogenous factors for the area as a whole). The marketing study will gather product (including level of processing) and source data that will facilitate measurement of marketing and processing trends in the area as a whole as well as in IMO spheres of activity. Survey methodology will vary according to complexity, cost, and area to be covered, and will include rapid reconnaissance (for production, consumption, and income in selected project area villages) and long-term repeat monitoring (for marketing and processing in the entire area).

A midline survey will be performed after four years of IMO activity (year 6 of project) both in areas of project activity and in control villages. This survey will permit an initial assessment of project progress towards purpose achievement.

An endline survey will be performed in Year 9 of the project and will form the basis of the end-of-project evaluation.

B. Evaluation Schedule

Three benchmark evaluations are slated for this project: one in September of 1987, after the project has been actively engaged with at least one IMO for one full year; one in late 1991; and one in 1994. The first will be a start-up evaluation, the second a mid-point, and the third a final. An audit of the project will also be performed with project funds (zaïres and dollars) in 1989.

The first evaluation will have as its principal purpose to review project objectives, assess the degree to which project design is leading towards purpose achievement, review and confirm the validity of assumptions, assure that all participants (including those associated with the Agricultural Marketing Development Project, 660-0098) are properly carrying out the responsibilities envisaged and assigned, and make recommendations for improving project implementation. The evaluation team will also recommend revision of output targets as necessary.

It is envisaged that the evaluation team will be led by an economist with expertise in data collection and analysis and will include an extensionist and a development management specialist. The team leader will assess the adequacy of the baseline information gathered to date, and refine the criteria for monitoring the economic impact of the project. He will assess the performance of the Research and Information Division and of the 096-funded central data analysis unit. In addition, he will come to preliminary conclusions on the economic effect of ongoing interventions. Finally, he will assist the PIU by making recommendations for the conduct of the mid-line survey. The extensionist will assess the adequacy of the program for developing IMO-based extension services, and the actual and potential impact of these services on area farm production and land management. The management specialist will examine the management and financial control systems of the PIU and of those IMOs that have been mobilized or pre-mobilized for project participation. He will also assess the contribution of the PIU to the establishment of productive communications links between the IMOs and regional, national, and international development institutions, and examine the working relations between 102 and 098.

The mid-term evaluation will take place after the midline survey and subsequent data analysis are completed. It will update initial evaluation findings with recommendations appropriate at that point. It will specifically review what mechanisms have been established or planned for recurrent costs and other aspects of sustainability. It will also make an estimate of the economic impact of the project's production, marketing, and processing components. This evaluation team will include, in addition to the mix of start-up evaluators, an agronomist who will examine the impact of project interventions on production practices and soil capability.

The final evaluation, to be conducted in the last year of project activity after the endline study has been completed, will provide a comprehensive assessment of the project's impact on central Bandundu. The team will be constituted similarly to that of the midterm evaluation. The baseline and endline study results will be compared in order to determine the extent to which area production, marketing, and processing have increased. The effect of any such increases on the incomes (including distribution) and nutritional status of the population will also be examined. This evaluation will be conducted jointly with the final evaluation of the 098 project, and the cumulative impact of the two projects on the populace of the project area will be assessed. The modus operandi of 102 will be assessed for its utility as a potential development approach elsewhere. Finally, the opportunity will be taken through this evaluation to assess the impact of the various USAID development investments in this area of concentration over the preceding decade.

C. Monitoring Summary

This project has four categories of activities that will require discrete monitoring systems and for which various parties will be responsible. The first category is that of project implementation monitoring for USAID purposes. The project officer will be responsible for this monitoring and reporting. The second category is that of project management for which the PIJ (director) will be responsible. The third category is the monitoring of specific project interventions. This monitoring will be the responsibility of the Research and Information Division of the PIJ. The final category is that monitoring project area trends.

1. Implementation Monitoring

The purpose of this monitoring is to provide USAID current knowledge of project activities; to anticipate bottlenecks; to assure that U.S.G. funds are being disbursed in accordance with statutory requirements; to assure that goods and services financed are utilized effectively to produce intended benefits; to enable the project officer to make judgements about the continuing appropriateness of project design and the need for in-depth evaluations; to anticipate documentation requirements; to provide programmatic inputs; to continuously review project rationales and propose appropriate adjustments to take advantage of opportunities for better achieving project purpose; and to permit the project officer to deal with GOZ officials on substantive project issues.

The monitoring system that will be used for this project consists of establishing a mobilization and implementation plan; identifying key variables and pivotal actions; updating the implementation plan yearly; preparing Quarterly Implementation Reports; establishing a project accounting system; and establishing a reporting system (see Administrative Arrangements, Part VI, below). These system components will be supplemented by site visits, consultations with contractors and IMOs, and periodic reviews of requirements, scopes of work, plans, schedules, and payments contained in project documentation. The project officer will also establish a monitoring checklist modeled on that contained in HB 3, Chapter 11, Appendix A.

2. Project Management Monitoring

This monitoring category will cover activities associated with the day to day management of the project and activities related to performance and planning. The former includes establishing and reviewing office procedures (filing, correspondence, data processing, etc.); establishing and reviewing internal accounting systems; establishing an inventory system; tracking input requests and orders; establishing reporting systems; and establishing and maintaining records of inputs received (receiving reports, end use tracking). The latter requires reports on progress on annual work plans; review and revision of implementation plans; reports on project activities (see next section); and project-related information from IMOs, associated research institutions, and surveys and studies.

Responsibility for establishing this system rests with the Director of the PIJ assisted by the PIJ's information specialist. Some guidelines on format, functions, and reporting can be found in Appendix 14, the monitoring analysis.

3. Micro Impact Monitoring

The purpose this category of monitoring is to inform the PIJ and other interested parties of the appropriateness and success of the various project interventions including, especially, those undertaken by the IMOs. This will require establishing a monitoring system that includes staff reports, IMO reports, information from other agencies such as RAV (091), CEPLANJT, SFMA, LTC, CODAIK, ITAK, etc., as well as results of the baseline, rapid reconnaissance, soils, and other studies. Mid-term evaluations and endline surveys will also provide valuable data for this monitoring. Responsibility for developing this monitoring system rests with the PIJ's information specialist. The design study for a management information system (Spencer, Appendix 14) will be a useful reference in initiating this monitoring system.

4. Project Area Monitoring

In this category the project purpose will be monitored. By establishing a monitoring system at this level, the project will regularly review the different components and activities in terms of the whole project and project area, rather than IMO-specific output objectives. It will require review and analysis of reports on relationships between inputs and outputs at the IMO level, progress reports, results of all surveys and studies, and as much information as is available from secondary sources. This system will be backstopped by the 098 data processing system. The PIU's information specialist will have the responsibility for reviewing the 098 data processing program design and analysis.

PART V: PROJECT ANALYSES

A. Technical Analysis

Agriculture provides a livelihood to the vast majority of the population of the project area. Output per capita in Zaire in general and in the project area in particular declined from 1960 to 1980 as a consequence of political and economic disruptions, and of the deterioration of road and river infrastructure.

Area production has probably increased since 1980. The paved road from Kikwit to Kinshasa, completed in 1978, significantly lowered transportation costs; farmgate agricultural price fixing was abolished in 1982; and the 1983 devaluation of the Zaire to a floating market exchange rate shifted the internal terms of trade in favor of the farmer. As a result of these factors, Bandundu has become the major source of staple food for Kinshasa.

The choice of project elements and intermediaries stems from analyses of agronomic practices, the area's institutional framework, earlier project experience, potential linkages between central research and training institutions and area-based outreach stations, and alternative approaches for reaching the village cultivators and inducing their participation in more productive agriculture. Consideration was given to a number of geographic, technical, and management options. The ones selected were those that were found to be best adapted to local agronomic practices, organizational and management norms, and the capabilities of the GOZ.

1. Agronomy (general)

Annex 6 gives a general agronomic overview of the project area, and discusses the planned linkages of this project to the national crop research programs. The following gives a summary of the technical feasibility of the project components. Reports containing site and intervention specific detail may be found in the appendixes.

2. Production

a. Cassava

(1) Applied research on cassava conducted by PRONAM to date indicates that yield increases of between 40 and 100 percent can be achieved by the introduction of improved varieties and practices.

(2) Research has concentrated, and will continue to concentrate, on varieties that increase both tuber and leaf production.

(3) Intercropping will be promoted where conditions, including the land tenure system, permit.

(4) IMO-sponsored demonstration plots will be supported in project area villages. USAID experience indicates that farmers in Zaire will adopt new varieties quickly if these varieties offer significant production gains.

(5) Cassava multiplication is a slow process. Multiplication plots will be established throughout the project area by IMOs in order to ensure access to improved varieties by most area farmers by FACD.

b. Corn

Area corn research is presently limited to a weak PNM effort at Kiyaka. 102 and 091 will collaborate to improve corn adaptive research and multiplication for area farmers. One or two IMOs will serve as multiplication centers.

c. Legumes

PNL is not active at present in Bandundu. Area variety trials and multiplication by ITAK and selected IMOs will be supported jointly by 102 and 091.

d. Rice

Area rice growing is concentrated around Idiofa and Kikwit. Demonstration plots for PNR-identified varieties will be sponsored by IMOs in these areas. The IMOs will also serve as multiplication centers if appropriate.

e. Soils

(1) Area soils are largely the relatively infertile Kalahari sands which, in many areas, are deteriorating as fallow periods shorten.

(2) No comprehensive soil survey of the area has been performed. The project will sponsor necessary soil surveys during the first year of project activity.

(3) The effects of changing production patterns on soil fertility will be monitored over the life of the project through periodic soil analyses.

(4) The project will draw upon the Tropical Soils CRSP for short-term technical assistance as appropriate.

3. Processing

a. Project area cassava is commonly soaked, peeled, fermented once, and then smoke or fire dried. This process causes some discoloration, which lowers the market value.

b. Cassava is marketed predominantly in the form of cossettes (dried, peeled tubers about one foot long), but is also pounded to make flour or kneaded to make kimpuka.

c. Possible on-farm interventions to be supported by the project include:

(1) improved air drying through the use of wire mesh or angled trays.

(2) double fermentation to prevent discoloration.

(3) small mills.

d. Possible off-farm interventions include:

- (1) Larger village-level mills;
- (2) Bicycles and pushcarts for small traders and farmers.

4. Farming Systems Research (FSR)

a. Farming systems research will help ensure the technical and sociological soundness of project interventions. During the first year of the project, in cooperation with 091, eight months of FSR in the area will be undertaken.

b. PIU and IMO agronomists and extension agents will receive intensive and periodic short courses in FSR funded jointly by 102 and 091.

c. The communications channels established between IMOs and village cultivators on the one hand, and between IMOs and sources of development technology on the other, will constitute a permanent farming systems research organization with two-way information flows.

B. Financial Analysis

The total project cost, including allowances for inflation and contingency, but excluding GOZ and IMO in-kind contributions, is estimated to be \$15,000,000 in foreign exchange (AID funds), \$10,000,000 in PL 480-generated local currency (GOZ funds), and \$1,000,000 in IMO-owned local currency.

Technical assistance cost estimates are based on recent USAID experience with hiring technical advisors. Commodity estimates are based on present CIF Matadi costs of equipment. Training estimates are based on present costs to USAID of participant training, including air travel. Note that short term technical assistance includes funds for a midterm audit and all evaluations.

Table 1 summarizes cost estimates by source, Table 2 projects LOP expenditures by year.

Annex 7 presents detailed year by year FX and LC cost estimates.

Table 1
Summary Cost Estimate and Financial Plan
(U.S. \$000)

<u>SOURCE</u>	<u>AID</u> <u>FX</u>	<u>HOST COUNTRY</u> <u>LC</u>	<u>IMO</u> <u>LC</u>
Technical Assistance	6,750	900	150
Commodities	1,978	4,735	430
Training	1,050	1,000	50
Inflation Factor	2,935	1,708	318
Contingency	2,287	1,657	52
TOTAL	15,000	10,000	1,000

TABLE 2
Projection of Expenditures by Fiscal Year
(U.S. \$000)

<u>Fiscal Year</u>	<u>AID</u>	<u>HOST COUNTRY</u>	<u>OTHERS</u>	<u>TOTAL</u>
FY 85	490	1,340	-	1,832
FY 86	1,530	1,265	-	2,795
FY 87	1,254	435	15	1,704
FY 88	993	435	30	1,458
FY 89	983	510	45	1,538
FY 90	1,087	510	60	1,657
FY 91	875	510	75	1,460
FY 92	866	510	105	1,501
FY 93	920	560	135	1,635
FY 94	778	560	165	1,523
Inflation factor	2,935	1,708	318	5,120
Contingency	2,287	1,657	52	3,387
TOTAL	15,000	10,000	1,000	26,000

Recurrent Costs

The recurrent costs for this project have been kept to the minimum necessary to continue successful project activities beyond the PACD. They include: for the IMOs, salaries and equipment maintenance and replacement; for the central resource institutions, salaries and commodities; and for the villagers, purchases of agricultural inputs and maintenance of simple processing and handling equipment. The GOZ will not bear any recurrent cost after the project.

The number of additional salaried positions within IMOs will vary according to the size of their present extension/agronomist staffs, the geographic outreach area, and the number and types of interventions undertaken. An average IMO may require two additional personnel (agronomists/extension agents). Average annual salary costs assuming two additional positions per IMO will be approximately \$4,000. Vehicle operating, maintenance and depreciation (assuming 12,500 miles per year, one 4 WD and two motorcycles) will cost approximately \$7,000 a year.

Thus, the total recurrent cost per IMO is roughly estimated at:

1. Vehicles (depreciation, repair, operation)	7,000
2. Salaries (2 positions x \$ 2,000)	4,000
3. Other costs (continued training for village and IMO agriculturalists, bicycles, other equipment such as mills, tools, etc)	4,000
TOTAL	\$15,000

This figure is an estimated average. A thorough financial analysis of each IMO will be undertaken by the PIJ before a program for that IMO is devised. While it is expected that the above added recurrent costs will be within the continuing means of most IMOs, some will be able to assume higher, and others only lower costs.

The central resource institutions will also be the subjects of financial scrutiny by the PIJ to determine what activities can and ought to be sustained. The two training institutions, ITAK and ITPK, will be encouraged to charge fees that cover their recurrent costs. The CEPAS appropriate technology program should realize no appreciable increases in operating costs, but is expected to defray any such costs through fees for services. The national food crop programs will experience a reduction in their planned long-term expenditures because this project will develop an outreach capacity that would otherwise be at least partially funded by the crop programs. Finally, whether or not the project funds a credit intervention will depend on the capacity of a local credit institution to fully cover costs.

Village-level recurrent costs include equipment maintenance, local extension service support, and planting material costs. The equipment maintenance expenses, such as bicycle and mill repair and spares, should be covered by the increased revenues villagers or villages realize from the use of the equipment; spare parts will be stocked by the IMOs or local

entrepreneurs; and project-funded training will create a cadre of village and IMO technicians capable of repairing the machinery introduced. In many villages there are traditional figures that concern themselves with land distribution and agronomic practices within their clans. In these cases the traditional rewards system may be adequate recompense for their services, particularly if their overall duties are not increased. In other areas, extension agents may be supported post-project either by the villages or by the IMOs. Finally, there are the recurrent costs of improved varieties of cassava, corn, grain legumes, and rice. How these are met will be determined by the national crop programs, the multiplication centers, and the receptivity of farmers to the varieties.

C. SOCIAL ANALYSIS

Principal ethnic groups in the project area include the Yansi, Pende, Mbunda, Dinga, Mbala, Pindi, Mputu, and Ngoli. Other groups included are Hungana, Lori, Suku, Kwese, Ngwi, Ngongo, and Sakata. These diverse groups speak different though related languages and have different histories, social organizations, and cultural practices.

Along the Kwilu river alone, seven different groups presently occupy land. This geographic mixture of ethnic groups is unusual for rural Zaire and reflects a historical jockeying for better land. The history of land ownership still influences tribal relations.

This long history of close association between diverse ethnic groups in a highly populated region may augur well for the willingness of cultivators to try new ideas. The average villager knows several local languages, is aware of different cultural practices, and knows alternative ways for completing work. Central Bandundu's highly concentrated ethnic diversity is unique in Zaire. This heterogeneity may enhance the possible spread of new technologies and information because the population is used to borrowing from neighboring groups. Population heterogeneity can also result in ethnic rivalries and adherence to tradition. Ethnic constraints to change will be closely studied and taken into account in implementing 102.

Annex 9 provides a detailed socio-cultural description and analysis of the project area.

D. ECONOMIC ANALYSIS

The economic analysis (Annex 8) estimates, for the project production and processing components, the number of farmers that must be reached to achieve rates of return of .05, .10, and .15. High, medium, and low yield increases per hectare, and processing benefits per ton, are used to examine a range of possible project outcomes.

Production: The worst case for production benefits assumes a real discount rate of 0.15 and low yield increases (as estimated by IITA and the national crop research programs) for cassava, corn, and grain legumes. Under this scenario, the average IMO will have to demonstrate new varieties to 4,420 farmers in the second year of activity in order to achieve a cost/benefit ratio of 1.00. This implies a minimum initial extension service staff of ten; clearly more than the average IMO can sustain. If, however, it is assumed that the two or three IMOs that the project works with first can reach this number in the second year of activity and expand (through the use of village level agents) at a rate of at least 1,000 farmers a year, then the project appears likely to achieve a 0.15 rate of return even under low yield estimates.

Processing: The worst case for processing benefits assumes low net benefits per ton of \$39 and a discount rate of 0.15. Under these assumptions, the average IMO will have to install 29 hand mills and induce 762 farmers to adopt improved drying and storage techniques over four years. These figures for mills placed and farmers reached are well within expected project outputs.

Marketing: An economic analysis of the marketing infrastructure construction component has been performed for the Agricultural Marketing Development Project (660-0098): Subprojects of 098 promoted by 102 will be justified on a case by case basis. The marketing credit component economic analysis will be performed as part of the feasibility study scheduled for 1985.

PART VI: Administrative Arrangements

The four principal entities that will be involved in the implementation of the project are the Project Implementation Unit (PIU), the participating local organizations (IMOs), the Department of Agriculture and Rural Development (DOA), and USAID.

The PIU will have primary responsibility for the day-to-day implementation of the project. This unit will be staffed by five expatriates: the Chief of Party (COP), an executive officer, an extensionist, an agronomist, and a research specialist; sixteen locally recruited professional staff: a logistics coordinator, two accountants, eight agronomists/extension agents, a financial analyst, a marketing specialist, a rural technology specialist, a non-formal education specialist, and an agricultural economist. A description of the division of responsibility within the PIU is attached as Annex 10.

The IMOs will be responsible for the implementation of project subcomponents. The PIU will help each IMO develop an agricultural development plan for its area. A Memorandum of Understanding will be prepared defining administrative and technical responsibilities of both the PIU and the IMO in each case.

USAID will sign the project agreement with the Department of Agriculture. The DOA will second staff as available to the PIU to serve in professional capacities for the life of project, and will assume major responsibility for the recruitment of locally hired PIU staff. The DOA will also approve documents earmarking project dollar funds.

To manage this project, USAID will assign a Project Officer whose responsibilities will include:

1. Monitoring and evaluation of project activities to ensure that the management of AID resources is satisfactory;
2. assisting in the preparation of project implementation documents, particularly those relating to procurement;
3. the maintenance of liaison with host country officials;
4. assisting in the maintenance of project reporting and record keeping, including financial management information and project performance tracking;
5. ensuring that necessary collaboration between this project, 098, and 091 at the USAID level is maintained.

The following summarizes project management responsibilities. Annex 10 discusses various tasks, including financial and reporting requirements, in detail.

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>			
	<u>USAID</u>	<u>PIU</u>	<u>IMOs</u>	<u>DARD</u>
Signing PROAG	X			X
Drafting PIOs	X			
Coordinating support and logistics for studies/surveys	X	X		
Recruiting Zairian Staff	X			X
Initiating Procurement	X	X		
Tracking Procurement pre-arrival	X			
Receiving		X		
End Use Tracking		X		
Housing Construction	X	X		
Gathering Data		X		X
Processing Data				X
Analyzing Data		X		X
Applying Data		X	X	
Supervising Project Staff		X		
Supervising Contractors	X			
Negotiating MOUs	X	X	X	
Monitoring MOUs		X		
Implementation Interventions		X	X	
Evaluation of IMO activities and interventions		X		
Project evaluations	X			X
Planning	X	X		X

B. Implementation and Procurement

Project implementation and procurement decisions will be based on the IMOs and interventions identified during the first 18 months of project activity. The PIJ will develop a 12-month plan annually for USAID review and approval.

The project mobilization schedule for the first 18 months of activity is given in Table 4.

The authorized source for procurement of goods and services under the project is the United States (A. I. D. Code 000). It is expected that some commodities, such as small motorcycles, that are not available from the authorized code, will be procured from Code 899 (Free World). AID will contract directly for all goods and services under the project.

ANNEXES

1. PID approval and mission response
2. IMO Description - Summary & Expanded
3. Log Frame
4. Project Checklist
5. Grantee Request for Assistance
6. Technical Analysis
7. Financial Analysis
8. Economic Analysis
9. Social Soundness
10. Administrative Analysis

ANNEX 1

PID Approval Cable and Response

VZCZC:1
FM AFR/PA
DE ZAIRF #2828/01 233 *N
ZNR UJUUU ZZB
P 201253Z AUG 84
FM AMEMBASSY KINSHASA
TO SECSTATE WASHDC PRIORITY 3327
BT
UNCLAS KINSHASA 12528

CLASS: UNCLASSIFIED
CRGTF: AID 09/17/84
APPRV: D/DIR:ASLEZI
DRFTD: DFC:BLBRADG
CLPAR: PRM:JWIFBLFI
DISTR: AMB DCI AID2
ECON CHRON

AFDAC

FOR AFR/PD/CCWAP R. ANDERSON, AFR/CA B/BEYER

L.O. 12356: N/A
SUBJECT: ZAIRF - AREA FOOD AND MARKET DEVELOPMENT PID
(650-0102)

REF: STATE 161022

1. THE MAJOR ISSUES ADDRESSED IN REFTEL CAN BE CATEGORIZED UNDER (A) PROJECT CONCEPT, (B) RECURRENT COSTS AND SUSTAINABILITY, (C) PROJECT MANAGEMENT, AND (D) OTHER ISSUES. THE SEVERAL SUB-ISSUES RAISED WILL BE ADDRESSED UNDER THESE GENERAL HEADINGS IN THE DISCUSSION BELOW.

2. PROJECT CONCEPT:

--A. UNIVERSE OF ORGANIZATIONS. THE PROJECT WILL BE MANAGED BY A PROGRAMMING AND IMPLEMENTATION UNIT (PIU). THE COMPOSITION OF THE PIU (PROJECT STAFF) IS DISCUSSED IN PARA 4 BELOW. THE PIU WILL WORK THROUGH EXISTING PROJECT-AREA ORGANIZATIONS TO REACH THE TARGET GROUP (SMALL CULTIVATORS). A PRELIMINARY INVENTORY OF EXISTING RELIGIOUS AND RELATED ORGANIZATIONS IS SET FORTH IN PARA SIX BELOW. OTHER POSSIBLE ORGANIZATIONS SUITABLE TO PARTICIPATE IN THE PROJECT INCLUDE LOCAL GOVERNMENT ENTITIES (COLLECTIVITIES) AND LOCAL TRADERS OR PRIVATE ENTERPRISES. A MORE COMPREHENSIVE, ANNOTATED, AND ANALYZED INVENTORY WILL BE DRAWN UP DURING THE PP DESIGN. THE PREDOMINANCE OF CATHOLIC MISSIONS AND PROJECTS REFLECTS THE RELIGIOUS AFFILIATION OF THE PROPOSED PROJECT AREA POPULATION. PRELIMINARY FINDINGS OF A STUDY OF SMALL FARMERS IN THE PROPOSED AREA, CARRIED OUT AS ONE OF THE DESIGN ACTIVITIES, INDICATE THAT 73 PERCENT OF THE AGRICULTURALISTS ARE MEMBERS OF THE CATHOLIC CHURCH AND 19 PERCENT MEMBERS OF PROTESTANT CHURCHES.

THE BANDUNDU REGION HAS NO SIGNIFICANT KNOWN MINERAL DEPOSITS AND THUS WAS RELATIVELY NEGLECTED DURING THE COLONIAL ERA. SOME EFFORT WAS MADE TO ATTRACT INVESTMENT IN AGRICULTURE WHICH RESULTED IN THE EXPLOITATION OF NATURAL RUBBER AND PALM TREES BUT, ON THE WHOLE, WHATEVER DEVELOPMENT OCCURRED WAS UNDERTAKEN BY THE CHURCHES. EVEN TODAY VIRTUALLY ALL RURAL DEVELOPMENT ACTIVITIES IN THE PROJECT AREA ARE NON-GOVERNMENTAL.

AMONG THE MORE IMPORTANT CATHOLIC GROUPS ARE THE JESUITS, WHO CAME UP THE WILU RIVER TO KIKIT AND BEYOND AROUND 1850 FROM THE 17TH CENTURY AND NOW CONCENTRATE THEIR EFFORTS

UNCLASSIFIED

KINSHASA 12528

IN BULUNGU AND BAGATA ZONES; THE OBLATES OF OUR LADY WEO ESTABLISHED MISSIONS IN IDIOFA ZONE; THE DIVINE WORD SOCIETY IN BAGATA ZONE; AND THE CONGREGATION OF THE IMMACULATE CONCEPTION OF MARY, CONCENTRATED NORTH OF THE KASAI RIVER. EARLY PRIORITY WAS GIVEN TO THE ESTABLISHMENT OF SCHOOLS, HEALTH SERVICES, VOCATIONAL TRAINING AND, AT A LATER STAGE, AGRICULTURAL DEVELOPMENT. MANY OF THESE MISSIONS AND PARISHES HAVE NOW BEEN TAKEN OVER BY ZAIRIANS ALTHOUGH A NUMBER OF EXPATRIATE MISSIONARIES REMAIN ACTIVELY INVOLVED IN AGRICULTURAL PRODUCTION AND MARKETING SUPPORT ENDEAVORS AND IN VOCATIONAL AND TECHNICAL EDUCATION PROGRAMS. EACH DIOCESE AND PARISH HAS A LAY DEVELOPMENT COUNCIL RESPONSIBLE FOR IDENTIFYING DEVELOPMENT NEEDS AND DRAWING UP DEVELOPMENT PLANS. AGRICULTURAL PRODUCTION AND MARKETING PROGRAMS ALREADY EXIST AT DJUMA PARISH (BULUNGU ZONE) AND THROUGHOUT THE DIOCESE OF IDIOFA. SIA PARISH (BAGATA ZONE) HAS AN IMPORTANT VETERINARY EXTENSION SERVICE IN ADDITION TO ITS BRIDGE-BUILDING AND ROAD MAINTENANCE COMMITMENTS. VOCATIONAL AND TECHNICAL SCHOOLS ARE ACTIVELY FUNCTIONING IN KILWIT UNDER THE JESUITS AND OTHERS. A NUMBER OF OTHER PARISHES (FOR EXAMPLE, MOALA AND IPAMU) HAVE MADE AN INSTITUTIONAL COMMITMENT TO AGRICULTURAL EXTENSION.

PROTESTANTS ACTIVE IN THE AREA, PRIMARILY VARIOUS GROUPS OF BAPTISTS AND MENNONITES, HISTORICALLY PLACED MORE IMPORTANCE ON EVANGELICAL WORK. THE DENOMINATIONS, CALLED COMMUNITIES, ARE NOW GROUPED TOGETHER IN AN UMBRELLA ORGANIZATION KNOWN AS THE CHURCH OF CHRIST IN ZAIRE (CCZ). THE BAPTIST COMMUNITY OF WESTERN ZAIRE (CBZO), IN BAGATA AND BULUNGU ZONES, AND THE BAPTIST COMMUNITY OF BANDUNDU (CBB), NORTH OF THE KASAI RIVER AND IN BAGATA ZONE, ARE LONG-ESTABLISHED AND HAVE IMPORTANT HEALTH SERVICES (VANSA, ALONGO, BOSOBE), AND SCHOOLS, AND HAVE BEGUN SERIOUS EFFORTS IN AGRICULTURAL DEVELOPMENT (LUSELE, MIMIA). MENNONITES, THOUGH HISTORICALLY CONCENTRATING THEIR EFFORTS SOUTH AND EAST OF THE PROJECT AREA, ARE ACTIVE IN KILWIT IN AN AGRICULTURAL DEVELOPMENT PROJECT (PAP). ZAIRIANS CONTROL THE CHURCH ADMINISTRATION OF THE PROTESTANT COMMUNITIES. A SIGNIFICANT NUMBER OF

TECHNICAL ASSISTANCE.

THE LIMBANGUIST CHURCH, AN AFRICAN CHRISTIAN CHURCH BEGUN IN ZAIRE IN THE 1920'S BUT NOT OFFICIALLY ALLOWED TO OPERATE BY THE COLONIAL ADMINISTRATION UNTIL 1959, HAS A NUMBER OF FOLLOWERS IN THE REGION. THEY HAVE AN AGRICULTURAL PROJECT BASED IN LOPWI WITH THREE EXPERIMENTAL STATIONS NEARBY, AN AGRICULTURE TRAINING CENTER, AND EXTENSION PROGRAMS IN 15 VILLAGES.

THE BARAIS ARE ALSO ACTIVE WITHIN THE PROJECT AREA, ESPECIALLY IN AND AROUND BANDUNDU CITY AND LILWIT. THEY ARE INTERESTED IN GREATER INVOLVEMENT IN AGRICULTURAL DEVELOPMENT IN THE REGION AND PARTICULARLY IN TRAINING WOMEN TO TAKE A MORE ACTIVE ROLE IN THE EVOLVING SOCIETY.

AT THIS STAGE IN THE PROJECT DESIGN THE FOLLOWING CRITERIA HAVE BEEN ESTABLISHED FOR THE SELECTION OF ORGANIZATIONS TO PARTICIPATE IN THE PROJECT:

- (1) ALREADY INVOLVED IN AGRICULTURAL PROGRAMS OR SERIOUSLY INTERESTED IN STARTING;
- (2) FOCUS ON VILLAGE CULTIVATORS, EMPHASIS ON FOOD CROPS, CROP DIVERSITY, AND APPROPRIATE TECHNOLOGIES;
- (3) INSTITUTIONAL CAPACITY TO ADMINISTER AND IMPLEMENT PROJECT ACTIVITIES;
- (4) ZAIRIANS IN POSITIONS OF AUTHORITY AND RESPONSIBILITY;
- (5) ACCEPTED AND RESPECTED BY LOCAL AREA VILLAGERS;
- (6) INTERESTED IN WORKING WITH THE PROJECT;
- (7) COMMITMENT TO TRAINING ADDITIONAL ZAIRIAN STAFF WITHIN THE PROJECT FRAMEWORK;
- (8) INSTITUTIONAL COMMITMENT TO SUSTAIN PROJECT-FOSTERED ACTIVITIES BEYOND LOP;
- (9) SIGNIFICANT GEOGRAPHIC ZONE OF INFLUENCE.

THESE CRITERIA, WHICH HAVE EVOLVED OUT OF EXTENSIVE DISCUSSIONS AND RESEARCH, WILL BE FURTHER REFINED AS PLANNING PROCEEDS.

IN SOME CASES THE PROJECT MAY WORK THROUGH THE LOCAL GOVERNMENT ADMINISTRATIVE STRUCTURE (COLLECTIVITY) OR WITH A LOCAL PRIVATE ENTERPRISE. IN THESE CASES FURTHER CRITERIA WOULD BE ADDED FOR THE LOCALLY ELECTED COLLECTIVITY CHIEF TO BE DYNAMIC, RESPECTED, AND FINANCIALLY RESPONSIBLE, OR FOR THE PRIVATE FIRM TO HAVE A PROVEN PUBLIC RECORD OF INVESTMENT IN LOCAL DEVELOPMENT EFFORTS.

—B. ROLE OF THE PARTICIPATING ORGANIZATIONS IN THE PROJECT.

THE EMPHASIS OF THE PROJECT VIS-A-VIS PARTICIPATING LOCAL ORGANIZATIONS WILL EVOLVE AS IMPLEMENTATION PROCEEDS. IN THE INITIAL PHASE THE EMPHASIS WILL BE ON THE ORGANIZATION OF SERVICES, THE DEVELOPMENT OF THE CAPACITY OF THE LOCAL ORGANIZATIONS TO PROVIDE AND SUPPORT SUCH SERVICES,

PERSONNEL DEVELOPMENT, COLLECTION OF BASELINE DATA, AND TECHNICAL RESEARCH TO SUPPORT PROJECT OBJECTIVES. THE INITIAL ACTIVITIES WILL INCLUDE LAND CAPABILITY STUDIES, ADAPTIVE TRIALS, TRAINING OF PERSONNEL, INSTITUTIONAL STRENGTHENING OF BOTH LOCAL ORGANIZATIONS AND AREA AGRICULTURAL INSTITUTIONS, AND ESTABLISHMENT OF A MONITORING AND EVALUATION INFORMATION SYSTEM. AS THESE ACTIVITIES ARE COMPLETED, THE EMPHASIS OF THE PROJECT WILL SHIFT TO INCREASED YIELDS AND PRODUCTION THROUGH EXTENSION SERVICES, IMPROVED TECHNOLOGIES, MORE READILY AVAILABLE INPUTS, IMPROVED AGRICULTURAL PRACTICES, AND IMPROVED LAND MANAGEMENT. IT IS EXPECTED THAT MEASURABLE IMPROVEMENTS IN YIELDS OF BASIC CROPS, ESPECIALLY CASSAVA, WILL BE REALIZED BY THE FIFTE YEAR OF THE PROJECT.

—C. ACTIVITIES TO BE UNDERTAKEN BY PARTICIPATING ORGANIZATIONS.

THOSE PROJECT ACTIVITIES TO BE UNDERTAKEN BY THE LOCAL DEVELOPMENT ORGANIZATIONS AND INSTITUTIONS HAVE BEEN OUTLINED ABOVE. THE PRINCIPAL INCENTIVE FOR THESE ORGANIZATIONS TO PARTICIPATE IN THE PROJECT WILL BE THEIR OWN DESIRE TO IMPROVE THE AGRICULTURAL PRACTICES, PRODUCTION LEVELS, AND QUALITY OF LIFE OF VILLAGE FARMERS. AMONG THE LATTER IN THE PROJECT AREA THERE IS ALREADY AN ACUTE AWARENESS AND CONCERN, PARTICULARLY AMONG

THEY WILL BE ABLE TO OBTAIN A BETTER YIELD AND YIELDS ARE BEING AS
 FOLLOWED BY THE GOVERNMENT. SINCE THEY ARE FAR FROM BEING
 BEING RECIPIENTS OF THE SERVICES, AND PART OF THE PROJECT.
 ACTIVITIES ENJOINED FOR THEIR BENEFIT THROUGH THE PROJECT.

THE TECHNOLOGY FOR IMPROVING CASSAVA PRODUCTION IN ZAIRE IS AT THE RESEARCH AND DEVELOPMENT STAGE. THE 302'S USAID-ASSISTED CASSAVA RESEARCH PROGRAM, PRONAM, HAS DEVELOPED SIX VARIETIES OF CASSAVA WITH RESISTANCE TO BACTERIAL BLIGHT AND WITH TOLERANCE TO MOSAIC AND ANTERAGNOSIS, OF WHICH TWO HAVE A CONSISTENT FRESH ROOT YIELD HIGHER THAN THAT OBTAINED FROM LOCAL VARIETIES BUT NO ADVANTAGE IN DRY MATTER PRODUCTION. FOUR OF THESE VARIETIES HAVE BEEN FIELD TESTED IN BANDUNDU, ONE (F100) WITH RELATIVE SUCCESS, AND ARE BEING MULTIPLIED, DISTRIBUTED, AND FURTHER TESTED THROUGH PRONAM'S EXTENSION PROGRAM. IT IS TOO EARLY TO ESTIMATE THE LIKELY GAINS FROM THE TRANSFER OF THIS TECHNOLOGY SINCE STATION TRIALS AND FIELD TESTS HAVE BEEN DONE WITH CASSAVA AS A MONOCULTURE. IN THESE CONDITIONS YIELDS ARE REASONABLY HIGH BUT LOCAL VARIETIES HAVE NOT BEEN GROWN IN SIMILAR CONDITIONS FOR COMPARISON. IN THE VILLAGES, CASSAVA IS COMMONLY INTERCROPPED WITH CORN, SQUASH, PEANUTS OR OTHER CROPS. SUPPORTING RESEARCH UNDERTAKEN FOR PROJECT DESIGN HAS FOUND THAT, ON THE AVERAGE, FIFTY TO TEN VARIETIES ARE GROWN IN VILLAGES IN THE PROJECT AREA WITH CERTAIN IDENTIFIED SPECIES GROWN FOR CONSUMPTION, OTHERS FOR SALE. TO DATE, LITTLE RESEARCH HAS BEEN DONE ON THE RESISTANCE AND TOLERANCE OF THESE LOCAL VARIETIES NOR ARE THEIR YIELD LEVELS KNOWN. FURTHER RESEARCH IS CURRENTLY UNDERWAY BY A CASSAVA SPECIALIST AND A SOCIAL SCIENTIST TO FURTHER IDENTIFY AND CATALOGUE LOCAL VARIETIES, TO IDENTIFY DIFFERENT PROCESSING TECHNIQUES AND CUSTOMS, AND TO COLLECT THE KNOWLEDGE OF LOCAL CULTIVATORS, PROCESSORS, TRANSPORTERS AND CONSUMERS ABOUT THEIR PRACTICES, PREFERENCES AND PROBLEMS. THE PROJECT WILL BUILD ON THIS RESEARCH AND WILL CARRY OUT FIELD TRIALS AND OTHER TESTS TO DETERMINE THE SUITABILITY OF LOCAL VARIETIES AS WELL AS PRONAM AND OTHER VARIETIES TO LOCAL CONDITIONS. THE LAND CAPABILITY UNIT WITHIN THE PROJECT WILL UNDERTAKE ASSOCIATED SOIL STUDIES AND ANALYSES. CLOSE LINKS WILL BE ESTABLISHED BETWEEN THE PROJECT PARTICIPANTS AND THOSE AGRICULTURAL RESEARCH STATIONS WHICH MAY BE ABLE TO ASSIST WITH PLANT BREEDING, PLANT PATHOLOGY AND OTHER SUPPORTIVE TECHNIQUES. IN PARTICULAR THE PROJECT WILL WORK CLOSELY WITH THE APPLIED AGRICULTURAL RESEARCH PROJECT (650-0091).

3. RECURRENT COSTS AND SUSTAINABILITY

--A. PROGRAMMING AND IMPLEMENTATION UNIT (PIU). WITH ONE POSSIBLE EXCEPTION (DISCUSSED BELOW), THERE WILL BE NO RECURRENT COSTS ASSOCIATED WITH THE PIU AFTER THE PROJECT. THIS IS AN INTENTION OF PROJECT DESIGN. THE PIU WILL HAVE TWO BASIC FUNCTIONS. IT WILL ASSUME RESPONSIBILITY FOR THE DETAILED PROGRAMMING OF PROJECT RESOURCES AND IT WILL BE RESPONSIBLE FOR DIRECTING AND COORDINATING PROJECT IMPLEMENTATION. THE FIRST FUNCTION WILL ALLOW THE FLEXIBILITY IN IMPLEMENTATION ESSENTIAL TO

AN INNOVATIVE PROJECT OF THE DURATION ENVISAGED AND IS IN PART A CONSEQUENCE OF THE DECISION NOT TO WORK THROUGH THE GOVERNMENTAL ADMINISTRATIVE STRUCTURES BUT MAINLY THROUGH THE PRIVATE AND VOLUNTARY SECTORS. THE ACTUAL MIX OF PROJECT INPUTS SUITABLE FOR ANY GIVEN LOCATION WILL BE BASED ON THE NYFDS AND AGRICULTURAL PRACTICES OF THE VILLAGE FARMERS, THE DESIRED CROPS AND SUPPORTING SERVICES, THE EXISTING PROGRAMS OF THE PARTICIPATING LOCAL ORGANIZATION, AND ITS CAPACITY TO EXPAND ITS SERVICE OUTREACH. AS THE PROJECT EXPANDS ITS AREA OF ACTIVITY, THESE MUST BE DETERMINED FOR EACH NEW LOCAL ORGANIZATION ELECTING TO PARTICIPATE IN THE PROJECT. IT IS ANTICIPATED AT THIS STAGE IN THE DESIGN THAT THE PROJECT WILL BEGIN ITS WORK WITH FOUR LOCAL ORGANIZATIONS AND WILL EXPAND THESE ACTIVITIES OVER THE LIFE OF THE PROJECT TO ENCOMPASS UP TO TWENTY SUCH ORGANIZATIONS. FURTHER STUDY IS NEEDED TO DETERMINE WHETHER THIS WOULD ENSURE COVERAGE OF THE PLANNED PROJECT AREA. THE PIU WILL BE PHASED OUT WITH THE PROJECT, THAT IS, WHEN THERE IS NO FURTHER PROJECT ASSISTANCE TO PROGRAM AND IMPLEMENT. BY THAT TIME, THE PIU WILL HAVE ASSISTED THE PARTICIPATING LOCAL ORGANIZATIONS TO ESTABLISH DIRECT LINKS WITH SUPPORTIVE RESEARCH INSTITUTIONS AND THE VARIOUS SUPPLIERS OF INPUTS, AND WILL HAVE HELPED DEVELOPED THE CAPACITY, BOTH FINANCIAL AND TECHNICAL, IN THESE ORGANIZATIONS TO ASSURE

UNCLASSIFIED

THEM TO CONTINUE THEIR SUPPORT AND EFFORTS TO ASSIST THE VILLAGE FARMERS WITHOUT PROJECT ASSISTANCE. THE ONLY EXCEPTION TO THIS MAY BE THE LAND CAPABILITY UNIT. EARLY IN THE DESIGN IT WAS REALIZED THAT LACK OF KNOWLEDGE OF SOIL CONDITIONS WAS GOING TO BE A CONSTRAINT FOR THE DESIGN AND FOR IMPLEMENTATION. IT WAS FOUND THAT NEITHER THE GOVERNMENT'S AGRICULTURAL RESEARCH INSTITUTE (IRITA) NOR ANY PRIVATE SECTOR ENTITIES WERE LIKELY TO DEVELOP THIS CAPACITY. THUS IT WAS DECIDED TO ESTABLISH A LAND CAPABILITY UNIT IN THE PIU WHICH COULD UNDERTAKE THE REQUIRED ANALYSES FOR THIS AND OTHER RELATED PROJECT ENDEAVORS. ASSISTANCE IN SOIL ANALYSIS ALREADY HAS BEEN REQUESTED BY CODAIA, FAO, THE AREA NUTRITION IMPROVEMENT PROJECT (662-2272) AND THE LIMBANGUIST AGRICULTURAL STAFF IN THE PLANNED PROJECT AREA. IT SEEMS CLEAR THAT THE NEED FOR SUCH SERVICES WILL CONTINUE BEYOND THE LIFE OF THE PROJECT. IT HAS BEEN RECOMMENDED BY THE SOIL CONSULTANTS TO THE DESIGN TEAM THAT THE LAND CAPABILITY UNIT EVENTUALLY BE TAKEN OVER BY AN APPROPRIATE LOCAL ORGANIZATION (SUCH AS CODAIA, FOR EXAMPLE -- SEE PARA 3.A. BELOW) WHICH WOULD THEN BECOME RESPONSIBLE FOR THE CONTINUING COSTS RECOVERABLE THROUGH USER FEES.

—B. LOCAL PARTICIPATING ORGANIZATIONS.

THE PROJECT WILL INITIALLY FINANCE THE COSTS OF TWO STAFF MEMBERS (A RURAL DEVELOPMENT SPECIALIST AND AN AGRONOMIST), THEIR MEANS OF TRANSPORTATION (4WD DIESEL VEHICLE, MOTOR CYCLES OR BICYCLES), THE OPERATIONAL COSTS (FUEL, EQUIPMENT, LABOR, OTHER INPUTS) AND, IF NECESSARY, THE COST OF CONSTRUCTION OR RENOVATION OF SUITABLE FACILITIES. THE LOCAL ORGANIZATION WILL PROVIDE OFFICE SPACE, LAND FOR DEMONSTRATION/MULTIPLICATION FIELDS, TRAINING FACILITIES, HOUSING, AND GENERAL INSTITUTIONAL SUPPORT. IN ORDER TO CONTINUE THE WORK BEGUN UNDER THE PROJECT, THE LOCAL ORGANIZATION MUST BE IN A POSITION TO TAKE OVER THE RECURRENT COSTS INVOLVED. THE PIU WILL INITIATE DISCUSSIONS WITH EACH ORGANIZATION TO IDENTIFY ALTERNATIVE SOURCES OF FINANCING FOR THESE COSTS. PRESENTLY FOUR POSSIBLE SOURCES HAVE BEEN IDENTIFIED: THE ORGANIZATION'S REGULAR BUDGET; OUTSIDE SOURCES OF SUPPORT PREPARED TO FUND A PROVEN PROGRAM (THESE MAY BE TRADITIONAL, FOR EXAMPLE, CHURCH RELATED, OR NEW, SUCH AS OTHER DONORS); THE ESTABLISHMENT, POSSIBLY WITH PROJECT SUPPORT, OF REVENUE GENERATING ACTIVITIES FOR THE ORGANIZATION (FOR EXAMPLE, CASH CROP PRODUCTION OR FOOD PROCESSING ENTERPRISES); OR DEVELOPMENT FUNDS GENERATED BY THE PRIVATE SECTOR (FOR EXAMPLE, THE PRESENT FONDS DE CONVENTION). THIS LATTER SOURCE IS NOW BEING USED TO FINANCE THE PRIVATE SECTOR RECURRENT COSTS OF THE NORTE SHABA PROJECT (652-2259).

4. PROJECT MANAGEMENT

PAST PROJECT EXPERIENCE IN ZAIRE HAS DEMONSTRATED THAT AN AREA DEVELOPMENT PROJECT'S MANAGEMENT IS NOT BEST ESTABLISHED WITHIN A CENTRAL GOVERNMENT AGENCY NOR AS AN AD HOC UNIT RESPONSIBLE TO A GOVERNMENT AGENCY. THE PIU IS THE MECHANISM THAT WILL MAKE IT POSSIBLE FOR THE

PROJECT TO WORK DIRECTLY WITH THE NON-GOVERNMENTAL SECTOR. THE PIU WILL ASSUME THE FOLLOWING RESPONSIBILITIES:

- A. MOBILIZATION OF LOCAL ORGANIZATIONS TO PARTICIPATE IN THE PROJECT;
- B. MANAGEMENT OF PROJECT FUNDS, COMMODITIES AND TECHNICAL ASSISTANCE;
- C. DEVELOPMENT OF TRAINING AND TECHNOLOGY REQUIREMENTS;
- D. REFINEMENT AND ELABORATION OF THE PROJECT'S PROGRAM OF WORK;
- E. ESTABLISHMENT OF AN INVENTORY CONTROL SYSTEM AND REPORTING PROCEDURES;
- F. ENSURING THE MAINTENANCE OF PROJECT EQUIPMENT;
- G. MANAGEMENT OF THE MONITORING AND EVALUATION INFORMATION SYSTEM, THE LAND CAPABILITY UNIT, AND THE CREDIT AND MARKETING COMPONENTS;
- H. CHANNELING OF APPLIED RESEARCH FINDINGS AND

ESTABLISH LOCAL ORGANIZATIONS IN THE LOCAL ORGANIZATIONS AND
ESTABLISHMENT OF DIRECT LINKS BETWEEN THESE ORGANIZATIONS
AND THE SOURCES OF SUCH REQUIRED INPUTS:

- I. DEVELOPMENT OF TECHNICAL AND MANAGERIAL CAPACITY AMONG THE STAFF OF THE PARTICIPATING ORGANIZATIONS;
- J. PROVISION OF ASSISTANCE TO THOSE ORGANIZATIONS TO IDENTIFY LOCAL NEEDS AND DEVELOP A RESPONSIVE PROGRAM OF WORK.

IN SHORT, THE PIU WILL PLAN, COORDINATE, SUPPORT, AND MONITOR THE IMPLEMENTATION OF THE PROJECT IN PARTNERSHIP WITH THE PARTICIPATING LOCAL ORGANIZATIONS.

THE LOCAL ORGANIZATIONS WILL BE RESPONSIBLE FOR THE RECRUITMENT OF STAFF, THE MANAGEMENT OF PROJECT INPUTS, AND THE DEVELOPMENT OF A PROGRAM OF WORK BASED ON A THOROUGH KNOWLEDGE OF LOCAL CONDITIONS, CULTURAL PRACTICES, AND AGRICULTURAL, NUTRITIONAL AND OTHER LOCAL VILLAGE REQUIREMENTS. ADAPTIVE TRIALS WILL BE SPONSORED BY THE LOCAL ORGANIZATIONS AND IMPROVED PLANTING MATERIALS WILL BE MULTIPLIED FOR AREA DISTRIBUTION. LOCAL TRAINING AND EXTENSION NEEDS WILL BE IDENTIFIED AND APPLICABLE TRAINING DESIGNED AND CONDUCTED. THE STAFFS OF THESE ORGANIZATIONS WILL WORK DIRECTLY WITH THE VILLAGE FARMERS. THEY WILL BE PROVIDED SUPPORTING SERVICES BY THE TECHNICAL STAFF OF THE PIU.

PRESENT PLANNING TENTATIVELY ENVISAGES ABOUT A 20-PERSON TEAM CONSTITUTING THE PIU. THE AMERICAN TECHNICAL ASSISTANCE PORTION OF THAT TEAM WOULD INCLUDE A SOCIOLOGIST, AGRONOMIST, SOILS SPECIALIST (AGRONOMIST), INFORMATION MANAGER, AND EXECUTIVE OFFICER (ADMINISTRATION/LOGISTICS). THE ZAIRIAN PORTION OF THE TEAM WOULD INCLUDE AN ECONOMIST, FOUR AGRONOMISTS, FOUR PROJECT LIAISON OFFICERS (TO MAINTAIN CONTINUOUS COMMUNICATIONS WITH THE PARTICIPATING LOCAL ORGANIZATIONS), SPECIALISTS IN MARKETING, CREDIT, TRAINING, AND TECHNOLOGY (FOOD STORAGE, PROCESSING, AND TRANSPORT), AND AN ADMINISTRATIVE SUPPORT UNIT. CONSIDERABLE USE WILL BE MADE OF SHORT-TERM ASSISTANCE AND OF EXISTING ZAIRIAN TRAINING AND TECHNOLOGY DEVELOPMENT ORGANIZATIONS. PROFESSIONALLY TRAINED ZAIRIANS WILL BE EMPLOYED BOTH IN THE PIU AND BY THE LOCAL ORGANIZATIONS. SOME OF THE PERMANENT ZAIRIAN STAFF FOR THE PIU WILL BE RECRUITED DIRECTLY BY THE PIU, OTHER PERSONNEL WILL BE SECONDED FROM VARIOUS MINISTRIES, IN PARTICULAR THE REGIONAL OFFICE OF THE DEPARTMENT OF PLAN AND THE REGIONAL STAFF OF THE DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT. IT IS ANTICIPATED THAT THE LAND CAPABILITY UNIT WILL HAVE A TOTALLY ZAIRIAN STAFF WITHIN FOUR YEARS.

USAID STAFF SUPPORT OF THIS PROJECT IS WITHIN EXISTING STAFF CAPACITIES. THE USAID PROJECT OFFICER, WHO HAS ALREADY BEEN DESIGNATED, WILL CONTINUE WORKING WITH THE DESIGN TEAM UNTIL COMPLETION OF THE PP, THEN WILL TURN HIS FULL TIME ATTENTION TO SUPPORT OF PROJECT IMPLEMENTATION.

5. OTHER ISSUES.

—A. CODAIR

STRUCTURALLY CODAIR IS THE WORLD BANK'S ATTEMPT TO FIND AN ALTERNATIVE TO THE CENTRAL GOVERNMENT FOR THE MANAGEMENT OF AREA DEVELOPMENT INVESTMENTS. IT IS STRUCTURED AS A SO-CALLED MIXED CAPITAL COMPANY (JOINT PUBLIC-PRIVATE ENTERPRISE). FORTY PERCENT OF THE INITIAL CAPITAL WAS PROVIDED BY THE GOZ (WHOSE INTERESTS ARE OVERSEEN JOINTLY BY THE MINISTRIES OF AGRICULTURE AND PORTFOLIO), WITH THE REMAINING SIXTY PERCENT SUBSCRIBED PARTLY BY THE BANK AND GERMAN AID AND PARTLY BY SEVEN PRIVATE SECTOR SHAREHOLDERS (MOST OF WHOM ARE FROM THE REGION). CODAIR'S MODUS OPERANDI IS TO WORK WITH THE COLLECTIVITIES TO INCREASE AGRICULTURAL PRODUCTIVITY BY UPGRADING THE EFFECTIVENESS OF GOVERNMENT AGRICULTURAL EXTENSION AGENTS (TESTING, FIRING, HIRING, TRAINING). ALL AGRICULTURAL ENDEAVORS ARE WITHIN CODAIR'S PURVIEW (FOOD CROPS, INDUSTRIAL CROPS, LIVESTOCK, REFORESTATION, CREDIT, MARKETING). CODAIR PRESENTLY EMPLOYS 216 PEOPLE AND HAS BEGUN ACTIVITIES IN FOUR OF THE 81 COLLECTIVITIES THAT CONSTITUTE ITS OPERATIONAL AREA (THE SUBREGIONS OF ILU AND WANGO). ITS PLANS CALL FOR EXPANSION INTO FIVE ADDITIONAL

UNCLASSIFIED

LINSASA 12523

COLLECTIVITIES BY 1987. TO DATE ITS MOST VISIBLE ACHIEVEMENTS HAVE BEEN THE FINANCING OF TRUCKS (FOR SHAREHOLDERS) AND THE MAINTENANCE OF RURAL ROADS IN ITS FOUR COLLECTIVITIES (UNDER CONTRACTS FINANCED BY THE NATIONAL ROADS BUREAU).

CODAIK OFFICIALLY HAS RESPONSIBILITY FOR THE COORDINATION OF ALL AGRICULTURAL DEVELOPMENT EFFORTS IN THE ANIO AND AWANGO SUBREGIONS OF BANDUNDU (BUT NOT IN MAI NDOMBE). TO DATE IT HAS BEEN TOO OCCUPIED WITH ORGANIZING ITSELF TO EFFECTIVELY EXERCISE ITS COORDINATING ROLE. HOWEVER IT IS NOW BEGINNING THE PROCESS OF DISCUSSIONS AND NEGOTIATIONS TO CLARIFY ITS RESPONSIBILITIES WITH RESPECT TO ITS MANDATE. SEVERAL PROJECT PLANNING MEETINGS HAVE BEEN HELD BETWEEN USAID AND CODAIK. ONE QUESTION DISCUSSED HAS BEEN WHETHER CODAIK MIGHT SIGN THE PROJECT AGREEMENT ON BEHALF OF THE GOVERNMENT OF ZAIRE. AS PROJECT PLANNING PROCEEDS, USAID WILL CONTINUE WORKING WITH CODAIK TO FURTHER DEFINE ITS ROLE IN THE PROJECT.

—B. DONOR COORDINATION

THERE ARE NO OTHER BILATERAL OR MULTILATERAL DONORS ACTIVE IN THE PARTICULAR GEOGRAPHIC AREAS TARGETTED FOR THIS PROJECT ASSISTANCE. OUTSIDE ASSISTANCE TO DATE HAS COME FROM CHURCH BASED OR RELATED ORGANIZATIONS. THE GERMAN TECHNICAL COOPERATION AND THE WORLD BANK BOTH SUPPORT CODAIK, AND THE GERMANS HAVE EXPRESSED AN INTEREST IN POSSIBLY ASSISTING DPP, THE CATHOLIC DEVELOPMENT ORGANIZATION IN IDIOFA. THE WORLD BANK TENTATIVELY PLANS TO ESTABLISH A SPED MULTIPLICATION CENTER NEAR BULUNGU, AND THE FAO HAS A FERTILIZER FIELD TEST STATION NEAR KILWIT. TO DATE DONOR COORDINATION IN THE AREA HAS BEEN INFORMAL, ALTHOUGH CODAIK HAS THE RESPONSIBILITY FOR ITS FORMAL COORDINATION.

—C. NUTRITION AND INTRA-HOUSEHOLD ALLOCATION OF RESOURCES SPECIAL ATTENTION HAS BEEN GIVEN TO THESE ISSUES IN THE DESIGN OF THIS PROJECT AND OF THE COMPANION AGRICULTURE MARKETING DEVELOPMENT PROJECT (658-0028). THE SMALL FARMER SURVEY OF 400 HOUSEHOLDS IN THE PLANNED PROJECT AREA GATHERED DATA, INTER ALIA, ON FOOD PRODUCTION, SALES AND CONSUMPTION, AND ON THE INTRA-HOUSEHOLD ALLOCATION OF RESOURCES, IN PARTICULAR TIME AND RESPONSIBILITY ALLOCATION, INCOME GENERATION AND ALLOCATION, THE DIVISION OF LABOR, AND THE SUPPORT SYSTEMS OF DIFFERENT HOUSEHOLD MEMBERS. THIS DATA IS IN THE PROCESS OF BEING ANALYZED.

—D. BASELINE DATA FOR PROJECT EVALUATION

A JOINT MONITORING AND EVALUATION INFORMATION SYSTEM HAS BEEN DESIGNED TO SERVE BOTH THIS PROJECT AND COMPANION PROJECT 658. PERFORMANCE MONITORING WILL BE THE RESPONSIBILITY OF THE RESPECTIVE PROJECT MANAGEMENT UNITS. THE COLLECTION OF DATA FOR BASELINE STUDIES, IMPACT MONITORING, AND EVALUATION WILL BE THE RESPONSIBILITY OF THIS PROJECT. IT IS ENVISAGED THAT THE AGRICULTURAL, MARKETING, TRANSPORTATION, AND COST OF LIVING BASELINE STUDIES AND SURVEYS FOR IMPACT MONITORING

WILL BE SUBCONTRACTED TO THE INSTITUT DE RECHERCHES SCIENTIFIQUES ET SOCIALES (IRES) AT THE UNIVERSITY OF LINSBASA. PROJECT 493 WILL ESTABLISH A SURVEY ANALYSIS AND DATA PROCESSING CENTER AT IRFS AND WILL TRAIN ITS STAFF IN SURVEY DATA COLLECTION AND ANALYSIS, AND IN ASSOCIATED COMPUTER OPERATION AND PROGRAMMING. THUS THE CAPACITY TO UNDERTAKE THE NECESSARY STUDIES WILL EXIST WHEN THIS PROJECT BEGINS ITS OPERATIONS.

6. SHOWN BELOW IS THE PRELIMINARY LIST OF RURAL MISSIONS IDENTIFIED AS POTENTIAL PARTICIPANTS IN THE PROJECT INCLUDING AREAS OF DEVELOPMENT ACTIVITY IN WHICH EACH MISSION PRESENTLY IS ENGAGED. THOSE MARKED WITH THE SYMBOL () ARE BEING CONSIDERED FOR INCLUSION IN THE INITIAL PHASE OF THE PROJECT. NOT INCLUDED ARE LOCAL GOVERNMENTAL OR BUSINESS ORGANIZATIONS WHICH MAY ALSO BE POTENTIAL PARTICIPANTS IN THE PROJECT. THE MARKETING ACTIVITIES OF SEMENDUA AND IDIOFA MISSIONS ARE BEING STRENGTHENED UNDER PROJECT 552-2093.

MISSION	AG	HEALTH	COMMUNITY	FORMAL	NONFORMAL
---------	----	--------	-----------	--------	-----------

	DEV.	EPJC.	MISSION
IDIOFA	X	X	X
LA:AS		X	
LABA	X	X	
NGOSO		X	
NIMPUTO		X	
DIEAYA		X	
IPANU()	X	X	
PANGAI I		X	
MATEBO		X	
MOLALA()	X	X	X
MBFO		X	X
MAKAW	X	X	
IFO	X		
BENO()	X	X	X
BAGATA		X	
MANZASAI	X		X
KILWIT	X	X	
IMBONGO			X
LUSANGA		X	
SOA		X	
PINDI	X	X	X
EFNGI		X	X
BULUNGU		X	
ANZAMBI		X	
DJUMA	X	X	X
SIA		X	
DUE	X	X	
BEYA		X	
YASA		X	X
YASA-BONGA		X	
TUMI:IA	X		X
FUMU-PUTU			
LUMBI		X	
ANINIATI		X	
MOSANGO		X	
SEMENDUA()	X		-
BOSOBE	X		X
VANCA	X	X	
LUSEKELE()	X		
LIENGO	X	X	

7. USAID SUGGESTS THAT THE ECPR FOR SUBJECT PID BE SCHEDULED TO PERMIT THE PARTICIPATION OF THE MISSION DIRECTOR WHO WILL BE IN AID/W SEPTEMBER 1-13. PLEASE ADVISE. CONSTABLE

BT

#2528

NNNN

... THE LAST ISSUE WAS MANAGEMENT OF THE PROJECT. WHILE CONCERN WAS RAISED ABOUT THE AMOUNT OF USAID STAFF TIME REQUIRED, IT WAS FELT THAT THIS SHOULD BE APPRAISED DURING PROJECT DESIGN AS A FUNCTION OF THE APPROACH CHOSEN FOR MANAGING THE PROJECT IN RELATION TO THE NUMEROUS LOCAL ORGANIZATIONS. IT WAS UNDERSTOOD THAT THE MISSION DID NOT WISH TO INSTITUTIONALIZE A COORDINATIVE STRUCTURE FOR WORKING WITH THE NGO'S PVCS AND THAT AT THE PID STAGE IT COULD BE DIFFICULT TO CONFIDENTLY ADDRESS HOW AND WHAT RELATIONSHIPS WILL BE FORMED AND WHICH WILL AFFECT THE CHOICE OF MANAGEMENT FRAMEWORK. THE CONCLUSION WAS THAT REFINEMENT OF THIS AREA MIGHT PASS TO THE PROJECT DESIGN STAGE IF THERE WERE A CLEARER APPRECIATION OF THE NATURE OF THE LOCAL ORGANIZATIONS AND OF THE KINDS OF ACTIVITIES IN WHICH THEY WOULD BE INVOLVED. THE HIGH PROPORTION OF TA COST IN RELATION TO TOTAL PROJECT COSTS WAS ALSO RAISED; ONE VIEW WAS THAT THE PROJECT MIGHT NEED TO START WITH INTENSE TA INPUTS AND THEN SEEK WAYS IN WHICH THEY MIGHT BE REDUCED TO PERMIT A GREATER PORTION OF RESOURCES TO BE

5. THE LAST ISSUE WAS MANAGEMENT OF THE PROJECT. WHILE CONCERN WAS RAISED ABOUT THE AMOUNT OF USAID STAFF TIME REQUIRED, IT WAS FELT THAT THIS SHOULD BE APPRAISED DURING PROJECT DESIGN AS A FUNCTION OF THE APPROACH CHOSEN FOR MANAGING THE PROJECT IN RELATION TO THE NUMEROUS LOCAL ORGANIZATIONS. IT WAS UNDERSTOOD THAT THE MISSION DID NOT WISH TO INSTITUTIONALIZE A COORDINATIVE STRUCTURE FOR WORKING WITH THE NGO'S PVCS AND THAT AT THE PID STAGE IT COULD BE DIFFICULT TO CONFIDENTLY ADDRESS HOW AND WHAT RELATIONSHIPS WILL BE FORMED AND WHICH WILL AFFECT THE CHOICE OF MANAGEMENT FRAMEWORK. THE CONCLUSION WAS THAT REFINEMENT OF THIS AREA MIGHT PASS TO THE PROJECT DESIGN STAGE IF THERE WERE A CLEARER APPRECIATION OF THE NATURE OF THE LOCAL ORGANIZATIONS AND OF THE KINDS OF ACTIVITIES IN WHICH THEY WOULD BE INVOLVED. THE HIGH PROPORTION OF TA COST IN RELATION TO TOTAL PROJECT COSTS WAS ALSO RAISED; ONE VIEW WAS THAT THE PROJECT MIGHT NEED TO START WITH INTENSE TA INPUTS AND THEN SEEK WAYS IN WHICH THEY MIGHT BE

REDUCED TO PERMIT A GREATER PORTION OF RESOURCES TO BE

6. TWO SECONDARY CONCERNS RAISED AT THE MEETING WERE: (A) THE NATURE OF CODAID AND THE ROLE ANTICIPATED FOR IT IN THE PROJECT; AND (B) HOW DONOR COORDINATION OF EFFORTS WILL BE ACCOMPLISHED FOR BANDUNDU. WHILE ONE MIGHT ANTICIPATE A NEED TO WORK OVER A TEN YEAR PERIOD, AN INITIAL PROJECT OR FIRST PHASE OF FIVE YEAR DURATION MIGHT BE APPROPRIATE, ALLOWING A BENCHMARK AND PERFORMANCE CRITERIA TO BE APPLIED BEFORE ENGAGING THE ENTIRE LONG TERM COMMITMENT.

7. AID/W WOULD APPRECIATE RECEIVING BY CABLE A BRIEF, REFLECTIVE DISCUSSION OF THE POINTS RAISED ABOVE. WOULD HOPE TO SCHEDULE A SECOND ECPR SHORTLY THEREAFTER AND WILL ADVISE OF DATE SO THAT USAID PARTICIPATION WILL BE POSSIBLE. SEPTTEL FOLLOWS WITH OTHER COMMENTS AND GUIDANCE OF INTEREST RAISED IN DISCUSSION PAPERS AND AT ECPR.

DAM

BT

#1022

NNNN

DJI

UNCLASSIFIED

STATE 151220

ANNEX 2

Description of IMO's

ANNEX 2 - IMO DESCRIPTION

Intermediate Management Organization

Most of the rural missions that will serve as intermediate management organizations were established 50 - 75 years ago. They have been in continuous operation since then. IMO leadership has a wealth of knowledge about the people and land surrounding the IMO. They are usually associated with a religious denomination and their leadership is trained by the denomination.

All IMOs are accessible by road, and many by river. The majority have radio contact with major cities, including Kinshasa as well as with other missions. Several have access by air. They are all interested in improving their communication capacities by improving the roads, docks, air strips, etc.

Agricultural activity is a relatively new domain for many IMOs. They initially focused on health and education. Only since Independence have they expanded to agricultural activities. IMOs usually have some fields such as cassava and corn. They also have some small animals such as pigs, goats, chickens, and some cows. These activities traditionally were for the IMO's own needs. More recently, IMOs have been expanding into agricultural extension. The IMOs' agricultural activities are usually self-supported. So agricultural activities, knowledge, and resources depend on IMO leadership and funding.

A central activity of most IMOs is health care. They usually have a dispensary and often have a hospital. Most have a doctor and several nurses. IMOs generally perceive a close relationship between health and agricultural activities. For example, they might grow products that they will then introduce in their nutrition centers to alleviate malnutrition. At present, health care is often the central development activity of the IMOs.

Most IMOs operate some extension services. Health, education, and evangelism are the most frequent types of extension work. The extension agent might go by foot, bicycle, or truck. Because the geographic sphere of influence is usually large, it is often difficult to visit all the villages frequently and at regular intervals.

Another important activity of IMOs is education. Many IMOs offer training in agriculture. In addition to the IMO's own fields, individual students might have small gardens. Primary and secondary education is also commonly provided at the IMOs. At the secondary level, commercial, literary, scientific, and agricultural courses are offered. Home economics and literary programs are also offered at many IMOs.

IMO access to appropriate technology is limited. They usually use hoes, axes, and machetes, that are the basic implements of the rural populace, but even obtaining these tools can be difficult for some. Storage and transportation are often problems. A palm oil processing plant might be located at the IMO, and it might have a truck. But spare parts and training to maintain these resources are often lacking.

Most IMOs have some expatriate staff although the majority of the staffs are Zairian. The Zairian staff usually is trained by the local mission. A few have received some training abroad. A typical IMO might have a staff of 5-10 expatriates and 30 Zairians. Both Zairians and expatriates hold leadership positions in the IMO. Positions at the IMOs include teachers, ministers, health workers, extension workers, and agricultural workers. The staff is often overworked and under-trained.

Virtually all IMOs are working toward financial sustainability. In addition to locally generated income, they usually receive some funding from their religious organizations, including foreign exchange from supporting groups abroad. The teachers' salaries are usually paid by the Zairian government. Donor agencies also offer assistance to some IMOs.

The IMOs usually maintain fairly large rural complexes and are well known by the surrounding population. Many of the buildings were built fifty years ago, so upkeep is a continuing requirement. Often, there is a dearth of vehicles and equipment for agricultural activity. But there are usually several buildings for the schools and hospitals. A typical IMO has an old generator which provides electricity for a few hours each day. It also would commonly have a water pump. Electricity and running water are a frequent problem because of equipment breakdowns.

Most IMOs are very enthusiastic about expanding rural development activities. They have some ideas of projects they would like to start but usually lack the start-up resources. Although agriculture is a relatively new domain for many IMOs, they are interested in developing it further as resources permit.

EXPANDED IMO DESCRIPTION

The following provides a general overview of the area missions and is based on field research in ten of the 16 project area collectivities.

Organization

The missions are usually composed of four sections: health, education, evangelism, and education. These sections appear to operate somewhat independently of each other. Each section has a director. For example, a doctor usually heads the health section and a headmaster heads the school. If there is an agricultural school, it will have its own headmaster. Agricultural centers will also have their own directors. Often an abbé will direct the agricultural activities. There seems to be little overall coordination of these four sections at the mission level. Each acts as a separate entity. For example, the seminary at Laba Central turned off the electricity and water of the Laba Central agricultural center because they were not paying for the electricity and water that came from the seminary.

Some missions have smaller satellite missions where they carry out extension activities. For example, Vanga mission has extension activities taking place at Mopulu and Molambe missions. These smaller satellites are under the direction of the larger mission at Vanga. They do not act independently but are extensions of the larger missions. Some mission abbés are members of doyennetes. A doyennete is a group of abbés from different missions who meet regularly to discuss mutual problems. For example, the abbé at Ipamu mission is a member of a doyennete with four other missions.

Most missions are not entirely independent. This is more the case with Catholic than with Protestant missions. Routine operational decisions can be made by the missions, but larger policy decisions must be approved by the denominational organization. Swedish Baptists have seven missions located near Batare Collectivity. A Secretary-General presides over the General Assembly which consists of representatives from the seven missions. There are five departments: finance, development, evangelism, education, and medical. Organization and hierarchy also exist in the Catholic missions. For example, Idiopa diocese includes several missions. At the Idiopa diocese headquarters, activities of all the missions in the diocese are coordinated and planned.

Depending on the activity, other organizations may also be involved. For example, the mission schools use some resources provided by the mission, but the teachers' salaries are paid, at least in part, by the state. At Ipamu, the doctor negotiated with Oxfam to receive some agricultural aid for the mission. But the abbé in charge of agricultural assistance was not in agreement with the negotiations. Thus, the aid never materialized.

Financial Organization

Most missions receive funding from a variety of sources. Vanga receives aid from American Baptists, the German Protestant Church, Oxfam, USAID (principally through the Basic Rural Health Project, 668-0086), and the GOZ. Ipamu mission schools generate revenue by charging students, and the hospital generates revenue through health service fees. The Belgian doctor's salary is paid by FOMETRO (Fonds Medical Tropical Belge). His motorcycle is paid for by Oxfam. The medicines he distributes are partially funded by the World Bank. The sisters at Ipamu are funded by the Catholic Church, and the teachers' salaries are paid by the GOZ.

Most missions are working toward self-financing. The major way they obtain revenue is by charging for services. None of the missions is completely self-financed. Almost all mission personnel can list desired projects that have not yet been financed.

The bookkeeping activities and other management controls vary between missions. The best predictor of good accounting is a director interested in careful records. But bookkeeping is not commonly a strength of mission organization. DPP is a good example. A recent evaluation found that bookkeeping in the agricultural centers is very limited. DPP's development activities have expanded faster than the management and accounting systems to control them. The evaluation suggested that a new bookkeeping system be set up and personnel be retrained to keep the books. The new DPP comptroller will be trained in the new system.

Organizational Patterns

Unless there is an agricultural center or school at the mission, agricultural activities are not considered high priorities. The extent of agricultural activities depends on the mission leadership's interest in agriculture. For example, Father Joseph at Bokoro established a bicycle project. Bicycles are being distributed to the population for produce transport. That project is having a widespread impact within the mission's operational zone because of that leadership initiative.

Often the agricultural activities reflect such leadership. For example, agricultural activity at Ipamu has doubled in the last year because of a new abbé. He manages the agricultural workers, plans future activities, and keeps the books. He must clear his agricultural plans with the diocese, but he works independently of the diocese and the other mission sections.

Management

Authority Patterns

Management varies between the agricultural centers, agricultural schools, and other mission operations. The agricultural centers have a director, agricultural schools have a headmaster, and mission agricultural activity is usually directed by one senior mission officer. At Lusekele, conflict exists between the center director and the school headmaster because of different agricultural philosophies. The center and school act independently but both are under CBZO management.

Each section has several workers. The agricultural centers usually have an agronomist, a bookkeeper, and a number of workers. The workers' responsibilities include such tasks as running the carpentry shop, operating a palm oil processing plant, caring for the fish ponds, or working in the fields. Teachers and students are managed by the headmaster at agricultural schools.

Staffing

Inadequate staffing and inadequate staff training are problems for most missions. DPP's evaluation suggests that one cause of inefficiency is delegating responsibilities to people who have inadequate training for the work. Managers at some missions have advanced training such as a degree from an agricultural program. Some have good agricultural training but limited administrative skills. Program quality depends on personal interest and previous training and experience. Non-management personnel might not even have primary school education.

Staffing problems exist in all areas of missions agricultural activities. Laba Central agricultural center has one agronomist for extension work in three collectivities. Of the 10 teachers at the agricultural school, only 3 have formal training in agriculture.

Project Assistance

Two components of project 102 are agricultural training and facilitating access to existing development support organizations. The initial phase of the project with each participating IMO will focus on organization of services and development of the mission's capacity to provide these services. Staff personnel will be augmented as necessary and appropriate. Normally, at least a rural development specialist and an agronomist will be located at each mission. Training opportunities will be provided to upgrade existing staff. The PIU will link the mission staff to existing development organizations in Kikwit and Kinshasa. CEPAS will provide appropriate technology aid. ITPK can provide vehicle repair services and appropriate technology training. ITAK offers agricultural training programs and the national crop research programs offer services for introducing new varieties of produce. The missions will work directly with these supporting organizations during and beyond the life of the project.

ANNEX 3

Logical Framework

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:

From FY 1985 to FY 1995

Total U.S. Funding \$15,000,000

Date Prepared: 01/24/85

0-1000-28 (1-73)

PROGRAM:

Project Title & Number: Area Food and Market Development, 660-0102

PAGE 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Goal:(A-1)	Measurement of Goal achievement Area Food and Market Development (102)	A-3	Assumptions for achieving goal target A-4
Raise the standard of living of the Rural Bandundu population	better health (including nutrition) Nutrition Surveillance Increased ownership of consumer goods increased educational level of population. Higher household income. Greater quantity and more types of food consumed by household	Nutrition economics study Post-project comparisons with Small Farmer Survey Data DARD records Project Studies HDP evaluation	-Project can equitably reach the Central Bandundu Population by working through DMOs -Resources distributed to DMO's will be passed down to village level and not stay within DMO. -GOZ maintains present macroeconomic policies. -DMO's will assume responsibility for project components; AFD will assume less responsibility for project components during IOP -Farmers receive profit from their work -DMO and GOZ will invest funds in this project.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

10100-28 (1-73)

APPENDIX:

Project Title & Number: Area Food and Market Development, 660-0102

Life of Project:

From FY 1985 to FY 1995

Total U.S. Funding \$15,000,000

Date Prepared: 01/24/85

PAGE 2

EXECUTIVE SUMMARY

Project Purpose:(B-1)

OBJECTIVELY VERIFIABLE INDICATORS

Conditions that will indicate purpose has been (B-3)
achieved: End-of-Project status (B-2)

MEANS OF VERIFICATION

(B-3)

IMPORTANT ASSUMPTIONS

Assumptions for achieving for achieving purpose: (B-4)

Increase agricultural production, marketing, and processing in Central Bandundu

-Higher crop yields per hectare of food/cash crops
-Increased marketing of food cash/crop surplus
-More efficient processing methods including:

- 1) Mills
- 2) Improved drying and storage techniques

Project baseline, midline, endline data
DARD records
Small Farmer Survey

-DMOs (Intermediate Management Organizations) have the ability and interest to serve as the link between project staff and population.
-DMOs have sufficient financial resources to maintain project activities after the life of project.
-The national crop research program will identify and make available proven varieties of cassava, corn, and grain legumes by year 4 of the project.
-A.I.D projects 026, 029, 038 (improvements to areas road and river systems) will be implemented simultaneously with this project.
-Expatriates and Zairians with appropriate skills and training are available to staff the Project implementation Unit.
Communication links between DMOs and central development organizations (CEPAS, IFPK) can be maintained after formal project phase has ended.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AD 1020-28 (1-73)

SUPPLEMENT:

Project Title & Number: Area Food and Market Development, 660-0102

Life of Project:

From FY 1985 to FY 1995

Total U.S. Funding \$15,000,000

Date Prepared: 01/24/1985

PAGE 3

ANALYTICAL SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Output:(C-1)	Magnitude of Outputs (C-2)	(C-3)	Assumptions for achieving outputs (C-4)
<p><u>Production</u></p> <p>Personnel with training in economics, management, agronomy, extension work etc.</p> <p>Communication channels between Area and central development organizations</p>	<p><u>Production</u></p> <p>20 people trained in financial and personnel management</p> <p>15 agronomists and extensionists trained in management</p> <p>10 IMO-based variety multiplication programs in place</p>	<p>IMO records-book keeping, Daily logs.</p> <p>Comparison with Institutional Inventory report</p>	<p>-IMO's are willing to implement programs suggested by PIU</p> <p>-IMO's are interested in working with PIU Staff and Staff of Central Development Organizations.</p> <p>-Village farmers willing to adopt new farming methods, plant new crops, and learn new processing techniques</p>
<p><u>Processing</u></p> <p>Mills, bicycles, pushcarts, distributed in project area; courses in repair and construction of equipment; village and IMO agents with repair skills; IMO agents trained in mechanics</p>	<p>100 village extension agents with short-term training</p> <p>180 villages with IMO-sponsored demonstration plots.</p> <p>Improved varieties and advice received by each IMO from National crop research programs on a regular basis.</p> <p>Receive short term training in mechanics and extension from ITPK and ITAK</p>	<p>DARD records</p> <p>Inspection</p> <p>Small Farmer Survey</p> <p>Project Evaluation</p>	
<p><u>Marketing</u></p> <p>Bottlenecks to area food marketing identified</p> <p>Road and River transport needs identified</p> <p>Credit program</p> <p>Research studies</p> <p>Work in planning and implementing project</p>	<p><u>Processing</u></p> <p>2 prototype mills</p> <p>500 Small mills</p> <p>300 bicycles and pushcarts distributed</p> <p>10 courses in parts repair</p> <p>100 IMO and village agents trained in maintaining equipment</p> <p>5 IMO based mechanics</p> <p><u>Marketing</u></p> <p>Credit program established</p> <p>Report on transportation needs in project Area</p>		

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY 1985 to FY 1995
Total U.S. Funding \$15,000,000
Date Prepared: 1/24/1985
PAGE 5

1985-86 (1-75)

PROJECT:

Project Title & Number: Area Food and Market Development, 660-0102

SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Items continued	Implementation Target continued (D-2)	(D-3)	Assumptions for providing inputs (D-4)
<p>Research and technical studies that provide input for planning and execution Project.</p>	<p><u>Research Studies Produced</u></p> <p>Small Farmer Survey Institutional Inventory Site Survey Rural-Urban Profile Soil Survey Land Tenure Cassava Credit Study Farming Practices Agricultural Economy Marketing Agricultural Education Local Administration Monitoring Plan Impact/Evaluation</p> <p>\$28,000 training aids \$50,000 generator \$29,000 Office equipment \$10,000 communications \$450,000 agricultural Production equipment \$200,000 appliances</p>	<p>Published studies</p>	<p>Qualified short term technical assistance identified and contracted in a timely manner.</p>

ANNEX 4

Project Checklist

5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects with FAA funds and project criteria applicable to individual fund sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Economic Support Fund.

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

A. GENERAL CRITERIA FOR PROJECT

1. FY 79 App. Act Unnumbered; FAA Sec. 653 (b); Sec. 634A. (a) Describe how Committees or Appropriations of Senate and House have been or will be notified concerning the project; (b) Is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure)?
 - a) 1985 CP page 465. Congressional notification transmitted 01/85
 - b) Yes
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?
 - a) Yes
 - b) Yes
3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

N/A
4. FAA Sec. 611(b); FY 79 App. Act Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973?

N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

N/A
6. FAA Sec. 209. Is project susceptible of 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

PAGE NO.	EFFECTIVE DATE	TRANS. MEMO NO.	AID HANDBOOK
5C(2)-2	June 7, 1979	3:32	3, App 5C(2)

216

A.

7. FAA Sec. 601(a). Information and conclusions whether project 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, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

a) N/A b), c), d) Yes, project will work with PVOs and private business; credit component encourage small traders and producers; e) yes, through introduction of appropriate technology; f) No.

8. FAA Sec. 601(b). Information and conclusion 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).

Most Project goods and services are procured in the U.S.

9. FAA Sec. 612(b); Sec. 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 to meet the cost of contractual and other services.

Covered in Grant Agreement

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. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes

12. FY 79 App. Act Sec. 608. 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

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b); 111; 113; 281a. 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, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained

a) Great; b) Great, through encouragement given village farmers and local private organizations.

217

B.1.a.

basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward 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) Great, by increasing national production;

d) Great, women are major target beneficiaries;

e) small

b. FAA Sec. 103, 103A, 104, 105, 106, 107.
Is assistance being made available: (include only applicable paragraph which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.)

(1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;

Great, major beneficiaries are rural peasant farmers..

(2) [104] for population planning under sec. 104(b) or health under sec. 104(c); if so, extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems and other modes of community research.

N/A

(3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;

N/A

(4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:

N/A

(i) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development organizations;

(ii) to help alleviate energy problems;

(iii) research into, and evaluation of, economic development processes and techniques;

(iv) reconstruction after natural or manmade disaster;

E.I.L.(2).

(v) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(vi) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

c. [107] Is appropriate effort placed on use of appropriate technology?

N/A

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Yes

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to the Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

N/A, this is primarily a technical assistance project.

f. 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 and political processes essential to self-government.

The project extension methodology ensures the active participation of the rural poor; the project is a major training component.

g. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase or productive capacities and self-sustaining economic growth?

Yes

2. Development Assistance Project Criteria (Loans Only)

N/A

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

B.

3. Project Criteria Solely for Economic Support Fund

a. FAA Sec. 531(a). Will this assistance support promote economic or political stability? To the extent possible, does it reflect the policy directions of section 102?

N/A

b. FAA Sec. 533. Will assistance under this chapter be used for military, or paramilitary activities?

ANNEX 5

B/G Request for Assistance

ANNEX 6

Technical Analysis

Technical Analysis

I. General

This project addresses both improved and increased food crop production/processing/marketing through strengthening of the outreach capacities of intermediate management organization. The institution-building aspects are addressed elsewhere. This analysis addresses agronomic considerations and the farming practices of village cultivators in the project area.

A. Zaire inherited a farm contact network from the colonial government, which remains largely in place. Its effectiveness as an agricultural support service has been limited, due to burdens of regulatory tasks and deficient technical and logistical support. Over the years since independence a large number of private voluntary organizations (PVOs), mostly religious missions, have launched localized efforts to assist village cultivators in socio-economic improvement. With some notable exceptions, few of these missions have had more than isolated success, due to (1) their lack of access to the essential technology and (2) their lack of appropriate extension capacities. However, these groups have records of great stability and continuity, and they have demonstrated their capacities for maintaining local development programs with little or no outside assistance.

In the 1970's the GOZ launched national programs to improve the production of the basic food crops -- corn, cassava, rice, and grain legumes -- in support of the domestic supply. USAID cooperated in cassava (Project 660-0077) and grain legumes (project 660-0064), the World Bank and CIMMYT supported corn, and the Chinese rice research. In 1983, AID and the GOZ brought together the national programs in cassava, corn and legumes to create the Applied Agricultural Research and Outreach Program (660-0091). In the earlier projects, project scientists identified or bred cultivars that were superior in various ways to the traditional types available to farmers, and they were offered to farmers through available outreach means including, notably, other development projects.

The Projects 660-0064 and 660-0077 will end in FY 1985. Project 091 will:

- (a) combine research on the three crops in three or more geographic regions including Bandundu;
- (b) implement farming systems research in these regions;
- (c) establish an outreach service with or linked to each research center to provide the research outputs to the existing local extension agencies (this may include technical assistance to these agencies to improve their efficiency in delivering technology).

B. Farming systems research

Farming systems research will be introduced to Zaire by the 091 project and reinforced in Bandundu by Project 102. A farming systems research/extension team from 091 will survey the Bandundu region to assist in delineating research bounds as defined by needs, access to markets and social considerations. The first project year is to be used for training and surveys. The second year, one regional center will convert to farming systems research. The other two regions will initiate FSR as experience is gained and personnel are trained.

C. Technical services to non-government change agencies:

The 091 project will provide project-generated technology to existing change agencies and will help train their personnel in the efficient delivery of technology and services. This complements perfectly the 102 project's objective of strengthening the agricultural support component of selected, self-sustaining intermediate management organizations. Research during project design indicated that farmers, hard-pressed economically, are willing to experiment with new prospects. The foregoing projects have never been able to produce enough seed to meet the would-be adopters' demands. With transportation as constrained as it is, corn seed and other staple varieties must be produced in the communities where they are used.

II. The Farming System in the Kwilu

A. The Ecosystems

Throughout the project area, the farming system is basically the same. Two ecosystems exist, the savannah and the forest.

(i) The Savannah

The savannah is generally cultivated under the system of obligatory cultivation imposed by the collectivity on the village populations through extension agents of the Ministry of Agriculture. In the month of May, the village chief, who is usually the principle Chef de terre, and his assistant, the kapita, in collaboration with the women of the village, decide on a part of the savannah under the village's land jurisdiction to be cultivated during the coming year. These fields normally lie on one clan's hereditary lands but the fields are given to all the village families.

In September, peanuts or voandzou (kimbila) are the principle crops planted. These crops are weeded periodically as time permits. Harvest occurs in December and then the squash (mantete) is planted in January. Once the plants have established themselves, cassava cuttings are placed in the ground in February at random intervals. Because of soil infertility, the first weeding of the cassava occurs during the harvest of mantete. Cultivation in the savannah is entirely the women's responsibility. Varying from area to area, other crops may be planted intermitently with the main crops.

(ii) The Forest

It is the forest ecosystem that supports the majority of agricultural production in the sub-region. As will be explained later in the section on land ownership, the forest is already divided up among the clans of the village, and each family in the clan has the forest area that this family has been farming for years. It is the male members of the family that decide where to clear fields for the coming year. Clearing starts in the month of May and continues through July, the size and number of fields depending on the capability of the family. The fields are then burned in August. Corn fields are usually left as is, requiring little further clearing. Peanut fields require extra work in clearing and the wood is gathered around the bases of large trees and palm trees to be burned again. This provides a traditional planting place, due to the extra richness from the ashes for garden crops, i.e. tomatoes, pili-pili (hot pepper), okra, etc.

The corn fields are planted in September using 4-5 seeds per hole and few farmers thin the stands back to 2-3 healthy plants. They feel the weaker plants die off sooner or later, not understanding that the stand has already been affected by the competition for nutrients of the unproductive plants. The fields are then planted with cassava cuttings, 2 cuttings 30-40 cms long per hole, in a random fashion. These fields are rarely weeded and the corn will be left to dry in the field. The harvest occurs once the buying campaign opens, allowing farmers to sell their crops. The forest corn culture requires 7-8 months and gives only one crop a year. The cassava remains for 1-2 years and is seldom weeded. It will be harvested bit by bit after 12 months as the family needs it for food or to sell.

The peanut fields require the entire family in planting the fields in September. 1-2 weeding occur as time allows. Normally, fields are planted entirely with peanuts with some scattered stands of corn for consumption only. The field is harvested in December and January. All the plants are pulled and left on the ground to dry for a day or two. This helps the process of pulling the peanuts from the plant. The field is then re-planted in relay fashion with corn, mantete, and cassava. The first weeding of the cassava occurs when the mantete is harvested. A second crop of peanuts can result from those that come up late or that come from the harvest period (from nuts that that may have dropped while being eaten, for example). These peanuts are for local consumption.

A second planting season occurs during the months of March and April. This planting period is referred to as kimwanga in Kimbala, kindolo in Kiyansi, and nsungi mbangala in Kidinda. Small plots are planted with corn, peanuts, rice and cassava for consumption during the dry season.

In areas where rice production is the major activity of the villages, the cropping system varies with the time the villagers have available to devote to non-rice culture activities. They prepare their rice fields in May-July, burn in August, and clear the field before they plant in September. The entire family participates in the fields around January and February to scare off birds that eat the newly formed rice kernels. This is traditionally the period most villagers are harvesting and re-planting. Once the rice kernels are hardened the birds are no longer a problem. The rice is then left in the fields for a couple more months and harvested near the date set for the agricultural marketing campaign. Certain farmers have achieved up to 100-120 sacks of paddy during a single year. Manioc is planted in the fields after the rice has been harvested.

C. Availability of land, land ownership, and usage:

Villagers are farming the same land that their ancestors have been farming, sometimes for centuries. Their farming system is generally the same: slash and burn. Their fields are probably larger now because of the expanded marketing system. In addition, the population density is increasing. Therefore, the availability of land is decreasing to a certain extent.

Land ownership follows the ancient system of clans. The actual Chef de Terré in the eyes of the government and the local population is the Chief of the localité (groupement). He has a certain number of sous-localités (villages), each of which has a village chief who is the traditional Chef de localité. The chief of the village is assisted by a village notable or elder (akapita) on matters concerning land distribution. In each village, the number of clans varies from two to ten depending on the size of the village. The land surrounding each village was divided among the various clans long ago. It is clearly understood by the village elders which lands belong to which clans. It is also clearly understood among clan members what part of their hereditary lands belong to which family in their clan. When disputes over land arise, it is the village chief, his kapita, and the clan elders that handle the situation. If it cannot be solved at the village level, it goes to the Chef de localité and, if he cannot resolve it, it goes to the Collectivity.

Traditionally, it is the month of May when the village chief, his kapita, and the village women decide together where to prepare their fields in the savannah. The moniteur agricole from the collectivity that is assigned to the locality comes to the village and classifies land and families according to the categories established by the government. This allows the mon-agri to know how many families will require a portion of the savannah fields. He then measures the area to be cultivated and divides it into fields that vary from 0.5 hectare to 1.0 hectare. If the land is available, the individual families can enlarge their field. The women then plant cassava around the borders of their field. They then begin their field preparation. Sometimes they burn the tall grass before they start work; other women may burn the grass once it has been uprooted, but often the savannah has been burned already by other parties.

For the traditional fields in the forest, it is up to each individual family to decide on the number of fields, the size of the fields, and what will be planted. The men of the family cut the trees and brush from May to July and then allow the fallen trees to dry. As the size of the family increases, it must make arrangements to accommodate field requirements on the land available to the family. It is common in families where the woman's clan is different from the man's clan that the women cultivate fields both on their husband's clan's land as well as on their own clan's land. Clans who have little land may go to other clans who have enough land and make arrangements for fields.

D. Availability and Sources of Labor:

Traditionally, the women work in groups to prepare and plant their savannah fields. The men work in groups to clear forest fields. A woman who has no husband may make arrangements with a man to prepare a forest field for her. In return, she will give him a percentage of the harvest or of the income she makes from selling her crop.

The farmers who have palm and coffee plantings used to hire labor when they could afford it. Due to the financial problems that exist today, and the wages required by manual labor, it is difficult for small farmers to engage others to help with their farm work. Because of this, the majority of small palm and coffee plantations are in poor shape and produce little.

E. Division of labor by sex and age:

As far as savannah farming systems are concerned, the women do all the cultivation. While women are preparing their savannah fields, the men are clearing forest fields. The men and the women work together in clearing the forest fields once burned, and they commonly work together in planting forest fields. It is generally the women who are responsible for weeding and harvesting cassava. Corn and peanut harvests are family activities.

Young girls start going with their mothers to learn fieldwork at the age of about 13-15. Boys start going to the forest with their fathers at about the same age.

Most household activities are the women's responsibility. The men have their traditional activities that include working their fish ponds and building or repairing the houses in the village, but men also contribute to activities that are traditionally the women's chore, such as cultivating cassava, when market opportunities are good and financial gain is possible.

J. Number of fields per cultivator, range in differences in size, distances from village to fields:

Most farmers cultivate 1-2 fields in the savannah and 2-4 fields in the forest each year. Savannah fields are usually harvested within 12 months time and forest fields of cassava over a two year period.

Fields vary in size in the savannah from 0.5 hectare to 1.0 hectare. Forest fields are larger and vary from 1-3 hectares.

Villagers walk 1-3 hours each way depending on where their clan's land is located.

M. Farmers' conceptions of constraints:

The perceived problems common to all communities surveyed during project design were lack of tools, poor seed quality, and the lack of organized markets. The villagers complained that the infrequent buyers that do arrive in their villages do not offer them sufficient prices for food crops. They also expressed concern over the lack of stores to provide the basic necessities of life, i.e. salt, soap, etc. These perceptions are commonly shared by village cultivators throughout Zaire. The perceived problems derive, in the first instance, from the deteriorated and decrepit marketing and distribution systems. To the considerable extent that these systems are hampered by transport infrastructure, the problems in the project area will be addressed by companion project 660-0098 in support of this project.

III. Other Analytical Sources.

Several of the Appendices to this project expand on various aspects of project-area soils, cropping practices, land usage, and food crop processing and marketing. Useful reference may be made also to the technical analyses prepared for the Applied Agricultural Research and Outreach Project (660-0091), particularly those dealing with programmed research on specific food crops, farming systems research and outreach.

ANNEX 7

Financial Analysis

Financial Analysis

This annex presents detailed LOP illustrative budgets by year for the A.I.D., GOZ, and IMO contributions to the Area Food and Market Development project. Estimates are based on current CIF Matadi prices of commodities and present costs to USAID of services. Inflation is estimated at six percent and contingency at 18 percent. Local currency costs have been expressed in dollars for comparison and because inflation in Zaire is unpredictable. The illustrative nature of the budget should be stressed as on-going research will play a major role in determining actual project inputs. The budget will be revised through formal amendment of the PP if AID-funded major line items exceed those presented here by more than 20 percent.

Recurrent cost issues are addressed in the body of the project paper.

Contents:

Table 1	Illustrative 102 Budget, AID Inputs (\$000)
Table 2	Illustrative 102 Budget, GOZ Inputs (\$000)
Table 3	Illustrative 102 Budget, IMO Inputs (\$000)
Table 4	102 Budget Summary (\$000)

Table 1: Illustrative 102 Budget, AID-INPUTS (\$000)

	YEAR 1	2	3	4	5	6	7	8	9	10	TOTAL
1. Technical Assistance											
A. Long Term		<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>5,400</u>
1. COP	-	120	120	120	120	120	120	120	120	120	1,080
2. Executive Officer		120	120	120	120	120	120	120	120	120	1,080
3. Extension/soc/Econ		120	120	120	120	120	120	120	120	120	1,080
4. Agronomist		120	120	120	120	120	120	120	120	120	1,080
5. Research Spec.		120	120	120	120	120	120	120	120	120	1,080
B. Short-term	<u>490</u>	<u>210</u>	<u>90</u>	<u>90</u>	<u>90</u>	<u>190</u>	<u>30</u>	<u>30</u>	<u>130</u>	-	<u>1,350</u>
1. Land tenure	60	30	-	-	-	-	-	-	-	-	90
2. Credit	90	30	-	-	-	-	-	-	-	-	120
3. FSR	120	-	-	-	-	-	-	-	-	-	120
4. Nutrition Monit	45	-	-	-	-	-	-	-	-	-	45
5. Market Access	25	-	-	-	-	-	-	-	-	-	25
6. Soils	90	30	-	-	-	-	-	-	-	-	120
7. Baseline endline midline	60	-	-	-	-	100	-	-	100	-	260
8. Sarsa		60	30	30	30	30	-	-	-	-	180
9. Continuing Studies		60	60	60	60	60	30	30	30	-	390
C. Sub-total TA	<u>490</u>	<u>810</u>	<u>690</u>	<u>690</u>	<u>690</u>	<u>790</u>	<u>630</u>	<u>630</u>	<u>730</u>	<u>600</u>	<u>6,750</u>
Inflation (6%)	-	49	85	132	181	267	264	317	434	413	2,142
D. Total TA	<u>490</u>	<u>859</u>	<u>775</u>	<u>822</u>	<u>871</u>	<u>1,057</u>	<u>894</u>	<u>947</u>	<u>1,164</u>	<u>1,013</u>	<u>8,892</u>

Table 1 (Cont)

	YEAR 1	2	3	4	5	6	7	8	9	10	TOTAL
A. Commodities											
Vehicles (32)		93	84	28	28	70	28	56	28	28	443
Motorcycles (32)	-	4	4	8	8	8	8	8	8	8	64
Bicycles (100)	-	1	1	2	2	2	2	2	2	2	16
Generator	-	30	-	-	-	-	-	-	-	-	30
Office equip.		105	3	3	3	3	3	3	3	3	129
Communications		10	-	-	-	-	-	-	-	-	10
Appliances		200	-	-	-	-	-	-	-	-	200
Appropriate Technology		100	50	50	40	40	25	20	15	10	350
Commodities											
Processing commodities			150	15	15	15	15	8	7	8	233
Ag. Production equip.			150	75	75	37	38	37	23	15	450
Training aids	2	2	2	2	2	2	6	2	4	4	28
Fuel tank		25									25
B. Sub-Total commodities	<u>2</u>	<u>570</u>	<u>444</u>	<u>183</u>	<u>173</u>	<u>177</u>	<u>125</u>	<u>136</u>	<u>90</u>	<u>78</u>	<u>1,978</u>
C. Inflation (6%)	-	34	55	35	45	60	52	68	53	54	456
D. <u>Total commodities</u>	<u>2</u>	<u>604</u>	<u>499</u>	<u>218</u>	<u>218</u>	<u>237</u>	<u>177</u>	<u>204</u>	<u>143</u>	<u>132</u>	<u>2,434</u>

Table 3 : Illustrative 10² Budget, IMO inputs (\$000 equivalent at \$1= 240)

	YEAR 1	2	3	4	5	6	7	8	9	10		TOTAL
Costs per IMO per year												
Personnel (2x\$2,000)	(4)											
Vehicles (repair, operation, depreciation)	(9)											
Other costs (training, etc)	(4)											
Total per year per IMO	(15)											
<u>Sub-Total</u> (Per IMO cost times number of IMOs)			<u>15</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>75</u>	<u>105</u>	<u>135</u>	<u>165</u>		<u>630</u>
Inflation (6%)			2	6	12	20	31	53	80	114		318
Contingency												52
<u>TOTAL</u>			<u>17</u>	<u>36</u>	<u>57</u>	<u>80</u>	<u>106</u>	<u>158</u>	<u>215</u>	<u>279</u>	(52)	<u>1,000</u>

Table 4: 102 Budget Summary

	YEAR 1	2	3	4	5	6	7	8	9	10		LOP TOTAL
IV. Summary												
A. A.I.D-Inputs	492	1,530	1,254	993	983	1,087	875	866	920	778		9,778
B. GOZ-Inputs	1,340	1,265	435	435	510	510	10	510	560	560		6,635
C. IMO-Inputs	-	-	15	30	45	60	75	105	135	165		630
D. Subtotal	<u>1,832</u>	<u>2,795</u>	<u>1,704</u>	<u>1,458</u>	<u>1,538</u>	<u>1,657</u>	<u>1,460</u>	<u>1,481</u>	<u>1,615</u>	<u>1,503</u>		<u>17,043</u>
E. Inflation	-	168	211	279	403	560	610	746	959	1,036		4,972
F. Contingency (18%)												(3,985)
<u>GRAND TOTAL</u>	<u>1,832</u>	<u>2,963</u>	<u>1,915</u>	<u>1,737</u>	<u>1,941</u>	<u>2,217</u>	<u>2,070</u>	<u>2,227</u>	<u>2,574</u>	<u>2,539</u>	(3,985)	<u>26,000</u>

ANNEX 8

Economic Analysis

Appendix B, Economic Analysis

The following economic analysis has two sections. First, it will determine the number of farmers necessary to achieve a given rate of return for the project production component, and examine the technical feasibility of the level of outputs. Then it will estimate the number of tons of area produce that will have to be processed in order to achieve a given rate of return for the project processing component. An economic analysis for the marketing construction component has been performed for the Agricultural Marketing Development Project (660-0098); subprojects of 098 promoted by 102 will be justified on a case by case basis. The marketing credit component economic analysis will be performed as part of the feasibility study scheduled for 1985.

A. Production

Production increases will be essentially the result of the adoption by area farmers of new varieties of cassava, corn, and grain legumes. The benefit-cost calculation that follows determines the rate of area coverage necessary to achieve a given benefit-cost ratio.

1. Assumptions

a. The Bandundu crop mix holds for the project area. Thus the following crop mix will be used in the analysis:

<u>Crop</u>	<u>Hectares Planted</u> (Bandundu Region) (000)	<u>Percent of total land</u>
Cassava	320	45
Corn	105	15
Grain legumes	110	15
Rice	20	3
Other	155	23
<u>Total</u>	<u>712</u>	<u>100</u>

b. The yield increases achieved through the introduction of new varieties will be in the following range (calculations based on IITA estimates):

<u>Crop</u>	<u>Tons per hectare</u>		
	<u>Medium</u>	<u>Low</u>	<u>High</u>
Cassava	5	3	7
Corn	2.5	1.5	4
Grain legumes	0.8	0.5	1.2

c. The percentage of land planted with new varieties will be the same as the present percentages by crop.

d. The IMOs are homogeneous: there will be 11 of them and each will be responsible for extension in 9 % of the project area. This assumption is conservative as the project will probably work first with IMOs that have the greatest outreach capacity. IMOs will be integrated into the project on the following schedule:

	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Starts	1	1	1	1	1	2	2	2
Total	1	2	3	4	5	7	9	11

e. The adoption rate for new varieties will be as follows (based on worldwide averages modified somewhat based on the North Shaba experience):

	Year of individual IMO activity in area					
	1	2	3	4	5	6
Farmers adopting new varieties (%)	0	3	9	19	83	94

f. Present farmgate prices for cassava, corn, and grain legumes are close to their shadow prices. These prices are as follows:

Crop	Price (\$/metric ton)
Cassava	125
Corn	100
Grain legumes	50

g. The added cost of cultivation (including on-farm processing) is estimated at 52% for cassava and 10% for grain legumes and corn. The cost of planting material is included in project costs for the life of the project. Thereafter it is assumed to be no more than the present cost to farmers of unimproved planting material.

Crop	Value added (\$/metric ton)
Cassava	60
Corn	90
Grain legumes	45

2. Calculation of benefits

a. The per hectare annual project benefits are calculated as follows:

$$C=3 \quad \% \text{ of total area planted with } C \times$$

$$C=1 \quad \frac{\text{Value added per ton of } C \times \text{expected}}{\text{yield increases per hectare for } C} \times \text{harvests per year}^*$$

Where C is the crop,

*For corn and grain legumes 1, for cassava 1/2

(1) High yield estimates (\$)
 95 + 57 + 8 = \$160
 (cassava + corn + grain legumes = average benefits per hectare)

(2) Medium yield estimates (\$)
 67 + 34 + 5 = \$106

(3) Low yield estimates (\$)
 41 + 13 + 3 = 57

The present value of benefits is calculated as follows:

$$B_{t=15} = F \times 1.7 \times H_{av} \frac{(1-r)^{t-1}}{(1-r)^t - 1}$$

Where $F_{t=1}$, number of farmers, is derived from the number of IMO's active and the adoption rate curve; 1.7 the average number of hectares per farmer and H_{av} the added value per hectare, and r the discount rate.

Benefits vary according to the yield increases and the number of farmers reached.

3. Production Costs are taken to be one half total project costs net of short-term technical assistance and of inflation. Discount rates of 0.5, 0.1, and 0.15 were used.

Thus we have:

	Costs
r = .00	8699
r = .05	6268
r = .10	4707
r = .15	3658

4. Benefits calculation: number of farmers that each IMO will have to serve in order for the project to achieve rates of return of 0.05, 0.10, and .15 (net of inflation).

a. Low yield estimates (\$57/hectare/year)

r	Costs	Farmers	% of total farmers	B/C
.05	6581	2,350	14	1.00
.10	5178	3,220	20	1.00
.15	4420	4,420	27	1.00

b. Medium yield estimates (\$106 per hectare):

r	Costs	Farmers	% of Total	B/C
.05	6581	1,260	8	1.00
.10	5178	1,735	11	1.00
.15	4207	2,370	14	1.00

c. High yield estimates

r	Costs	Farmers	% of Total	B/C
.05	6581	840	5	1.00
.10	5178	1,150	7	1.00
.15	4207	2,000	11	1.00

5. Summary Tables

Table 1: Number of farmers per IMO that must actively participate in the 102-supported extension program in order for the project to achieve rates of return of .05, .10, and .15.

		<u>Yield increase estimates</u>		
		High	Medium	Low
<u>Rate</u>	.05	840	1,260	2,350
<u>of</u>	.10	1,150	1,735	3,220
<u>Return</u>	.15	2,000	2,370	4,420

Table 2: Percentage of total number of farmers that must participate in the extension program in order to achieve rates of return of .05, .10, and .15.

		<u>Yield increase estimates</u>		
		High	Medium	Low
Rate	.05	5	8	14
of	.10	7	11	20
Return.	.20	12	14	27

6. Conclusion (production component):

To achieve a cost/benefit ration of 1.0 in the worst case (real discount rate of .15 and low yield increases), each IMO-supervised extension service will have to reach 4,420 area farmers. This number of farmers will require at least ten extension agents per IMO, a minimum that is well above the projected average for each IMO.

With medium yield increases and a .10 real discount rate, each IMO will have to work with 1,700 farmers by year 2 of activity. This will require at least five extension agents per IMO, and is probably above the average. However, the first IMOs will probably be those that already have an active extension program and several agents on their staffs. These IMOs will be able to compensate for the slower, later starters and the total number of farmers reached should expand by at least the 1,700 per IMO required. Thus it appears technically feasible to achieve a rate of return of .10 if medium yield increases are realized for basic area food crops.

b. Processing

1. Costs

The costs of the project processing component are estimated to be 25 percent of total project costs net of short term technical assistance. The present values of these costs, at discount rates of .05, .10, and .15 follows:

r	costs
.00	4,350
.05	3,290
.10	2,569
.15	2,103

2. Assumptions

a. It is assumed that IMOs are homogeneous: Each will introduce the same technology to the same number of villages in the project area.

b. The processing interventions, which include mills, simple transport technology, and drying frames, will take place during the second year of IMO activity, and each IMO will cover 25 percent of its territory each year to year five when it will stop introducing new technology. Thus the schedule for the introduction of processing technology to the area as a percentage of the total to be introduced is as follows:

Year-----	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
% area covered-----	0	0	0	2	7	14	23	34	48	64	91	95	100	100	100

c. Processing interventions will reduce the costs of processing cassava, by between 30 and 50 percent.

3. Calculations

Processing interventions have two benefits: they decrease production costs by reducing on farm labor required to prepare the crop for consumption or marketing; and they raise the farmgate price by increasing on-farm value added.

Present per ton costs of processing are calculated as follows:

$$C=3 \text{ (Cost of Processing C) X (Total tons of C produced in area) / (Total area C=1 production in tons)}$$
which gives \$46 per ton processed.

Appropriate processing technology will also increase the value of marketed cassava by improving product quality and decreasing spoilage. Potential value-added is estimated at \$50 a ton for product quality improvements and at \$50 a ton for decreased spoilage. As these savings are realized only on the 20 to 30 percent of the area's production that is marketed, and not all spoilage will be eliminated, project benefits per ton through quality and storage improvements are estimated at \$25.

Thus, per ton cost savings attributable to the project processing component are estimated as follows:

(Decrease in processing costs)(\$46) + \$25

Assuming reductions in processing costs of 30, 40, and 50 percent, total benefits per ton attributable to the processing component are as follows:

- a) Low savings (30 percent reduction in processing costs):
 $.3 \times \$46 + \$25 = \$39$
- b) Medium savings (40 percent):
 $.4 \times \$46 + \$25 = \$43$
- c) High savings (50 percent):
 $.5 \times \$46 + \$25 = \$48$

4. Benefit calculation.

Based on the above, the total number of tons/year that will have to be processed to achieve a given rate of return can be calculated. The tonnage figures refer to the total processed once all project interventions are completed; the rate of introduction by IMOs of the technology was derived above. The number of tons can be converted to the number of farmers that will use the technology by dividing by 4.6 (the average annual tons produced per area farmer).

a. Low savings (\$39/ton)

r	Costs (\$000)	Tons	Farmers	Benefit/Cost
.05	3,290	21,917	4,567	1.00
.10	2,589	29,153	6,338	1.00
.15	2,103	38,546	8,380	1.00

b. Medium Savings (\$43/ton)

r	Costs (\$000)	Tons	Farmers	Benefit/Cost
.05	3,290	19,878	4,332	1.00
.10	2,589	26,441	5,749	1.00
.15	2,103	38,546	1,822	1.00

c. High Savings (\$48/ton)

r	Costs (\$000)	Tons	Farmers	Benefit/Cost
.05	3,290	17,808	3,872	1.00
.10	2,589	23,687	5,150	1.00
.15	2,103	31,319	6,809	1.00

5. Summary Tables

a. Number of (and percent of total area) farmers that must use new processing technology to achieve rates of return of .05, .10, and .15.

		<u>Low (\$39/ton)</u>	<u>Med (\$43/ton)</u>	<u>High (\$48/ton)</u>
<u>Rate</u>	.05	4,567 (2.5)	4,322 (2.4)	3,872 (2.1)
<u>of</u>	.10	6,388 (3.5)	5,749 (3.2)	5,150 (2.8)
<u>Return</u>	.15	8,380 (4.6)	7,600 (4.2)	6,809 (3.6)

b. Number of handmills required to process annual tonnages (the estimated annual capacity of one handmill is 125 tons per year):

		<u>Low (\$39/ton)</u>	<u>Med (\$43/ton)</u>	<u>High (\$48/ton)</u>
<u>Rate</u>	.05	176	160	143
<u>of</u>	.10	233	212	190
<u>Return</u>	.15	309	280	251

6. Conclusion

The worst case (low benefits, 0.15 discount rate) requires that each IMO work with a minimum of 756 farmers and install 29 handmills over a four year period to achieve a benefit/cost of 1.0 or better. This figure is well below projected project outputs and technically feasible.

Sociocultural Description of Bandundu

Ethnicity and Location

Ethnic groups in the project area include the Yansi, Pende, Mbunda, Dinga, Mbala, Pindi, Mputu, and Ngoli. Other groups are Hungana, Lori, Suku, Kwese, Ngwi, Ngongo, and Sakata. These diverse groups speak different though related languages and have different histories, social organizations, and cultural practices.

Along the Kwilu river alone, at least seven different ethnic groups occupy land. Holdings are not contiguous; Groups' territories alternate with each other. This geographic mixture of ethnic groups is unusual for rural Zaire and reflects a historical jockeying for better land. The history of land ownership still influences tribal relations.

This long history of close association between diverse ethnic groups in this highly populated region augurs well for the willingness of cultivators to try new ideas. The average villager knows several local languages, is aware of different cultural practices, and knows alternative ways for completing work. Bandundu's ethnic diversity is unique in Zaire. This heterogeneity and cross ethnic group communication enhances the possible spread of new technologies and information because the population is familiar with several options for one task. Population heterogeneity has also resulted in some ethnic rivalries and adherence to tradition. These ethnic constraints to change will be taken into account when implementing 102.

Family and Village Structure

Kinship groups in Bandundu are extended, matrilineal, patrilocal, and patriarchal. The blood line is traced through the women since men are incapable of transmitting the blood line of lineage, the "force vitale". But the family lives in the husband's village with his extended family. Women are subservient to their fathers, husbands, brothers, and uncles. The oldest male in the lineage, typically a brother of the oldest woman, heads the patriarchy. Most marriages in Bandundu are monogamous although polygamy is allowed. The sex ratio is 47% male to 53% female. Preliminary findings of the small farmer survey suggest that one fifth of rural households are headed by women alone.

Traditionally, maternal uncles had more authority over their sisters' children than the children's fathers did, and they assumed responsibility for their nieces and nephews. Uncles receive the benefits from nephews' and nieces' work (e.g., the largest share of the marriage payment made for their nieces). Uncles have a vested economic interest in choosing husbands and wives for their nephews and nieces.

In addition to the marriage payment, which is compensation for the loss of a productive cultivator, maternal uncles also receive part of the income which their married nephews earn. The maternal uncle uses these incomes to pay himself a manager's salary and to redistribute funds to his lineage family as needs arise. This distribution system of payments and returns demonstrates

ANNEX 9

Social Soundness

the importance of lineage and clan solidarity. It represents a strong chain of cooperation and loyalty through the maternal lineage. However, the traditional system of responsibilities and payments is not as rigidly enforced today. For example, fathers now take some responsibility for their children as well as for their nephews.

The relationship between husbands and wives may also be changing. Women's power and decision-making authority is increasing. Women were traditionally responsible for producing food crops. As farming moves from food crop production to cash crop production, women obtain a new resource. They now have access to income from cash crops. Control of resources leads to more power and decision-making authority. In addition, as women's educational levels increase, their power is also increasing. Increased education and cash crops are two resources that may be changing the traditional balance of power between husbands and wives in Bandundu.

Patrilocal traditions have important implications for 102. Men settle in the village of their oldest maternal male relative, and a woman moves to her husband's village at marriage. A woman's children play with the children of her husband's lineage, not her own. The woman's sons return to the lineage village of origin (the village of her maternal uncle) when they are adults and marry. Her daughters might never live in the lineage village. Daughters probably have the greatest affinity for the village where they grew up, which is not their lineage village. The implications of this are that most males in any village will be related to other males in that village while women will probably not have any natural ties with the other women. The land nearest to the village will belong to the male lineage; one of the men will serve as the traditional "chef de terre", and he will be interested in maintaining the productivity of the land.

Most women in the villages are not directly related to each other. They live in a village because of their marriages to village men. The women might be strangers to each other initially and to the lineage of their husbands. To the degree that their husbands' villages do things differently than their own village, they must learn new ways. This includes any different agricultural techniques or products. Since mobility is limited, most women marry men from a nearby village. They might even marry men from their own village. As a result, many women till their husbands' land and then walk several kilometers to till their lineage's land.

The specific details of the relationship between village structure and land access vary by village. A study by the Land Tenure Center of the University of Wisconsin will examine land tenure questions in more detail during the first year of the project. Questions the study should consider are: how is land distributed between husband and wife, and how is it distributed in the village? Do individual villagers ever own the land or do they simply own the produce? Can the land be taken away? These questions are complex because they vary by village and are changing. Until more research is completed, generalizations are difficult to make.

Farming systems research will provide more detailed information on how decisions are made at the village level and the impact this has on land use and cultivators' resources. This information will guide the PIU and IMO in making village level interventions to increase agricultural production with minimal disruption to the village social structure. The same complexity exists because of individual village variations.

Sociocultural Feasibility

Because generalizations are difficult to make, the PIU will have to make its own observations and note discrepancies from the social description given above. Development in the West meant transitions to individual ownership and less financial interdependence. Caution should be used in assuming the same patterns lest unique Bandundu differences be overlooked.

The PIU and IMO should keep several questions in mind when choosing initial villages for interventions. How open is the village to change? What barriers prevent change from occurring? What happens when one villager tries to make changes? What special coalitions exist in the village? Villages that allow some individual autonomy, that demonstrate an open attitude to change, that devise new solutions for problems, and that have ways to resolve village conflicts are good candidates for agricultural aid. For example, a village that is trying to plant a new crop, that allows villagers to make personal decisions about their fields, and that has a working village committee to solve disputes will be a good place for the IMO to begin.

Access to resources influences receptivity to change. An important resource changing the social structure is education. Education is one of the highest priorities for Bandundu families and is viewed as the most important link to social mobility. Regardless of sex or wealth, most Bandundu children are again learning to read and write (at independence, Zaire had the highest literacy rate in black Africa). Increased mobility is another variable encouraging social change. Young adults are migrating to urban centers for education and increased opportunities. Although some young adults remain in the urban centers, many return to their village with new skills, ideas, and experiences. Cash crops are another important resource. Most Bandundu families now have access to some cash income for purchasing desired goods such as soap, medicine, and sardines. Access to new agricultural resources will encourage the villagers to take risks, especially if they understand how these resources may improve their lives.

New resources by themselves are not enough to produce change. Information on how to improve techniques and understanding so that they can effect change are equally important. The obvious rewards of trying new technologies must be greater than the risks. Changing agricultural practices risks the cultivator's livelihood and all those who depend on her. For this reason, this project is taking an incremental approach to agricultural development. It will start with a relatively low risk proven agricultural change such as a new variety of cassava. After the cultivator's initial success, changes with greater risk factors can be introduced.

The PIU will ensure productive distribution of project resources in a system where sex and village position commonly determine access to resources. The PIU will at the same time demonstrate deference to the village social system. The PIU and IMO will identify and avoid power struggles with the village hierarchy. Should this not be possible, the PIU/IMO will not select that particular village, until such differences are resolved.

Project resources can provide leverage for influencing change. By establishing rules for access to project resources, the PIU will initiate productive changes. For example, the PIU can insist on women's participation in a cassava training session. For the session to occur, a certain percentage of women must be present. If these negotiations are handled in a non-threatening, non-challenging manner, the result can be a new precedent of providing training for women in new technologies.

Before the PIU begins resource distribution, time should be spent building rapport both with the IMO and the villagers. The IMO can serve as

the "host", introducing the PIU to the area cultivators. Building good rapport from the first contact is essential, especially when groups from diverse cultures begin to work together.

Agricultural Production - a Transition Time

Traditionally, crop production was the woman's domain. Usually the men cleared the fields, using slash and burn techniques, and the women planted, tilled, and harvested. Manioc was often the sole crop produced. Land abundance allowed the villagers to leave the land fallow for up to 20 years.

Agriculture production in Bandundu is now in a transition period. One of the most important changes is the increasing production of cash crops. In addition, Bandundu's growing population is increasing the demands for production. An increasing urban population means a larger market for sales. As a result, cultivators are reluctant to let their land lie fallow for the traditional length of time. There are more land disputes as prime land becomes scarcer. Yields are declining because of the reduced fallow period. Preliminary results from the small farmer survey show many cultivators believe the major recent improvement in their lives is money earned from the fields. When asked in what ways life is seen to be worse, many listed constraints on productivity, marketing problems, and lack of price competition.

Project personnel need to be aware of the traditional agricultural system and the new demands being placed on that system. Historically, land belongs to the lineage group through their ancestors rather than to an individual. It is managed by the village's chef de terre with cultivators being given usufructary rights. In some villages, the Mama Kahuma makes decisions regarding sowing, harvesting, and other agricultural decisions. Individual cultivators, usually women, do not own their produce. Husbands control their wife's produce. But the village hierarchy is ultimately responsible for the ancestral land. Current changes in this system will be studied by the land tenure and farming systems research mentioned earlier.

The project comes at an opportune time because social and agricultural changes are already taking place. Two other changes that have encouraged movement to a cash crop economy are a) completion of the paved road to Kikwit in 1978 and b) the 1982 agricultural price liberalization. The completion of the road means that produce can be directly transported to urban markets. The GOZ's price liberalization raised the crop price per unit received at the farmgate. The macroeconomic reforms instituted in November of 1983 provided further stimulus to change for increased production. The government's relinquishing of currency value management to the market signally improved the terms of trade for the rural producer. Project interventions should be selected with the knowledge of these incentives for change.

Beneficiaries and their Participation

Beneficiaries

Project resources will benefit both the participating IMOs and the populations they serve. Resources and technology will be distributed through the IMOs to the villagers. As a result, those living in proximity to the IMOs will profit the most in the short term. Extension activity will result in a larger geographical distribution.

USAID/LSMR DIVISIONAL PROJECT RESPONSIBILITY, March, 1985

	Project Title	Project Officer	Agent	LOP Auth.	Cumul. Oblig.	Initial Obl.	FYCD	Funding
A B B								
640-0039	North Shabe Rural Development	K. Griggs	DAI	15,135,000 3,500,000	15,135,000 3,500,000	09/30/76	09/30/84	USA/DA(C) (L)
640-0064	IMERA Support	Yoshihiko	DDI-DOA(IMERA)	3,850,000	3,850,000	09/30/77	09/30/85	USA/DA(C)
640-0070	Ag. Sector Studies	B. Daniel	PRACHA	3,480,000	3,480,000	09/30/77	03/31/87	USA/DA(C)
640-0077	Casava Outreach	C. McCarthy	PRACHA	4,500,000	4,500,000	09/30/78	03/30/86	USA/DA(C)
640-0080	Fish Culture Expansion	C. McCarthy	DDI-DOA	950,000	950,000	09/15/78	12/31/85	USA/DA(C)
640 0081	Applied Ag. Research	D. Atteberry	DDI-DOA	10,000,000	4,788,000	09/17/83	09/30/89	DA(C)
640-0102	Area Food & Nut. Development	C. McCarthy	PVOs	15,000,000 ^A	--	--	--	DA(C)
640-0105	Central Shabe Ag. Dev.	J. Mitchell	-	25,000,000 ^A	--	--	--	ESP(C)
640-0117	Emergency Food Distribution	J. Mitchell	CARITAS	1,000,000	1,000,000	09/30/84	03/31/85	DA(C)
F B O								
640-0079	Area Nutrition Improvement	C. Payne	CEPLARU	4,300,000	4,300,000	09/30/82	09/30/87	DA (C)
640-0086	Basic Rural Health	Wahadi-Lumbu	DDI - HNH/ECI	4,844,000	4,844,000	08/13/81	09/30/86	DA (C)
640-0094	Family Planning Services	Ken Meyer	DDI - CHFD	3,940,000	3,940,000	09/30/82	09/30/87	DA (C)
640-0101	School of Public Health	Glenn Post	UNIKIN	8,315,000	2,000,000	08/28/84	07/30/84	DA (C)
640-0107	Basic Rural Health II	Glenn Post	ECI	5,000,000 ^A	--	--	--	DA (C)
690-0421.25	Zaire CCCD	F. Amantong	DDI-NHB/CDC	4,849,000	4,100,000	08/31/82	12/31/86	DA (C)
PL 480	Title II Mat/Child Feeding	C. Payne	DAI	2,000,000 ^A	--	--	--	PL 480 II
F B B								
640-0068	Development Manager Training	J. Anderson	DDI-CEARCOF	3,344,000	3,344,000	09/30/80	12/31/87	DA (C)
690-433.25	AMD(1983), Zaire	J. Anderson	DDI-CEARCOF	195,000	195,000	03/04/83	--	DA (C)
F B H								
PL 480	Title I Concessional Sales	J. Winkler	Plan	15,000,000	--	11/27/84	9/30/85	PL 480 I
B E C								
640-T-026	Ag. Marketing Development	D. Bator	O.B., ONATRA	5,000,000	5,000,000	09/15/79	09/15/83	DA (L)
640-0028	Ag. Marketing Development	L.S. Washin	O.B.	4,300,000	4,170,000	09/25/81	09/30/88	DA (L)
640-0093	Ruth Cent. & Int. Rural Dev.	C. Falke	Salvation Army	389,306	389,306	01/23/81	06/30/86	DA/OPC
640-0097	PVO Economic Support	C. Falke	DET	5,000,000	5,000,000	09/30/83	09/30/87	ESP (C)
640-0098	Ag. Marketing Development	D. Leong	BYF, C.B., PLAN	4,000,000	3,800,000	07/30/84	07/01/84	DA (C)
640-0100	Ag. Inputs Support	T. Born	Plan	10,000,000	10,000,000	07/30/84	01/01/86	ESP (C)
640-0103	Ag. Inputs Support II	T. Born	Plan	10,000,000 ^A	--	--	--	ESP (C)
640-0104	Appropriate Rural Tech. Dev	B. Harrelson	CEPLS	134,000	134,000	08/15/84	08/15/87	DA/OPC
640-0113	Private Management Support	C. Falke	Techservice	793,500	793,500	11/11/84	09/30/87	DA/OPC
640-0114	Shabe Refugee Health	B. Harrelson	DM:	2,500,000 ^A	--	--	--	DA (C)
640-0115	Shabe Refugee Seeds	D. Bator	O. I.	2,500,000	3,531,000	09/27/84	05/30/90	DA (C)
640-0116	Shabe Refugee Water Supply	T. Born	DO/A.I.D.B.	2,250,000 ^A	--	--	--	DA (C)
640-0118	Shabe Rural Electrification	T. Born	Shabe/Gen.	25,000,000 ^A	--	--	--	ESP (C)
690-0407.35	Zaire Photovoltaic Communication	B. Harrelson	C.E.C.A./D.N.C.	64,500	64,500	08/31/82	02/28/86	DET (C)
PL-480	Title II Emergency Food Relief	J. Born	WFO	3,300,600	--	05/01/84	07/31/85	PL 480 II
COMCO								
679-0001	Smallholder Ag. Development	K. Griggs	CARE	3,000,000	3,000,000	09/24/81	09/30/85	CoopAg(C)
679-0002	Smallholder Ag. Dev's II	K. Griggs	CARE	3,000,000	2,812,000	08/11/83	01/17/88	CoopAg(C)
679-0006	Nutrition Education II	C. Payne	CARE	626,000	188,000	12/31/84	12/31/85	CoopAg(C)
690-0410.39	Primary Health Care	C. Payne	CARE	500,000	500,000	06/17/82	06/30/85	DA/OPC(C)
690-0421.79	Comco CCCD	F. Amantong	HC/NORSA/CDC	647,033	647,033	06/11/84	06/11/88	DA(C)
690-0433.31	AMD(1984), Comco	J. Anderson	W.A.	130,000	130,000	03/30/84	12/31/85	DA(C)
690-0442.21	PHI Family Planning Ext.	Glenn Post	CPIC	700,000 ^A	--	--	--	DA (C)

^A Planned

PHI:Winkler:WU:08/03/85 (revised)
Document 1294c

Attention will be given to the impact physical proximity has on resource allocation. Communications frequently are so poor that it is hard to avoid uneven resource distribution. Villages in the groupements are aware of the impact distance has on resource allocation. For example, the chef of Ndwi in Kilunda collectivity told a design research team that their biggest need is a maternity hospital. There are plans for a maternity at the dispensary Ndwi uses, but the chef said the village wants its own maternity hospital. They do not want to walk the 10-15 kilometers to the mission dispensary.

Villagers are frequently aware of resources provided by IMOs. However, access to those resources often means walking many kilometers and perhaps spending several nights away from home. Ipamu village found a solution to this problem. The village was originally located several kilometers from Ipamu mission. During the last twenty years, the villagers moved progressively closer to the mission. Now the border between the two is indistinguishable. The Ipamu abbé said this happened because the villagers wanted to be close to the mission.

Another example of the importance of proximity involves the DPP agricultural center at Laba Central. The center is responsible for agricultural extension work in 3 collectivities. But the agronomist has no transportation. So the only extension work occurring is near the center.

Most IMOs already have some outreach structure. Often they have catechists representing the mission in the villages. Many villages also have committees that meet with the mission representatives periodically.

Missions have other structures for a broader distribution of services. Many have a major center with satellite missions connected to the center. Mission personnel visit these satellites at scheduled intervals. Some mission personnel are members of doyennetes. A doyennete is a group of people representing several missions that meets at scheduled intervals to discuss mutual interests. Meetings can also be called for special problems. Village committees, catechists, satellite missions, and doyennetes are all ways missions have of reaching a larger population.

Missions often have spheres of influence that vary depending on the activity. For example, evangelism might occur in a much smaller region than health care. Bandundu was the first region organized into health zones. The goal of the zone program is to provide health care accessibility for the total population. The zone divisions and dispensary locations used in the health sector could be replicated in some ways for agricultural extension by the IMOs..

Many businesses also have a village level contact, the trader. His visit is an important contact to the outside world for the villagers. Some large companies currently send traders out on bikes to visit the villages. When the produce is ready for sale, the trader sends for a truck. Smaller traders visit the villagers periodically in their trucks. The number of traders who visit a village influences pricing competition. The dependability of these visits is an important village concern.

Participation by Beneficiaries

The level at which an agricultural activity occurs largely determines the beneficiaries. It also influences productivity. A recent evaluation of DPP's agricultural centers suggests that many activities are more successful at the village level than at the agricultural centers. The evaluation recommends that activities such as raising cows, small animals, gardens, and fruit tree planting should be implemented at the village level, not at the regional centers. Other activities such as weekend agricultural seminars are appropriate at the centers. By targeting appropriate activities at the village level, PIJ and IMO personnel can reach a larger population and ensure success.

Special attention will be paid to reaching the disadvantaged groups. Women and children largely comprise this group insofar as they have the least access to resources. Children will benefit indirectly through their parents. Womens' groups are a way to specifically involve women in the project. Some foyers sociaux are already organized at the missions (Ipamu, for example) and in villages (Semendua). These programs are usually run by mission personnel and teach young women skills such as sewing and reading. Several of the catholic foyer sociaux are beginning to teach traditional male activities such as fence building and fish ponds (Mwilambongo and Idiofa diocese). These programs might be expanded and replicated.

The IMOs and villages will both take active roles in the project. The IMOs will work with the PIJ in deciding specific agricultural needs. The IMOs have a historical knowledge of the local agricultural needs. So a match of services to population needs can be made. In addition, the IMOs have a working relationship with the local population and a good reputation for providing services.

Villagers' participation is essential for the success of this Project. It is also a means of assessing villagers' motivation for adopting changes. Two examples illustrate this point. Several villages went to Vanga mission requesting a dispensary be built in their village. The mission determined what the villagers could do for themselves and offered aid beyond that. The villagers had to organize a health committee and build a dispensary. When those tasks were accomplished, Vanga provided the initial medicines and medical personnel.

The lack of prerequisite participation was a mistake made by DPP's agricultural centers. At the beginning, DPP, with many resources, distributed seeds and cuttings gratuitously. In an effort to become self financing, DPP has moved to charging for the seeds and cuttings. The villagers remember when these services were provided gratuitously and resent having to buy what was initially given to them. One DPP solution is to set prerequisite work conditions since many villagers do not have the money to buy materials. These conditions have to be met before DPP distributes materials. The principle behind this is, do not do for them what they can do for themselves. This is especially important because of the dependence mentality established during the colonial period and still a deterrent to villagers' initiatives within available means. The PIJ needs to be careful not to reinforce any existing expectations that assistance alone will solve villagers' problems.

If expectations of free resource distribution are established, sustainability will be difficult to achieve. Beyond the technique of prerequisite work conditions, the PIU and IMOs can avoid this problem by gradually turning more responsibilities over to the beneficiaries. This plan must be agreed upon at the beginning so that the transition of responsibilities and the timing of that transition is clear. Transition timing is important lest changes be made so fast that they become threatening, and to ensure that cultivators have time to develop the necessary skills for sustainability.

Impact

A strength of this project is that it will build on existing agricultural activities however nascent in some cases. It will also work with IMOs that already know the region and have a good local reputations. These institutions will continue the agricultural activities after the project has been completed.

This project is designed to increase agricultural production in Central Bandundu. Such an increase has several social implications. Increased agricultural production (as well as improved processing and marketing, with associated income increases) will result in a higher standard of living. Post project comparisons will be made with small farmer survey data to measure the changes in standard of living by looking at variables such as household goods, land ownership, and educational levels. Another benefit of increased agricultural production is better nutrition. Nutrition monitoring through the Area Nutrition Improvement Project (660-0079) in Bandundu will provide information on nutritional status. Better nutrition leads to better health. Data kept by the health zone officials and monitored through the Basic Rural Health Project (660-0086) will provide measures of better health.

The IMOs and cultivators near the IMOs will initially profit the most from the project. But planned extension-building activities will ensure that those living further from the IMO central stations will also benefit from the project. The project focus on small farmers and women cultivators should induce productive change in the employment of resources. And these groups will become more self-reliant as the new skills and resources they obtain pay off in increased earning power.

ANNEX 10

Administrative Analysis

ADMINISTRATIVE ANNEX

This analysis focuses on the administrative relationships between and within the entities which will have project implementation responsibilities. It also identifies major implementation tasks and the respective responsible parties.

1. Agencies

a. The principal entities that will be involved in implementation of the project are: the Project Implementation Unit (PIU), participating local organizations (IMOs), the Department of Agriculture and Rural Development (DARD) and USAID. Within the DARD there are two divisions that will be involved with the project, the Service d'Etudes et Programmation (SEP) and the Administration Générale des Projets (AGP). Project documentation that requires official GOZ signature is normally reviewed by the AGP and forwarded to the appropriate official for signature. The SEP will play a more varied role over the life of the project.

During the initial 18 months of the project, a number of surveys and studies will be undertaken to provide a broad spectrum of additional information which the PIU will need to determine which interventions have real possibilities for successful implementation. These studies will generate information of interest and use to the SEP. Because of the timing and magnitude of the studies, the SEP will not be able to participate in all of them. However, in view of the SEP's responsibilities within DARD and the relevance of the information which will be generated, the project will request that one Staff Officer of the SEP be assigned as principal liaison with the project. This Officer will be responsible for coordinating SEP and/or other DARD participation, when possible and appropriate, in the project's surveys and studies. In addition the SEP will be requested to second an agricultural economist or agronomist to the Project Implementation Unit for the life of the project. This person could begin some project duties as early as February, 1985. Initial duties will include participating in selected studies and beginning the recruitment and selection process for the Zairian professional staff of the PIU. The latter duty will include developing scopes of work for each of the professional positions, determining necessary qualifications and criteria for candidates, advertising as necessary and eventually developing the list of candidates who will be interviewed by the Selection Committee. The position would become a full time job once the PIU is established and operational.

The project purpose is to increase agricultural production, processing, and marketing. These are all related to DARD's objectives. Most of the studies to be undertaken by the project will be generating information on agricultural practices, production levels, marketing practices and prices. Once processed, this information can be incorporated into the work of the SEP, the Documentation Center, and/or the DMCPP. The project assumes that Project

660-0091, the Applied Agricultural Research and Outreach project (RAV), will have improved varieties of cassava, corn, and food grain legumes available to the IMOs for multiplication and dissemination. RAV's outreach component relies heavily on the participation of PVO's, NGO's, and private enterprises.

The Area Food and Marketing Project will assist RAV in its Farming Systems Research and in disseminating the fruits of its research. There will be a need to establish communication links between the IMOs which will be involved in agricultural production and development, and the various divisions, services, and programs of the DARD. One of the responsibilities of the PIJ will be to forge a communications network among the villages, the IMOs, and the many sources of related support and information.

b. Intermediate Management Organizations

The potential Intermediate Management Organizations are found all along the continuums of size, centralization, scope of activities, financial resources, organizational pattern, management style, degree of existing communications linkages, and development priorities. This administrative analysis addresses five concerns of project implementation. First, one assumption of the project is that the participating IMOs will maintain and continue project interventions. This is, in turn, based upon the assumption that the IMOs have the financial resources to maintain the activities. Preliminary indications from the institutional survey are that most IMOs have reliable, if limited, financial resources. The degree of financial sustainability will be a major determinant in deciding the types of intervention appropriate to the IMO, and within the chosen type of intervention, what the approach will be (e.g. agricultural production - will it be added staff or training or improved varieties, or some combination of any or all of the foregoing?). In those instances where financial resources may be the major limiting factor, the project agreement (memorandum of understanding) with the IMO might entail self-financing clauses.

Second, decision making authority relating to the MOU, staff selection, intervention selection, etc. may rest with the participating IMO. Ideally each IMO should have the authority to negotiate and sign its own MOU, to allocate its own resources, and to plan its yearly activities. The further this decision making authority resides from the project intervention site, the greater is the likelihood of delays in implementation.

Third, the majority of the IMOs have limited staff depth, both in terms of number and expertise. There is a certain critical number of staff required for each activity the IMO undertakes. This does not include village level workers or other level workers in general. The basic functions are those of IMO manager, administrative assistant (secretarial, financial), and activity manager. In smaller IMOs these functions may be doubled up. Adding more activity-specific staff (such as an agronomist and outreach specialist) or additional resources (money, goods) without providing

the additional support staff will limit the effectiveness of the project input and the accountability for project resources.

For each IMO, an analysis of its organizational structure must be undertaken as part of the process of selecting an intervention. The MOU must require adequate staff to support the activity at the proposed level. In addition, adequate training to ensure accountability and facilitate management should be included where needed.

Fourth, the preliminary reports of the Institutional Survey indicate a general weakness in management skills. This is true for private enterprises as well as NGOs and PVOs. Pastors, abbés, and sisters superior are not usually chosen primarily for management expertise. The SFMA studies show that a lack of management skills is a contributing cause of the deteriorating transport fleet and lack of inventory. Regardless of preferred management style, the project will need to provide management training at varying levels of sophistication for the IMOs involved in the project.

Fifth, communication among IMOs with similar activities, between IMOs and primary information sources, and even between IMOs and their parent organizations is weak. This is important enough to warrant the project setting the development of a communication network as an objective.

c. Project Implementation Unit

The major implementation responsibilities devolve on the Project Implementation Unit (PIU). Experience in Zaire with other projects has shown that when the chief of party has both management and technical responsibilities, one or the other suffers. Project North Shaba (059) has shown that having a chief of party who is responsible strictly for management has no ill effect on the technical development of the project. In fact, this facilitates project implementation. With a planned staff of 20-25, management of the PIU will have major influence on the project. The planned management team of COP, executive officer, administrative assistant, logistics officer, bookkeepers, and the research/information manager will allow the PIU to ensure accountability as well as timely delivery and monitoring of the broad range of project inputs.

The volume of information, the number of activities and sub-activities, and the several communications channels will make major demands on the PIU's ability to collect and process management information and monitor project implementation. Two approaches are being put in place to enable the PIU to handle the requirements. First, the PIU itself is being staffed to provide the technical expertise to set up monitoring systems. Second, PIU will receive computerized data processing support to handle the monitoring. Companion project 098 will do the data inputting and analysis for the major information generating activities.

Recruitment of staff for the PIU is a major initial task during the early implementation period. The expatriate staff will be recruited through normal AID competitive procurement procedures. The recruiting and hiring of 18-20 qualified Zairian professional staff may be equally challenging.

The PIU will be in existence only for the life of project. This means the unit will only hire for 8-9 years. The design team considered requesting various ministries such as DARD and Department of Plan to second all staff. However, there are difficulties foreseen in managing a team that large of temporarily translocated employees. These include line of command concerns; rewards and sanctions for performance and nonperformance; differing internal regulations; and the time the employee would be out of touch with his normal the work environment. The design team concluded that the best approach would be to include on the PIU one or two key team members who would be employees of DARD seconded to the PIJ.

d. The Department of Agriculture and Rural Development. Project planning proposes an early role for a DARD liaison officer in the recruitment of the project staff. This strengthens one area of weakness in the USAID management, i.e. the time and ability to undertake this process.

The task of attracting qualified staff begins before the recruitment and selection process. The inducements to take the job must be sufficient to compensate for the limited term employment and the transfer of family out of Kinshasa to Kikwit. This is being addressed by providing housing, furnishings, water, electricity, competitive salaries, and perquisites. With these inducements the design team believes that the project can attract a sufficient number of qualified candidates for all positions.

e. The final major actor in the project is USAID/Kinshasa, represented primarily by the Project Officer and backstopped by the 098 Project Officer for data processing and transport infrastructure improvements. Project 098 is managed in USAID by the Division of Design, Evaluation and Capital Projects. The 098 Project Officer will be a member of the 102 Project Committee.

Given the structure of the Project, most decisions affecting procurement, training, budgeting (both dollars and zaires), and their delivery timing will be made by the PIJ. However, responsibility for the documentation necessary to initiate actions which will authorize any of the above rests with the Project Officer.

The Project Officer and COP will develop 12 to 18 month implementation plans. Decisions on IMO selection and choice of interventions will be made 8 to 12 months before the PIJ begins supporting actual interventions. If it is anticipated that only the pipeline inventory will be required, this period may be reduced somewhat. Procurement, however, is commonly a 9 to 12 month process.

Although the PIJ is charged with making the IMO and intervention selections, its decision will have budgetary and implementation implications. To keep USAID advised of these possible effects and of project development in general, the COP will meet with the Project Committee regularly and before the IMO selection is finalized. Any Project Committee concerns will be incorporated into the implementation process.

In view of the dispersed subproject sites, multiplicity of interventions, numbers of surveys and studies, and the 10-year life of project, monitoring the project may be comparatively complex. In the Monitoring Plan, the division of responsibilities for monitoring are discussed in some detail. The Project Officer will personally monitor resources until they arrive at the PIU. The PIU will monitor them thereafter, providing quarterly reports to the Project Officer. The Project Officer and COP will determine due dates of the various reports to keep the workload to the minimum essential.

MONITORING SUMMARY

This project has four levels of activities that will require monitoring systems and that will have different responsible parties. The first level is that of project implementation for A.I.D. purposes. The Project Officer is responsible for the monitoring and reporting. The second level is that of project management for which the PIJ (COP) is responsible. A third level is the monitoring of specific IMO site interventions. This monitoring is the responsibility of the Research and Information Division of the PIJ. The final level of monitoring for the project area as a whole. This will engage short-term technical assistance and will be backstopped by Project 098.

1. Implementation Monitoring

The purpose of this monitoring is to ensure that JSAID has current knowledge of project activities; to anticipate bottlenecks; to assure that U.S. funds are being disbursed in accordance with statutory requirements; to assure that goods and services financed are utilized effectively to produce intended results; to enable the Project Officer to make judgements as to the continuing appropriateness of project design and the need for in-depth evaluations; to anticipate documentation requirements; to provide programmatic inputs; to continuously review project rationales and propose appropriate adjustments to take advantage of opportunities for better achieving project purpose; and to permit the project officer to deal with GOZ officials on substantive project issues.

The monitoring system that will be used for this level includes establishing a mobilization plan; identifying key variables; updating the implementation plan yearly; preparing quarterly Project Implementation Reports; establishing a project accounting system; and establishing a monthly reporting system. The above will be supplemented with site visits, consultations with contractors and IMOs and periodic review of requirements, scopes of work, plans, schedules, and payments contained in project documentation. The Project Officer will also establish a monitoring checklist similar to that contained in HB 3 Chapter 11, Appendix A.

2. Project Management Monitoring

This monitoring covers activities associated with the day to day management of the project and activities related to performance and planning. The former includes establishing and reviewing office procedures (filing, correspondence, data processing, etc.); establishing and maintaining accounting systems; establishing an inventory system; tracking input requests; establishing reporting systems; and establishing and maintaining records of inputs received (receiving reports, end use tracking). The latter requires reports on progress on annual work plans; review and revision of implementation plans; reports on project activities; and reports from IMOs, government activities, and research institutions, plus related surveys and studies.

Responsibility for establishing the system belongs to the COP and the MEIS specialist. Some guidelines on format, functions, and reporting can be found in Appendix 14, the Monitoring Analysis.

>

3. Micro Impact Monitoring

The purpose of this level of monitoring is to inform the PIJ and, through it, the GOZ and USAID of the appropriateness and success of the interventions for each IMO. This requires establishing a monitoring system which includes staff reports, IMO reports, reports from other agencies and activities (such as RAV, CEPLANUT, SFMA, LTC, CODAIK, and ITAK) as well as the results of the baseline, rapid reconnaissance, soils, and other studies. Mid-term evaluations and end surveys will also provide valuable data for this monitoring. Responsibility for developing the monitoring system rests with the MEIS specialist.

4. Project Area Monitoring

At this level the project purpose is being monitored. By establishing a monitoring system at this level, the project will be able to review the many different components and activities in terms of the whole project in contrast with IMO-specific objectives. It will require reports on all the relevant surveys and studies, and as much useful information as may be available from secondary sources. This system will be set up on the 098-supported computer system. The MEIS specialist will have the responsibility of reviewing program design and analysis.

a. Responsibilities

Responsibilities for the project can be broken down into four main categories: project management, financial management, contracting and reporting. Anticipated tasks and activities are and discussed below under these categories.

Mobilization activities are the JSAID Project Officer's responsibilities. To assist with the initial work load, the Project Officer will draw on the services of the Bandundu GSO liaison officer in Kikwit and a program assistant in USAID (ARD). The Bandundu GSO will recruit as soon as possible a Zairian assistant who will fill the logistician's position of the PIJ. In addition, the DARD liaison will assume major responsibility for the recruitment of the Zairian staff. The far right column "OTHERS" above refers to outside consultants, including AID/W, who will participate in the various studies and surveys identified elsewhere.

b. Financial Management

Financial management includes both JS dollar and local (counterpart) funds. Within JSAID, responsibility for various aspects rests with different offices. The final obligation schedule falls within the purview of Program; certification and official accounting within that of Controller; and financial planning, project budgeting, voucher authorization and scheduling local currency budgets within that of the Agriculture and Rural Development Division (Project Officer). Once the PIJ is established, it will be expected to take the lead role in budgeting requirements for local currency. The Project Officer will maintain project accounts for the disbursement and accruals of the dollar allotments. The PIJ will keep the local currency books. The Project Officer and Controller will assist the PIJ in setting up its books to meet AID audit requirements.

Table a. Project Management

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>					
	<u>USAID</u>	<u>PEU</u>	<u>O98</u>	<u>IMOs</u>	<u>DARD</u>	<u>OTHER</u>
Signing PROAG	X				X	
Drafting PIOs	X					
Coordinating support and logistics for studies/surveys	X	X				
Recruiting Zairian Staff	X				X	
Initiating Procurement	X	X				
Tracking Procurement pre-arrival	X					
receiving		X				
end use tracking		X				
Housing Construction	X					
Gathering Data		X				X
Processing Data			X			X
Analyzing Data		X				X
Applying Data		X				
Supervising Project Staff		X				
Supervising Contractors	X					
Negotiating MOUs	X	X		X		
Monitoring MOUs		X				
Implementation Interventions		X		X		
Evaluation of IMO activities and interventions		X				
Project evaluations	X				X	X
Planning	X	X				

Table b. Financial Management

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>	
	<u>AID</u>	<u>PEU</u>
Developing project dollar budgets	X	
Developing project LC budgets	X	X
Developing financial plan	X	
Developing obligation schedule	X	
Determining disbursement procedures for LC and dollars	X	
Maintaining dollar bookkeeping	X	
Maintaining LC bookkeeping		X
Voucher authorization & certifying for dollar expenditures	X	
Payment authorization for LC	X	X

c. Contracting

All contracting for technical services will be AID direct contracting.

The Project Office is responsible for developing scopes of work (SOW), and drafting a request for technical proposals for the PEU expatriate team. The DARD liaison officer and the Project Officer will develop for the Zairian staff. For a discussion of contracting responsibilities for procurement see the Implementation Annex, Part II, the Procurement Plan.

d. Reporting

The PEU will provide the Project Officer the following reports:

1. Annual Work Plans
2. Quarterly updates on work plans, including revised objectives
3. Quarterly reports on work with IMOs, by IMO
4. Quarterly accounting for local currency budget
5. Receiving reports, as appropriate
6. Semi-annual end use reports
7. Yearly evaluation of on-going activities.

Due dates will be staggered so as not to impede routine management and implementation activities.

The Project Officer will prepare and present the Project Implementation Report on a quarterly basis. In collaboration with the COP, the Project Officer will annually prepare a 12 to 18 month implementation plan and summary of proposed activities for presentation to the Project Committee. The Project Officer and COP will prepare annual CPF budget submissions.

3. Linkages and Organizational Structures

The key element in managing Project 102 is the proper functioning of the Project Implementation Unit. It must establish effective communications internally and with other entities (Service d'Etudes, DMCPP, and RAV of DARD, CEPAS, INS, IRES, CENACOF, ITAK, IPTK, IARCs, CODAIK, CBZO and others), between itself and the IMOs, and between itself and USAID.

The principal linkages between the PIU and USAID will be via the Project Officer. This will be a two-way flow of information with the Project Officer transmitting relevant material, results of surveys and studies, pertinent AID guidelines, and feedback on the PIU reports. Project Implementation Reports and Project Committee meetings will provide additional forums for exchange of implementation related information. The USAID Project Committee will be composed of representatives from: ARD, FRM, DEO, Service d'Etudes, PIU and others as appropriate. The Project Officer will be the chairman.

In addition to the substantive linkage which the PIU must forge with the DARD, there needs to be an administrative link as well. This will consist of one or more Service d'Etudes employees seconded to the PIU for designated liaison with the Service d'Etudes and Administration Generale.

As described in the Project Description, the PIU will consist of six divisions. Figure 3 shows the organizational chart. The General Administration Division is concerned with the management of resources and personnel to support the PIU's activities. It consists of the COP, the Executive Officer, a logistics coordinator and two accountants/bookkeepers. In addition to administrative functions, the Executive Officer and Accountants will have implementation functions. They will evaluate IMOs' accounting and other management capacities to determine if they are adequate for the proposed interventions. If not, they will determine what needs to be done to bring them to the required levels, and will arrange for requisite support as necessary.

The training office is responsible for programming training once an IMO's needs have been determined. The Training Officer will be responsible for developing linkages between training sources and IMOs. The training officer is also responsible for arranging appropriate training for PIU staff.

The Research and Information Division is responsible for developing a Monitoring and Evaluation Information System (MEIS) for the PIU. Elements that will be included are: administrative information (personnel, inventory, accounting, and use tracking, resource tracking, budgeting); data analysis from the project's studies and surveys; data recording for information generated by other PIU divisions; designing micro impact evaluations; advising other divisions on information gathering (record formats, trip reports formats, research techniques, etc.); collection of reports from IMOs; and advising and/or reviewing the data processing and analysis of 098 or other data sources.

The Production Division is responsible for determining which direct production-oriented interventions are appropriate for a selected IMO. The division is, thereafter, responsible for technically advising the IMO, monitoring the interventions, identifying problems and helping the IMO to solve them.

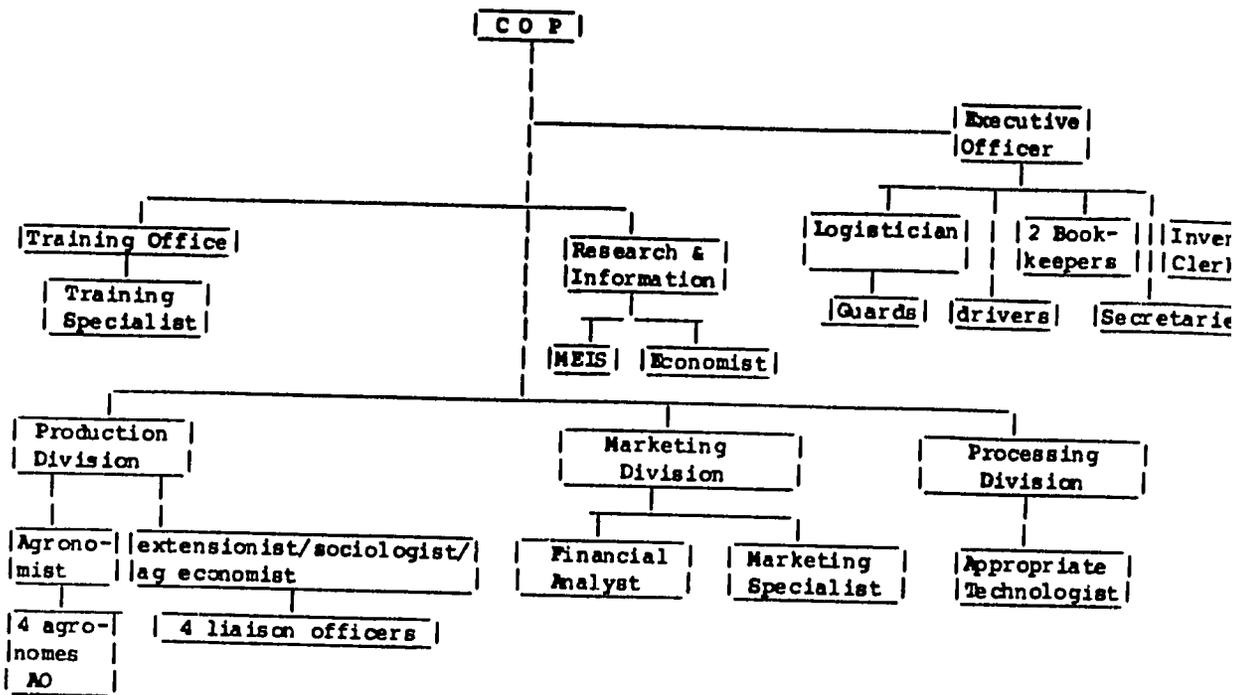
The division also is responsible for initiating contact with Project 091 (RAV), establishing communication between RAV and the IMOs, providing feedback information to RAV on production outcomes, and participating in Project 102 and 091 FSR initiatives.

The Marketing Division is responsible for coordinating SPMA on-going studies in the project area; identifying other sources of marketing information; gathering, processing and analyzing such information; advising Project 098, based on available data, on selection of roads and bridges for improvement; and determining possible interventions in marketing. The Division is also responsible for evaluating IMOs' potential for marketing interventions, including identifying any necessary training.

The Processing Division is responsible for evaluating current literature on improved small scale cassava processing; identifying possible acceptable technologies or changes; with selected IMOs, undertaking to introduce these changes; monitoring the experiment for early identification of problems; and resolving problems. The Division is not limited to cassava but will evaluate each IMO and the principal food crops in its area. The appropriate technologist will work with IMOs in the project area which are already involved in developing technologies related to any of the projects concerns-production, marketing and processing.

The Training Office is responsible for programming training once an IMO's needs have been determined by one of the other divisions. The training officer will be responsible for developing linkages between training sources and IMOs. The training officer is also responsible for arranging appropriate training for PIU staff.

The Research and Information Division is responsible for developing a Monitoring and Evaluation plan and carrying it out.



ANNEX A

AMPLIFIED PROJECT DESCRIPTION

**Project Agreement
Area Food and Market Development
660-0102**

PART I: PROJECT RATIONALE

A. Rationale

Over the past decade the Government of Zaire has initiated a number of programs to improve agricultural sector productivity. The Agricultural Recovery Plan aims to increase food production to attain nutritional self-sufficiency through improved research, extension, transportation infrastructure, and services. At the same time, the GOZ has come to recognize, both in policy and practice, that effective outreach to rural areas depends on private enterprise and the PVJ communities. Two thirds of the country's schools and four fifths of its rural health zones are administered or supervised by private voluntary organizations, and much of the effective agricultural extension is done by agro-industrial firms. These organizations receive only policy guidance and minimal financial support from the GOZ.

The GOZ's macroeconomic reforms of 1982 and 1983 included the lifting of price controls on agricultural products, the removal of restrictions on interregional trade, a major devaluation and, equally importantly, a shift to a floating (market) exchange rate. These measures have eliminated built-in subsidies of imports and shifted the rural-urban terms of trade in favor of rural areas. While further reforms in the agricultural sector, such as the complete elimination of the practice of imposed crops, are still desirable, the overall macroeconomic climate is much improved.

The Bandundu Region is one of the most agriculturally productive regions of Zaire. Since the opening of the paved road from Kinshasa to Kikwit in 1978, Bandundu has eclipsed Bas-Zaïre as the largest supplier of basic foodstuffs to Kinshasa. Its existing transportation links to Kinshasa, as well as to secondary cities in the two Kasais and Shaba, permit the marketing of its surplus production towards these demand centers. Nonetheless, increased production, marketing, and processing of the area's agricultural production is severely constrained by the poor state of the road and river transportation network, by the dearth of high-yield disease-resistant varieties of basic crops, by the absence of effective agricultural extension services, and by the unavailability of appropriate processing equipment and mechanical know-how.

USAID concentrates its development assistance to Zaire in those priority sectors where it can make the most significant contribution, especially agriculture and health. In the Bandundu region, USAID's activities are mutually supportive in their impact. This project will be the capstone of USAID's program in Bandundu. It will use existing local non-governmental organizations to extend improved agricultural production, marketing, and processing technology to the small farmers and traders of the project area. Urban functions that support rural development will also be strengthened under the project. The improvements to river and road infrastructure of the area will be supported by the companion Agricultural Marketing Development Project (660-0098), and by two ongoing Agricultural Marketing Development Projects (660-0026 and 660-0028). The Area Food and Market Development Project will support and be supported by activities undertaken by the Basic Rural Health (660-0086), the Area Nutrition Improvement (660-0079), the Private Voluntary Organization Economic Support (660-0097), the Applied Agricultural Research

and Outreach (660-0091), the Fish Culture Expansion (660-0080), the Combatting Communicable Childhood Diseases (698-0421), and the Family Planning Services (660-0094) Projects. These projects are working closely to improve the capacity of local organizations to extend basic services in the project area.

The activities to be undertaken through this project will be coordinated with other donor and GOZ activities in the area. These include CODALK, the IDA-assisted Kwango-Kwilu Integrated Agriculture Development Company, which is the authority responsible for coordinating the agricultural, rural, and economic development of the Kwango and Kwilu sub-regions of Bandundu.

The goal of the project is to raise the standard of living of the rural population of central Bandundu through the strengthening of local organizations' technical and administrative capacities to extend the benefits of improved agricultural production practices and inputs, rationalized marketing services, and enhanced processing and storage to small farmers and merchants. This goal is consequent upon USAID strategy in Zaire as well as consistent with GOZ development objectives.

The experience of USAID in Zaire, notably in northern Shaba, has been that coordinated interventions to upgrade transportation infrastructure and to provide improved plant material can lead to dramatically increased production and, through increased competition among traders and lower transport costs, higher farmgate receipts. This immediately benefits the producing target group and, through the incentives for continuing production increases, can benefit the national economy. Research and extension work undertaken by PRONAM (Programme National Manioc) indicates that yields can be increased by 40 to 100 per cent through the use of improved varieties and practices. The introduction of appropriate processing equipment and practices decreases spoilage and can increase the value-added that is retained in rural areas. Higher prices, increased production, and improved processing raise farmer incomes, improving rural welfare while enlarging the market for manufactured goods. The production and income increases in household food and cash availability reduce vulnerability to malnutrition and financial distress.

Bandundu plays a critical role as a supplier of food to Zaire's major consumption center, Kinshasa, and to other urban centers to the east and southeast. The relatively high population density of the project area limits the yield increases that can be achieved using traditional agronomic practices, or by expanding the total area under cultivation. If present patterns of land usage continue, many areas of Central Bandundu will experience falling agricultural production and income, gradual impoverishment, and increased levels of outmigration, particularly of youth and males. At the same time, declining yields associated with soil depletion will reduce the region's exports to urban centers and increase Zaire's dependence on imports to meet demand for basic foodstuffs. Parts of the project area are already suffering high levels of malnutrition and declining yields. The project area's dual role of providing a livelihood for its 850,000 inhabitants and serving as a breadbasket for Kinshasa cannot be sustained without a concerted effort to improve agricultural production, marketing, and processing.

Within the project area is an extensive network of development-oriented non-governmental organizations. These predominantly religious organizations have a variety of programs in the priority areas of education, health, and agriculture. The network of such organizations provides a solid institutional basis for the introduction of new agricultural practices and technologies.

The marketing system of the project area is complex: On the one hand a substantial volume of surplus production passes through a series of middlemen (traders who walk or ride bicycles, regional traders in small trucks, wholesalers in Kikwit, transporters from Kinshasa, and Kinshasa wholesalers and retailers); on the other hand many Kinshasa traders buy directly at the farmgate. High margins are the rule: for example, farmers receive between 20 and 40 % of retail price for their manioc. Preliminary analysis suggests, however, that for most crops merchant market power plays an insignificant role in explaining the spread. High costs are a result of poor availability of parts and fuel, deteriorated infrastructure, and the need for skilled mechanics and managers to effectively market the area's production. Credit is available to the larger, usually Kinshasa-based merchant on a limited basis, and, to a much lesser extent, to small traders for crop purchases.

Village-level processing of food crops relies largely on human muscle. Simple mills are a rarity in rural Bandundu and the arduous tasks of soaking, drying and packing cassava for consumption or sale are performed by women with only the most primitive of tools. In certain areas, bicycles, pushcarts, and mills have been introduced by local groups and have dramatically reduced the energy and time required to process cassava. Cassava processing studies further indicate that simple drying techniques could decrease spoilage and increase the consumer appeal and price of the product. The project will also identify and exploit labor-saving or profit-increasing processing technologies for other area crops.

Food production practices in most of the area still follow the traditional slash and burn pattern. In areas where population pressure is greatest and/or soils poor, there are clear signs of deteriorating yields. Much of the area has reached or will in the next decade reach a critical transition period where traditional producers will either be incorporated into a more modern dynamic agricultural economy or find themselves increasingly marginalized and impoverished.

The cycle of crop planting, harvesting, processing and marketing in Bandundu continues year-round. The annual food crops (corn, peanuts, rice, and gourd seeds) are sold during the official food marketing campaign, which begins in April and extends to June/July, when coffee marketing begins. Cassava has its own seasonal cycle of production that is determined by the availability of labor, the long processing and drying periods, and the marketing cycle. Peak harvesting periods occur from May to August and January to February. Women are the major agricultural producers in the area. The extent to which men are involved in planting and harvesting varies significantly between ethnic groups, crops, and geographic areas.

PART II: PROJECT DESCRIPTION

A. Background

This project is designed to contribute to AID's central objective of meeting the needs of the poor majority through sustainable and broadly based economic growth. It will be sited in Bandundu, one of the nine regions of Zaire. Central Bandundu is one of the two areas currently designated for concentration of USAID's development assistance to agricultural production in Zaire (the other being Shaba Region).

The purpose of the project is to increase agricultural production, marketing, and processing in central Bandundu. This area is, by Sub-Saharan African standards, densely populated and agriculturally productive. The main food crops are cassava, corn, peanuts and other grain legumes, oil palm nuts, and rice. Other crops include coffee, fibers, rubber, and vegetable crops.

Traditionally, farming and land use systems in the Bandundu region were stable, ecologically sound, and efficient. The population/land ratio and predominantly subsistence production permitted the extended fallow period required by the slash and burn system of agriculture. Although soils in the region are generally poor in organic matter and nutrients and are often unstable, they provided adequate yields under traditional conditions.

However, the average density of the rural population in the project area has increased, rising from 18 inhabitants per km² in 1970 to 26 inhabitants per km² in 1982. This has led in many places to a significant increase in the surface area under cultivation and to a soil-depleting shortening of the fallow period.

The project will mobilize 10 to 15 intermediate management organizations (IMOs), including local PVO's and private firms, as the mechanisms for delivery of development assistance. It will work with organizations that: (1) are innovative and development oriented; (2) have long been established in the region; and (3) will continue long after the end of the project. This project will expand their capacity to provide agriculture-related training and extension services, to obtain support goods and services, trained personnel, and appropriate technologies and credit, and to facilitate the processing and marketing of surplus production. In short, the project will strengthen the existing institutional and physical infrastructures in a way that will promote sustainability and reinforce commitment to the agricultural development of the region.

Initial interventions and participating organizations will be based on the results of ongoing marketing, institutional, and household income/consumption surveys to be completed during the first year of the project. The project will work first with one institution (in effect a prototype for subsequent institutional collaboration), carefully assess the success of initial interventions, and then gradually expand the number of participating institutions and refine the interventions. Continuous appraisal through ongoing research of the effectiveness of the various project activities will enable flexible and appropriate responses to problems and opportunities as they arise.

B. The Project Area

The project area, Central Bandundu north and south of the Kasai river, covers a surface area of approximately 32,000 square kilometers with a 1982 population of approximately 850,000. The landscape is rolling savannah plateaus interspersed with gallery forests in the many valleys. The forests become denser as the plateaus slope down from the southwest to the Kasai river basin. The many rivers and their tributaries complicate road construction and maintenance but encourage the transport of goods by boat.

The project area includes the following collectivities:

Kwilu Sub-Region

Liofa Zone:	Banga, Kapia, Kalanganda, Bulwem, Sedzo and Mateko
Bulungu Zone:	Due, Kilunda, Kwilu-Kimbata, Luniungu, Mikwi and Nkara
Bagata Zone:	Kidzweme and Manzasai

Mai-Ndombe Sub-Region

Kutu Zone:	Batere and Kamba.
------------	-------------------

C. Project Beneficiaries

The initial project beneficiaries will be the institutions participating as IMOs. These will receive in-service training, technical assistance, and work-related commodities. Ultimate beneficiaries will be the traditional cultivators and small to medium-sized traders of the project area. A survey of the collectivities in the project area gave the following distribution of agricultural holders by sex and age:

<u>Age</u>	<u>Number of Female Holders</u>	<u>Holders as per cent of total female population</u>	<u>Number of male holders</u>	<u>Holders as percentage of male population</u>	<u>Total holders in age group</u>	<u>Holders as per centage of population in age group</u>
15-24	17,930	25	2,615	4	20,545	15
25-34	36,199	74	12,606	35	48,805	57
35-54	49,838	87	16,828	43	66,666	69
55 or more	17,739	79	4,171	20	21,910	51
TOTAL	121,706	61	36,220	22	157,926	43

While the above figures do not reflect the fact that virtually everybody in rural Bandundu is employed at least part-time in agriculture, they do show that women are the primary agricultural workers. Further analysis of the Small Farmer Survey will provide more detail on intraregional, intertribal and intercrop variation in sex roles. Women will be the prime beneficiaries of most project interventions, and particularly of labor-saving technology activities (e.g. cassava mills).

The small and medium scale area traders will benefit from marketing improvements (physical infrastructure and credit) to be supported through the project. To be defined by further study, appropriate credit interventions probably will target traders ranging from those with one bicycle or none to those with a truck or two.

D. PROJECT ELEMENTS

The three main project components are production, marketing, and processing. Three other project elements give general support to these components and are: research and information, training, and rural-urban linkages. The implementing agencies will be area-based non-governmental institutions qualified to serve as intermediate management organizations (IMOs). The production interventions will focus on basic foodcrops, particularly on cassava, the staple of the area. The outreach capacity of local IMOs will be strengthened as necessary through commodities, training, and technical assistance, so that they can effectively propagate improved planting material and agronomic practices. Marketing interventions will take two forms: physical infrastructure improvement and credit. This project will identify critical bottlenecks caused by deteriorated roads and water crossings and the companion Agricultural Marketing Development project (660-009E) will carry out necessary improvements. In addition, during the first year of project activity, further study of area credit requirements and of potential and actual financial service providers will determine the magnitude of a project credit component. The project processing component will build upon the experience of area institutions and on the appropriate technology work of the Kinshasa-based USAID-supported PWO, the "Study Center for Social Action" (CEPAS). The project will place a priority on identifying and disseminating technologies that reduce labor requirements for processing cassava and that improve the quality of marketed cassava.

1. The Project Implementation Unit (PIU)

The following is an outline of the staffing of the project team. The project descriptions (following) and Part IV, Administrative Analysis, describe the roles and responsibilities of each division and staff member.

The PIU will consist of six divisions, as follows:

a. General administration (PIU/GA) is staffed by two expatriates, the chief of party, who will be an experienced development management specialist, and the executive officer; and by three Zairians, one logistics coordinator and two accountants.

b. The Production Division (PIU/PD) is staffed by two expatriates, an extensionist/sociologist/economist and an agronomist; and by eight Zairians, four agronomists and four extensionists.

c. The Marketing Division (PIU/MD) is staffed by two Zairians, a financial analyst and a marketing specialist.

d. The Processing Division (PIU/PCD) is staffed by a Zairian rural technology specialist.

e. The Training Division (PIU/TD) is staffed by a Zairian non-formal education specialist.

f. The Research and Information Division (PIU/RID) is staffed by an expatriate data management/research specialist and by a Zairian agricultural economist.

g. The project plan envisages substantial amounts of short-term technical assistance for research, management and technical training, and specialized support to component activities.

2. Intermediate Management Organizations

The project will use existing project area organizations to reach traditional cultivators. The organizations supported by the project to increase production, marketing, and processing in the project area will play a dual intermediate management role. First, in collaboration with the project implementation unit (PIU), they will direct project resources to the target group. Second, they will draw on development organizations in regional centers and Kinshasa for local area development. The identification of qualified IMOs will be based on a comprehensive survey of area institutions. The following criteria have been established to identify organizations to participate as IMOs in the project: They should: 1) be involved in agricultural programs or seriously interested in starting; 2) focus on village cultivators, emphasizing food crops, crop diversity, and appropriate technologies; 3) have the institutional capacity to administer and implement project activities; 4) have Zairians in positions of authority and responsibility; 5) be accepted and respected by local area villagers; 6) be interested in working with the project; 7) make a commitment to train additional Zairian staff within the project framework; 8) make an institutional commitment to sustain project-fostered activities beyond LOP; and 9) have a significant geographic zone of influence.

The project will work through local institutions for several reasons: The IMOs have experience in and good regional knowledge of Bandundu; they have in most cases developed good working relations with the local population; they have reputations for honesty and genuine concern for the villagers; and, most have been in the area for generations and will continue to be active long after the project ends. Much of the ongoing rural development activity in Bandundu in education, health, and agriculture is being performed by such non-governmental organizations.

The local IMOs will have varying strengths and weaknesses. For example, some institutions have good administrative skills, but concentrate on a single crop. Others have highly developed agricultural outreach services but inadequate bookkeeping. The individual strengths and weaknesses of each IMO will be assessed by the PIU and short-term management advisors and a plan will be drawn up to augment their strengths and correct their weaknesses. In this way, a series of subprojects will be developed.

Current activities of potential IMOs vary widely. Some have demonstration fields and small agricultural extension projects (Ipamu, for example). One has an appropriate technology program that builds and distributes hundreds of bicycles and pushcarts to women cultivators and traders (Bokoro). Several have breeding programs for cows, small animals, and bees (Lusekele). Others do extensive road and bridge construction, maintenance, and repair (DPP, CBB).

The IMOs' agricultural activities will be expanded during the project. Initially, the emphasis will be on the organization of extension services and the development of the institutional capacity of the IMOs to provide these services. For example, land capability studies, personnel training, and collection of local baseline data will be undertaken. As these are completed, the project emphasis will shift to village-level assistance to increase yields, marketing, and processing.

The project will contribute to the expansion of IMO activities in several ways. A Zairian rural development specialist and a Zairian agronomist will be located at each IMO. These staff members will be recruited from the large pool of agronomists/extension agents trained at national and regional agricultural and rural development institutions. The IMO will assume the recurrent costs of these positions (salary, overhead) and the project will fund training and equipment. The project will provide short and long term participant and in-country training for IMO staff. One of the most important functions of the PIU will be to forge communication links between area IMOs and central development organizations, such as CEPAS (Kinshasa) for appropriate technology advice and training, ITPK (Kikwit) for mechanics' training and repair facilities, ITAK (Kikwit) for agricultural training and demonstrations, and the national cassava, corn, grain legume and rice research programs for high-yield, disease-resistant plant varieties. By PACO the IMOs will be expected to deal directly and routinely with these development service organizations.

3. Production

The project will concentrate initial production improvement efforts on the basic food crops and on those aspects of the village cultivator's production that offer the greatest scope for increasing yields through relatively unsophisticated techniques of better crop and land management. These techniques will require only simple and inexpensive inputs on the part of the small cultivator; the focus will be on the improvement of basic agricultural and associated practices, which require little or no cash but which can bring visible results, and on the dissemination of the improved varieties developed by the four national agricultural research programs.

This approach relies on the design, mobilization, and support of an effective extension system that will reach, regularly and effectively, the majority of the village cultivators in the project area. The main objective of this service will be to increase food production. It should have a considerable effect in stimulating broad-based income increases.

The sociological requirements of such an extension system include the following:

- a. It must be based upon the cultivator's wants and needs.
- b. Its staff extension personnel must understand village conditions, people, and customs; they must be energetic, capable, and well trained.
- c. The service must function in a socially and culturally diverse population, subject to specific economic, cultural, and technological constraints; it must be able to adjust its support, means of communications, and advice to these different situations.
- d. The clientele should be the small farmers, mostly women, and should not be disproportionately young or old, nor from only wealthier rural households.
- e. It must be able to mobilize traditional communications networks in the rural communities, drawing on factors which can assist the dissemination of information, because attitudes towards changes of practices will depend as much on this as on the technical appropriateness of the recommendations.
- f. It must function within the context of local farming systems; these are learned methods of optimizing economic and social welfare in a high risk, low resource situation; changes in that system will have implications for all its social and economic groups.
- g. It must be able to address the villages as complete social systems, not just as collections of individual cultivators; agricultural production is not only an individual activity but is also a function of such basic institutional considerations as the land tenure system, the authority structure, systems of values and social obligations, codes of conduct governing individual and group behavior, and belief systems relating to the role of the ancestral and other spirits.
- h. It should be an organization not only for but also of the cultivators themselves. Means of bringing together cultivators for extension delivery purposes may, in the long run, form a basis for the delivery of other services such as land management or agricultural credit. Thus, the creation of a viable way of grouping cultivators may have social, economic, and institutional consequences beyond the immediate objectives of an extension activity; these groupings might form the basis of the transition to a more permanent form of agriculture.

The design and support of an appropriate outreach system for each IMO will be conditioned in part by the governmental extension services operating in the project area: that of the Department of Agriculture and Rural Development (DOA), and the supplementary agronomists employed by each collectivity. There are also private extension services such as, for example, that of CJDANK and that trained and employed by C3ZO at Lusekele Agricultural Station.

The nature of the project-assisted extension services will be a function of the institutions participating as IMOs and will also vary between ethnic groups and geographic areas. The PIU will help all IMOs to establish positions for a rural development specialist and an agronomist (except where such positions may already exist). The project will support the training and commodity costs for these positions while the IMO will pay the salaries. Once trained, these IMO employees will constitute the core of each IMO's extension service. Variations in the agricultural outreach capacity of the participating IMOs will be taken into account. For example, it may be desirable in the area served by the Lusekele Agricultural Station to rely exclusively on the extension service organized and funded by C3ZO. Other IMOs, however, may not be able initially to assume the full financial and management responsibilities required by an extension service. In such cases, other possibilities will be explored and negotiated between the IMO and the PIU. There are two basic approaches to the village farmer that an IMO might take (the type of approach adopted by each IMO may depend on the working relationship the IMO has with area officials and villagers):

a. The IMO core staff may be able to work with the local agricultural agent in certain collectivities. Training and transportation could be provided under the project to appropriate collectivity staff who would work closely with the team of the participating organization, and serve as liaison offices between the IMO and the villages. Since collectivity staff are locally recruited, they might be able to contribute to the sociological and cultural requirements of the project. However, the success of the project depends on the ability of the extension service to create a favorable social climate for change, and many of the collectivity agents have been steeped in the colonial tradition of telling farmers what they must do, and most serve as tax collectors. It is clear that cultivators in the project area already know many of the simple techniques and practices that the project will want to promote (mulching, planting in mounds, fallow periods, weeding, etc.) so that it may not be the primary purpose of the extension service to bring such information but rather to work with the cultivators so that the practices begin to be followed, without being imposed.

b. A more promising approach in most cases would be for the IMO to work with each village in the project area to identify a resident extension agent who would be responsible for working with the village cultivators. This person would be trained by the project and the IMOs; and IMO personnel would regularly spend time (a week or longer) living in the village and working with the village extension agent. This approach requires study at the village level in the areas

concerned. Of particular importance will be the choice of an appropriate agent: There are a number of traditional figures, such as the Mama Kahuma and the Chef de Terre, who might be able to facilitate positive change within the traditional framework. The scope of these traditional roles varies widely among, and perhaps within, ethnic groups. Short-term farming systems and other research will examine the nature of village decision-making as it relates to land use and cultivation practices.

A major task of the extension service will be to introduce high-yield, disease-resistant plant varieties, and to promote farming practices that will improve the long and short term soil productivity of the area; to thereby encourage a gradual transition from an itinerant to a sustainable sedentary system of agriculture.

The IMOs, in addition to supervising an agricultural extension service, may serve as centers for demonstration trials and variety multiplication plots. The PIU will establish and foster close working relationships between the IMOs and the national food crop research programs. In particular, the regional cassava research and demonstration center, which is located in Kiaka (just south of Kikwit) and is supported by USAID under the Agricultural Research and Outreach Project (660-0091), will be used as a source of agronomic information and improved cassava cuttings for the area IMOs.

The project will support and upgrade an area agricultural training institution, probably the Technical Agricultural Institute of Kikwit (ITAK), that will be responsive to the short and long term training needs of the IMO-supported extension services. The PIU will be responsible for establishing institutional links between this center and individual IMOs.

Project inputs for this element are:

- One long term expatriate agronomist.
- One long-term expatriate extensionist (sociologist/economist) (Half-time attributable to this component)
- Four Zairian rural development specialists.
- Four Zairian agronomists.
- One long term expatriate research and information specialist (part time only on the project production component).
- Eight person months of short term technical assistance in farming systems research.
- Short term technical assistance for soils analysis as required, (up to one person year).
- Long and short term in-service, in-country, and participant training as required.
- Commodities, particularly vehicles, motorcycles, bicycles, and other equipment for the extension services.

4. Processing

The project will promote the introduction of processing facilities to reduce labor requirements and to increase the value-added that is retained in the region.

Local commercial processing of food crops presently taking place within the region is confined to the husking of rice and the milling of corn and cassava in Iliofa and Kikwit. Palm oil processing is done mainly by agro-industrial firms but to some extent also by village-based enterprise. The rudimentary state of urban and rural infrastructure significantly raises the investment requirements for large-scale commercial processing in the area. Even in the towns, firms must usually supply their own electricity and water. This, coupled with the scarcity of long-term investment credit, limits the opportunities for major investments in food processing in the project area. Some agro-industrial firms in the region have indicated that, if these constraints were lifted, they would begin to invest. The project will pursue the institutionalization of an appropriate credit facility (see marketing below). Other donors are considering physical infrastructure investment (water and power) in Kikwit. USAID will encourage such investment.

Apart from commercial processing, the project will assist in developing techniques to improve present village processing and storage practices, and will introduce technologies to reduce the time spent by women on food processing tasks. Continuing cassava processing studies will inform the project's extension work in appropriate technology. The types and costs of small-scale processing mills available in Zaire (or produceable in the region) will be investigated and thought given to ways in which they might be introduced at the village level, particularly by means of existing or ad hoc women's groups. There is considerable experience, particularly in West Africa, of the village-level introduction of hand or diesel-powered mills. A number of missions in the project area have installed small mills. The effectiveness and outreach of such arrangements will be appraised for replication. The possibilities of mobile mills going from village to village, and of mills run by truck engines, will be explored.

In addition to mills, there are a number of possible interventions that might significantly reduce the labor and time required for processing and handling of food crops, and that could improve the quality of the final product. These include bicycles and pushcarts for hauling produce, improved drying techniques, and simple storage facilities. The PIU will study successful interventions in Bandundu and elsewhere in Zaire and Africa and, as appropriate, promote their introduction through I4Os.

The project will concentrate initial efforts to improve processing on cassava because this crop: a) is the major staple food of the project area; b) presently requires long and exhausting hauling and processing before it can be consumed or marketed; and c) suffers considerable post-harvest losses, particularly when not properly cured.

The Kinshasa-based Study Center for Social Action (CEPAS), a member of the Abidjan-based INADES-Formation group, has considerable experience in applications of appropriate technology to rural Zaire. Over the last five years, CEPAS, with USAID support, has developed an extensive library, training program, and correspondence courses for appropriate technology. The PIU will establish and strengthen communications links between this institution and the IMOs. The project will contract with CEPAS for seminars and training courses in central Bandundu as well as for further research on appropriate technologies.

The project will also work with the Professional Technical Institute of Kikwit (IPTK), which operates a mechanics school and garage. This regional center will train IMO and village personnel in the repair and maintenance of simple labor-saving devices, such as mills, bicycles, handcarts, and manioc drying frames. In some cases the school workshop may be able to produce such devices for sale to missions and villages. The PIU will forge institutional links between this center and the IMOs.

The project inputs for this element will be:

- One Zairian appropriate technology specialist, who will test appropriate technology innovations and, in collaboration with the IMOs and IPTK, adapt them to local conditions.
- One long-term expatriate research and information specialist (part-time).
- One expatriate extensionist/economist and four Zairian extension agents who will promote the use of improved technology through IMOs.
- Financial assistance to individual IMOs for the dissemination of appropriate technology such as mills, bicycles, and pushcarts.
- Commodities, training, and appropriate short-term technical assistance for IPTK.

5. Marketing

The project will support two principal market improvements for central Bandundu.

The first of these is the identification of physical constraints to surface transportation of area produce. Once these constraints are identified, they will be addressed by the companion Agricultural Marketing Development Project (660-0098), with the necessary work to be performed by experienced contractors (missions or companies). The bulk of the 098 contribution will be for road repair and bridge construction.

The second principal market improvement activity of the project is credit. Presently, only Kinshasa-based traders and a few of the largest area traders have access to short-term (usually three months) credit for crop purchases during the marketing campaign. Medium-sized, area-based traders (commonly with only one or two vehicles), have no access to either marketing or investment credit. AID/ST's ongoing Small Farmer Marketing Access Project (SFMA) is investigating the relative importance of large and medium-scale traders in project area food marketing. The results of this study will inform the project's support for the extension of credit to traders.

Small traders who walk, ride bicycles, or rent space in trucks or on boats, also have little or no access to credit. If a suitable credit component is established under the project, it is expected that these small and the medium-sized local traders will be the target beneficiaries.

Potential credit providers include the national Development Finance Bank (SOFIDE), the Agricultural Credit Bank (BCA), and the Bandundu-based CBZO savings cooperatives. SOFIDE, created in 1971 with World Bank support, is a major source of local development financing in Zaire. SOFIDE extends short- and long-term credit for major investments in agriculture, industry, and trade in Zaire, but does not have the capacity or outreach to lend to the smaller traders and producers of rural Bandundu. The Agriculture Credit Bank, created in late 1982, has included in its mandate the extension of credit to small operators involved in village agricultural production, processing, and marketing. It remains to be seen whether this institution will develop the organizational capacity to fulfill this mandate. CBZO is a local cooperative savings association with 15 branches in Bandundu. It is not now able to provide investment credit because of its very low loan ceilings, short repayment schedules, and rates of interest on deposits that are too low to attract significant long-term savings.

The PIU will further explore the credit needs of area traders and investors, and will assess potential implementing institutions. If it is determined a) that lack of credit is as serious a constraint to marketing and processing in the project area as appears to be the case from preliminary surveys, and b) that an existing institution can be upgraded at reasonable cost, then the project will fund a program to improve and extend credit availability in the area. Possible approaches include the opening of a window for marketing loans at CBZO and the establishment of a line of credit to CBZO from SOFIDE or the BCA.

Project inputs to this element include:

- One long-term Zairian credit specialist.
- One long-term expatriate research specialist (part-time)
- Six to eight person months of short-term technical assistance;
- Additional technical assistance, commodities, training, and local-currency financing as required if a viable credit mechanism is identified.

6. Training

The primary objective of the project's training program will be to develop effective, IMO-supported extension services for the entire project area. These extension services will be associated with individual IMOs but the agents may not be directly employed by the IMOs. The project will also fund training in appropriate technology applications and production, mechanics, accounting, credit management and survey techniques and statistics. Thus, the production, processing, marketing, and research and information components of the project will each have an associated training program.

The principal target groups for training are the staffs of the PIU and the IMOs (including extension agents who work with, if not directly for, the IMOs). The project will support short-term participants, and both long- and short-term in-country programs for selected trainees.

a. Production (extension training)

The primary output of the project will be effective area extension services supervised by local non-governmental organizations. The bulk of the training planned by the project is therefore directed at the development of the extension service. Three categories of training are planned: short-term participant, long-term in-country, and short-term in-country.

(1) PIU training. The Zairian members of the PIU production division (four agronomists and four extension agents) will be trained in the following areas: management, training, agronomy/extension.

(a) Management: The National Center for Development Training (CENACOF) and USDA administer annually a variety of short (4-6 week) training courses in various aspects of management of agricultural projects. The Zairian professional PIU production division staff will attend these in-country courses as appropriate.

(b) Training: CENACOF also offers courses for trainers. Since a major role of the production division will be to train IMO extension agents, the Zairian production team members may be given short courses in training methodology.

(c) Agronomy/extension. CIAT, IITA, WARDA, and other international agricultural research institutions offer short courses in various aspects of tropical agriculture. Each of the eight PIU agronomists and extension agents will attend one such course in year two or three of the project and another in year four or five. The PIU will determine the appropriate subject matter, location, and timing of this training according to project requirements and staff needs. The PIU staff will also attend the annual in-country farming systems research seminars that will be funded by the Applied Agricultural Research and Outreach Project (660-0091) beginning in 1986.

(2) IMO training. The training needs of individual IMOs will vary widely. The PIU will work out a training program for each IMO separately. Subjects included in these training program may include financial and personnel management, agronomy, and extension methodology.

(a) Financial and personnel management. The PIU will evaluate, through audit or other suitable means, the capacity of each IMO to manage its finances and supervise an extension service. A program will then be developed to address any identified deficiencies in these systems. Technoserve, which receives USAID support through the Private Management Support OPG (660-0112), and CENACOF/USDA both offer relevant in-country management training courses.

(b) Agronomy/extension.

The project will arrange for annual refresher courses for IMO extension agents in agronomy and extension methodology. In addition, IMOs that are not yet active in agriculture, or those that wish to expand their technical agricultural staffs, may wish to propose candidates for degree training in these fields. The PIU and L4Os will schedule long-term training so that most IMOs have at least two trained agriculturalists as a core staff before the PIU begins active work with the IMO.

The Technical Agricultural Institute of Kikwit (ITAK) has been identified as the most likely center for both long- and short-term agronomist and extension agent training. The PIU will assess ITAK's capacity to respond flexibly and professionally to IMO training requirements and will provide financial and technical support to upgrade the institution accordingly. Another possible training center is Luseke Mission agricultural station, which has a promising ongoing village extension agent training program.

(c) Village agents. The project will support seminars and workshops by individual IMOs for the village agents mobilized for local extension work. As the project expands, the PIU may organize larger conferences for representatives of villages throughout the project area.

(d) The following presents in tabular form the production training component of the Project:

Production component training plan

<u>Institution</u>	<u>Subject Matter</u>	<u>Target Group</u>	<u>Courses/Trainee</u>	<u>Duration</u>	<u>Frequency</u>
CENACOF	Personnel/financial management	IMO supervisory staff	1-2	4-6 weeks	Every 2 years
	Training	PIU agronomists/extension agents	1-2	6-8 weeks	Annual
CENACOF/USDA	Agronomy/Extension	PIU & IMO extension agents, agronomists	5-8	4-6 weeks	Quarterly
Technoserve	Financial Management/Accounting	PIU & IMO financial staff	1-2	TBD	TBD
ITAK	Agronomy/Extension	IMO-nominated candidates for agricultural staff position	1	1-3 years	Annual start
	Agronomy/Extension	IMO & PIU extension agents, agronomists	2-8	2-4 weeks	TBD, at least two per year
I40	Agronomy/Extension	Village-based extension agents	2-4	1-2 weeks	TBD, at least one per year in area
IITA	Farming systems research	PIU & I40 extension agents, agronomists, IMO supervisory staff	1-3	4 weeks	3-5 a year
IITA(Nigeria) WARDA(Liberia) CIAT(Columbia) Other IARCs	Crop-specific extension	PIU agronomists, extension agents	2	2-6 weeks	Function of specialty

b. Processing

Two types of training are planned for IMO staff under the project processing component: Long- and short-term technical training for IMOs that need additional trained mechanics to repair and maintain vehicles and other machinery; and short-term training in the use, dissemination, and maintenance of mills, pushcarts, and other appropriate technology equipment.

(1) Technical training

The Professional Technical Institute of Kikwit (IPTK) is one of the best-known mechanics school in Zaire. Its present program is centered around a high-school program leading to a degree in mechanics. The majority of the students are migrants from rural Bandundu who hope that the training they receive at the institute will get them jobs in Kinshasa. Only the luckiest succeed: Most return to their villages with skills for which there is little village-level demand.

The project will support modifications to IPTK's present program to make it more responsive to rural (and IMO) needs. The project will fund short courses in relevant areas, such as repair and maintenance of bicycles, simple mills, and other devices presently used or being introduced in the project area. Additionally, the possibility of IPTK manufacturing useful tools (hand mills for cassava and corn, for example), and training others in their manufacture, will be examined. Also the prospect of short courses tailored to specific IMO needs will be explored.

(2) Appropriate technology training

The project will encourage the introduction of simple labor-saving technology through IMOs. The major central institutional resource for this effort will be the Kinshasa-based Center for Social Action (CEPAS). CEPAS has a good rural technology library and an active rural training program. It administers correspondence courses developed by INADES-Formation, the Abidjan-based appropriate technology institution. The PIU will contract CEPAS to train IMO staff in appropriate technology design, extension, and maintenance.

(3) The following table summarizes project-sponsored training in mechanics and appropriate technology:

<u>Institution</u>	<u>Subject Matter</u>	<u>Target Group</u>	<u>Courses/Trainee</u>	<u>Duration</u>	<u>Frequency</u>
IPTAK	General Mechanics	IMO staff	1	1-3 years	Annual
	Specialized Mechanics (Repair of simple machines)	IMO staff and IMO-nominated villagers	1-4	2-8 weeks	2-4 per year
CEPAS	Appropriate technology applications, design, repair, maintenance	IMO/PIU staff	1-4	1-3 weeks	1-4 per year

c. Marketing

If further studies confirm the feasibility of a project credit component, then the project will fund participant, in-country, short- and long-term training as required. The extent and nature of such a training program will not be known until year 2 of the project, after credit studies have been completed.

d. Research and information. The principal research and information training subject areas are survey techniques and data analysis. The Zairian research manager will be given participant and in-country FSR, statistics, and data analysis training as appropriate. An in-country training program for project surveyors will also be organized by the PIU.

e. Project inputs to this component include:

- One Zairian non-formal education specialist.
- One expatriate Research and Information Specialist (part-time only on this component).
- Foreign exchange and local currency for participant and in-country training.
- Short-term technical assistance to establish or administer training programs as needed.
- Local currency funding for limited construction and/or reconstruction of ITAK and IPTK.
- Foreign exchange and local currency funding for commodities, such as machine tools, textbooks, and educational aids, for ITAK and IPTK.

7. Project Outputs

Shown below are the categories and types of outputs, with a preliminary estimate of their magnitudes. The outputs and their magnitude will be refined based on the findings of ongoing research and the results of the first project evaluation.

a. Production component outputs:

- 20 IMO personnel trained in financial and personnel management;
- 15 IMO agronomists and 15 IMO extensionists trained in management, training, and agronomy/extension;
- 10 IMO-based variety multiplication programs in place;
- 100 village extension agents given short-term training in extension of improved varieties and practices;
- 180 villages with IMO-sponsored demonstration plots.

- Communications channels established between IMOs and the following development resource institutions: PRONAM, PNL, PNM, PNR, and ITAK.

b. Processing component outputs:

- Two prototype small mills developed or identified;
- 500 small mills distributed in project area;
- Bicycles and push carts introduced where terrain and social mores permit;
- Ten short courses in the repair and construction of simple labor-saving devices given at IPTK.
- 100 IMO and village agents trained in repair and maintenance of mills, bicycles, pushcarts, and other simple processing and handling equipment;
- Five IMO-based mechanics trained in the repair and maintenance of vehicles and other sophisticated equipment;
- Communications channels established between all IMOs and the following Kinshasa and Kikwit based institutions; CEPAS, IPTK.

c. Marketing component outputs:

- Identification of critical bottlenecks to area food marketing (098 will fund necessary improvements to area infrastructure);
- Local priority transport infrastructure needs identified for action by Project 098.
- Credit study recommendations implemented.

d. Research and information outputs:

- Data generated by studies analysed and provided to PIU. Recommendations of studies implemented by appropriate PIU divisions.

PART III. Project Monitoring and Evaluation Arrangements

A. Baseline, midline, and endline studies.

This project and the companion Area Marketing Development Project (660-0098) share a Monitoring and Evaluation Information Service that will be responsible for collecting the baseline, midline, and endline data against which the success of both projects will be measured. Major responsibility for organizing, coordinating, and overseeing various research elements (including marketing, production, income, and consumption surveys) rests with the 102 PIU. 098 will support the development of a central data analysis capacity for the processing of information gathered through these surveys.

A baseline study of the area is planned for the first year of project implementation. This study will complement the Small Farmer Survey, carried out in 1984, by concentrating on area food production, income, and consumption patterns, and will be supplemented by marketing and nutrition studies supported by AID/S&T. Data will be gathered both for the villages that will be the objects of initial IMO interventions and for the central Bandundu region as a whole. This two-pronged approach will allow USAID and the PIU to assess both project-induced impact and general area trends (though it is not expected that the baseline will permit a disaggregation of exogenous factors for the area as a whole). The marketing study will gather product (including level of processing) and source data that will facilitate measurement of marketing and processing trends in the area as a whole as well as in IMO spheres of activity. Survey methodology will vary according to complexity, cost, and area to be covered, and will include rapid reconnaissance (for production, consumption, and income in selected project area villages) and long-term repeat monitoring (for marketing and processing in the entire area).

A midline survey will be performed after four years of IMO activity (year 6 of project) both in areas of project activity and in control villages. This survey will permit an initial assessment of project progress towards purpose achievement.

An endline survey will be performed in Year 9 of the project and will form the basis of the end-of-project evaluation.

B. Evaluation Schedule

Three benchmark evaluations are slated for this project: one in September of 1987, after the project has been actively engaged with at least one IMO for one full year; one in late 1991; and one in 1994. The first will be a start-up evaluation, the second a mid-point, and the third a final. An audit of the project will also be performed with project funds (zaïres and dollars) in 1989.

The first evaluation will have as its principal purpose to review project objectives, assess the degree to which project design is leading towards purpose achievement, review and confirm the validity of assumptions, assure

that all participants (including those associated with the Agric Marketing Development Project, 660-0098) are properly carrying out responsibilities envisaged and assigned, and make recommendations for improving project implementation. The evaluation team will also recommend revision of output targets as necessary.

It is envisaged that the evaluation team will be led by an economist with expertise in data collection and analysis and will include an extensionist and a development management specialist. The team leader will assess the adequacy of the baseline information gathered to date, and refine the criteria for monitoring the economic impact of the project. He will assess the performance of the Research and Information Division and of the O98-funded central data analysis unit. In addition, he will come to preliminary conclusions on the economic effect of ongoing interventions. Finally, he will assist the PIU by making recommendations for the conduct of the mid-line survey. The extensionist will assess the adequacy of the program for developing IMO-based extension services, and the actual and potential impact of these services on area farm production and land management. The management specialist will examine the management and financial control systems of the PIU and of those IMOs that have been mobilized or pre-mobilized for project participation. He will also assess the contribution of the PIU to the establishment of productive communications links between the IMOs and regional, national, and international development institutions, and examine the working relations between 102 and 098.

The mid-term evaluation will take place after the midline survey and subsequent data analysis are completed. It will update initial evaluation findings with recommendations appropriate at that point. It will specifically review what mechanisms have been established or planned for recurrent costs and other aspects of sustainability. It will also make an estimate of the economic impact of the project's production, marketing, and processing components. This evaluation team will include, in addition to the mix of start-up evaluators, an agronomist who will examine the impact of project interventions on production practices and soil capability.

The final evaluation, to be conducted in the last year of project activity after the endline study has been completed, will provide a comprehensive assessment of the project's impact on central Bandundu. The team will be constituted similarly to that of the midterm evaluation. The baseline and endline study results will be compared in order to determine the extent to which area production, marketing, and processing have increased. The effect of any such increases on the incomes (including distribution) and nutritional status of the population will also be examined. This evaluation will be conducted jointly with the final evaluation of the 098 project, and the cumulative impact of the two projects on the populace of the project area will be assessed. The modus operandi of 102 will be assessed for its utility as a potential development approach elsewhere. Finally, the opportunity will be taken through this evaluation to assess the impact of the various USAID development investments in this area of concentration over the preceding decade.

PART IV: Administrative Arrangements

The four principal entities that will be involved in the implementation of the project are the Project Implementation Unit (PIU), the participating local organizations (IMOs), the Department of Agriculture and Rural Development (DOA), and USAID.

The PIU will have primary responsibility for the day-to-day implementation of the project. This unit will be staffed by five expatriates: the Chief of Party (COP), an executive officer, an extensionist, an agronomist, and a research specialist; sixteen locally recruited professional staff: a logistics coordinator, two accountants, eight agronomists/extension agents, a financial analyst, a marketing specialist, a rural technology specialist, a non-formal education specialist, and an agricultural economist.

The IMOs will be responsible for the implementation of project subcomponents. The PIU will help each IMO develop an agricultural development plan for its area. A Memorandum of Understanding will be prepared defining administrative and technical responsibilities of both the PIU and the IMO in each case.

USAID will sign the project agreement with the Department of Agriculture. The DOA will second staff as available to the PIU to serve in professional capacities for the life of project, and will assume major responsibility for the recruitment of locally hired PIU staff. The DOA will also approve documents earmarking project dollar funds.

To manage this project, USAID will assign a Project Officer whose responsibilities will include:

1. Monitoring and evaluation of project activities to ensure that the management of AID resources is satisfactory;
2. assisting in the preparation of project implementation documents, particularly those relating to procurement;
3. the maintenance of liaison with host country officials;
4. assisting in the maintenance of project reporting and record keeping, including financial management information and project performance tracking;
5. ensuring that necessary collaboration between this project, 098, and 091 at the USAID level is maintained.

The following summarizes project management responsibilities.

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>			
	<u>USAID</u>	<u>PIU</u>	<u>DMOs</u>	<u>DARD</u>
Signing PROAG	X			X
Drafting PIOs	X			
Coordinating support and logistics for studies/surveys	X	X		
Recruiting Zairian Staff	X			X
Initiating Procurement	X	X		
Tracking Procurement pre-arrival	X			
Receiving		X		
End Use Tracking		X		
Housing Construction	X	X		
Gathering Data		X		X
Processing Data				X
Analyzing Data		X		X
Applying Data		X	X	
Supervising Project Staff		X		
Supervising Contractors	X			
Negotiating MOUs	X	X	X	
Monitoring MOUs		X		
Implementation Interventions		X	X	
Evaluation of DMO activities and interventions		X		
Project evaluations	X			X
Planning	X	X		X

Part V: Financial Analysis

The total project cost, including allowances for inflation and contingency, but excluding COZ and IMO in-kind contributions, is estimated to be \$15,000,000 in foreign exchange (AID funds), \$10,000,000 in PL 480-generated local currency (COZ funds), and \$1,000,000 in I40-owned local currency.

Technical assistance cost estimates are based on recent USAID experience with hiring technical advisors. Commodity estimates are based on present CIF Matadi costs of equipment. Training estimates are based on present costs to USAID of participant training, including air travel. Note that short term technical assistance includes funds for a midterm audit and all evaluations.

Table 1 summarizes cost estimates by source, Table 2 projects LDP expenditures by year.

Table 1
Summary Cost Estimate and Financial Plan
(U.S. \$000)

<u>SOURCE</u>	<u>AID</u> <u>FX</u>	<u>HOST COUNTRY</u> <u>LC</u>	<u>IMO</u> <u>LC</u>
Technical Assistance	6,750	900	150
Commodities	1,978	4,735	430
Training	1,050	1,000	50
Inflation Factor	2,935	1,708	318
Contingency	2,287	1,657	52
TOTAL	15,000	10,000	1,000

TABLE 2
Projection of Expenditures by Fiscal Year
(U.S. \$000)

<u>Fiscal Year</u>	<u>AID</u>	<u>HOST COUNTRY</u>	<u>OTHERS</u>	<u>TOTAL</u>
FY 85	492	1,340		1,832
FY 86	1,530	1,265		2,795
FY 87	1,254	435	15	1,704
FY 88	993	435	30	1,458
FY 89	983	510	45	1,538
FY 90	1,087	510	60	1,657
FY 91	875	510	75	1,460
FY 92	866	510	105	1,481
FY 93	920	560	135	1,615
FY 94	778	560	165	1,503
Inflation factor	2,935	1,708	318	4,961
Contingency	2,287	1,657	52	3,996
TOTAL	15,000	10,000	1,000	26,000

Recurrent Costs

The recurrent costs for this project have been kept to the minimum necessary to continue successful project activities beyond the PACD. They include: for the LMOs, salaries and equipment maintenance and replacement; for the central resource institutions, salaries and commodities; and for the villagers, purchases of agricultural inputs and maintenance of simple processing and handling equipment. The QDZ will not bear any recurrent cost after the project.

The number of additional salaried positions within IMOs will vary according to the size of their present extension/agronomist staffs, the geographic outreach area, and the number and types of interventions undertaken. An average IMO may require two additional personnel (agronomists/extension agents). Average annual salary costs assuming two additional positions per IMO will be approximately \$4,000. Vehicle operating, maintenance and depreciation (assuming 12,500 miles per year, one 4 WD and two motorcycles) will cost approximately \$7,000 a year.

Thus, the total recurrent cost per IMO is roughly estimated at:

1. Vehicles (depreciation, repair, operation)	7,000	
2. Salaries (2 positions x \$ 2,000)		4,000
3. Other costs (continued training for village and IMO agriculturalists, bicycles, other equipment such as mills, tools, etc)	<u>4,000</u>	
	TOTAL	\$15,000

This figure is an estimated average. A thorough financial analysis of each IMO will be undertaken by the PIU before a program for that IMO is devised. While it is expected that the above added recurrent costs will be within the continuing means of most IMOs, some will be able to assume higher, and others only lower costs.

The central resource institutions will also be the subjects of financial scrutiny by the PIU to determine what activities can and ought to be sustained. The two training institutions, ITAK and IPTK, will be encouraged to charge fees that cover their recurrent costs. The CEPAS appropriate technology program should realize no appreciable increases in operating costs, but is expected to defray any such costs through fees for services. The national food crop programs will experience a reduction in their planned long-term expenditures because this project will develop an outreach capacity that would otherwise be at least partially funded by the crop programs. Finally, whether or not the project funds a credit intervention will depend on the capacity of a local credit institution to fully cover costs.

Village-level recurrent costs include equipment maintenance, local extension service support, and planting material costs. The equipment maintenance expenses, such as bicycle and mill repair and spares, should be covered by the increased revenues villagers or villages realize from the use of the equipment; spare parts will be stocked by the IMOs or local

entrepreneurs; and project-funded training will create a cadre of village and IMO technicians capable of repairing the machinery introduced. In many villages there are traditional figures that concern themselves with land distribution and agronomic practices within their clans. In these cases the traditional rewards system may be adequate recompense for their services, particularly if their overall duties are not increased. In other areas, extension agents may be supported post-project either by the villages or by the IMOs. Finally, there are the recurrent costs of improved varieties of cassava, corn, grain legumes, and rice. How these are met will be determined by the national crop programs, the multiplication centers, and the receptivity of farmers to the varieties.

ANNEX B

Project Grant
Standard Provisions

Definitions: As used in this Annex, the "Agreement" refers to the Project Grant Agreement to which this Annex is attached and of which this Annex forms a part. Terms used in this Annex have the same meaning or references as in the Agreement.

ARTICLE A: Project Implementation
Letters (PIIs)

To assist the Government in the implementation of the Project, AID, from time to time, will issue Project Implementation Letters that will furnish additional information about matters stated in this Agreement. The Parties may also use jointly agreed-upon Project Implementation Letters to confirm and record their mutual understanding on aspects of the implementation of this Agreement. Project Implementation Letters will not be used to amend the text of the Agreement, but can be used to record revisions or exceptions which are permitted by the Agreement, including the revision of elements of the amplified description of the Project in Annex A.

ARTICLE B: General Covenants

Section B.1. Consultation

The Parties shall cooperate to assure that the purpose of this Agreement will be accomplished. To this end, the Parties, at the request of either, will exchange views on the progress of the Project, the performance of obligations under the Agreement,

ANNEXE B

Dispositions Standard Applicables
au Subvention du Projet

Définitions: Tel qu'il est utilisé dans la présente Annexe, le mot "Accord" désigne l'Accord de Subvention au Projet auquel est jointe ladite Annexe et dont elle constitue une partie. Les termes utilisés dans cette Annexe ont la même signification et les mêmes références que dans l'Accord.

ARTICLE A: Lettres d'Exécution de
Projet

Pour aider le Gouvernement à exécuter le Projet, l'AID fera paraître de temps à autre des Lettres d'Exécution de Projet donnant de plus amples renseignements sur des questions citées dans l'Accord. Les Parties signataires pourront également utiliser des Lettres d'Exécution de Projet établies d'un commun accord, pour confirmer et consigner par écrit leur accord mutuel sur certains aspects d'exécution du présent Accord. Les Lettres d'Exécution de Projet ne seront pas utilisées pour modifier le texte de l'Accord, mais pourront servir à prendre acte des révisions ou des exceptions autorisées par l'Accord, y compris la révision de certaines parties de la description détaillée du Projet telle qu'elle est citée à l'Annexe A.

ARTICLE B: Conventions Générales

Section B.1. Consultation

Les Parties signataires devront coopérer pour s'assurer que l'objectif de cet Accord sera atteint. A cet effet, elles devront, à la demande de l'une d'elles, procéder à un échange de vues sur l'avancement du Projet, sur l'exécution des obligations

conformément à cet Accord, ainsi que sur les travaux accomplis par les experts-conseils, les contractants ou les fournisseurs participant au Projet et sur d'autres questions se rapportant au même Projet.

Section B. 2. Exécution du Projet

Le Gouvernement s'engage à :

(a) exécuter le Projet, ou veiller à son exécution, avec diligence et efficacité selon les meilleures procédures techniques, financières et administratives et conformément aux documents, plans, cahiers des charges, contrats, calendriers ou autres dispositions (ainsi que les modifications qui y seront apportées) approuvés par l'AID en conformité avec le présent Accord; et

(b) désigner des cadres de gestion qualifiés et expérimentés et entreprendre la formation de ce personnel en vue d'assurer l'entretien et le fonctionnement du Projet et, selon les besoins, pour la continuation des activités de ce Projet, veiller à ce que cet entretien et ce fonctionnement se fassent de manière à garantir la réalisation continue et avec succès des buts du Projet.

Section B.3. Utilisation des Biens et Services

(a) Toute ressource financée dans le cadre de la Subvention sera consacrée au Projet jusqu'à son achèvement, à moins que l'AID n'en convienne autrement par écrit. Ces ressources seront par la suite utilisées pour renforcer davantage les objectifs visés par la réalisation de ce Projet.

(b) A moins que l'AID n'en convienne autrement par écrit, les biens ou services financés par la Subvention ne peuvent servir à promouvoir ou aider un projet d'assistance étrangère ou une

the performance of any consultants, contractors, or suppliers engaged in the Project, and other matters relating to the Project.

Section B. 2. Execution of Project

The Government will:

(a) carry out the Project or cause it to be carried out with due diligence and efficiency, in conformity with sound technical, financial, and management practices, and in conformity with those documents, plans, specifications, contracts, schedules, or other arrangements, and with any modifications therein, approved by AID pursuant to this Agreement; and

(b) provide qualified and experienced management for, and train such staff as may be appropriate for the maintenance and operation of the Project, and, as applicable for continuing activities, cause the Project to be operated and maintained in such manner as to assure the continuing and successful achievement of the purpose of the Project.

Section B.3. Utilization of Goods and Services

(a) Any resources financed under the Grant will, unless otherwise agreed in writing by AID, be devoted to the Project until the completion of the Project, and thereafter will be used so far as possible to further the objectives sought in carrying out the Project.

(b) Goods or services financed under the Grant, except as AID may otherwise agree in writing, will not be used to promote or assist a foreign aid project or activity associated with or financed by a

country not included in Code 935 of the AID Geographic Code Book as in effect at the time of such use.

Section B.4. Taxation

(a) This Agreement and the Grant will be free from any taxation or fees imposed under laws in effect in the territory of the Republic of Zaïre.

(b) To the extent that (1) any contractor, including any consulting firm, any personnel of such contractor financed under the Grant and any property or transactions relating to such contracts and (2) any commodity procurement transaction financed under the Grant are not exempt from identifiable taxes, tariffs, duties, or other levies imposed under laws in effect in the territory of the Republic of Zaïre, the Government will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Grant.

Section B.5. Reports, Records, Inspections, Audits

The Government will:

(a) furnish AID such information and reports relating to the Project and to this Agreement as AID may reasonably request;

(b) maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Project

activité en rapport avec un des pays non inclus au Code Géographique 935 de l'AID tel qu'il est en vigueur lors de l'utilisation desdits biens et services, ou financés par l'un de ces pays.

Section B.4. Imposition

(a) Cet Accord et la Subvention seront exemptés de tous taxes et droits imposés en vertu de la législation en vigueur dans le territoire de la République du Zaïre.

(b) Au cas où (1) tout contractant, y compris toute firme d'ingénieurs-conseils, et tout personnel de ce contractant financé au titre de la Subvention et tous biens ou transactions en rapport avec ces contrats et (2) tout achat de biens financés par la Subvention ne seraient pas exonérés de taxes, droits tarifaires ou douaniers et autres impositions établies par la législation en vigueur dans le territoire de la République du Zaïre, le Gouvernement devra, en vertu et conformément aux Lettres d'Exécution de Projet, et dans les limites qui y sont prévues, payer ou rembourser lesdites sommes avec des fonds autres que ceux fournis dans le cadre de la Subvention.

Section B.5. Rapports, Dossiers, Inspections, Vérifications

Le Gouvernement s'engage à:

(a) fournir à l'AID sur sa demande et dans des limites raisonnables, tous renseignements et rapports relatifs au Projet et au présent Accord;

(b) tenir ou veiller à ce que soient tenus, conformément aux méthodes comptables généralement admises et aux usages uniformément appliqués, des livres de comptes et des dossiers adéquats relatifs

and to this Agreement, adequate to show, without limitation, the receipt and use of goods and services acquired under the Grant. Such books and records will be audited regularly, in accordance with generally accepted auditing standards, and maintained for three years after the date of last disbursement by AID; such books and records will also be adequate to show the nature and extent of solicitation of prospective suppliers of goods and services acquired, the basis of award of contracts and orders, and the overall progress of the Project toward completion; and

au Projet et au présent Accord, donnant sans restriction tous les détails sur la réception et l'utilisation des biens et services acquis dans le cadre de la Subvention. Ces livres de comptes et ces dossiers seront vérifiés régulièrement, conformément aux normes de vérifications comptables généralement admises. Ils doivent être conservés pendant trois ans après la date du déboursement par l'AID et devront indiquer la nature et l'importance des appels d'offres lancés aux fournisseurs éventuels des biens et services reçus, la base d'adjudication des contrats et des commandes ainsi que l'évolution générale du Projet vers son achèvement; et

(c) afford authorized representatives of AID the opportunity at all reasonable times to inspect the Project, the utilisation of goods and services financed by such a Party, and books, records, and other documents relating to the Project and the Grant.

(c) permettre aux représentants autorisés de l'AID d'inspecter, à tout moment raisonnable, le Projet, l'utilisation des biens et des services financés par cette même Partie, ainsi que les livres comptables, les dossiers et autres documents relatifs au Projet et à la Subvention.

Section B.6. Completeness of Information

Section B.6. Soumission de Renseignements Complets

The Government confirms:

Le Gouvernement confirme:

(a) that the facts and circumstances of which it has informed AID, or caused AID to be informed, in the course of reaching agreement with AID on the Grant are accurate and complete, and include all facts and circumstances that might materially affect the Project and discharge of responsibilities under this Agreement; and

(a) que les faits et les circonstances dont il a informé l'AID ou a fait en sorte qu'elle le soit, en vue de réaliser un accord avec l'AID sur ladite Subvention sont exacts et complets et couvrent tous les faits et circonstances qui pourraient sensiblement affecter le Projet et la manière de remplir les responsabilités prévues dans le présent Accord; et

(b) that it will inform AID in timely fashion of any subsequent facts and circumstances that might materially affect, or that it is reasonable to believe might so

(b) qu'il informera l'AID en temps voulu de tous les faits et circonstances subséquents qui peuvent sensiblement affecter, ou dont on a lieu de croire qu'ils

affect, the Project or the discharge of responsibilities under this Agreement.

Section B.7. Other Payments

The Government affirms that no payments have been or will be received by any official of the Government in connection with the procurement of goods or services financed under the Grant except fees, taxes, or similar payments legally established in the territory of the Republic of Zaïre.

Section B.8. Information and Marketing

The Government will give appropriate publicity to the Grant and the Project as a program to which the United States has contributed, identify the Project site by an appropriate sign, and mark goods financed by AID, as described in Project Implementation Letters.

ARTICLE C: Procurement Provisions

Section C.1. Special Rules

(a) The source and origin of ocean and air shipping will be deemed to be the ocean vessel's or aircraft's country of registry at the time of shipment.

(b) Premiums for marine insurance placed in the territory of the Republic of Zaïre will be deemed an eligible Foreign Exchange Cost, if otherwise eligible under Section C.7. (a).

affecteraient, le Projet ou la manière de remplir les responsabilités prévues dans le présent Accord.

Section B.7. Autres Paiements

Le Gouvernement affirme qu'aucun paiement n'a été ou ne sera reçu par aucun de ses représentants en rapport avec l'acquisition de biens ou de services financés dans le cadre de la Subvention, à l'exception des droits, taxes ou autres paiements similaires légalement en cours dans le territoire de la République du Zaïre.

Section B.8. Information et Marquage des Biens

Le Gouvernement assurera une publicité appropriée à la Subvention et au Projet en tant que programme auquel les Etats-Unis ont contribué; il identifiera l'emplacement de Projet par une pancarte appropriée et fera marquer les biens financés par l'AID, tel que le décrivent les Lettres d'Exécution de Projet.

ARTICLE C: Dispositions Concernant l'Acquisition des Biens

Section C.1. Directives Spéciales

(a) La source et l'origine des expéditions aériennes et maritimes seront réputées être le pays d'immatriculation du navire ou de l'avion à la date d'expédition des biens.

(b) Les primes d'assurance maritime souscrites dans le territoire de la République du Zaïre seront considérées comme "Coûts autorisés en devises étrangères", si elles sont autorisées par la Section C.7. (a).

(c) Any motor vehicles financed under the Grant will be of United States manufacture, except as AID may otherwise agree in writing.

(d) Transportation by air, financed under the Grant, of property or person, will be on carriers holding United States certification, to the extent service by such carriers is available. Details on this requirement will be described in a Project Implementation Letter.

Section C.2. Eligibility Date

No goods or services may be financed under the Grant which are procured pursuant to orders or contracts firmly placed or entered into prior to the date of this Agreement, except as the Parties may otherwise agree in writing.

Section C.3. Plans, Specifications, and Contracts

In order that there be mutual agreement on the following matters, and except as the Parties may otherwise agree in writing:

(a) The Government will furnish to AID upon preparation:

(1) any plans, specifications, procurement or construction schedules, contracts, or other documentation relating to goods or services to be financed under the Grant, including documentation relating to the prequalification and selection of contractors and to the solicitation of bids and proposals. Material modifications in such documentation will likewise be furnished to AID on preparation; and,

(c) Tous les véhicules à moteur financés dans le cadre de la Subvention devront être de fabrication américaine, sauf accord contraire de l'AID notifié par écrit.

(d) Le transport par voie aérienne, financé dans le cadre de la Subvention, des personnes ou des biens, se fera sur des transporteurs enregistrés aux Etats-Unis, dans la mesure où un tel service par de tels transporteurs sera possible. Les détails de ces impératifs seront décrits dans une Lettre d'Exécution de Projet.

Section C.2. Date d'Eligibilité

Aucuns biens et services ne pourront être financés dans le cadre de la Subvention lorsqu'ils sont acquis par commandes ou contrats fermes passés ou exécutés avant la date du présent Accord, sauf si les deux Parties en conviennent autrement par écrit.

Section C.3. Plans, Cahiers des Charges et Contrats

En vue de parvenir à un accord sur les questions suivantes, et, sauf si les deux Parties en conviennent autrement par écrit:

(a) Le Gouvernement devra fournir à l'AID, dès leur préparation:

(1) tous les plans, cahiers des charges, calendriers d'acquisition ou de construction, les contrats ou autres documents relatifs aux biens ou services devant être financés dans le cadre de la Subvention y compris les documents concernant la pré-qualification et la sélection des contractants, les appels d'offres et les soumissions proposées. Les modifications importantes apportées à ces documents seront également soumises à l'AID dès leur préparation; et,

(2) such documentation will also be furnished to AID, upon preparation relating to any goods or services which, though not financed under the Grant, are deemed by AID to be of major importance to the Project. Aspects of the Project involving matters under this sub-section (a) (2) will be identified in Project Implementation Letters;

(b) Documents related to the prequalification of contractors, and to the solicitation of bids or proposals for goods and services financed under the Grant, will be approved by AID in writing prior to their issuance, and their terms will include United States standards and measurements;

(c) Contracts and contractors financed under the Grant for engineering and other professional services, for construction services, and for such other services, equipment or materials as may be specified in Project Implementation Letters, will be approved by AID in writing prior to execution of the contract. Material modifications in such contracts will also be approved in writing by AID prior to execution; and,

(d) Consulting firms used by the Government for the Project but not financed under the Grant, the scope of their services and such of their personnel assigned to the Project as AID may specify, and construction contractors used by the Government for the Project but not financed under the Grant, shall be acceptable to AID.

(2) seront aussi soumis à l'AID dès leur préparation, tous les documents relatifs à tout les biens et services qui, bien que non financés dans le cadre de la Subvention, sont considérés par l'AID comme ayant une grande importance pour le Projet. Les aspects du Projet portant sur des questions traitées dans le présent paragraphe (a) (2) seront précisés dans les Lettres d'Exécution de Projet.

(b) Les documents relatifs à la préqualification des contractants et aux appels d'offres ou soumissions pour les biens et services financés dans le cadre de la Subvention devront être approuvés par écrit par l'AID avant leur émission, et devront tenir compte, entre autres, des normes et mesures appliquées aux Etats-Unis;

(c) Les contrats et les contractants financés dans le cadre de la Subvention pour des travaux d'ingénierie et autres services professionnels, ainsi que pour la construction ou autres services et pour la fourniture d'équipement ou de matériel selon les indications données dans les Lettres d'Exécution de Projet, devront être approuvés par écrit par l'AID avant la signature du contrat. Les modifications importantes apportées à ces contrats devront également être approuvées par écrit par l'AID avant leur mise à exécution; et,

(d) Les bureaux d'ingénieurs-conseils utilisés par le Gouvernement pour le Project mais non financés par la Subvention, l'étendue de leurs services et les compétences de leur personnel affecté au Projet selon les spécifications de l'AID, et les entrepreneurs en bâtiment utilisés par le Gouvernement pour ce Projet mais non financés au titre de la Subvention, devront être acceptables à l'AID.

Section C.4. Reasonable Price

No more than reasonable prices will be paid for any goods or services financed in whole or in part, under the Grant. Such items will be procured on a fair and, to the maximum extent practicable, on a competitive basis.

Section C.5. Notification to Potential Suppliers

To permit all United States firms to have the opportunity to participate in furnishing goods and services to be financed under the Grant, the Government will furnish AID such information with regard thereto, and at such times, as AID may request in Project Implementation Letters.

Section C.6. Shipping

(a) Goods which are to be transported to the territory of the Republic of Zaïre may not be financed under the Grant if transported either:

(1) on an ocean vessel or aircraft under the flag of a country which is not included in AID Geographic Code 935 as in effect at the time of the shipment; or

(2) on an ocean vessel which AID, by written notice to the Government, has designated as ineligible; or

(3) under an ocean or air charter which has not received prior approval.

(b) Costs of ocean or air transportation (of goods or persons) and related delivery services may not be financed under the Grant, if such goods or persons are carried either:

Section C.4. Prix Raisonnable

Seuls des prix raisonnables seront payés pour les biens et les services financés en partie ou en totalité dans le cadre de la Subvention. Ceux-ci devront être obtenus sur une base équitable et, autant que possible, concurrentielle.

Section C.5. Notification des Fournisseurs Eventuels

Pour permettre à toutes les firmes américaines à participer à la fourniture des biens et des services devant être financés dans le cadre de la Subvention, le Gouvernement devra fournir à l'AID toutes les informations demandées par l'AID dans les Lettres d'Exécution de Projet et aux dates spécifiées.

Section C.6. Expédition

(a) Les biens à transporter jusqu'au territoire de la République du Zaïre ne peuvent être financés au titre de la Subvention s'ils sont transportés soit:

(1) à bord d'un navire ou d'un avion appartenant à un pays non inclus dans le Code Géographique 935 de l'AID en vigueur lors de l'expédition; ou

(2) à bord d'un navire que l'AID a déclaré inéligible dans une note écrite adressée au Gouvernement; ou

(3) à bord d'un navire ou d'un avion affrété sans l'approbation préalable de l'AID.

(b) Les coûts du transport maritime ou aérien (de biens ou de personnes) et les services de livraison ne peuvent pas être financés au titre de la Subvention si ces biens ou personnes sont transportés soit:

(1) on an ocean vessel under the flag of a country not, at the time of shipment, identified under the paragraph of the Agreement entitled "Procurement Source: Foreign Exchange Costs", without written AID approval; or

(2) on an ocean vessel which AID, by written notice to the Government, has designated as ineligible; or

(3) under an ocean vessel or air charter which has not received prior AID approval.

(c) Unless AID determines that privately owned United States flag commercial ocean vessels are not available at fair and reasonable rates for such vessels:

(1) at least fifty percent (50%) of the gross tonnage of all goods (computed separately for dry bulk carriers, dry cargo liners and tankers) financed by AID, which may be transported on ocean vessels, will be transported on privately owned United States flag commercial vessels, and

(2) at least fifty percent (50%) of gross freight revenue generated by all shipments financed by AID and transported to the territory of the Republic of Zaïre by dry cargo liners shall be paid to or for the benefit of privately owned United States-flag commercial vessels. Compliance with the requirements of (1) and (2) of this subsection must be achieved with respect to any cargo transported from U.S. ports and also any cargo transported from non-U.S. ports, computed separately.

(1) à bord d'un navire battant pavillon d'un pays qui, à la date de l'expédition, n'est pas cité au paragraphe de l'Accord intitulé "Source d'Acquisition: Coûts en Devises Étrangères", sans l'accord préalable écrit de l'AID; ou

(2) à bord d'un navire que l'AID a déclaré inéligible dans une note écrite adressée au Gouvernement; ou

(3) à bord d'un navire ou d'un avion affrété sans l'approbation préalable de l'AID.

(c) Sauf si l'AID constate que des navires de commerce privés battant pavillon des États-Unis ne sont pas disponibles à des prix équitables et raisonnables:

(1) au moins cinquante pour cent (50%) du tonnage brut de tous les biens (calculés séparément pour les transporteurs en vrac, les navires de ligne équipés pour cargaisons sèches et les pétroliers), financés par l'AID et transportables par voie maritime, seront transportés à bord de navires de commerce privés battant pavillon des États-Unis, et

(2) au moins cinquante pour cent (50%) du revenu de fret brut pour toutes les expéditions financées par l'AID et transportées jusqu'au territoire de la République du Zaïre à bord de navires de ligne équipés pour cargaisons sèches, devront être payés pour ou au profit de navires de commerce privés battant pavillon des États-Unis. Les conditions (1) et (2) contenues dans ce paragraphe doivent être observées pour toutes les cargaisons transportées à partir de ports américains aussi bien que de ports non américains, calculées séparément.

Section C.7. Insurance

(a) Marine insurance on goods financed by AID which are to be transported to the Republic of Zaïre may be financed as a Foreign Exchange Cost under this Agreement provided:

(1) such insurance is placed at the lowest available competitive rate, and

(2) claims thereunder are payable in the currency in which such goods were financed or in any freely convertible currency. If the Government by statute, decree, rule, regulation or practice discriminates with respect to AID-financed procurement against any marine insurance company authorized to do business in any state of the United States, then all goods shipped to the territory of the Republic of Zaïre financed by AID hereunder will be insured against marine risks and such insurance will be placed in the United States with a company or companies authorized to do marine insurance business in a State of the United States.

(b) Except as AID may otherwise agree in writing, the Government will insure, or cause to be insured, goods financed under the Grant imported for the Project against risks incident to their transit to the point of their use in the Project; such insurance will be issued on terms and conditions consistent with sound commercial practice and will insure the full value of the goods. Any indemnification received by the Government under such insurance will be used to replace or repair any material damage or any loss of the

Section C.7. Assurance

(a) L'Assurance maritime contractée sur les biens financés par l'AID et devant être transportés jusqu'au territoire de la République du Zaïre peut être financée en tant que coût en devises étrangères dans le cadre de cet Accord à condition que:

(1) cette assurance soit souscrite au taux concurrentiel le plus faible; et

(2) que les réclamations y afférentes soient payables dans la monnaie utilisée pour le financement de ces biens ou en toute autre devise librement convertible. En ce qui concerne les achats financés par l'AID, si le Gouvernement adopte par loi, décret, arrêté, règlement ou pratique, une attitude discriminatoire contre les compagnies d'assurance maritimes autorisées à exercer leur activité dans n'importe quel état des Etats-Unis d'Amérique, alors tous les biens expédiés vers le territoire de la République du Zaïre seront assurés contre tous risques maritimes. Une telle assurance sera souscrite aux Etats-Unis auprès d'une ou plusieurs compagnies autorisées à exercer leur activité d'assureurs maritimes dans n'importe quel état des Etats-Unis d'Amérique.

(b) Sauf accord contraire de l'AID notifié par écrit, le Gouvernement assurera ou fera assurer les biens financés dans le cadre de la Subvention et importés pour les besoins du Projet, contre des risques inhérents à leur transit jusqu'au point d'utilisation du Projet. Une telle assurance sera souscrite à des conditions conformes aux bons usages commerciaux pour toute la valeur des biens. Toute indemnité reçue par le Gouvernement sera utilisée pour remplacer ou réparer tout dégât matériel et toute perte subis par les biens assurés, ou

goods insured or will be used to reimburse the Government for the replacement or repair of such goods. Any such replacement will be of source and origin of countries listed in AID Geographic Code 935 as in effect at the time of replacement, and, except as the Parties may agree in writing, will be otherwise subject to the provisions of the Agreement.

Section C.8. U.S. Government-
Owned Excess Property

The Government agrees that, wherever practicable, United States Government-owned excess personal property, in lieu of new items financed under the Grant, should be utilized. Funds under the Grant may be used to finance the costs of obtaining such property for the Project.

ARTICLE D: Termination; Remedies

Section D.1. Termination

Either Party may terminate this Agreement by giving the other Party 30 days written notice. Termination of this Agreement will terminate any obligations of the Parties to provide financial or other resources to the Project pursuant to this Agreement, except for payments which they are committed to make pursuant to non-cancellable commitments entered into with third parties prior to the termination of this Agreement. In addition, upon such termination AID may, at AID's expense, direct that title to goods financed under the Grant be transferred to AID if the goods are from a source outside the

servira à rembourser le Gouvernement afin de faire remplacer ou réparer lesdits biens. Les biens de remplacement devront avoir comme source et origine les pays indiqués dans le Code Géographique 935 de l'AID tel qu'il est en vigueur à la date d'acquisition de ces biens de remplacement et, sauf si les Parties en conviennent autrement par écrit, ces biens seront assujettis aux dispositions de l'Accord.

Section C.8. Matériel de Surplus,
Propriété du Gouvernement des
Etats Unis

Le Gouvernement accepte d'utiliser, chaque fois que possible, le matériel de surplus, propriété du Gouvernement des Etats-Unis, au lieu d'articles neufs financés par la Subvention. Les fonds au titre de la Subvention peuvent servir à financer l'acquisition de ce matériel de surplus pour le Projet.

ARTICLE D: Résiliation et Mesures
Correctives

Section D.1. Résiliation

Chaque Partie peut résilier le présent Accord en donnant à l'autre Partie un préavis écrit de 30 jours. La résiliation du présent Accord mettra fin à toutes les obligations des Parties pour la fourniture de ressources financières ou autres aux fins du Projet et conformément au présent Accord, excepté pour les paiements qu'il sont tenus de faire conformément à des engagements irrévocables pris avec des tiers, antérieurement à la résiliation du présent Accord. En outre, lors de la résiliation, l'AID peut, aux frais de l'AID, ordonner que le titre de propriété des marchandises financées au titre de la



territory of the Republic of Zaïre, are in a deliverable state and have not been offloaded in ports of entry of the territory of the Republic of Zaïre.

Section D.2. Refunds

(a) In the case of any disbursement which is not supported by valid documentation in accordance with this Agreement, or which is not made or used in accordance with this Agreement, or which was for goods or services not used in accordance with this Agreement, AID, notwithstanding the availability or exercise of any other remedies provided for under this Agreement, may require the Government to refund the amount of such disbursement in United States dollars to AID within sixty (60) days after receipt of a request therefor.

(b) If the failure of the Government to comply with any of its obligations under this Agreement has the result that goods or services financed under the Grant are not used effectively in accordance with this Agreement, AID may require the Government to refund all or any part of the amount of the disbursements under this Agreement for such goods or services in U.S. dollars to AID within sixty (60) days after receipt of a request therefor.

(c) The right under subsection (a) or (b) to require such a refund of a disbursement will continue, notwithstanding any other provision of this Agreement, for three years from the date of the last disbursement under this Agreement.

Subvention soit transférée à l'AID si ces marchandises proviennent d'une autre source que le territoire de la République de Cameroun, sont en état d'être livrées, et n'ont pas été débarquées dans les ports d'entrée dans le territoire de la République de Cameroun.

Section D.2. Remboursements

(a) En cas de débours non accompagné de documents valides conformes au présent Accord ou non effectué ou utilisé conformément au présent Accord, ou destiné à des biens ou services non utilisés conformément au présent Accord, et nonobstant l'existence ou l'application de toutes mesures correctives prévues par le présent Accord, l'AID peut demander au Gouvernement de rembourser à l'AID le montant d'un tel débours en dollars des Etats-Unis dans les soixante (60) jours qui suivent la réception d'une telle demande.

(b) Si le Gouvernement n'est pas en mesure de se conformer à ses obligations dans le cadre de cet Accord, et si cette défaillance a pour résultat que les biens ou services financés dans le cadre de la Subvention ne sont pas utilisés effectivement conformément à cet Accord, l'AID pourra demander au Gouvernement de rembourser tout ou toute partie du montant des débours effectués dans le cadre de cet Accord pour ces biens ou services en dollars E.U. à l'AID dans un délai de soixante (60) jours après réception d'une demande à cet effet.

(c) Le droit, conformément sous-section (a) ou (b), de un tel remboursement d'un débours, nonobstant toute autre disposition de cet Accord, restera valide trois ans après la date du dernier débours effectué dans le cadre de cet Accord.

(d) Any refund under the preceding subsection (a) or (b), or any refund to AID from a contractor, supplier, bank, or other third party with respect to goods or services financed under the Grant, which refund relates to an unreasonable price for or erroneous invoicing of goods or services, or to goods that did not conform to specifications, or to services that were inadequate, will

(1) be made available first for the cost of goods and services required for the Project, to the extent justified, and

(2) the remainder, if any, to reduce the amount of the Grant.

(e) Any interest or other earnings on Grant funds disbursed by AID to the Government under this Agreement prior to the authorized use of such funds for the Project will be returned to AID in U.S. dollars by the Government.

Section D.3. Nonwaiver of Remedies

No delay in exercising any right or remedy accruing to a Party in connection with its financing under this Agreement will be construed as a waiver of such right or remedy.

Section D.4. Assignment

The Government agrees, upon request, to execute an assignment to AID of any cause of action which may accrue to the Government in connection with or arising out of the contractual performance or breach of performance by a Party to a direct U.S. dollar contract with AID financed in whole or in part out of funds granted by AID under this Agreement.

(d) Tout remboursement dans le cadre des paragraphes (a) ou (b), ou tout remboursement versé à l'AID par un contractant, un fournisseur, une banque ou autre tiers ayant trait aux biens et services financés par la Subvention, et effectué en compensation d'un prix non raisonnable ou d'une facture erronée pour les biens ou services, ou pour des biens non conformes aux cahiers des charges, ou pour des services jugés inadéquats, sera

(1) affecté tout d'abord, et dans des limites justifiées, au coût des biens et services requis pour le Projet, et

(2) le reliquat, le cas échéant, sera employé à réduire le montant de la Subvention.

(e) Tout intérêt ou autre profit sur les fonds de la Subvention versés par l'AID au Gouvernement dans le cadre du présent Accord antérieurement à l'autorisation d'utiliser ces fonds pour le Projet sera retourné à l'AID en dollars E.U. par le Gouvernement.

Section D.3. Non Renonciation aux Mesures Correctives

Aucun retard dans l'exercice d'un droit ou mesure corrective revenant à l'une des Parties en rapport avec le financement qu'elle a apporté dans le cadre de cet Accord ne pourra être interprété comme une renonciation à un tel droit ou à une telle mesure corrective.

Section D.4. Cession

Le Gouvernement consent, sur demande, à opérer une cession à l'AID de toute action pouvant lui échoir relativement ou consécutivement à l'exécution ou à la rupture de contrat par une des Parties d'un contrat affecté en dollars avec l'AID et financé en totalité par les fonds accordés par l'AID dans le cadre du présent Accord.