

Document of  
**The World Bank**

**FOR OFFICIAL USE ONLY**

CR 2181-EG

**Report No. 8547-EG**

**STAFF APPRAISAL REPORT**

**EQUATORIAL GUINEA**

**CROP DIVERSIFICATION  
AND AGRICULTURAL SERVICES PROJECT**

**SEPTEMBER 14, 1990**

**Agriculture Operations  
Occidental and Central Africa Department**

**This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.**

### CURRENCY EQUIVALENTS

Currency Unit = CFA Franc (CFAF)  
US\$1.00 = CFAF 285 a/

### WEIGHTS AND MEASURES

Metric System

### ABBREVIATIONS AND ACRONYMS

AFDB	=	African Development Bank
AES	=	Agriculture Extension Service
BADEA	=	Banque Arabe de Developpement Economique en Afrique
BARS	=	Basic Applied Research Structure
BCD	=	Banco de Crédito y Desarrollo
BEAC	=	Banque des Etats de l'Afrique Centrale
BIAO	=	International Bank for West Africa
CAMARA	=	Camara de Comercio Agrícola y Forestal
CCCE	=	Caisse Centrale de Coopération Economique
CFAF	=	Franc of the African Financial Community
CLUSA	=	Cooperative League of the United States of America
CRP	=	Cocoa Rehabilitation Project
DGCEC	=	Dirección General de Capacitación, Extensión y Fomento Cooperativo
EEC	=	European Economic Community
EMIS	=	Extension Service Management Information System
EQG	=	Equatorial Guinea
FAC	=	Fonds d'Aide et de Cooperation
FAO	=	Food and Agriculture Organization of the United Nations
FED	=	Fond Europeen de Développement
GTZ	=	Gesellschaft für Technische Zusammenarbeit
IDA	=	International Development Association
IDEPA	=	Instituto de Desarrollo y Promoción Agrícola
IFAD	=	International Fund for Agricultural Development
IMF	=	International Monetary Fund
MALFF	=	Ministry of Agriculture, Livestock, Fisheries and Forestry
NGO	=	Non Governmental Organization
OFA	=	Organización de Fomento Agrícola
OPEC	=	Organization of Petroleum Exporting Countries
PCR	=	Project Completion Report
PPF	=	Project Preparation Facility
RIC	=	Rehabilitation Import Credit
SAC	=	Servicio de Ahorros y Crédito
SAL	=	Structural Adjustment Loan
SDR	=	Special Drawing Rights
SMS	=	Subject Matter Specialist
SOE	=	Statement of Expenditure
STCP	=	Spanish Technical Cooperation Program
TAP	=	Technical Assistance Project
T&V	=	Training and Visit System
UDEAC	=	Union Douaniere des Etats de l'Afrique Centrale
UNCDF	=	United Nations Cooperative Development Fund
UNDP	=	United Nations Development Program
UNICEF	=	United Nations Children's Fund
UNV	=	United Nations Volunteer
USAID	=	United States Agency for International Development
VEW	=	Village Extension Worker
WFP	=	World Food Program

### FISCAL YEAR

January 1 - December 31

---

a/ The exchange rate of the CFA Franc (CFAF) is fixed at 50:1 with the French Franc, which is a floating currency.

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECTSTAFF APPRAISAL REPORTTABLE OF CONTENTS

<u>DOCUMENTS CONTAINED IN THE PROJECT FILE</u> .....	iii
<u>CREDIT AND PROJECT SUMMARY</u> .....	iv
<u>I. INTRODUCTION</u> .....	1
<u>II. THE AGRICULTURAL SECTOR</u> .....	3
Main Features .....	3
Major Constraints to Growth .....	4
Institutional Environment .....	5
Financial Institutions .....	7
Government Policies and Strategy .....	8
IDA's Sector Strategy and Experience .....	8
Cocoa Rehabilitation Project.....	9
<u>III. THE PROJECT</u> .....	10
A. Project Rationale and Objectives .....	10
B. Summary Project Description .....	10
C. Project Area .....	11
D. Rationale for IDA and IFAD Involvement .....	11
E. Detailed Description of Project Activities .....	12
1. Policy Reforms .....	12
2. Project Investments .....	13
a. Marketing .....	13
b. Agricultural Extension and Applied Research .	16
c. Institutional Development .....	19
<u>IV. PROJECT IMPLEMENTATION</u> .....	21
Project Organization and Management .....	21
Training .....	21
Technical Assistance .....	22
Project Planning and Budgeting .....	22
Project Preparation Facility .....	23

This report is based on the findings of a joint IDA/FAO-CP appraisal mission which visited the country from November 8-28, 1989, consisting of Robert Bronkhorst (Mission Leader), Betty Hanan, (IDA), Jorge Rincón (FAO/CP), Francisco Linker (Government Advisor), Juan Morelli and Thomas McCarthy (Consultants). Lorenz Pohlmeier and Guillermo Almada (IDA), Aurel Borlestean (Consultant) and Marco Cambellotti (IFAD Consultant) participated part-time. Secretarial support was provided by Florence Dalencour.

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

<b>V.</b>	<b><u>PROJECT COSTS AND FINANCING</u></b> .....	<b>23</b>
	Cost Estimates .....	23
	Financing .....	24
	Procurement .....	25
	Project and Special Accounts .....	26
	Disbursements .....	26
	Accounts and Audits .....	27
	Project Impact on MALFF's Budget .....	27
<b>VI.</b>	<b><u>PROJECT JUSTIFICATION AND RISKS</u></b> .....	<b>27</b>
	Incremental Production .....	27
	Overall Benefits .....	29
	Economic Rate of Return .....	30
	Project Risks .....	30
	Environmental Impact .....	31
<b>VII.</b>	<b><u>AGREEMENTS AND RECOMMENDATION</u></b> .....	<b>32</b>

**ANNEXES**

1	Credit
2	Extension Organization and Methodology
3	Applied Research
4	Road and Ferry Rehabilitation and Maintenance
5	Institutional Development
6	Agricultural Development Organization
7	Project Implementation - Organization Chart
8	Terms of Reference for Technical Assistance
9	Economic Analysis
10	Project Cost Summary
11	Summary Account by Project Component
12	Financing Plan by Disbursement Category
13	Implementation Schedule and Supervision Plan
14	Disbursement Estimate

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

DOCUMENTS CONTAINED IN THE PROJECT FILE

A. STAFF WORKING PAPERS

1. Marketing - FAO/CP
2. Agriculture Credit - FAO/CP
3. Cooperative Development - Landell Mills Associates
4. Cooperative Development - IDA
5. Agriculture Extension - Government
6. Production Data
7. Farm Budgets
8. Economic Analysis
9. Detailed Cost Tables

B. DOCUMENTS AND REPORTS

1. Bioko Land Utilization Study
2. Etude des possibilités d'exportation de produits agricoles
3. Agricultural Sector Review, Report No. 7928-EG (Green Cover):  
October 1989

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

CREDIT AND PROJECT SUMMARY

- Borrower:** Republic of Equatorial Guinea
- Beneficiary:** Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF)
- Amount:** SDR 4.7 million (US\$ 6.3 million equivalent)
- Terms:** Standard IDA terms, with 40 years maturity
- Onlending Terms:** 11% from the Central Bank to OFA and 18% (to be modified yearly, as necessary in consultation with IDA) from OFA to farmers.
- Project Description:** The project aims at increasing rural incomes and foreign exchange earnings by import substitution and promoting private sector export marketing over a five-year period. The project will accomplish this through a combination of policy reforms and investments to: alleviate malnutrition of the rural population by raising production, strengthening agricultural research and extension services, and supporting the organization of farmers and traders, including women. The policy reforms will cover: (a) improving price incentives through reforms of cocoa pricing and the taxation system; (b) restructuring marketing and input supply systems of the traditional export sub-sector; and (c) preparing and implementing programs aimed at removing technical constraints on higher cocoa output, including uncertainties over land tenure. Project investments will comprise three components:
- (a) marketing, which will depend primarily on private initiative, will consolidate and increase the profitability of traditional export crops, expand markets for food crops exports, and promote non-traditional exports to new markets;
  - (b) agricultural extension and applied research will furnish T&V based extension services to farmers supported by demand-driven applied research, with the immediate objective of increasing the availability of diversified food crops for domestic consumption and export. The component will promote better linkages between extension and research and develop mechanisms to promote a two-way flow of information between extension, research and farmers; and
  - (c) institutional development will help sustain project accomplishments by creating incentives for private sector investment, building national research and extension

(v)

management and training capabilities, and ensuring that project activities support farmer and trader organizations and address the needs of women farmers.

Estimated Project Costs

	<u>Local</u> ----- (US\$ million)	<u>Foreign</u> ----- (US\$ million)	<u>Total</u> -----	<u>% of</u> <u>Base Cost</u>
Technical Assistance	0.0	3.7	3.7	24.2
Vehicles	0.1	0.7	0.8	5.2
Equipment	0.1	1.7	1.8	11.8
Civil Works	0.1	1.2	1.3	8.5
Credit	0.4	0.7	1.1	7.2
Diversification Fund	0.0	0.3	0.3	2.0
Training and Studies	0.1	1.4	1.5	9.8
Operation and Maintenance	0.9	2.3	3.2	20.9
Incremental Salaries	<u>1.6</u>	<u>0.0</u>	<u>1.6</u>	<u>10.4</u>
Total Base Costs	3.3	12.0	15.3	100.0
Physical Contingencies	0.2	0.8	1.0	6.5
Price Contingencies	<u>0.5</u>	<u>1.2</u>	<u>1.7</u>	<u>11.1</u>
Total Project Costs	4.0	14.0	18.0	117.6

Financing Plan 1/

	<u>Local</u> ----- (US\$ million)	<u>Foreign</u> ----- (US\$ million)	<u>Total</u> -----
Government	1.3	0.0	1.3
IDA	1.1	5.2	6.3
IFAD	1.2	3.8	5.0
BADEA	0.0	3.9	3.9
OPEC	<u>0.4</u>	<u>1.1</u>	<u>1.5</u>
Total	4.0	14.0	18.0 <u>1/</u>

Estimated Disbursements of IDA Credit

	<u>IDA Fiscal Year</u>						
	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>96</u>	<u>97</u>
	----- (US\$ million) -----						
Annual	0.7 <u>2/</u>	1.1	1.3	1.3	1.1	0.7	0.1
Cumulative	0.7	1.8	3.1	4.4	5.5	6.2	6.3

1/ In addition the WFP will contribute US\$1.0 million equivalent through its "food for work" program.

2/ It includes a PPF of US\$0.67 million

**Benefits and Risks**

Increasing agricultural exports is the country's only short-term option for economic recovery. The project will help alleviate rural poverty, improve nutrition and food security, and raise foreign exchange earnings by import substitution and by increasing the production and export of traditional and non-traditional crops. The project will also increase the agricultural productivity of rural women, which represent 55% of the rural population in the country, and improve land use and soil conservation practices. It will build sustainable farmer service institutions while project-financed applied research and extension activities will contribute to production increases. Continued quality control and marketing improvements will ensure improved cocoa earnings. At the same time, increased exports of diversified crops, including food crops, will reduce the country's historical dependence on cocoa exports. The opening of new markets will create incentives for private investment by individuals and by small farmer and trader organizations, in which women will be heavily represented. Improved land use and agricultural production practices will support farmer organization and help secure women's access to land. Increased incomes and the production of diversified food crops will improve nutrition levels in the country. In the Continental Region, about 4,000 rural families and on Bioko about 3,000 rural families will benefit directly from marketing activities under the project. Improved technology as a result of strengthened extension service will benefit, in a relatively short period, the country's entire rural population of over 35,000 rural families; research results in the cocoa sector will, in the medium to long-term, benefit the majority of the rural families on Bioko. In addition, the increase in food production and the direct participation of women in extension activities will directly benefit women as an important labor force in crop production and as heads of rural households. Additional benefits will derive from the training of local staff and the strengthening of farmer organizations.

Major risks will relate to: (a) ineffective extension programs and lack of coordination of donor-financed extension and applied research; (b) low adoption of research findings; and (c) a lack of private sector response to production and export marketing incentives. Research and extension risks as well as the possible low adoption of research findings will be reduced by introducing proven T&V extension methods, adapting those methods carefully to country conditions, linking research and extension planning to demonstrated market demand, supporting coordination of extension and research activities among donor-financed projects and providing technical assistance and training to strengthen Ministry management capabilities. Both production and marketing will be further supported by project-financed farmer and trader organization work. Additional incentives for private initiative will include the establishment of marketing information services, the provision of training to farmer and trader organizations, and the construction/rehabilitation of needed transportation infrastructure.

**Economic Rate of Return: 21%**

**Map: IBRD No. 22225**

EQUATORIAL GUINEACROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECTKEY FEATURES OF THE AGRICULTURAL SECTOR

1.	<u>Population</u>	<u>Unit</u>	<u>Total</u>
	Total (1987 estimates)	'000	390.0
	Rural as Percentage of Total c/	'000	224.6
	Rural Families c/	'000	34.6
2.	<u>Economic Overview</u>		
	GNP/Head of Total Population (1987 estimates) b/		n.a.
	Agriculture GNP as % of Total (1988 estimates)	%	58.0
	GNP Per Capita (1987 estimates) c/	US\$	410.0
3.	<u>Land Use</u>		
	Land Area	'000	28.0
	Perennial Crops	ha '000	65.0
	Annual Crops	ha	n.a.
4.	<u>Outputs</u>		
	Timber (1989)	m <sup>3</sup>	185.3
	Cocoa (1989/90)	Tons	7.9
	Coffee (1988)	Tons	0.7
5.	<u>Inputs</u>		
	Copper Sulphate		n.a.
	Lime		n.a.
6.	<u>Trade</u> (1987 estimates) c/		
	Total Exports (FOB)	US\$M	38.7
	Of which agricultural exports	US\$M	27.5
	Total Imports (CIF)	US\$M	50.1
	Trade Balance	US\$M	11.4
7.	<u>Government Expenditures</u>		
	Total Government Budget (1990)	CFAFM	8,028.0
	Of which Agriculture	CFAFM	247.0
	Percentage of Total Budget	%	3.0

- 
- a/ Bank Atlas  
b/ World Bank estimates  
c/ Ministry of Economy, Commerce and Plan

## EQUATORIAL GUINEA

### CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

#### STAFF APPRAISAL REPORT

##### I. INTRODUCTION

1.01 Equatorial Guinea, a former overseas province of Spain, became independent in October 1968. With a total area of 28,000 km<sup>2</sup>, the country is situated on the southern corner of the Gulf of Guinea. It consists of two parts: Continental Guinea (26,000 km<sup>2</sup>) and Insular Guinea (2,000 km<sup>2</sup>). Continental Guinea, named Rio Muni, is bordered by Cameroon to the North and by Gabon to the South and East. Rio Muni is covered with about 2.2 million ha of forests, has fragile and highly acid soils, and an equatorial climate with two short dry seasons. Timber extraction is the principal economic activity followed by coffee and some cocoa production. Insular Guinea comprises five islands; Bioko (formerly Fernando Poo), home of the capital Malabo, and four smaller islands: Corisco, Grand Elobey, Little Elobey and Annobon. Bioko and Annobon are volcanic islands. Bioko has fertile land and an equatorial climate, favorable for most tropical crops. Prior to independence, the Spaniards concentrated on cocoa production which has remained the principal economic activity on the island. Malabo is situated 250 km from Bata, the principal city of the coast of the mainland, making communications and administration difficult.

1.02 When Equatorial Guinea became independent from Spain in 1968, its per capita income was one of the highest in Sub-Saharan Africa. During the following 11 years, the country passed through a particularly difficult period under the dictatorial Macias regime. Following the change of regime in 1980, the Government has undertaken major efforts to reverse the decline of the country's economy and to develop political, legal and economic stability as a basis for the resumption of economic growth. In 1984, Equatorial Guinea became a member of the Customs Union of the Central African States (UDEAC). The currency was replaced by the CFA franc in 1985, when the country joined the Bank of Central African States (BEAC). The Government launched a more appropriate economic program which emphasized improvements in fiscal and external debt management, efforts to restructure the financial system, increases in producer prices to stimulate production and exports, and abolition of administrative control of consumer prices. In support of the program, the country benefitted from a 12-month IMF Standby covering the period July 1985-June 1986. The Standby was suspended in December 1985 because of slippages in the reduction of external arrears.

1.03 Joining BEAC and adopting the CFA franc with an appropriate parity, removed the constraints that an overvalued and inconvertible currency had placed on the country's trade and payments, while the measures contained in the economic program began to lead the way for renewed economic growth against a background of better prospects for financial stability and reduced pressures on the balance of payments. However, while the introduction of the CFA franc restored some degree of incentives to the growers, it could not redress the previous erosion of cocoa income. The adoption of a convertible currency as well as the liberalization of pricing and import regulations for consumer goods led to a rapid expansion in the trade sector, both wholesale

and retail. On average, value-added of the tertiary sector expanded by 6.3% in constant prices during this period. In 1985, consumer prices increased sharply as a result of the change of currency but have been declining since then, reflecting the increased availability of imported goods and improvements in the marketing of food crops.

1.04 While the fiscal and balance of payments equilibria improved in 1985, development was less favorable than envisaged and new domestic and external arrears emerged. Results in the external sector were also disappointing. During early 1986 financial imbalances deteriorated and the deficits in the fiscal sector and overall balance of payments led to further accumulation of domestic and external payments arrears. Moreover, acute liquidity problems in the domestic banking system emerged which resulted in severe financial strains. In a determined effort to reverse the deteriorating trends in the economy, the Government adopted a policy reform program in mid-1986 under an IDA-financed Rehabilitation Import Credit (RIC). On the fiscal side, during late 1987 and early 1988, the Government took important measures to improve economic management, especially in the areas of expenditure control, addressing the crisis of the banking sector, investment programming, and improving the collection rate for import duties. Reflecting these efforts, the Government prepared in mid-1988 a Policy Framework Paper (PFP), which was approved by the IMF and IDA in December 1988 (para.3.08). In addition, Equatorial Guinea received support from the IMF through a first year Structural Adjustment Facility (SAF) Program.

1.05 Since the approval of the PFP, the Government, IDA and the IMF have discussed an appropriate macro-economic framework and a medium-term structural adjustment program covering the period 1990-92. The broad objective of the program will be to achieve an average GDP growth rate in real terms of 3.5 to 4 percent per year over the 1990-92 period, while at the same time containing inflation to an average annual level of 4 percent or less. The emphasis of the adjustment program is on agricultural-led growth which should improve rural incomes, and thereby help redress urban-rural imbalances. The program focuses on improving macroeconomic management (investment and expenditure programming, domestic resources, and public debt management), reform of the civil service and public administration, structural changes in the main agricultural export sectors and institutional changes in the marketing and pricing systems. The Government believes that the impetus for economic growth should come from the private sector and intends to create the necessary conditions to attract on a continuous basis foreign skilled manpower, capital and technology, as well as to provide appropriate incentives for domestic investors. Consequently, the focus will be on generating a favorable environment for private sector activity, withdrawing state activity from production and trade, together with a public investment program that emphasizes the rehabilitation of priority infrastructure. During the period 1986-89, the Government has already taken a number of important measures to promote appropriate cocoa and forestry policies, restructure its public investment program and better control budgetary expenditures.

1.06 By creating the right policy environment, the proposed project will contribute toward filling the gap between current and potential agricultural production. It will improve agricultural support services, which have been neglected in the past; develop small farmer organizations as the

major vehicle for increasing production; develop market outlets, which will depend primarily on private initiative; and provide unsubsidized credit services. The estimated cost of US\$18 million will be financed by Government, IDA, the International Fund for Agricultural Development (IFAD), the Arab Bank for Economic Development (BADEA) and the Fund of the Organization of Petroleum Exporting Countries (OPEC). The project was prepared jointly by the Government, IDA and FAO/CP staff. A study on exports of non-traditional export crops to neighboring countries was undertaken under the IDA-financed Technical Assistance Project. In addition, a Master Plan of Resource Utilization of the Island of Bioko was prepared with financing from the European Economic Commission (EEC).

## II. THE AGRICULTURAL SECTOR

### Main Features

2.01 The main subsistence crops are cassava, cocoyam, plantain, banana, fruits and vegetables. During the 70s, the country experienced a drastic decline in food crop production under the Macias regime. Production has recovered somewhat in recent years and was estimated at some 137,000 tons in 1985. It is assumed that of this amount about 3,000 tons are exported informally from Continental Guinea mainly to Gabon. Surveys on the nutritional status of the population show that their caloric intake is some 35% below normal daily requirement. The country continues to experience periodic shortages of basic staples because of occasional erratic climatic conditions.

2.02 The traditional export commodities are timber, cocoa and coffee. Until 1987, cocoa was traditionally the country's most important agricultural commodity despite a drastic decline in production after independence (cocoa production reached its peak of about 38,000 tons in 1968). Exports during the 1987/88 campaign were 8,200 tons, but decreased to about 6,200 tons in 1988/89, mainly due to adverse weather conditions. Total exports during the 1989/90 campaign reached 7,910 tons, of which 660 tons were exported from the Continental Region. The second most important export commodity used to be coffee. It was grown mainly by smallholders on some 50,000 ha in Rio Muni and on about 5,000 ha on Bioko. Disorganized collection, forced labor, and low producer prices combined to reduce production from about 9,000 tons per year in the late 60s to about 700 tons in 1988. Timber, which is abundant in the country, has recently replaced cocoa as the most important commercial activity in the sector. Forestry reserves, cover approximately 1.3 million ha and represent the country's richest natural resource. About 500,000 ha are being exploited. After a period of rapid expansion in 1986 and 1987, export volume increased by only 5% between 1987 and 1988, from 177,300 m<sup>3</sup> to 186,200 m<sup>3</sup>.

2.03 The economy is based almost exclusively on agriculture (including fisheries and forestry). In 1988, the sector accounted for 58% of GDP and employed 80% of the labor force. Total export value was US\$31.2 million, with timber contributing 60% (US\$18.8 million), cocoa 31% (US\$9.8 million), and coffee 3% (US\$0.8 million). Payments under the fisheries agreement with the EEC are recorded as capital transfers, not exports. As a result, the economy is sensitive to developments in the international markets for these commodities as well as to variations in supply. The same is true on the

fiscal side; cocoa and forestry tax receipts, after the virtual disappearance of cocoa taxes, represented 40% of fiscal revenues in 1985, and 18% in 1987.

### Major Constraints to Growth

2.04 Agricultural performance has been constrained by problems with agricultural sector management, institutions, policy analysis and formulation. Shortages of managerial skills, inadequate remuneration of technical staff and institutional capacity, have affected the delivery of key public services to the sector, most importantly extension, research, credit and marketing. Institutional responsibilities, strategies and policies are not well defined. In MALFF, there is little evidence of sector or sub-sector planning, mainly because the staff and resources needed to formulate strategies for the sector and coordinate the implementation and administration of development plans, programs and projects are minimal. Data on project status, implementation schedules and project benefits are not monitored and analyzed to provide decision makers with management information. Reductions in the availability of Government's funds often necessitate cuts in project funding. Without adequate information on project performance and priorities, decisions on such cuts are arbitrary. Project investments are generally based not so much on development strategies as on proposals of external donors, who present numerous project proposals without duly considering or even knowing the sector's priorities or goals. This approach has resulted in a variety of projects, which often are not mutually consistent, and which compete for scarce local funding and management resources. (UNDP has estimated that 85% of the investment budget and 55% of the recurrent budget are being financed by external aid).

2.05 The causes of deficient project implementation capacity are wide-ranging. They include both external and domestic factors. The country is faced with a difficult economic policy environment, high energy prices, and low international prices for its principal exports. These elements are having profound effects on the national economy. The rapid appreciation of the CFAF in the late 80s against the US dollar, has eroded the competitiveness of the country's main agricultural exports. Decreased export revenues have sharply reduced the Government's ability to sustain local funding leading to severe cuts in the budget and to inadequate allocations of counterpart funds for projects. Other major constraints such as severely limited management capacity, a lack of commitment to project activities, and slow responses to project implementation problems, have also affected sector performance. These phenomena are part and parcel of institutional weaknesses. Government policies, procedures and regulations or lack of them in the areas of pricing, marketing, procurement and credit have also contributed to poor sector performance.

2.06 Availability of, and access to banking services and credit are essential factors to sustain growth in the country's agricultural sector. With only one commercial bank in operation (para 2.15), banking services are excessively costly and credit is restricted to borrowers with major assets abroad. Because of lack of informal savings or credit schemes in the country, smallholders have to seek costly alternative arrangements through large plantation owners or commercial export firms. Today, the IDA-financed Cocoa

Rehabilitation Project (CRP) is the only source of formal credit for independent cocoa producing smallholders (para 2.16).

2.07 Although the Government has introduced a number of policy measures (para 1.02) aimed at revitalizing production and exports, the following pervasive constraints remain: (a) sub-optimal production and processing techniques; (b) inadequate technologies and dissemination of new technologies because of weak research and extension services; (c) inadequate incentives for producers, processors and exporters, including poor pricing policies and an almost non-existent capacity to market products; (d) inadequate land tenure; (e) poor maintenance of roads and lack of regular and affordable maritime and air cargo transport; (f) weak agricultural credit and agricultural education; and (g) lack of skilled labor.

### Institutional Environment

2.08 Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF). After a Government reorganization in mid-August 1989, the Ministry of Agriculture, Livestock and Rural Development was merged with the Ministry of Water and Forests. MALFF is responsible for overall agricultural, fisheries and forestry policy, supervision and coordination of development activities, rural development, cooperatives, research and extension services. However, as is true for most public institutions in the country, the Ministry has virtually no equipment, vehicles or funds to support its operations. Government funding of MALFF's activities is grossly inadequate. In 1990, MALFF's total budget is CFAF 247 million or 3% of Government's total budgetary expenditures of CFAF 8,028 million. Of this amount about 60% is allocated to the capital budget as counterpart funds for externally financed projects. With the remaining budgetary allocation, MALFF is expected to supervise and coordinate approximately 20 externally financed development projects in the agricultural sector with total expenditures in 1988 estimated at CFAF 2,200 million, in addition to its responsibility for overall sectoral strategy and planning, extension, agricultural training and applied research. Execution of development tasks is mainly carried out by area-based, donor-funded, commodity-specific programs. As a result, development options have responded more to donor preferences and funding availability than to national priorities and budgetary constraints, and a mix of development approaches with significant gaps and duplication of efforts has ensued.

2.09 Support Services. While MALFF has primary responsibility for the provision of the country's national support services, these services are weak. Individual districts benefit from independent and isolated small integrated rural development projects funded by various donors, effectively providing such support services. While this is demonstration of the international community's interest to support the development of the rural sector, these efforts are a result of donors' unwillingness to channel resources through central government services. These projects are financed by UNDP, UNCDF, FAC, FED, IFAD, STCP, USAID, GTZ, as well as other small NGOs and religious organizations. Most of these projects are located in the Continental Region where the majority of the population lives. They focus on applied research on food crops as well as coffee and small livestock (para 2.12).

2.10 Extension Services. The Agriculture Extension Service (AES) created in 1981 is weak. Donor-financed projects resort to hiring their own extension agents in their areas of operations. There are 18 district agencies (13 in the Continental Region, four on the Island of Bioko and one on the Island of Annobon) with one extension agent and, theoretically, a home economist and an assistant extension agent. In reality, the AES has a total of 22 agents, of which 17 are men and five are women (home economists). This gives a ratio of only one extension agent to 1,550 families. The program of the AES is theoretically well planned and based on a system of visits and demonstrations, through which polyvalent extension workers carry specific messages to farmers and farmer groups. In practice, its effectiveness has been limited because of: funding constraints, lack of transport, loose supervision, lack of built-in training programs, almost no linkage with on-going applied research activities and lack of women extension workers to better address food production constraints. At present, the AES receives limited amounts of financial and technical support through the IDA-financed Technical Assistance Project, UNICEF, UNIFEM, the Canadian Government and a Baptist Mission.

2.11 Agricultural Research. There is no research station per se or national policy on research and the country does not have the human resources necessary to undertake a national research program. Research components are included in the various agricultural and rural development projects financed by international agencies. Their impact remains sub-optimal, however, as each project works in isolation in its given region and there is little coordination among projects.

2.12 However, important research work is being undertaken through the donor-financed projects in the following areas: (a) trials on cost-effective methods of treating black pod disease and squirrel control in cocoa; (b) introduction of high yielding Robusta coffee clones from Cote d'Ivoire; (c) introduction of high yielding varieties of food crops such as maize, cowpea, groundnuts, bananas, soybeans and horticultural crops from Gabon and Cameroon; and (d) introduction of improved breeds of poultry and cattle for increased resistance to disease and improved production.

2.13 Input Supply. The demand and need for inputs vary extensively from the island to the continent and from crop to crop. In the rich volcanic soil of Bioko, crops grow well without fertilizers. However, under the island's high humid conditions, cocoa requires substantial protection against Phytophthora, which causes black pod disease. It is estimated that in 1987, a fairly dry year, crop losses due to Phytophthora were 25-35%. Due to the low profitability of the crops, few inputs are used, except for the treatment of Phytophthora on the island. However, in Continental Guinea, with acid soils, fertilizers should be used to improve yields. Drier conditions on the continent reduce the need for extensive treatment of diseases. Coffee production on the continent would benefit extensively from fertilizers, and more importantly, from appropriate treatment of the coffee berry disease and control of stem borers, common on abandoned or neglected farms. The FAC-financed project in Niefang is propagating cuttings from a more resistant clone. The Caisse Centrale de Cooperation Economique has recently committed its support to the coffee sub-sector through the financing of a project in the Continental Region.

2.14 Agricultural Education. In theory, the agricultural education system in EQG is adequate. There is an Agricultural Training School in Malabo, operational since 1983 and assisted by the Spanish Technical Cooperation Program (STCP), which provides two years of specialized training to individuals who have received high school diplomas. The curriculum is good but limited on the practical side. In addition, a National School of Agriculture was constructed in 1987 with financing from the African Development Bank to provide on a regional basis university level training in agriculture. After considerable delays because of problems in contracting STCP-financed teachers, the school finally opened in September 1989. However, financing of scholarships by donors for students from the region, continues to be a problem because of the difficulty of targeting scholarship funds for students in neighboring French speaking countries, who would have to spend four years in EQG and study in Spanish. A privately operated program on the continent, sponsored by the Salesian religious teaching order has been successful in providing practical programs to rural youth in assisting the youths to reintegrate into farming activities in their villages.

#### Financial Institutions

2.15 In 1986, the virtual collapse of the banking system left the economy crippled in all its activities. As a result of mismanagement of credit and de facto default on numerous outstanding loans, the two commercial Banks operating after independence, the Credit and Development Bank (BCD) and Guinextebank became insolvent and are now under liquidation (Annex 1). As of June 1987, the International Bank for West Africa (BIAO), a private French commercial bank, opened two branches in the country, but it operates its credit under strict lending rules. The main borrowers are the commercial firms, such as cocoa exporting firms and timber exporters, who can offer assets abroad as collateral. The small and medium size farmers have no access to this credit.

2.16 Agricultural credit for purchase of inputs for cocoa production is available to independent cocoa smallholders only through the IDA-financed CRP (para 2.25) at a present interest rate of 15%. This rate has been reviewed yearly in consultation with IDA and adjusted so as to maintain positive levels. It is presently positive with price inflation running at about 5%. Agricultural credit is also available to sharecroppers (parcelistas) through private cocoa exporting firms at an official rate of 16%, but with added charges that represent an equivalent interest rate of 58% (Annex 1, para 14).

2.17 For coffee farmers, an important constraint to expanding production is that support services do not exist. In the early 80s, a UNCDF/FAO-executed project tried to provide credit to cooperatives and individual coffee farmers. Although under that project a large stock of tools and equipment was acquired, distribution to farmers largely failed and the provision of nearly US\$0.5 million in agricultural credit to farmers never materialized. The major constraints in implementing this project were the weak organization and structure of the participating agricultural cooperatives, deficient marketing mechanisms, and the lack of counterpart funding.

## Government Policies and Strategy

2.18 The Government's objectives in the agricultural sector are to increase the profitability of agricultural production, promote the marketing and exports of non-traditional exports and raise the standard of living of the rural population. To reach these objectives, the strategy adopted by the Government and supported by IDA aims at: (a) improving price incentives through the reform of the coffee and cocoa pricing and taxation systems; (b) restructuring the marketing and input supply systems of the traditional export subsectors; (c) preparing and implementing programs aimed at removing technical constraints to higher cocoa output, including the uncertainties over land property rights; (d) promoting the production of food crops and non-traditional exports; (e) strengthening and reorienting extension services to serve the real needs of farmers; (f) developing on-farm testing of research results and ensuring better linkages between research, extension and farmers; and (g) improving investment conditions to attract private investment in the rural sector.

2.19 The investment strategy so far has been to finance area and crop development projects. These projects have their own organizational structures and little provision has been made for sustaining their activities after project completion. During the Round Table Conference of Agricultural Donors held in Malabo in November 1989, MALFF stated that in the future, its strategy will concentrate on the design of agricultural support service projects with a national perspective to ensure a harmonious approach to the provision of services to farmers and to make them sustainable on the longer term.

## IDA's Sector Strategy and Experience

2.20 Since the present Government came to power and international assistance to the country was resumed, IDA's agricultural strategy has been to revitalize cocoa production and alleviate the critical shortage of skilled manpower by training of staff. More recently, the strategy has been complemented through policy analysis and recommendations reflected in the Agricultural Sector Review. The Sector Review was discussed with the Government in November 1989. The strategy for the sector was discussed during Round Table Conference of the Agricultural Sector. The strategy recognizes that the country will continue to depend heavily on the agricultural sector for its growth. It further recognizes that the potential for growth of the sector is good since the country is rich in resources and unburdened by population pressure. Although traditional exports have fared well over the years, the world market outlook remains pessimistic for cocoa and robusta coffee and somewhat stagnant for tropical woods. The strategy, therefore, recognizes that the country's growth will rely on its ability to increase productivity and improve the quality of its traditional exports, as well as to diversify its exports. With its favorable climate, varied soil conditions and relatively inexpensive labor, the country has the potential to increase exports substantially to neighboring countries and Europe.

2.21 Equatorial Guinea has numerous constraints to overcome. Development must be viewed as a long-term process. Sustainable growth can only be achieved through investment in human capital. Institutional strengthening will be required so that basic services could be firmly

established to support the private sector. Basic investments in infrastructure will continue to be necessary, particularly for the evacuation of production from rural areas to local markets and for export.

2.22 In the agricultural sector, IDA is financing a Cocoa Rehabilitation Project and, through a Technical Assistance Project, is strengthening the analytical and planning capacity of MALFF, through the provision of Agricultural and Forestry advisors. The Five-Year lending Program includes two agricultural projects, the Crop Diversification and Agricultural Services and the Forestry and Environment Conservation Projects.

### Cocoa Rehabilitation Project

2.23 The main objectives of the project are to: (a) alleviate the constraints which were adversely affecting production of cocoa; (b) establish the necessary infrastructure to maintain the momentum of development in the future, and (c) increase cocoa production in the project area and improve quality control of cocoa beans.

2.24 The project has been successful in meeting the first two objectives and partly the third one. While the project has been successful in improving the quality control of cocoa beans, the production targets projected at appraisal have not been met because of over-optimistic projections concerning size of holdings and number of participating farmers. The SAR expected smallholder farms to increase to 5 ha compared to the actual average size of 2.8 ha. Similarly, the average size of medium and large estates has been 50 to 75% respectively of appraisal estimates. The number of participating farmers has been constrained by the stringent creditworthiness conditions established under the project in view of prior experience of poor loan repayment (Annex 1). In view of these constraints, the targets were redefined during the mid-term evaluation mission in November 1988. Total area to be rehabilitated/intensified was reduced to 3,000 ha or about 50% of the SAR projections. These targets are being met and will probably be surpassed by about 15% in 1990/91.

2.25 The project has been instrumental in improving the consistency of the quality of the cocoa exported. At present, 90% of EQG cocoa is classified as Grade 1, while 100% of the cocoa exported by project's clients is grade 1, receiving during the 1989/90 cocoa campaign a premium in the world market. This compares favorably with discounts of nearly 10% prior to the project. The project has introduced an internationally accepted grading system, and maintained strict supervision of quality control in storage, grading and shipping. As a result, confidence in the country's capacity to produce good quality cocoa has been restored. In 1989/90, cocoa sales by the project were made in the London futures market at prices averaging CFAF 403/kg FOB equivalent compared to CFAF 360/kg obtained in average by other exporters. The price paid to project clients was CFAF 366/kg, compared to the official price of CFAF 300/kg. The cocoa sold by the project was the only cocoa which did not require a subsidy from the STABEX funds. In addition, the project has been successful in establishing a viable credit system in an environment where credit was poorly administered and the poor management of credit had brought the banking system to collapse. The project has had an average 98% credit recovery, which by any standards is a remarkable performance. In addition,

the project has taken critical steps to bring commercial and credit activities into full self-financing basis. This strategy will materialize fully under the proposed project. The project has also limited the declining profitability per ha among clients despite steeply falling international prices by reducing production costs.

### III. THE PROJECT

#### A. Project Rationale and Objectives

3.01 The main objectives of the proposed project will be to alleviate rural poverty, improve family nutrition and food security, increase food production, promote local food marketing and raise foreign exchange earnings by import substitution and by promoting the export of traditional and non-traditional crops, including food crops. The project will increase the agricultural productivity of rural women and improve land use and soil conservation practices. Expected increases in food crop production will achieve two complementary project objectives, namely, improving farm family food consumption and nutrition levels and increasing the availability and variety of food crops in local markets. By establishing private marketing systems and building research and extension capabilities, the project will address major institutional constraints to further agricultural development. By improving export earnings, the project will generate the resources needed to finance future investment and national services.

#### B. Summary Project Description

3.02 The project aims at increasing rural incomes and foreign exchange earnings by import substitution and promoting private sector export marketing over a five-year period. The project will accomplish this through a combination of policy reforms and investments to: alleviate malnutrition of the rural population by raising production, strengthening agricultural research and extension services, and supporting the organization of farmers and traders, including women. The policy reforms will cover: (a) improving price incentives through reforms of cocoa pricing and the taxation system; (b) restructuring marketing and input supply systems of the traditional export sub-sector; and (c) preparing and implementing programs aimed at removing technical constraints on higher cocoa output, including uncertainties over land tenure. Project investments will comprise three components:

- (a) marketing, which will depend primarily on private initiative, will consolidate and increase the profitability of traditional export crops, expand markets for food crops exports, and promote non-traditional exports to new markets;
- (b) agricultural extension and applied research will furnish T&V based extension services to farmers supported by demand-driven applied research, with the immediate objective of increasing the availability of diversified food crops for domestic consumption and export. The component will promote better linkages between extension and research and develop mechanisms to promote a two-way flow of information between extension, research and farmers;

- (c) institutional development will help sustain project accomplishments by creating incentives for private sector investment, building national research and extension management and training capabilities, and ensuring that project activities support farmer and trader organizations and address the needs of women farmers.

#### C. Project Area

3.03 The project's policy reforms will be national in scope. Extension and research activities supported by the project will benefit the entire rural population of the country. The other investment components will cover two separate project areas, situated respectively on Bioko and in the Continental Region. On Bioko, the project will continue to develop the cocoa sub-sector in areas ecologically best suited for this crop, while at the same time promoting a crop diversification program in areas marginally suitable for cocoa production. On the mainland, the project will focus on developing production of foodcrops in the Cogo and Mbini Districts, which have a rural population of some 25,500 persons and cover some 4,700 km<sup>2</sup>, and establish marketing channels for exports to Gabon. These two districts have an important agricultural production potential and are favorably located in respect to major food crop consumer markets in Gabon. The project will support the development of domestic private sector marketing networks and improvement of a marketing infrastructure, both internal and external by establishing marketing transport channels from the interior of the mainland for domestic marketing and for exports to Gabon through Cogo and Akurenam.

#### D. Rationale for IDA and IFAD Involvement

3.04 IDA. The project will be consistent with the Government's development priorities and IDA's lending strategy which aims at promoting sustainable growth through increases in production and export earnings. Support for export crops, particularly of food crops and other export diversification crops, will be complemented by policy measures, which will create a better policy environment for exports. In addition, IDA is well placed to help strengthen the extension and research services of MALFF as part of its Africa Agricultural Service Initiative. The Project will cover an important part of the country's agricultural development strategy and have a significant impact on the entire sector.

3.05 Consistent with the strategy presented in the Agricultural Sector Review, the project will use incentives such as land tenure reforms and rural credit to increase the profitability of agricultural productivity by: (a) encouraging farmers to cultivate in the most productive areas instead of increasing the total area of production; (b) reducing through research the cost of black pod treatment and squirrel control; and (c) encouraging intercropping to reduce costs of weeding and increase revenues from additional production. The objective of these actions will be that farmers will become sufficiently productive to profitably produce cocoa without subsidy. At the same time, and under the crop diversification program, the removal of subsidies will encourage farmers growing cocoa in marginal areas to diversify out of cocoa into other crops with good market prospects.

3.06 IFAD. In the agricultural sector, IFAD is financing since 1986 an Agricultural Development Project in the districts of Ebebiyin and Mongomo. The objectives of the project are to assist Government in increasing the production of food crops, livestock and coffee; improve family incomes; upgrade the quality of rural living conditions; distribute agricultural tools, construct village wells, provide agricultural research and extension, and train local technicians. The proposed project will benefit from the valuable experience gained by the on-going IFAD-financed project, the on-going IDA-financed Cocoa Rehabilitation Project and other donor-funded projects. The project will provide an opportunity for rationalizing and strengthening agricultural services including extension, research, input supply, credit and marketing. The development of smallholder agriculture will depend on the effective functioning of these services. The focus of the proposed project on food production is a prime concern of IFAD, as is its orientation to the rural poor and women. The rural population and areas to be covered by the project contain substantial numbers of smallholder farmers, agriculture-dependent poor whose incomes are substantially below those of urban groups and who have a high degree of malnutrition. The focus of IFAD's financing in the Continental Region will be on smallholders, the majority of whom are women, and on Bioko on the near landless and landless. Consistent with IDA and IFAD objectives, expected increases in food crop production will achieve two complementary project objectives, improving farm family food consumption and nutrition levels and increasing the availability and variety of food crops in local markets. Poor nutrition levels in the Continental Region are due, in large part, to the lack of variety in farm family diets and not to absolute food shortages. The project will support improved nutrition in the Continental Region through both quantitative and qualitative improvements in family diets. Extension service activities, which will focus heavily on communications with women farmers, will include explicit attention to family nutrition improvement. Poor nutrition on Bioko results from a mix of income and food availability factors. Bioko income levels will be increased directly by raising the efficiency of small farmer cocoa production and opening new markets to increase opportunities for profitable diversified crop production. As on the mainland, the increased variety of food crops will improve the nutritional quality of diets. Similar efforts to encourage improved nutritional diets through home economists of the extension service will be pursued on the Island.

3.07 Project benefits will center heavily on smallholder farmers, both on Bioko and in the Continental Region. The main project objectives on Bioko are to make cocoa production profitable for small farmers in areas appropriate for this crop, and to induce small farmers to diversify out of cocoa in areas marginal for that crop. Project beneficiaries in the Continental Region consist entirely of small farmers, food crop producers, the majority of whom are women.

#### E. Detailed Description of Project Activities

##### 1. Policy Reforms

3.08 In line with stated Government policies, a set of reforms will be introduced in the agricultural sector. The Government has indicated its agreement to the principles of these policy reforms in a Policy Framework

Paper (PFP) prepared jointly by the Government and the staff of the Fund and IDA. The PFP outlines the Government's objectives for the medium-term and reflects agreements reached between the Government and IDA and the IMF on the adjustment program. The PFP was approved by the Executive Directors of both the Bank and the Fund in December 1988. In the absence of a SAL, agricultural policy reforms which are important to the success of the proposed project have been made conditions in the Development Credit Agreement and will be implemented as part of project execution. Agreement was obtained at negotiations that the following policy reforms will be implemented by the project. The Government in consultation with IDA and IFAD will:

- (i) continue to review the appropriate level of producer prices before each cocoa campaign, taking into account world market conditions and prices prevailing in neighboring countries (para 7.01 (c));
- (ii) conduct annual reviews of cocoa export taxes (para 7.01 (d));
- (iii) conduct annual consultation on the Public Investment Program (PIP) for Agriculture (para 7.01 (e));
- (iv) with the assistance of consultants, undertake a study of the land tenure system of the Island of Bioko with special emphasis on the rights and responsibilities of sharecroppers and on ways to overcome obstacles to productivity and production increase (para 7.01 (f));
- (v) strengthen price incentives through reform of cocoa pricing (reduction of marketing costs) and the taxation system (see (i) and (ii) above) (para 7.01 (g)); and
- (vi) restructure the marketing and input supply systems of the traditional export sub-sector, including simplification of export procedures (para 7.01 (h)).

## 2. Project Investments

### (a) Marketing Component

3.09 The marketing component will finance the implementation of the project's marketing strategy aimed at promoting non-traditional commodities to markets in neighboring countries, mainly Gabon and the export of high quality cocoa to world markets. The private sector, including small farmers and traders and the independent Agricultural Development Organization (OFA) (Annex 6), will be responsible for the achievement of marketing objectives. The project would create marketing incentives through the provision of marketing information, assistance in developing OFA capabilities, and help to farmers to organize themselves in agricultural organizations.

3.10 Export of Cocoa. By introducing an internationally accepted cocoa grading system, and strictly controlling its application, the ongoing CRP has succeeded in regaining Equatorial Guinea's standing as a producer of high quality cocoa. As a result, above world market prices are again being paid for Bioko cocoa. The proposed project will continue improving cocoa quality,

emphasizing in particular the importance of cocoa fermentation, and consolidating the confidence of international buyers in the quality of Bioko cocoa. The major part of the island's cocoa is exported by large commercial firms and 22% of total export volume in 1989 was exported by the CRP. CRP achievements will be sustained and a basis for further small farmer development on Bioko put into place by establishing a self-financing Agricultural Development Organization to provide inputs, credit and savings, and export marketing services (Annex 6). In addition, the project will support grading and classification of cocoa produced in the Continental Region.

3.11 Food crop marketing. An IDA-financed marketing study carried out in 1988 confirmed the existence of a lively across-the-border trade of food crops, such as cocoyam, cassava, plantains, bananas, citrus fruits, etc, between the mainland of EQG and neighboring countries. It also identified the demand for increased exports of those food crops, in particular to Gabon. The poor condition of the rural road system and river crossings connecting the producing areas with border trading zones, and inadequate transport systems are the major constraints to further developing this across-the border-trade. Local marketing and food crop exports will be promoted by financing the rehabilitation of the Mbini-Cogo and the Evinayong-Acurenam trunk roads, and the maintenance of rural feeder roads by rural communities through the Food for Work Program of the WFP. By removing these constraints in road and transport systems, including the financing of a ferry to operate between Akalayong in Equatorial Guinea and Cocoabeach in Gabon, and by supporting private investment to create a proper trading infrastructure, the project will promote an export corridor of non-traditional commodities through Cogo to Gabon. These actions will complement a similar development action by EEC, which financed and put into operation in April 1990 a ferry across the Benito River, thus providing the first link in the proposed export corridor, connecting Mbini with Bolondo.

3.12 Crop diversification programs on Bioko and project efforts to increase production on the mainland will be supported by the provision of marketing information to the extension service and farmers and by market research aimed at opening new markets for non-traditional export crops, including crops not currently grown in Equatorial Guinea. Potential markets exist already for high value exports to the EEC.

3.13 An Agricultural Development Organization (OFA) will be established and managed as an independent, self-financing entity to support small and medium-size farmer and farmer organizations export marketing, and provide unsubsidized input supply, credit and savings, and marketing services to all sectors of the economy with a natural emphasis on the agricultural sector. OFA will be established on Bioko with representation in the Continental Region. At negotiations, the Government and IDA agreed on the draft statutes, which are to be approved by Presidential decree. OFA will be constituted according to the existing laws and banking legislation of EQG. At negotiations, it was agreed that OFA will be established legally before Credit Effectiveness (para 7.02 (c)). Credit services currently furnished through the CRP are the only source of banking services for small farmers on Bioko, and cannot be replaced in the absence of commercial or other banks able to serve this demonstrably credit-worthy clientele. Credit activities under the

proposed project will be expanded to promote diversification by supporting non-traditional exports. At appraisal, it was determined that properly-managed OFA credit and savings services would be self-financing by the end of PY4 (Annex 1). These services will operate without subsidy, with commercially-determined interest rates, and without targeting of credit. Initial equity and operating capital will be provided by the Government, from CRP balances. First-time borrowers will be encouraged to purchase equity in OFA, while established clients will be required to purchase equity in OFA as a requirement for further lending, gradually increasing private-sector ownership of the undertaking. OFA will develop and operate these services over the project period, with provision for their eventual transformation into a bank and/or credit union when conditions are appropriate (Annex 1).

3.14 For the provision of credit three options were studied at appraisal:

- (a) establishment of a credit service within BIAO-GE. This alternative proved unfeasible because of the credit policy adopted and maintained by this institution (Annex 1);
- (b) conversion of the CRP Agricultural Credit Department (DCA) into an "Apex" bank to serve as the embryonic financial institution to support a cooperative system. Although this might be feasible in the long term, it is not so at the moment because Equatorial Guinea does not, as yet, have a cooperative system on which it could be based. Such a system will first have to be developed and this will take several years, probably longer than the expected project implementation period; and
- (c) establishment of a Savings and Credit Service (SAC) within an Agricultural Development Organization, to provide these services and eventually to become the "Apex" Bank referred to above. Credit and savings services will not be targeted and will be open to all eligible clients. This alternative meets the project's needs, is consistent with the Bank's criteria, and will build on CRP's excellent credit experience (para 2.25). In addition, it fills a financial void in the country, and can be implemented immediately.

3.15 The Savings and Credit Service will have the following general characteristics:

- (a) its credit services will be available to those sectors which do not have access to other credit with a natural emphasis on the agricultural, forestry and fisheries sectors;
- (b) as far as agriculture is concerned, all farmers will have access to credit, whether as individuals, groups or cooperatives. The discipline characterizing CRP's credit operations will be maintained;

- (c) SAC will be empowered to mobilize rural and other domestic resources through savings deposits and the rediscounting of credit operations through BEAC (this facility is at present unused);
- (d) it will apply the borrowing and lending rates currently in effect in the country, without introducing any distortions or preferential rates;
- (e) it will be financially viable, require no subsidy, and will show a profit from the third year of operation;
- (f) in all respects, it will comply with the banking legislation of the country (Decree No. 2, 1987); and
- (g) no additional financial resources will be required for its start-up capital, since CRP's existing funds will be transferred to the new entity. In addition, borrowers will be required to acquire OFA shares in order to replace Government equity over time.

(b) Agricultural Extension and Applied Research Component

3.16 Extension and research will support the production increases needed to meet export targets while also raising farm family nutrition levels through increases in the availability of diversified food crops. The project will promote the gradual integration of extension activities now being supported by other donors, into the national extension service. This approach responds to the need to continue extension efforts after individual donor-funded activities come to a close and to initiate planning for meeting their recurrent costs. The approach will support the tailoring of extension planning to specific regional needs, and allow "lessons learned" in other donor-funded projects to be applied on a country-wide basis. The T&V approach which will be used in the project, will be adapted explicitly and practically to project needs and country conditions. The T&V approach will be further adapted to strengthen extension service and farmer and village ties. The intensive training and use of village level "animadores" will be the principal mechanism for achieving these extension service farmer ties, which will be strengthened further through project-financed cooperation in the promotion of small farmer organization and the marketing of increased production. It will not result in the imposition of a single extension philosophy. Improved national level extension management will allow coordinated planning with other donors and the carefully-staged integration of the wide array of ongoing extension activities. Efforts will center on increasing crop production, improving the efficiency of smallholder production, including those of women farmers, and supporting complementary diversification. T&V will also focus on the design and management of effective training programs for extension staff and on the supervision of their field activities, two areas where the T&V system has proven effective elsewhere.

3.17 Research will get underway to support the production of potential new, non-traditional exports as they are identified by market studies. Research and extension work will also aim at supporting the production of crops that could be grown by organized women farmers and at introducing farming systems that improve land use and soil conservation. The component

will promote better linkages between extension and research, and develop mechanisms to promote a two-way flow of information between extension, research and farmers.

3.18 Research and extension services will be the major vehicles to promote increased production of diversified food crops as a major contribution of the project to alleviate the problem of malnutrition of the rural population. The volume of exportable food crops, including tropical fruits, will increase by some 3,000 tons in PY5, of which about 1,500 tons will be produced by some 4,000 smallholders, dominantly women farmers in the Cogo and Mbini districts, and the remainder by smallholder farmers in the outlying areas of the Continental Region. To this end, research and extension work in the Continental Region will continue supporting and strengthening ongoing extension activities successfully undertaken under the IDA-financed Technical Assistance Project. This program has assisted farmers in establishing some 120 farmer organizations by the end of 1989 and creating a number of village shops supplying essential goods and tools needed for production. In addition, it promoted on a pilot basis an alley cropping system as an alternative to the traditional shifting cultivation farming system (para 6.18). IDA has supported these promotional actions by financing a demonstration and training center in the Bata-Niefang area. Farmers and rural teachers, with the assistance of extension agents, have established some 100 demonstration plots in rural areas by early 1990. The extension component will continue and expand this work by: (a) improving production techniques through increased research trials and improved research-extension linkages; (b) promoting the transfer of improved production techniques; (c) assisting farmers in adopting the alley cropping system under closely supervised conditions and on a pilot scale; and (d) stimulating and assisting in the establishment of small individually-owned agricultural production enterprises.

3.19 The target group for foodcrop production in the Continental Region will be the poorest segment of the country's population, i.e. the entire rural population of the Continental Region of some 203,000 people (Annex 2, page 6), and will aim at increasing the productivity of smallholders, specially women who are the main producers of foodcrops, and farmers groups. These efforts will be complemented by the establishment of an IFAD-financed, Poverty Alleviation Fund (PAF), which will operate on a revolving basis to provide advances of not more than 40% of farmer organizations credit requirements. The target group will be further defined with the outcome of a supplementary study undertaken by IFAD in August 1990, and with the results of a comprehensive socio-economic census of the rural sector, undertaken with IDA-financing and technical support in the Continental Region and on Bioko. The socio-economic census is expected to be published towards the end of 1990.

3.20 The target groups for cocoa production will be about 1,100 cocoa farmers of whom 95% are smallholders with holdings of about 5 ha or less. The first target group will consist of some 420 farmers, clients of the Cocoa Rehabilitation Project, currently harvesting about 2,000 ha. Of this group, 400 smallholders are cultivating 1,600 ha of cocoa. They would increase their production by some 400 tons by improving the yields of their productive plantations from an average of 600 to 800 kg/ha. The second target group will include 320 cocoa farmers, presently cultivating about 2,000 ha and supplying their cocoa to the major cocoa exporting firms. In this group, 275

smallholders are cultivating 1,100 ha of cocoa. They will increase their production by about 500 tons by improving the yields of their plantations from an average of 450 to 700 kg/ha. The third target group will consist of between 340 to 600 smallholders, to be settled in areas ecologically most suited for cocoa growing, who will increase cocoa production by 1,600 tons, by rehabilitating some 2,000 ha of abandoned plantations, which at full maturity would yield 800 kg/ha.

3.21 Cocoa production on Bioko currently occupies some 17,000 ha, yielding 7,250 tons of dry cocoa beans for export markets in 1989/90. By increasing the yields of some 4,000 ha of small and medium size farms already in production and rehabilitating about 2,000 ha of currently abandoned plantations situated in ecologically well-suited areas, the project will increase cocoa production and exports by 2,500 tons.

3.22 Consistent with the Government's adjustment program, research and extension work also will emphasize crop diversification on Bioko, particularly on low investment cost activities through the planting of other cash crops with good marketing prospects in less productive cocoa areas or intercropping of food crops directly with cocoa production. The project will aim at diversifying about 1,500 to 3,000 ha out of cocoa. If needed, this goal will be reviewed and adjusted during project implementation. The project will utilize the EEC-financed study on land utilization of Bioko (para 1.06), as a starting point for defining the crop diversification policy where the following crops with high potential were identified: cinnamon, cinchona, ginger, nutmeg, black pepper, vanilla, horticultural crops and tropical fruit crops. A study of the marketing outlook for prospective crops will be undertaken at the beginning of PY1, which will help the Ministry in setting development objectives for crops to be introduced by the extension service under the crop diversification program.

3.23 The project will also assist the Ministry in defining the above-mentioned policy, developing an implementation strategy, preparing the actual crop diversification program, and demarcating areas to be phased out of cocoa under the program. At the field level, the Ministry will provide agricultural extension to farmers in selected areas. The project will assist in increasing farmers's responsiveness towards the crop diversification program. The program will be supported not only by research and extension, but also by a diversification fund to be set up under the proposed project to encourage production of other crops with export potential on less productive cocoa farms.

3.24 Applied research activities will see the establishment of a Basic Applied Research Unit (BARU), with a Plant Propagation Unit. This structure will emphasize coordination of applied research activities undertaken under other donor-financed projects. In the mainland, the BARU will consist of a small agricultural experimental center, to be established in Mbini, where field experiments and applied research will be conducted mainly on food crops and tropical fruits with good marketing prospects. Its Plant Propagation Unit will focus in particular on introducing new varieties of food crops and citrus root stock, establish their suitability under the station's conditions and follow up by on-farm testing of selected planting material in rural areas. The agricultural center at Km 13, where alley cropping demonstration plots are

established and farmers are being trained in new farming techniques, will be a sub-station. The project will initially start to promote technical packages based on results already obtained by donor-financed projects in the country, and will develop over time new demand-driven technical packages based on results of research undertaken by the project and other donor-financed projects. The major subject matters for research on traditional foodcrops will be: (a) introduction of promising varieties; (b) acceptability of new varieties by farmers and consumers; and (c) development of fast propagation techniques (Annex 3 para 22). By focusing its attention on introducing higher yielding varieties and improving current "itinerant" farming practices, initial increases in foodcrop production will be obtained without farmers needing to use capital-intensive inputs, such as fertilizers and other agricultural chemicals. On Bioko, a cocoa experimental farm will be established, which will ultimately become the research center where experiments and applied research are conducted. Here, the research program will focus in particular on black pod and squirrel control, and on introducing high yielding cocoa clones. A sub-station will be established, which will focus in particular on testing the suitability of non-traditional crops to be introduced under the crop diversification program.

(c) Institutional Development Component

3.25 The project will have three explicit national institutional development objectives. It will: (a) introduce T&V-based extension services on a national basis, demonstrate the effectiveness of the T&V approach in major cultivated areas, and build supporting applied research capabilities; (b) promote private sector development of internal and external marketing networks for traditional and non-traditional export crops; and (c) strengthen the social setting for sector development by supporting the organization of small farmers and traders and ensuring that project activities reflect the importance of women in production and marketing.

3.26 These initiatives will complement and strengthen other already on-going activities including USAID-assisted efforts to build rural cooperatives, bilaterally-financed crop production and rural development projects. In addition, they will complement IDA-supported policy and technical assistance aimed at increasing private sector investment, diversifying export production, and limiting public sector expenditures. They will also strengthen the basis for possible future sector lending by creating conditions for investment in cooperatives and credit unions.

3.27 Project implementation arrangements have been designed to achieve three institutional development objectives and to support the sustainability of project achievements.

3.28 National extension service and applied research capabilities will be strengthened in the Ministry's General Directorate for Training, Extension, and Cooperative Development (DGCEC) by developing the managerial, budgeting, and training capabilities needed for the continuation of project activities in the future. Improved management and planning will link extension and research planning and investment activities to demonstrated market demand for new crops or increased production. T&V concepts will be adapted to staffing constraints and to other local conditions, including the needs of women farmers. Staff

training capabilities will be strengthened. Extension activities financed by other donors will be brought gradually into the national system.

3.29 Private sector marketing networks, which will not depend on Government support, will be promoted to increase non-traditional as well as traditional exports. This will be done firstly by establishing a marketing information system and assisting small farmer and trader organizations to supply local markets and support Continental Region food crop exports to Gabon. Additional market research and investment promotion work will promote the growth of other non-traditional exports. Responsibility for small farmer services will be incorporated into OFA. Specialized technical assistance and training will permit OFA to manage three tasks without Government intervention: (a) the provision of unsubsidized credit and savings services to individual farmers and farmer groups; (b) importing and selling, at a profit, inputs and equipment needed for cocoa and diversified crop production; and (c) identifying new markets and exporting crops for commission on farmer's account.

3.30 Explicit measures to strengthen the social setting for project activities will include training and assistance for the organization of small farmers and traders receiving extension and marketing services, with a complementary effort to create a legal and policy environment conducive to the creation of formal cooperatives and credit unions in the future. Additional steps will be taken to ensure that extension and marketing efforts reflect the crucial roles of rural women. These will include research on and extension service support for the introduction of crops and cropping practices that can be adopted by organized women, and the introduction of "alley cropping" soil conservation practices that will increase also the security of women's access to land.

3.31 Sustainability will be sought by depending primarily on private initiative for the achievement of most production and marketing objectives, thereby avoiding the creation of new Government responsibilities. The establishment of OFA will put Bioko small farmer assistance on an independently-managed, self financing basis. DGCEC-implemented research and extension activities will be organized to build the managerial systems, skills, and practical experience needed to continue project activities after credit closing date. Costs will be limited by developing new research and extension services only in response to market demand. The project is itself designed to help build the skills and organizations needed for sustainability. It will be managed from the outset by local professionals, who will have ultimate responsibility for its successful implementation. Expatriate technical assistance advisors will work through regular line agencies to support Ministry managers, thereby avoiding dependence on separate and usually unsustainable project implementation units. Detailed information about Institutional Development plans is presented in Annex 5.

#### IV. PROJECT IMPLEMENTATION

##### Project Organization and Management

4.01 The research and extension component will be executed by the DGCEC. On Bioko, credit, input supply, and marketing assistance will be

managed by OFA. Marketing and supporting farmer and trader organization work in the Continental Region will be managed also by OFA with the support of an expatriate UN Volunteer specialist in marketing. No permanent organizational structure or new Ministry staff will be needed for marketing or farmer organization work in the Continental Region as project personnel will work with the agricultural delegation in Bata.

4.02 The Ministry of Agriculture will recruit a Project Director acceptable to IDA and IFAD. An expatriate Project Coordinator and expatriate Financial Advisor will assist the Director in overall project planning and management. They will take direct responsibility for organizational and management and financial systems development in the DGCEC and in OFA. The Director General of the DGCEC will be assisted by long and short-term expatriate advisors in applied research and T&V extension. A General Manager will be recruited to head OFA. The General Manager will be assisted by expatriate credit and savings, and marketing and procurement specialists. A short-term Training Advisor will provide project-wide planning and monitoring support to help ensure the transfer of managerial and technical skills. More detailed information on project organization, planning, and monitoring and evaluation is presented in Annex 7.

### Training

4.03 Carefully planned training programs will contribute to sustainability as well as the achievement of near-term production and marketing goals. The Project Coordinator, with the assistance of the Training Advisor, will prepare a long-term project training plan to develop technical and management skills needed in OFA and the DGCEC. Training requirements will be incorporated explicitly into the Annual Work Plans of individual expatriate advisors. A Mid-term Evaluation Review (para 4.10) will assess the capacity of the national management team to execute their duties without the support of technical assistance.

4.04 OFA and DGCEC managers, Subject Matter Specialists, and applied research staff will receive in-service and formal short and long-term training abroad. Financing will be provided for a total of about eight man-years for study at specialized institutions acceptable to IDA in, for example, management and accounting, credit and savings operations, and agronomy. To ensure their return to Equatorial Guinea, long-term trainees will be required to sign a contract committing themselves to resume their duties for a period of three years after the completion of their studies.

4.05 In addition to long-term academic training, about 95 man-months will be allocated for study tours, internships, and short courses to upgrade the skills of managers, technical specialists, and extension staff. Examples of such assistance would include study tours at regional applied research centers and successful T&V extension projects, visits to cocoa growing and processing centers; internships or other practical training in marketing and in research and extension service management; planning and budgeting courses; and work in farmer and trader organizations.

4.06 Training of DGCEC personnel in applied research, extension, and farmer organization will pose intensive requirements. Ministry and

Agricultural Training School staff will receive instruction in T&V training and farmer communications methodology. Current and new extension service staff will receive formal orientation training in T&V concepts along with regular on-the-job training and supervision. Basic accounting and management training assistance will be provided to farmer and trader groups. A special program will train village-level "animadores", farmers selected by their communities to cooperate in extension service activities. Additionally, elementary training in administration and accounting will be provided to members of farmer and trader organizations. Training of extension personnel was initiated in PYO. Fifteen extension staff benefitted from a one-month extension course, including field experience with Cameroonian extension staff working with the IDA-financed National Extension Project in that country.

#### Technical Assistance.

4.07 The project will finance 15 years of long-term technical assistance and five years of support from short-term consultants. Long-term advisors will include the Project Coordinator, a Financial Advisor, an Extension and Production Specialist, a Marketing and Procurement Specialist, and a Credit and Savings Specialist. Short-term assistance will include applied research; subject matter-specialists; T&V extension training; farmer organization and cooperative development; road rehabilitation and ferry service planning; and monitoring and evaluation. Three U.N. Volunteers will work in the Continental Region as applied research, extension, and marketing specialists. A possible extension of the U.N. Volunteer Program will reduce future technical assistance costs. The Project Coordinator will be responsible for the planning and administration of technical assistance services. Locally-recruited administrative officers will furnish accounting, financial control, and logistical support. It was agreed at negotiations that expatriate specialists will have technical qualifications and experience acceptable to IDA and IFAD and that all posts will be filled for the length of time required. The completion of contractual arrangements for the provision of these services is a condition of Credit Effectiveness (para 7.02 (a)). Terms of Reference for expatriate advisors are presented in Annex 8.

#### Project Planning and Budgeting

4.08 The project planning, budgeting, and monitoring process has been designed as a tool to build permanent Ministry and OFA management systems and skills. A Project Monitoring and Management Information System (PMMIS) will be established to track progress toward production and export marketing targets, the development of extension and research capabilities, and the achievement of commercial sustainability for OFA operations. The system will provide also information on farmer and trader organization and measures to address the needs of women. It will treat project sustainability as a separate issue, identifying and measuring progress toward organizational and management development goals, and the achievement of training objectives.

4.09 A preliminary PY1 Work Plan, which was discussed at negotiations (Annex 7), includes the following major first year objectives: (a) the initiation of export promotion work in the Continental Region; (b) the completion of first-year applied research and extension service development plans; (c) the start of crop diversification work on Bioko; (d) the completion

of a plan for constituting OFA as an independent and self-financing entity; and (e) the definition and initiation of project training activities. Additionally, ongoing IDA-financed farmer credit, marketing, and input supply programs on Bioko will be transferred to OFA.

4.10 A final PY1 Project Work Plan will be presented for Ministry and IDA review within four months of credit effectiveness. Proposed Annual Work Plans and project budgets for succeeding years will be presented to the Ministry and IDA by the beginning of the fourth quarter of each year. Annual Work Plans and supporting budgets will be prepared before the start of each budget cycle by managers in OFA and the DGCEC. Work plans will be reviewed and revised in collaboration with the Project Director and Coordinator and then consolidated into an integrated project proposal. Annual Work Plans will be complemented by separate annual training plans. Training plans will include courses, workshops and other training activities, numbers of staff to be trained, and the names and qualifications of nominees for overseas training. Agreement was obtained at negotiations that not later than October 30 in each year, the Project Director will submit proposed Annual Work Programs and budgets to IDA for approval (para 7.01 (m)). Reports will be prepared also quarterly and annually on project activities summarizing: (a) project achievements; (b) comparing them with the agreed objectives; and (c) commenting on key problems and future priorities. Government will carry out a mid-term review to assess progress and targets (para 7.01 (n)). Based on this mid-term review, a joint Government/IDA mission will carry out a mid-term evaluation. A Project Completion Report (PCR) will be prepared by the Government within six months of project completion.

#### Project Preparation Facility (PPF)

4.11 A first PPF of US\$ 450,000 and a second PPF of US\$ 220,000 were approved in December 1989 and September 1990, to assist Government in carrying out essential project start-up activities, which will facilitate considerably the initiation of project implementation once the Credit becomes effective.

### V. PROJECT COSTS AND FINANCING

#### Cost Estimates

5.01 The cost of the proposed project has been estimated at CFAF 5,130 million (US\$18 million), of which CFAF 3,981 million (US\$14.0 million), or 78% is in foreign exchange. The estimates are based on prices prevailing in November 1989; they include US\$2.7 million in physical and price contingencies. Physical contingencies of 10% have been included on all items with the exception of technical assistance and local salaries, whose specifications are clearly established. Price contingencies on foreign costs are based on the Bank's projections of international price increases (4.9% during 1991 to 1995). Price contingencies on local costs are based on the Bank's forecast of domestic inflation in Equatorial Guinea (5% per year 1991 to 1995). Summary project costs are provided in Annexes 10-12 and detailed cost tables in the Project File (Staff Working Paper No. 9).

Project Cost Summary

	<u>Local</u> ----- (US\$ million)	<u>Foreign</u> ----- (US\$ million)	<u>Total</u> -----	<u>Foreign Exchange</u> %
Marketing	1.8	6.3	8.1	76
Extension and Research	1.3	2.2	3.5	63
Institutional Development	<u>0.2</u>	<u>3.5</u>	<u>3.7</u>	<u>94</u>
<b>TOTAL BASE COST</b>	<b>3.3</b>	<b>12.0</b>	<b>15.3</b>	<b>78</b>
Physical Contingencies	0.2	0.8	1.0	83
Price Contingencies	<u>0.5</u>	<u>1.2</u>	<u>1.7</u>	<u>70</u>
<b>TOTAL PROJECT COSTS</b>	<b>4.0</b>	<b>14.0</b>	<b>18.0</b>	<b>78</b>

Financing

5.02 Of the total project cost of CFAF 5,130 million (US\$18 million), the IDA Credit of US\$6.3 million would finance 78% of foreign exchange costs. IFAD, BADEA and the OPEC Fund have confirmed their participation in project financing. The WFP has also stated its intention to participate with about US\$1 million equivalent through its "food for work" program. The IDA credit will finance 80% of technical assistance costs, credit for crop diversification, 15% of training and studies costs, 10% of civil works, 10% of equipment costs, 35% of operating costs, and 35% of salary of incremental local staff. Operating costs will include field travel and subsistence allowances for staff involved in the project, including extension staff, operation and maintenance of project vehicles and equipment, office supplies, training materials, and small inputs such as seeds and fertilizers for demonstration purposes. IFAD financing will concentrate on extension, applied research and marketing activities in the Continental Region and in the rehabilitation of 2,000 ha of abandoned cocoa plantations on Bioko. In view of its financing difficulties, financing from the Government would be 7% (5% is the minimum according to Bank guidelines).

Financing Plan

	<u>US\$ Million</u>	<u>%</u>
IDA	6.3	35
IFAD	5.0	28
BADEA	3.9	22
OPEC Fund	1.5	8
Government	<u>1.3</u>	<u>7</u>
<b>Total</b>	<b>18.0 <u>1/</u></b>	<b>100</b>

1/ In addition the WFP would contribute US\$1.0 million equivalent through its "food for work" program.

Procurement

5.03 All goods and services funded under the IDA Credit will be procured in accordance with the appropriate IDA guidelines. Contracts for vehicles, equipment and agricultural inputs in excess of US\$100,000, totalling US\$2.4 million, will be awarded through International Competitive Bidding (ICB) according to IDA or other cofinancier guidelines as appropriate and will be bulked to the extent possible. Contracts between US\$50,000 and US\$100,000, totalling US\$2.0 million will be awarded following LCB procedures, which have been found acceptable to IDA. Procurement for small equipment and civil works valued at less than US\$50,000 and up to an aggregate of US\$100,000 will be procured on the basis of quotations from at least three eligible suppliers. It is expected that all these purchases will be bulked into packages of at least US\$50,000. The threshold for prior review of procurement by IDA will be US\$80,000. In the procurement of goods and works, local manufacturers and contractors may be granted a margin of preference or the applicable customs duty, whichever is lower. In addition, rehabilitation of extension offices and feeder roads and routine maintenance works, totalling US\$100,000 may be procured by force account. Operating costs for fuel, vehicle maintenance, travel, office supplies, local training courses and miscellaneous items will follow Government procedures acceptable to IDA. All technical assistance financed by IDA will be recruited in accordance with IDA's guidelines. Purchase of goods and provision of technical assistance financed by other cofinanciers will be procured according to their guidelines.

Procurement Arrangements

<u>Project Element</u>	<u>ICB</u>	<u>LCB</u>	<u>Other</u>	<u>N.A.</u>	<u>Total Cost</u>
	(US\$ '000)				
Civil Works	-	1.6	-	-	1.6
	-	(0.1)	(0.1)	-	(0.2)
Vehicles	1.0	-	-	-	1.0
Equipment	1.4	0.4	0.4	-	2.2
	-	-	(0.2)	-	(0.2)
Technical Assistance	-	-	3.6	-	3.6
	-	-	(2.7)	-	(2.7)
Training and Studies a/	-	-	1.7	-	1.7
	-	-	(0.2)	-	(0.2)
Credit	-	-	-	1.7	1.7
	-	-	-	(0.3)	(0.3)
Incremental Operating Costs (Excluding Salaries)	-	-	-	3.7	3.7
	-	-	-	(1.4)	(1.4)
Incremental Local Staff	-	-	-	1.9	1.9
	-	-	-	(0.6)	(0.6)
PPF Refund	-	-	-	0.67	0.67
	-	-	-	(0.67)	(0.67)
<b>TOTAL</b>	<b>2.4</b>	<b>2.0</b>	<b>5.7</b>	<b>7.9</b>	<b>18.00</b>
	-	(0.1)	(3.2)	(3.0)	(6.30)

Note: Amounts in parentheses concern IDA financing.  
Procurement under other cofinanciers' financing will be made under the cofinanciers' procurement procedures.  
a/ Includes international and local training.

### Project and Special Accounts

5.04 The Government's contribution to project financing will be for credit to be on-lent to project farmers. As such, it will not derive from budgetary sources but from existing funds available for credit repaid by farmers under the credit component of the ongoing Cocoa Rehabilitation Project. These funds will be channeled through an existing project account in local currency in BIAO.

5.05 IDA, IFAD, OPEC and BADEA contributions will be channeled through special accounts in foreign currency to be opened at a commercial bank. Special accounts will be managed by the Ministry of Agriculture and used for categories of expenditure, which the institutions will finance. At effectiveness, IDA and IFAD will make initial deposits in their respective accounts of US\$ 250,000 each to constitute a project operating fund equivalent to about six months of expected disbursements. The special accounts will be replenished monthly or when they are reduced to one third of their original amounts, whichever comes first.

### Disbursements

5.06 It is expected that the proceeds of the IDA credit (US\$6.3 million) will be disbursed over a six-and-one half year period (Annex 14). The disbursement schedule assumes that the credit will become effective in December 1990. The funds are expected to be disbursed according to the standard disbursement profile for Bank/IDA agricultural projects in the region. Operating costs of up to US\$50,000 will be disbursed against Statement of Expenditures (SOEs) to be approved by the Financial Advisor. All other contracts will be fully documented. Documentation of SOEs will be made available for review by IDA supervision missions. The IDA Credit will be disbursed against the following components and categories in the percentages indicated below:

#### Disbursement of IDA Credit

<u>Category</u>	<u>Amount (US\$ million)</u>	<u>Percentage Financed by IDA</u>
Civil Works	0.1	100%
Equipment	0.2	100%
Technical Assistance	2.4	80%
Training and Studies	0.2	100%
Credit	0.2	100%
Incremental Operating Costs	1.2	35%
Salaries for Incremental Staff	0.5	35%
PPF Refund	0.7	Amount due
Unallocated	<u>0.8</u>	
Total	6.3	

### Accounts and Audits

5.07 Each project service will maintain separate accounts for their respective services, consistent with sound accounting practices which will reflect fairly, in accordance with international accounting principles, the overall financial situation of the project. A microcomputer will be used to record and consolidate project expenditures as well as prepare and monitor the project annual budget. A consultant will be recruited to review established budget, accounting and internal control procedures established under the Cocoa Rehabilitation Project, to update/simplify the existing accounting manual and to establish, no later than April 1991, a closing balance sheet as of December 1990 for the CRP. Training and follow-up support will also be provided to the accounting personnel. Project accounts will be audited by a qualified independent audit firm under procedures satisfactory to IDA and IFAD. Audited accounts and reports will be submitted to IDA for review within six months of the end of each fiscal year. The auditor's report on project expenditures will include verification that: (a) goods and services had been procured from member countries of IDA, Switzerland and Taiwan and member countries of IFAD when applicable; (b) goods had been received or work performed; (c) payments had been made; (d) all expenditures had been legitimate; (e) the special accounts had been used appropriately; and (f) will provide an opinion on the reliability of the SOE procedures and on the proper utilization of goods and services financed under the project. Agreement to this effect was obtained at negotiations (para 7.01 (o)).

### Project Impact on MALFF's Budget

5.08 Because of its scope, the project will finance an important portion of the agricultural sector's investment budget. The Government's Public Investment Program has earmarked an amount of CFAF 405 million (US\$1.4 million) in 1991 for project expenditures. This amount will need to be substantially increased during 1992. In 1991, these expenditures would represent 15% of MALFF's investment budget. External financing will meet most of the recurrent costs during the initial years of project implementation. Annual operating costs following the project period are estimated to be CFAF 272 million per annum, or about 10% of the Ministry of Agriculture's expenditures of about CFAF 2,560 million. This percentage is reasonable since the project is expected to generate a net balance of increases in foreign exchange earnings to the country of about US\$3.0 million by year 1995 and increasing to some US\$6.0 million by year 2000. It will provide sustainable agricultural extension, training and adaptive research for 17 out of the country's 18 districts and it will be the major productive activity on MALFF. Agreement was obtained at negotiations for annual consultation on the Public Investment Program for agriculture (para 7.01 (e)).

## VI. PROJECT JUSTIFICATION AND RISKS

### Incremental Production

6.01 The project would have a considerable impact on agricultural production and its distribution both on the Island of Bioko and in the Continental Region. Production increases would result from:

- (a) the strengthening of the extension system and the provision of T&V-based extension services to farmers, especially women, to raise the output of diversified food crops, increase the volume of exportable food crops, increase the efficiency of cocoa production, and introduce new, non-traditional export crops. The extension program will focus extension services through the approach on smallholder farmers;
- (b) the diversification of production on Bioko, which will see a shift out of marginally profitable cocoa into more profitable diversified food and non-traditional export crops;
- (c) improved applied research capabilities which will identify appropriate crops and cropping practices for meeting nutritional requirements of the rural population and new export market demands, reduce the cost of cocoa production, and transfer this practical knowledge to the extension service and to farmers;
- (d) strengthened incentives for export crop production because of the identification of new markets and increased effective demand from project-strengthened small trader marketing networks and from OFA;
- (e) assistance in the organization of small farmers for production and marketing, help for the development of small trader groups, and support for the development of OFA; and
- (f) the rehabilitation and maintenance of access roads and marketing facilities and the establishment of a ferry service from Akalayong in the Continental Region to Cocoabeach in Gabon.

6.02 As a result of the above activities, the project is expected to achieve the following targets:

- (a) Food crop sub-sector. Increased diversified food production would raise on-farm family nutrition standards. Food production for export to Gabon of cassava, cocoyam, plantains, bananas, pineapples, and citrus fruit would increase by some 3,000 tons in 1995 and by about 6,000 tons in the year 2000. A production increase of 40 to 50% would come from the Cogo and Mbini Districts located in the Southwest of the Continental Region, where the project would focus extension and marketing activities and where at present, there is no other internationally-funded project. The other 50 to 60% production increase would originate from the channelling of exports from other parts of the country through Cogo, instead of being transported to the main city of Bata where there is already a periodic oversupply of these crops; and
- (b) Cash crop sub-sector. Dissemination of improved farming practices and techniques and the development of on-farm testing of research results ensuring better linkages between extension and research would have a significant impact on production of traditional and diversified export crops. Only clearly profitable farmers would be supported under the project for the production of cocoa. They

would increase their production by some 2,600 tons by the year 2,000. Cocoa farmers working on 1,500 to 3,000 ha of less suitable or marginal areas would be encouraged to diversify into alternative food and commercial export crops with a more attractive marketing outlook. It has been estimated that the added output of diversified crops on the island of Bioko would be about 500 tons.

### Overall Benefits

6.03 The project will put into place, on a national level, an effective system to disseminate the results of project-financed agricultural research. It will coordinate research which other donors have been undertaking in isolation and will provide better linkages between research, extension and farmers. The project will mobilize and make effective use of existing public sector resources, and existing extension workers, who at present are not able to operate efficiently because of funding constraints, loose supervision, lack of built-in training programs, transport and equipment and absence of programs to assist rural women.

6.04 As agriculture is the mainstay of the economy, increasing agricultural exports are the country's only short-term option for economic recovery. The main benefit of the proposed project, resulting from the increased and diversified production of export crops and improved agricultural support services, will be the positive impact on the country's balance of payments, food security and nutrition levels, and the increased income of the rural population arising from the expansion and diversification of food and cash crop production. The estimated total incremental benefits from the project would be approximately CFAF 1.8 billion (US\$6.3 million equivalent) per year (in 1989 prices) as of year 10. Of this sum, approximately 70% would come from the Island of Bioko and the remaining 30% from the Continental Region. Other benefits not quantified will come from the Continental Region through the planned development of physical infrastructure and training.

6.05 It is expected that 7,000 rural family beneficiaries will benefit directly from all project services, including credit, and would gain an average increase in income of between 55% and 300%. The entire rural population of the country comprising 35,000 rural families, will benefit from research, extension, infrastructure and marketing services. Their incomes would increase by about 10%.

6.06 Because of its emphasis on private sector initiative in marketing, the project will see also the development of stronger marketing information and trading systems and increased private investment in market facilities and transport.

6.07 Project support for smallholder farmers, including women and trader organizations, along with support for strengthening the legal and policy frameworks for formal cooperatives and credit unions, will help establish conditions for cooperative development work in the future. More details of estimated benefits are presented in Annex 9.

### Economic Rate of Return

6.08 The assumptions used to calculate the Economic Rate of Return (ERR) and the sensitivity analysis are explained in Annex 9. Using a project life of 20 years and the estimated incremental benefits, as summarized in earlier paragraphs, the ERR to the project would be 21% (Annex 9).

6.09 A separate analysis of project costs and benefits for Bioko and the Continental Region shows that Bioko would have an ERR of 28%, and the Continental Region an ERR of 13%. The ERR for Bioko (cocoa) is relatively high because the project will benefit from sunk investments (vehicles, equipment, civil works, credit fund, etc.) under the CRP.

6.10 The project would turn marginal at 10%, if the global benefits fell by more than 25% or the costs rose by more than 50%. Project activities on the Island would be less sensitive to changes in income and costs because of the better results expected and the greater solidity of the assumptions used to estimate the benefits and costs. Furthermore, Continental Region project activities would be more social in nature in view of the relative backwardness there, the greater needs of support to improve living conditions, and the lower productive potential of the natural resource base. Consequently, the analysis shows greater sensitivity to benefit and cost variations. Project benefits have been estimated in the case of cocoa as the volume of dry cocoa to be produced, valued at an estimated ex-drier price. This economic price has been derived from the January 1990 World Bank Projections of CIF Europe cocoa prices.

### Project Risks

6.11 The project has no significant technical risks. Farming techniques to be employed for cash and food crop production will be supported by the improved extension service under the guidance of technical assistance staff. Adoption by farmers of permanent production system techniques in the Continental Region for the production of food crops has been tested already through an IDA-financed pilot project (para 3.18) and results have been used in the design of this project.

6.12 The greatest risks involved in the cocoa sub-sector result from greater than forecast declines in international cocoa prices, thus discouraging production and reducing farm income. In view of this risk, the project has emphasized the reduction of production costs for cocoa, leaving greater margins with farmers even at reduced international cocoa prices. It will also encourage reduction of marginal areas under cocoa cultivation, increase cocoa productivity (to increase per hectare profit even at reduced cocoa prices) and will strongly promote crop diversification.

6.13 In addition, the greater emphasis that this project assigns to the work of adapting and spreading information about new production technologies will bring about a high increase in labor productivity, which, it is hoped, will tend to increase returns to both sharecropper and individual farmers.

6.14 Other risks are related to land tenure. Since the early 80s, new land owners unable to hire or pay available plantation laborers, adopted the system of sharecropping which is now predominant throughout Bioko. Sharecropping, while convenient for plantation owners, is not an optimal arrangement for farmers since they must take all the production risks without owning the land. In addition, sharecroppers carry heavy burdens of debt and find themselves obliged to renew their contracts with the plantation owners. As they are insolvent, they have little chance to obtain credit elsewhere. A land tenure study for Bioko is being carried out by consultants, with special emphasis on the rights and responsibilities of sharecroppers and on ways to overcome obstacles to productivity and production growth. In addition, 2,000 ha of plantations located on IDEPA land will be distributed to small landless or near landless farmers, following the recommendations of a recently completed study. This pilot land distribution exercise will be expanded in the future and will provide useful guidelines for the reallocation of larger areas.

6.15 Risks associated with the food crops sub-sector in the Continental Region will center on project dependence on free movement of perishable food crop exports, vehicles, vessels and individuals to and from Gabon. The Government is pursuing diplomatic negotiations with Gabon aimed at ensuring transshipment facilities from Cogo to Coboabach and proper functioning of all common border passes.

6.16 Risks are also related to: (a) ineffective extension programs and lack of coordination of donor-financed extension and applied research; (b) low adoption of research findings; and (c) a lack of private sector response to production and export marketing incentives. Research and extension service risks as well as the possible low adoption of research findings will be reduced by introducing proven T&V extension methods, adapting those methods carefully to country conditions, linking research and extension planning to demonstrated market demand, supporting coordination of extension and research activities among donor-financed projects and providing technical assistance and training to strengthen Ministry management capabilities. Both production and marketing will be further supported by project-financed farmer and trader organization work. Additional incentives for private initiative will include the establishment of marketing information services, the provision of training to farmers and trader organizations, and the construction/rehabilitation of needed transportation infrastructure.

#### Environmental Impact

6.17 As in many other parts of the non-irrigated agricultural world, food crop production in EQG is still based on traditional slash-and-burn techniques and on shifting cultivation of agricultural plots. By this practice, every year extensive areas of forest are burned and new land cleared for the cultivation of food crops. After the harvest, the plots are abandoned for periods varying from 10 to 15 years, allowing them to revert to bush/secondary forest and to regenerate soil fertility. The system contributes to destruction of tropical forests. As described in the following paragraphs, the project will have a substantial positive environmental impact by slowing down this process.

6.18 The project will expand the efforts made through a pilot scheme under the IDA-financed Technical Assistance Project. The pilot scheme has trained extension agents, smallholders (mainly women), leaders of farmers groups and teachers of rural schools via the implementation of a permanent agro-forestry/livestock production model. The pilot project has developed increased production of food crops and goats for self-consumption and sale. In expanding the pilot scheme, the project will: (a) improve soil fertility, through "alley cropping" with leucaena (agro-forestry techniques) and, as a consequence, the productivity of food crops; (b) provide extension advice on ways to intensify agriculture, stopping shifting cultivation and controlling soil conservation; and (c) provide sufficient firewood (leucaena prunings) at short distances from farms.

6.19 This pilot project has tested farmers' response prior to the implementation of the proposed project. About 100 demonstration plots have been established throughout the Continental Region. The response of the rural population has been positive. About 100 teachers of rural schools and about 30 extension agents and home economists have been trained in the economic and environmental benefits of the agro-forestry techniques and are establishing demonstration plots in rural schools. The pilot project financed the establishment and operating costs of a Technical Training and Demonstration Center at Km 13 along the Bata-Niefang Road.

6.20 The project's emphasis on agricultural research will be expected to lead to the introduction of varieties/cultivars, more tolerant/resistant to pests and diseases, reducing dependence on pesticides and insecticides in crop production in general, while in cocoa integrated pest control is already being applied. In addition, the positive results of improved agronomic practices for the control of black pod in the cocoa plantations, will reduce significantly the amounts of chemicals used in the production of cocoa. Use by farmers of improved cocoa dryers needing significant less quantities of firewood will reduce considerably the amount of firewood utilized by traditional dryers. In addition, the cocoa trees provide good soil protection due to their dense cover, while decaying leaves create an excellent mulch.

6.21 The regular farm visits, which are central to the T&V system, will provide an effective opportunity for practical environmental training to both farmers and extension agents in critical environmental areas such as permanent farming systems (para 3.18).

## VII. AGREEMENTS AND RECOMMENDATION

7.01 During negotiations, the following agreements were obtained:

- (a) promotion of food crop production and non-traditional exports (para 3.04) - continuous;
- (b) preparation and implementation of programs aimed at removing technical constraints on improving cocoa production (para 3.05) - October 1990;

- (c) review of appropriate level of producer prices before each cocoa campaign (May 31 each year), taking into account world market conditions and prices prevailing in neighboring countries (para 3.08 (i));
- (d) annual review (July 31 each year) of cocoa export taxes, (3.08 (ii));
- (e) annual consultation (April 30 each year) on the Public Investment Program for agriculture (para 3.08 (iii));
- (f) preparation of a study of the land tenure system on Bioko (para 3.08 (iv)) - March 1991 and initiation of implementation of recommendations - June 1991;
- (g) review of adequacy of price incentives through reform of cocoa pricing and the taxation system (reduction of marketings costs) (para 3.08 (v)) - July 1991;
- (h) restructuring the marketing and input supply systems of the traditional export sub-sector (para 3.08 (vi)) - continuous;
- (i) Government will contract OFA to provide classification and grading support to MALFF - March 31, 1991 (para 3.10);
- (j) on-lending will be carried out under the conditions and creditworthiness criteria outlined as Annex 1, Attachment 1. In addition, MALFF will hold annual consultations (April 30 each year) with IDA on the rate of interest charged by the SAC to farmers to ensure that positive interest rates are maintained);
- (k) appointment in post of suitable key national counterpart staff no later than three months after the arrival of the respective technical assistance staff (para 4.07);
- (l) submission of quarterly progress reports; fully detailed annual progress reports and not later than six months after the credit closing date, a draft Project Completion Report (para 4.10);
- (m) MALFF will forward for IDA approval, before October 30 of each year, annual work programs and budgets, including training plans for local staff (para 4.10) - October each year;
- (n) Government will carry out a mid-term review not later than December 31, 1993 (para 4.10); and
- (o) maintenance of project accounts and auditing of the project accounts, including SOEs by independent auditors and submission of the audit reports not later than six months after the close of each financial year (para 5.07).

7.02 Conditions of Credit Effectiveness will be:

- (a) MALFF will recruit before credit effectiveness all technical assistance personnel and key national staff, whose qualifications, experience and terms and conditions of employment will be satisfactory to the Association (4.07);
- (b) Government will transfer to SAC fixed, moveable, credit portfolio and liquid assets, held by CRP's Agricultural Credit Department. It will further transfer to the Inputs Service of OFA, stock of goods, held in stores and warehouses by CRP's Input Supply Unit as well as vehicles and equipment used by PRC (Annex 6, para 19); and
- (c) OFA will be established legally according to the existing laws and banking legislation of Equatorial Guinea (para 3.13);

7.03 With the above agreements and conditions, the project is suitable for an IDA Credit of US\$6.3 million.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Credit

I. Background

Institutions

1. The Republic of Equatorial Guinea is a member of the Central African Customs and Economic Union (UDEAC) and a full member of the Monetary Convention established by the Bank of Central African States (BEAC), acting as the central bank of six countries in the region (Cameroon, Congo, Gabon, Equatorial Guinea, Chad and the Central African Republic).
2. Equatorial Guinea has a Comité Monetario Nacional (National Monetary Committee) and a Consejo Nacional de Crédito (National Credit Council), linked, on the one hand, to BEAC and, on the other hand, to the Government of Equatorial Guinea. Compared with other countries in the Franc Zone, Equatorial Guinea has a weak banking sector. The financial system is made up of a single bank that is still in operation -- the BIAO-GE, while the other two financial institutions, Banco de Crédito y Desarrollo (BCD) and Guinextebank are in the process of liquidation.
3. BEAC functions as the bank of issue for Equatorial Guinea and is responsible for overseeing financial institutions and preparing basic national accounts. It provides lines of credit for the Public Treasury, banks and, in exceptional cases, enterprises. It also sets lending rates, while loan discount rates are the same in all six countries.
4. In each country, there is a National Monetary Committee responsible for ascertaining general financing needs. Its activities are governed by the directives issued by the Board of BEAC.
5. The National Credit Council prepares studies for guiding credit policy and distribution and banking organization and methods. The Council is chaired by the Minister of Economy, Commerce and Plan and BEAC is in charge of the secretariat.
6. BCD, a public sector enterprise, was created in 1972 to serve in particular the agricultural sector. Although one of its main objectives was to service small farmers' credit needs, during the period 1980-85 the major part of its credits went to the commercial sector (56%), large cocoa plantation owners (39%), and only 5% to small farmers. BCD's credit decisions were often based upon considerations other than commercial viability, while at the same time it lacked the authority and political clout for successful credit recovery. In early 1988, the balance of non-recovered credits amounted to CFAF 2,373 million (valued at that time at US\$7.9 million), of which CFAF 1,101 million (46%) was registered as non-recoverable. As a result of its inappropriate credit policy, inadequate selection of clients, absence of

financial and credit controls, and low credit recovery, BCD went into serious liquidity problems in 1988, could no longer sustain its credit operations, and went into liquidation in 1989.

7. Guinextebank was created in 1979, with the Government of Equatorial Guinea and the Banco Exterior de España each contributing 50% to the total share capital of US\$1.0 million. The main objective was to finance the imports of capital goods and consumables and the exports of the major commodities, including timber. As in the case of BCD, an inadequate credit policy and credit administration resulted in low credit recovery and ultimately in bankruptcy. Of the total assets of some CFAF 6,000 million (US\$20 million) to be recovered, 40 to 50% is expected to be written off.

8. BIAO-GE, a French overseas bank, was established in April 1986. BIAO has a 51% share, and French management was entrusted with full decision making authority. The Government of Equatorial Guinea holds 41%, and local private investors 8%. BIAO operates under strict commercial terms, and it offers limited access to the average individual in the country, even for savings. The minimum deposit required for savings accounts is CFAF 50,000 (US\$167) and for companies CFAF 250,000 (US\$833). The system favors large foreign trading houses which can use their foreign assets as collateral to obtain seasonal credit for their on-lending and marketing activities in the agricultural sector.

9. BIAO has only 1,000 accounts, of which 200 are companies (it has taken on the best clients of the defunct Guinextebank). It charges high interest rates and high fees for transactions. It maintains a high level of liquidity to avoid using the Central Bank's line of credit which is tied to strict conditionalities. BIAO provides short-term loans secured by bank guarantees or mortgages on assets located abroad. As the only bank currently in operation, it has monopoly status and limits its activities to risk-free financial services. It is not interested in financing small or medium-scale farmers. Since the value of current accounts and savings deposits in early 1990 (CFAF 2,800 million) exceeded the loan portfolio balance (CFAF 2,300 million), it does not discount loans with BEAC. As a result, BEAC has an unused loan budget for EQG of over CFAF 6 billion.

#### Agricultural Credit

10. As noted earlier, small and medium-scale farmers have little access to institutional credit because: (i) this market is not targeted by the only bank operating in Equatorial Guinea; (ii) the Agricultural Credit Department of the Cocoa Rehabilitation Project (CRP) finances only cocoa production, and currently serves 420 clients with 3,500 ha (21% of the total cocoa area).

11. Large-scale farmers are also excluded from institutional credit, which BIAO basically grants to only three large cocoa export companies. Only these three companies are able to offer the bank guarantees and/or assets abroad required by BIAO. These guarantees are in addition to liens placed on the cocoa itself; this being incorporated into the export documentary credit.

12. The only source of institutional financing for small and medium-scale cocoa producers is that offered by CRP. Since the serious crisis experienced by Equatorial Guinea's financial system in 1985/86, which led to the collapse of two banks (para 2), the CRP has endeavored to establish a viable credit system which, despite high operating costs and a low rate of coverage because of the necessarily strict lending criteria, has an excellent loan recovery rate (98%). This is a remarkable performance by any standards and more so in an environment where credit was poorly administered and the banking system had collapsed.

13. The amount of non-institutional (informal) credit available to small and medium-scale cocoa producers in Equatorial Guinea is substantial. In the 1987/88 cocoa season, informal credit to cocoa producers was between CFAF 800 and CFAF 1,000 million (US\$2.5 million and US\$3.2 million), which probably finances production on some 7,000 to 8,000 ha operated by about 2,700 smallholders and independent producers. These loans are granted by large cocoa exporting companies and by cocoa buyers. The main sources of the lenders' financing are loans obtained from BIAO, and their own funds. For sharecroppers, access to credit is only through their landlords, who supply them with necessary inputs in return for exclusive rights on harvested cocoa. Today, many small and medium sized landowners have turned to the three main trading companies for informal credit, under the same arrangements as sharecroppers.

14. This non-institutional credit is costly for small farmers, given the higher cost of the inputs they receive in the form of credit in kind and the low price they obtain for the product from the large companies. Taking these aspects into account, as well as interest rates of 16% and margins on inputs and tools of 15% and other surcharges, an IDA mission in February 1988 estimated the real imputed cost of the informal credit to sharecroppers to be equivalent to an annual interest rate of 58%.

## II. Future Credit Operations

15. To continue financing agricultural production, it is vital that a credit service be established that will continue and improve on CRP's efforts in this area. To this end, the following options were studied:

- (a) establishment of a credit service within BIAO-GE. This alternative was explored but proved not feasible because of the credit policy adopted and maintained by this institution;
- (b) conversion of the CRP Agricultural Credit Department (DCA) into an "Apex" bank to serve as the embryonic financial institution to support a cooperative system. Although this might be feasible on the long term, it is not so at the moment because Equatorial Guinea does not, as yet, have a cooperative system on which it could be based. Such a system will first have to be developed and

this will take several years, probably longer than the expected project implementation period (five years); and

- (c) establishment of a Savings and Credit Service (SAC) within an Agricultural Development Organization (OFA), to provide these services and eventually to become the "Apex" Bank referred to above. Credit and savings services will not be targeted and will be open to all eligible clients. This alternative meets the project's needs, is consistent with the Bank's financial criteria, will build on CRP's credit experience, fills a financial void in Equatorial Guinea, and can be initiated immediately.

16. The Government and IDA agreed that under current conditions of a deficient banking system and non-existence of farmer organizations to undertake and assume responsibility for procurement of agricultural inputs and credit operations, the establishment of OFA would be the most viable and sustainable option on the short term. SAC would be managed by OFA, which would be set up by the project as a single entity to provide the three services currently offered by CRP, i.e. credit, input supply and marketing. OFA, described in detail in Annex 6, would be established as an independent organization, which would operate on an entirely commercial basis, and be self-financed by PY3.

17. SAC would have the following general characteristics:

- (a) its credit services will be available to all sectors of the economy, with a natural emphasis on the agricultural sector;
- (b) all farmers will have access to credit, whether as individuals, groups or cooperatives. The discipline characterizing CRP's credit operations will be maintained;
- (c) SAC will be empowered to mobilize domestic resources through savings deposits and the rediscounting of credit operations through BEAC (this facility is at present unused);
- (d) it will apply the borrowing and lending rates currently in effect in the country, without introducing any distortions or preferential rates;
- (e) it will be financially viable, require no subsidy, and will show a profit from the third year of operation; losses during the first two years of operation will be financed by the project;
- (f) in all respects, it will comply with the banking legislation of Equatorial Guinea (Decree No. 2, 1987); and

(g) no additional financial resources will be required for its start-up capital, since CRP's existing funds will be transferred to the new entity. In addition, borrowers may be allowed to acquire OFA shares in order to replace Government's equity.

18. SAC's paid-in capital will be CFAF 300 million (the minimum required by the EQG Banking Law), made up of the portfolio assets, vehicles and cash of the Agricultural Credit Department, which was set up by the CRP within BCD.

Projections

19. Table 1 shows projected loans and portfolio balances, by economic sector. Because of the decline in the world price of cocoa, strict criteria will be applied in the selection of cocoa beneficiaries, accepting only those who are clearly profitable. In the first two years of the project, therefore, cocoa beneficiaries are expected to be fewer than the current DCA clients, and the area served will be smaller. These reductions will be offset by the financing of other crops and sectors of the economy and by incorporating other cocoa growing areas and more productive customers. The overall targets are as follows:

----- CFAF millions -----

Year	Loans			Balances	Portfolio	Loans
	Cocoa	Other	Total	Cocoa	Other	Total
	Production	Sectors		Production	Sectors	
0 *	300	-	300	300	-	300
1	320	140	460	345	105	450
2	445	255	700	505	195	700
3	540	440	980	640	360	1,000
4	585	615	1,200	655	545	1,200
5	600	800	1,400	560	740	1,300

\* Projected 1990/91 position of DCA (established by CRP).

20. Income and expenditure projections are shown in Table 1 of Annex 6 and are based on the following assumptions:

- (a) the interest rate on loans will be same as that charged by BIAO for lending operations that cannot be rediscounted by BEAC (18% p.a.);
- (b) DCA's operating costs are very high at present and will be reduced, by the following means:

- (i) the all-terrain vehicles assigned to credit supervisors will be replaced by all-terrain motorcycles. This will cut fuel and vehicle depreciation costs by CFAF 14 million (78%), and
- (ii) salaries of the staff of the input section and their drivers will not be charged to SAC, since they do not work on credit operations. This will cut costs by CFAF 13 million (41%).
- (c) the breakdown of financial costs will change, but they will maintain their same relative value. Payment of interest on the value of loans granted (8% to the Government and 4% to BCD) will be suspended, but a new financial cost on resource mobilization will be added (11% p.a. for BEAC rediscounts and 6.5% p.a. for savings deposits). These are the maximum rates permitted by the Banking law; and
- (d) DCA's appropriations and depreciations allowances will be maintained: 2% on loans granted for portfolio risk for cocoa production and 4% for other loans, 30% for motorcycle depreciation, and 10% for the depreciation of other assets.

21. The following is a summary income statement (for details see Table 1 of Annex 6):

---

<u>Year</u>	<u>Income</u>	<u>Expenditure</u>	<u>Profit (loss)</u>
	.....(CFAF millions).....		
0 *	27	84	(57)
1	38	63	(25)
2	70	82	(12)
3	112	111	1
4	143	123	20
5	152	133	19

---

\* Projected 1990/91 position of DCA (established by CRP).

22. Table 2 shows a breakdown of projected balances. A sensitivity analysis of the income statement based on the assumptions shown below shows the considerable impact of CRP's present costs, and the need to reduce these in order to make SAC financially viable (Table 3).

Sensitivity analysis of SAC (income statement)

<u>Year</u>	<u>Proposed Position</u>	<u>80% Performance Rate</u>	<u>If operating costs are not cut</u>	<u>If activities are delayed one year</u>
1	(25)	(27)	(45)	(61)
2	(12)	(17)	(32)	(25)
3	1	(8)	(12)	(12)
4	20	5	6	1
5	19	5	7	20
<u>Cumulative</u>	<u>3</u>	<u>(42)</u>	<u>(76)</u>	<u>(77)</u>

III. FINANCIAL REQUIREMENTS

23. To generate a loan portfolio of CFAF 1.3 billion, the total value of loans to be granted during the five-year period would need to be CFAF 4.7 billion (Table 1). This portfolio would be financed by SAC's capital, savings deposits and BEAC rediscounts, as shown in Table 2. The annual financing of this portfolio can be summarized as follows:

Sources of funds for financing SAC portfolio

<u>Source</u>	<u>PY1</u>	<u>PY2</u>	<u>PY3</u>	<u>PY4</u>	<u>PY5</u>	<u>Total</u>
SAC's capital	300	20	30	50	50	450
Savings deposits	50	50	50	50	50	250
BEAC rediscounts	160	180	210	80	0	630
Other liabilities and Equity	0	0	0	0	14	14
<u>T o t a l</u>	<u>510</u>	<u>250</u>	<u>290</u>	<u>180</u>	<u>114</u>	<u>1,344</u>

24. It will be possible to finance these amounts with local funds deriving from: (i) the initial capitalization of SAC using the loan balance currently held by DCA in the Cocoa Rehabilitation Project; (ii) SAC's annual capitalization resulting from the purchase of OFA shares by credit beneficiaries (a percentage of the value of the loans received); (iii) the use of a proportion of the savings deposits mobilized; (iv) the use of a small proportion of BEAC funds for discounting loans, which are fully available. External financing will therefore not be required for credit activities. External financing will be available through crop diversification and poverty alleviation funds.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Table 1. Estimated Loans, Loan Recoveries and Available Funds  
(CFAF million)

Item		PY0 <u>a/</u>	PY1	PY2	PY3	PY4	PY5
<b>1. <u>PROJECT AREA TO BE FINANCED</u> (ha)</b>							
Rehabilitation	<u>b/</u>	-	360	720	660	300	-
Seasonal Credit							
- Current Clients PRC	<u>c/</u>	3,000	2,300	2,000	2,000	2,000	2,000
- New Clients		-	200	600	1,000	1,500	2,000
- Area Rehabilitated	<u>b/</u>	-	-	360	1,000	1,740	2,040
<b>2. <u>LOANS</u> (FCFA million)</b>							
Cocoa Rehabilitation	<u>d/</u>	-	70	145	130	60	-
Cocoa Campaign	<u>e/</u>	300	250	300	410	525	600
Cocoa Marketing	<u>f/</u>	-	70	100	100	250	300
Diversification	<u>g/</u>	-	-	50	100	150	200
Other Sectors	<u>h/</u>	-	65	100	150	200	200
Seed Capital for Cooperatives	<u>i/</u>	-	5	5	10	15	20
<b>TOTAL LOANS</b>		<u>300</u>	<u>460</u>	<u>700</u>	<u>980</u>	<u>1,200</u>	<u>1,400</u>
<b>3. <u>LOAN RECOVERY</u> (FCFA million)</b>							
Cocoa Rehabilitation		-	-	10	50	100	130
Cocoa Campaign		200	275	275	355	470	565
Cocoa Marketing		-	35	100	140	225	275
Diversification		-	-	-	35	60	130
Other Sectors		-	-	64	98	142	195
Seed Capital for Cooperatives		-	-	1	2	3	5
<b>TOTAL RECOVERY</b>		<u>200</u>	<u>310</u>	<u>450</u>	<u>680</u>	<u>1,000</u>	<u>1,300</u>
<b>4. <u>AVAILABLE RESOURCES</u></b>							
Previous Balance		200	300	450	700	1,000	1,200
New Balance		300	450	700	1,000	1,200	1,300

- a/ Projected 1990 position for the Agricultural Credit Department (DCA) established by the Cocoa Rehabilitation Project (PRC) in the Development Credit Bank (BCD). The bank is being liquidated.
- b/ Refers to financing for the rehabilitation of 2,040 ha of abandoned cocoa plantations belonging to IDEPA.
- c/ Because of the decline in the international price of cocoa, procedures for selecting beneficiaries will be tightened, so that only clearly profitable producers will be eligible. For the first two years, reduction is therefore projected in the number of beneficiaries (compared to the present number of DCA customers) and in the area financed.
- d/ Average financing will be CFAF 200,000/ha, including drying and fumigation equipment. The loan period will be seven years, including one year's grace.
- e/ Average financing will be CFAF 100,000/ha (eight-month term).
- f/ Advance payments on cocoa delivered for export (three-month term).
- g/ Estimated demand for credit for agricultural production other than cocoa.
- h/ Estimated demand for credit for transportation, industry and trade.
- i/ Loans to "pre-cooperatives" for promotion and/or strengthening the establishment of future savings and loan cooperatives (five-year term).

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Table 2. Savings and Credit Services (SAC)

Estimated Balance Sheet  
(CFAF million)

Item		PY0 a/	PY1	PY2	PY3	PY4	PY5
<b>ASSETS</b>							
Safe Deposit Box/Banks	b/	30	20	30	40	40	40
Loan Balance	c/	300	450	700	1.000	1.200	1.300
Less Bad Debts	d/	(0)	(11)	(20)	(53)	(80)	(110)
Other Assets		20	51	50	63	70	78
<b>TOTAL ASSETS</b>		<b>350</b>	<b>510</b>	<b>760</b>	<b>1.050</b>	<b>1.230</b>	<b>1.300</b>
<b>LIABILITIES</b>							
Saving Deposits	e/	-	50	100	150	200	250
BEAC Discounts	f/	-	100	340	550	630	630
Other Liabilities	g/	407	25	37	30	16	11
<b>TOTAL LIABILITIES</b>		<b>407</b>	<b>235</b>	<b>477</b>	<b>730</b>	<b>846</b>	<b>891</b>
<b>EQUITY</b>							
Subscribed Capital		-	600	600	600	600	600
Uncalled Capital	h/	-	(300)	(200)	(250)	(200)	(150)
Paid-up Capital	i/	-	300	320	350	400	450
Fiscal Year Profits		(57)	(25)	(12)	1	20	19
Past Year Profits	nd		-	(25)	(37)	(30)	(16)
Cumulative Profits	nd		(25)	(37)	(30)	(16)	3
<b>TOTAL EQUITY</b>		<b>(57)</b>	<b>275</b>	<b>283</b>	<b>314</b>	<b>384</b>	<b>453</b>
<b>TOTAL LIABILITIES AND EQUITY</b>		<b>350</b>	<b>510</b>	<b>760</b>	<b>1.050</b>	<b>1.230</b>	<b>1.344</b>

- a/ Projected 1990 position for the Agricultural Credit Department (DCA) established by the Cocoa Rehabilitation Project (PRC) in the Development Credit Bank (BCD); this bank is being liquidated.
- b/ Balances and projections, (Table 1.)
- c/ Cumulative balance of annual appropriations (Table 2).
- d/ Furniture, real property, vehicles and office equipment.
- e/ Estimated savings and operating capital of pre-cooperatives and small and medium-scale cocoa suppliers (10% gross value of production financed).
- f/ Use of BEAC rediscounts for financing a portion of the loans for cocoa production and exports, together with other sectors.
- g/ Temporary financing of cumulative losses incurred during the start-up period (first two years).
- h/ Initially consisting of a portion of the assets (loan balance) of DCA.
- i/ See income statement (Table 2).

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Table 3. Sensitivity Analysis Income Statement  
(CFAF million)

Item		PY1	PY2	PY3	PY4	PY5	Cumulative Total
<b>A. <u>IF 80% OF TARGETS ARE MET</u></b>							
Total Income	a/	30	50	90	114	122	412
Total Expenditures	b/	57	73	98	109	117	454
Lost Profits		(27)	(17)	(8)	5	5	(42)
<b>B. <u>IF OPERATING COSTS ARE NOT REDUCED AS PROPOSED AND ARE MAINTAINED AS UNDER CRP</u></b>							
Total Income	c/	38	70	112	143	152	515
Total Expenditures	d/	83	102	124	137	145	591
Lost Profits		(45)	(32)	(12)	6	7	(76)
<b>C. <u>IF ACTIVITIES ARE DELAYED BY ONE YEAR</u></b>							
Total Income	e/	23	38	70	112	143	386
Total Expenditures		84	83	82	111	123	463
Lost Profits		(61)	(25)	(12)	1	20	(77)

a/ 20% decline in income.

b/ 20% decline in interest payable to BEAC and in reserve for bad debts because of the lower value of loans granted.

c/ Income would be as projected in Table 1.

d/ Operating costs would remain at the DCA level (CFAF 48 million).

e/ In the first year income would consist only of interest from seasonal loans for cocoa production.

Eligibility Criteria and Principal Lending Terms for Seasonal  
Medium- and Long-term Credit

Eligibility Criteria

1. Operators in all sectors of the economy, who meet the creditworthiness criteria, set forth in the following paragraphs will be eligible:

General Creditworthiness Criteria:

2. SAC will retain responsibility for receiving and evaluating applications for credit provided by the project. SAC will be supervised by OFA General Manager, and credits above FCFA 1 million will be approved by a Loan Committee as is currently done under the CRP. SAC's annual credit program will be channeled through the Project Director. The Chief of SAC will train all existing staff of the Agricultural Credit Department of CRP in the improved credit processing methods that will be introduced. He will also ensure that credit applications are properly reviewed and approved according to strict creditworthiness criteria. Such criteria was agreed between Government and IDA at negotiations. In addition, agreement was reached that the criteria will be strictly applied as of project inception (para 7.01 (j)).

3. Within SAC, a Credit Supervision and Monitoring Unit (CSMU) would be created with the appointment of seven field supervisors and two clerks under the responsibility of its national chief. The CSMU will carry out in-field inspection of the holdings of credit applicants, leading to a technical and financial assessment of their creditworthiness. During the growing season, supervisors will make on-farm visits to monitor the use of loan proceeds, detect emerging problems and determine whether further disbursements toward the end of the season would be warranted. The CSMU will intensify contacts with borrowers to assess expected reimbursements. Two credit clerks will maintain and update records on each borrower.

4. Loans will be awarded to creditworthy clients in the form of cash to cover current expenses such as wages, fuel and locally made goods; and in the form of credit vouchers which will be redeemed at the SI for imported goods (fungicide, agricultural tools and equipment). Creditworthiness will be assessed by SAC, based on the applicant's: (a) status of client's solvency and his past credit repayment performance; (b) proven farm management or entrepreneurial capability; (c) ability to repay, based on the farm's or enterprise's condition and past repayment history; (d) presentation of adequate collateral; and (e) appropriateness of security of land tenure for the type of loan to be made. For seasonal loans, criteria (a), (b), (c) and (d) will be stressed, with a claim on the harvested crop accepted as collateral. Established clients will have to contribute a percentage of total credit, as determined by SAC, from own proceeds in cash. For medium- and long-term loans, fixed assets, including land and buildings, will be required as collateral. Collateral will also include group guarantee.

5. Loan terms will be, in principle, as follows: for seasonal credit: 10-12 months; for medium-term loans: 7 years, with one year of grace; and for long-term loans: 10 years, with one year of grace. In applying these terms to any individual case, SAC will make minor adjustments to accommodate the specific circumstances of the applicants, in particular, to ensure that they have positive annual cash flows.

6. As agreed during negotiations, all loans will initially bear an interest rate of 18%, covering the following costs:

Cost Covered by SAC's Interest Rate

	<u>Percentage</u>
Interest due to BEAC	11%
Provision for Bad Debts	4%
SAC's Operational Costs	<u>3%</u>
Total Payable by Borrowers	18%

7. This rate is 3% higher than the present rate of interest charged to clients of DCA (15%). It is intended to result in a positive interest rate. The domestic inflation rates in local currency has been estimated at 5% annually for the next five years. Agreement on the proposed initial rate was reached during negotiations. Agreement was also reached at negotiations that the interest rate would be reviewed annually and, if necessary, modified in consultation with IDA (para 7.01 (j)). The setting of the lending rate will account for the changes in the domestic structure of interest rates, especially as these changes may affect the cost of moneys for SAC. It will reflect SAC's cost of administering credit and it will be fixed at such a level compared with domestic inflation that it will be positive in real terms.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Extension Organization and Methodology

A. Introduction

1. The Training and Visit Extension System (T&V) is the most suited for the improvement of the agricultural technology in the conditions of Equatorial Guinea. It will be adopted by the project in the implementation of the Extension and Research Component.
2. The principal theme of the project component is that extension activities will need to be managed and coordinated at national level. Although the technical messages will vary according to regional conditions, leaving autonomy and responsibility to the farmers, the methodology of transmission of the technical messages will be the same at the national level.

B. Organization

3. The organizational structure will take into consideration the specific characteristics of the country, namely the division of the territory between Insular and Continental Regions with consequent communication problems, and the dispersed agricultural population.
4. The Directorate General for Training, Extension and Cooperative Development (DGCEC) is responsible at the national level for all extension activities in the country. Extension is provided through the Agriculture Extension Service (AES), which has Regional Extension Coordinators in the Insular Region and in the Continental Region. In addition, there are Chiefs of Cooperative Development in both regions. The implementation of the Extension and Research Component will be the responsibility of the Director of DGCEC, with support from a technical assistance specialist and U.N. volunteers.
5. At the central level, the Director of DGCEC with the assistance from the project specialized team will be responsible for all the extension activities of the project.
6. A project extension coordination office will be located in each regional capital (Malabo and Bata). Each office would be integrated by the Coordinator of AES, the Cooperative Development Coordinator, a training specialist and subject matter specialists (1 in Malabo and 3 in Bata). The tasks of this office would be to ensure coordination among the district agencies and with the central office; prepare work programs, with special

emphasis on training activities; prepare technical messages both for food crop and cash crops production and ensure monitoring and evaluation of extension activities.

7. At the district level (13 districts in the Continental Region and four on the Island of Bioko), the offices of AES will have two to four Village Extension Workers (VEW) according to the size of the population, with a total of 33 VEWs in the Continental region, eight in the Insular Region and two on the Island of Annobon. This will ensure a ratio of 350 to 880 rural families per each VEW. Since one of the main objectives of the project is to increase agricultural production of women farmers, special attention will be given to reaching women. An important number of extension agents will be women. At the level of each of the four provinces of the Continental Region, there will be an Extension Supervisor (ES). Each province has from three to four districts. Each ES will have under his responsibility an average of eight VEWs. The Island of Bioko would have only one ES.

8. The extension program will focus extension services through the approach on the small farmer and women who represent a great proportion of farmers, while continuing to provide improved extension to medium and larger holdings producing export crops. Extension efforts will redress the male orientation in extension, particularly in terms of which gender is perceived as the target of extension efforts. It will fully recognize the key roles women play in rural society which may impact upon women's responses to extension packages, such as food storage, production marketing, cash income needs for essential items such as clothing, education and nutrition.

9. To ensure efficiency of the AES, the tasks of the VEWs will be complemented by activities of "animadores", who will be local farmers selected by their communities. The animadores will work in their own villages and in one or two neighboring villages. They will receive adequate training through organized seminars and training sessions throughout the year. Each VEW will work with four to five animadores, who would extend the work of the VEW, making the presence of the project more permanent in the villages. The project will provide minimal financing assistance for the work of the animadores. It is expected that this will be assumed by each community after PY4.

10. Each VEW will be assigned a number of families in the area. The number would depend on the prevailing conditions in the area such as population density, settlement patterns, agro-ecological and production systems, topography and accessibility. It is estimated that each VEW can service around 400 to 600 families, depending on the density of the population in the area. The specific area assigned to each VEW will be determined on the basis of a detailed review by each VEW during the first year of project implementation.

11. To service systematically the farmers in the area, each VEW will divide his area in eight sectors. In each sector, VEWs will organize the farmers in two or three farmers' organizations and will select the contact farmers on the basis of training, leadership, affinity and location. The VEW will visit each sector (and consequently each farmer organization of a

particular sector) on one specific day of each week, once every two weeks. It is estimated that during the first year of project implementation, only 30% to 50% of the farmers of a sector will be active members of a contact farmer group. It is expected that this proportion will be increased to about 60 to 65% during PY4. The VEW would work primarily with active members of farmer organizations, making individual farm demonstrations of the agricultural practices to be followed during the following two weeks. Each visit will include a limited number of recommendations for the specific farming cycle to be followed. Technical messages will be simple, giving particular emphasis to improvements with low cost of application (permanent farming systems, appropriate density of plants, weeding, pruning of cocoa or coffee, harvesting and storage). To reduce risks, the recommendations which will imply significant differences from present farming production practices will be demonstrated in a limited area of the farm. Efforts to disseminate farming systems have already been initiated under a pilot agroforestry/livestock production model under the IDA-financed Technical Assistance Project, where farmers' response is being tested with encouraging results (para 6.19).

12. VEWs will try to involve as many farmers as possible in discussions and demonstrations, visiting farms of non-contact farmers as requested. In regions where women are actively involved in the administration of the farms, VEWs will request male farmers to bring their wives during the discussions. Major emphasis would be placed in assisting women to form farmer groups for the production of food crops.

13. Each VEW will devote eight days out of 15 to visit farmer groups. One day out of 15 will be devoted to programming sessions and to coordinating/reporting sessions with the ES. VEWs will attend a two-day monthly training seminar given by the Subject Matter Specialists (SMS) at the provincial level. The last two working days of each two-week period, will be used to finalize visits to farmers or to specific extension activities.

#### Programming and Supervision of the VEWs

14. The activities of the VEWs will be programmed and monitored by the ES. Each ES will supervise seven to eight VEWs, programming calendar of visits adequately to ensure that the visits are made and adequate technical orientation is given. Each ES will devote eight days in a two-week period to visits to the field. ES will participate also in the two-day training sessions noted in para 13. One day in the two-week period will be used to meet with the VEWs, whom he supervises to establish work programs and to provide orientation and information as required. The remaining days would be devoted to provide additional assistance to VEWs or other extension related tasks.

#### Technical Support

15. It is necessary to strengthen the technical staff at the provincial and regional levels to ensure a smooth flow of information/recommendations and appropriate training and technical support to VEWs. The SMSs will devote 33% of their time to the training of the VEWs and ESs, another 33% to field visits to provide technical support to the VEWs, and the remaining time to improving his own knowledge/techniques through a

continuous dialogue with the applied research personnel, making simple research trials in collaboration with the personnel of the applied research farms of the Ministry (Mbini and Km 13), and attending training workshops and seminars.

### C. Training

16. Three types of training activities will be programmed: (a) orientation and recycling, (b) in-service training, and (c) other training.

#### Orientation and Recycling Training

17. In July 1990, senior level staff undertook a four-week study tour in the National Extension Project in Cameroon. Ten days were devoted to formal training, followed by a three day visit of a research station and two-weeks participation in extension activities with Cameroonian field staff.

18. In addition all extension staff will receive in late September 1990, a short pre-project course of five to ten days as an introduction to the basic elements of the T&V system. More formal training courses will be given to the SMSs in their individual topic of specialization. The duration of the courses will vary between one week and four months, according to the complexity of the subject and would be organized in the country with the assistance of Subject-Matter Specialists (consultants) or with a formal training institution overseas, especially in the region. Applied research personnel will also receive adequate training in regional research institutions. SMSs will receive training annually in regional research institutions. Coordination with the Cameroon National Extension Project will be encouraged in matters of training and applied research.

19. In view of the lack of systematic training programs of the staff of the Ministry during the last few years, the DGCEC will organize during the first six months of project implementation a test to: evaluate the technical and communication capacity of all the staff (VEWs, the regional extension team); evaluate the capacity of the staff for the adequate implementation of the project; and to help design the training programs to be executed in the short and medium term.

#### In-service Training

20. The key training sub-component of the project will be the continuous in-service training of field staff:

- (a) Monthly training sessions will be organized for the VEWs at provincial level. This training will be organized by the training officers based in the regional offices and directed by the SMS. Training during these sessions of two or more days will be practically oriented and will concentrate on specific techniques to be followed during the next monthly period. During these sessions, VEWs will also have the opportunity to bring up and to discuss specific problems identified during the previous four weeks. Part of the training period will be used in practical field work, experimenting with recommended agricultural

techniques. Time will also be devoted to learning about the preparation and use of training material and communication techniques.

- (b) Quarterly Seminars. These multi-disciplinary five-day seminars will be organized by the SMSs and the regional supervisors. Frequency, activities and topics of the seminars will be the key element in linking extension and research. The quarterly seminars will serve primarily to train the ES and the VEWs, but will also play a critical role to:
- (i) review the success of the production recommendations provided during the previous quarter and the level of farmers acceptance/responsiveness;
  - (ii) select and discuss the recommendations for the following quarter;
  - (iii) review the program of trials and analyze farmers' acceptance as well as suggest subjects for new trials; and
  - (iv) evaluate the success of the monthly training sessions for VEWs.

21. The quarterly seminars will be organized by the regional extension coordinating team. Nonetheless, the technical content and the execution of the seminars will be the joint responsibility of the extension and applied research staff. The quarterly seminars will be given in regional research centers and in the regional extension coordination offices. Regular field visits to trial areas will be organized to review progress in the applied research efforts.

#### Other Training

22. The provincial extension staff and the SMSs will attend annual training courses in extension and communications techniques to improve their technical training skills. Other types of in-service training will be provided during project implementation to improve the general technical level of all the extension and applied research personnel.

Rural Population and Ratio of VEWs per District

DISTRICT	RURAL POPULATION	NO. OF FAMILIES	NO. OF VEWs	FAMILIES PER VEWs
<u>CONTINENTAL REGION</u>				
Akurenam	7,510	1,155	2	537
Aconibe	5,770	888	2	412
Anisok	19,430	2,990	3	925
Bata	22,160	3,410	3	1,055
Ebebiyin	28,320	4,357	4	1,012
Evinayong	15,610	2,402	2	1,115
Kogo	13,130	2,020	2	938
Mbini	12,370	1,905	2	884
Micomoseng	19,500	3,000	3	929
Mongomo	16,140	2,483	3	769
Niefang	24,360	3,748	3	1,160
Nsok Nsomo	12,590	1,937	2	900
Nsork	<u>5,880</u>	<u>905</u>	<u>2</u>	<u>420</u>
SUB TOTAL	202,770	31,200	33	878
<u>ISLAND OF BIOKO</u>				
Malabo	6,452	993	2	461
Baney	4,430	682	2	317
Luba	5,620	865	2	402
Riaba	<u>2,974</u>	<u>458</u>	<u>2</u>	<u>213</u>
SUB TOTAL	19,476	2,998	8	348
<u>ISLAND OF ANNOBON</u>	2,400	400	2	200
<hr/>				
TOTAL COUNTRY	224,646	34,598	43	748

1/ Source: National Population Census of 1983

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Applied Research

A. Introduction

1. MALFF has responsibility for applied research and is expected to supervise and coordinate applied research undertaken by several externally financed agricultural development projects with research components. This Ministry's capability to carry out its own, and to coordinate, monitor, evaluate and guide donor-financed applied research, is virtually non-existent, due to lack of financial and trained human resources. Although several of the Ministry's staff are being seconded to various donor-financed projects to work as local counterparts in extension and applied research, they are paid directly by these projects and report to the project managers rather than to the Ministry.

2. There is no national policy on agricultural/applied research, and MALFF has not the financial means and trained human resources necessary to undertake a national research program. There is also no agricultural research station where MALFF could concentrate and conduct its research. Applied research work in Equatorial Guinea is currently undertaken only by externally financed agricultural development projects with research components.

B. Donor-financed Applied Research

3. Equatorial Guinea receives substantial development assistance from bilateral and multilateral organizations. Its lack of a national agricultural/applied research policy and program has made it sometimes more a recipient of ad hoc assistance, rather than assistance based on long-term development plans supported by policy dialogue with and among donors. As donors, in general, were unwilling to channel their resources through weak central government services, they have identified their own target groups and areas, and formulated their own enclave projects. As a consequence, there is little coordination among projects and inevitably contradiction and duplication of efforts.

4. The most important ongoing development projects with research components in the agricultural sector are:

- Technical Assistance Project, financed by IDA, providing technical assistance to strengthen MALFF in its tasks of planning, formulating and following up projects in various specialized forestry and agricultural subsectors. Activities have been financed under this project to revitalize the national extension service and carry out a socio-economic census of the rural sector in the Continental Region and in Bioko. In addition, the project has financed a pilot project to implement an agro/forestry/livestock production model through "alley cropping".

- Cocoa Rehabilitation Project, financed by IDA, OPEC, EEC and BADEA with a credit of US\$ 9.3 million, aiming at rehabilitating some 3,000 ha of cocoa plantations on Bioko, supplying agricultural credit and inputs to cocoa smallholders, and conducting applied research on integrated pest and disease control;
- Integrated Rural Development Project in Ebebiyin-Mongomo, financed by IFAD with CFAF 750 million, aiming at increasing food crop production within three districts through applied research, introduction of new low-input cropping technologies, farmers' group development and improved marketing of their produce;
- Integrated Rural Development Project in Niefang, financed by the Fonds d'Aide et Cooperation (FAC) with CFAF 850 million, aimed at improving living conditions of the rural population through increased food crop and coffee production;
- Integrated Rural Development Project near Bata, financed by the FED with CFAF 420 million aimed at improving production and marketing of horticultural crops and poultry; and
- Applied/Adaptive Research Project at Basile, financed by GTZ with CFAF 650 million, conducting research on horticulture, poultry, small ruminants and village-type agricultural processing.

5. Important applied research work is being conducted by these projects, such as:

- in cocoa: trials on cost-effective methods of treating black pod disease and controlling squirrels;
- in coffee: introduction of high yielding Robusta coffee clonal material from Cote d'Ivoire;
- in food crops: introduction of high yielding varieties of maize, cowpea, groundnuts and bananas from Gabon and Cameroon;
- in livestock: introduction of improved breeds of poultry and small ruminants; and
- on farming systems: introduction on a pilot scale of "alley cropping" farming.

6. Results have been positive but remain mostly within the confines of the individual project area. Informal contacts have existed between project managers and MALFF; concrete measures to formalize these contacts were adopted at the Round Table Conference held in Malabo in November 1989.

### C. National Applied Research System

7. The proposed project will build MALFF's applied research capabilities on the Continent and Bioko. It will link them to market-defined farmer and extension service needs, and contribute through its applied research and extension work to improving coordination of donor-funded activities, introducing crop diversification, promoting export of non-traditional agricultural commodities, conserving soil fertility and providing support for women farmers. In addition, the project will assist MALFF in establishing an agricultural data base, by collecting research data obtained by donor-funded agricultural development projects.

8. The first applied research development tasks will be to train a small cadre of senior officers able to support project activities and manage an expanding applied research system, and to develop a Basic Applied Research Unit (BARU), including a Plant Propagation Unit. BARU will have small agricultural research centers, one each in the Continental Region and on Bioko.

#### The Institutional Framework

9. The project will strengthen applied research capabilities in the Ministry's General Directorate for Training, Agricultural Extension and Cooperative Development (DGCEC), and link them to extension service needs. The implementation of the project's extension and research component will be the responsibility of the Director of DGCEC.

10. At the national level, the expatriate Project Coordinator will guide the nationally-focussed T&V development and applied research work. Production, applied research and extension work will be undertaken by the Ministry's Agriculture Extension Service (AES), with the assistance from the expatriate Extension and Agricultural Production Specialist and the expatriate Marketing Specialist.

11. The Ministry will assign in the Continent three, and on Bioko two Subject Matter Specialists (SMSs) to BARU, who will liaise closely with the AES and continue responding directly to the National Director of the AES on Bioko, and to the Ministry's Regional Extension Coordinator in the Continent. These staff, specialized in the main technical subjects (tentatively food crops, fruit and vegetables, cocoa and animal husbandry) will provide the necessary linkage between applied research, farmers and agricultural extension. They will directly assist farmers on specific technical subjects, be directly involved in conducting applied research in the field and interpreting its results, and assist the AES in elaborating its extension messages and training its extension agents in applying new technologies.

12. The project will provide technical assistance to MALFF and training to its staff assigned to BARU. Training of cadre will be limited initially to the five above mentioned SMSs and focus on basic applied research concepts and needs. Technical training will include short-term course work at

appropriate institutions in Africa, such as the International Institute of Tropical Agriculture (IITA) in Nigeria, which is specialized in research on alley cropping farming systems, and practical training at National Agricultural Research Centers and Cocoa Research Stations in neighboring countries, such as the Institut de Recherche Agronomique (IRA) in Cameroon. Complimentary on-the-job training will be at donor-funded agricultural development projects, with the simultaneous aim to develop and maintain links between these projects and the national applied research system.

### The Applied Research Framework

13. The nature and size of agricultural/applied research to be implemented in Equatorial Guinea, and the existence of specialized research institutes in neighboring countries, combined with MALFF's limited capacity in human and financial resources to sustain such service's activities beyond the project's horizon, does not justify the creation of an Applied Research Service.

14. The proposed BARU, therefore, will be a light organization, liaised directly with MALFF's Agricultural Extension Service with a well-defined and demand-driven research program. Its research activities will be integrated into the activities of extension personnel, and farmers will participate directly and in an early stage in the evaluation and selection process through farmer-managed adoption plots on their own lands and with their own means. The on-farm observations and yields will be recorded by visiting extension agents and eventually reported back by them to BARU for analysis, conclusion and recommendations for follow-up actions.

15. Staffing will be light as well. The national managers of respectively the Research Center-Rio Muni and -Bioko will be assisted under the project by respectively a qualified junior tropical agronomist and a qualified cocoa agronomist. Linkage with the extension service and farmers will be through the five SMSs, who will receive regular backstopping by special subject matter consultants.

### Research Center in the Continental Region

16. On the mainland, a part of the Government-owned farm "El King", located 4 km south of Mbini, or any other farm assigned by the MALFF could be converted into the Regional Research Center, which main tasks will be to:

- establish and maintain at the Research Center plant collection gardens and permanent alley farming demonstration plots;
- conduct field experiments and applied research on food crop and tropical fruits with good marketing prospects;
- evaluate and select, in close collaboration with extension agents and farmers, newly introduced planting material, tested under local conditions at the Research Center and/or at research-

managed demonstration plots in rural areas, whereafter the extension service will follow up by introducing improved planting material and seeds in farmer-managed adoption plots;

- supervise the on-farm tests, monitor regularly farmers' response to the new introductions, analyze the results of on-farm testing, and recommend follow-up actions;
- coordinate and direct applied research on permanent cropping systems, in particular alley farming; and
- coordinate and direct applied research undertaken by donor-financed projects with a research component.

17. BARU's Plant Propagation Unit will focus in particular on introducing from neighboring countries well-tested varieties of food crops, citrus root stock and leguminous seeds, multiplying selected seeds and planting material, and distributing this material for further propagation to farmers and farmers' groups.

18. Staffing of the Research Center will be light. A Manager of the Research Center will be responsible for all activities undertaken at the Center. At the regional level, he will collaborate annually in the preparation of the research program with the SMEs and other concerned extension staff and will execute this program. He will establish and maintain the linkage between applied research (both research- and farmer-managed), extension service and farmers. At the national level, he will keep operational and informative links with research stations and institutes in neighboring countries, and be responsible for coordinating, monitoring and directing applied research undertaken by externally financed agricultural development projects with research components.

19. A permanent labor force of some 10-12 laborers, including a tractor operator and a driver, will be affected to the Research Center.

#### Agricultural Training Center

20. The agricultural training center near Bata at km 13, established under the IDA-financed Technical Assistance Project, where alley cropping demonstration plots are established and farmers are being trained in new farming techniques, will be a sub-station.

#### Research Center-Bioko

21. On Bioko, applied research will concentrate on cocoa and crops suitable to replace cocoa in areas marginal for this cash crop. For cocoa research, a small part of the IDEPA cocoa plantations will be converted into the Research Center, while for applied research on agricultural and

horticultural crops, including tropical fruits, a sub-station will be developed near Basile, where GTZ successfully is operating a small agricultural/poultry/small ruminants project.

**D. Subject Matters for Research**

22. The project will initially build on the results already obtained by donor-financed projects, and develop over time, new demand-driven themes of research. The major subject matters for research will be:

- **Traditional food crops.** In this area the major research themes will be: (a) introduction of promising varieties, to be tested at the research centers and on research-managed demonstration plots in rural areas; (b) acceptability of new varieties by farmers and consumers, to be tested in an early stage of "product development"; and (c) development of fast propagation techniques.
- **Fruits and Vegetables.** In fruits, research will focus on those crops which have a relative advantage of being grown in Equatorial Guinea for the export market. This will also apply for vegetables, although here also the local market, in particular in Malabo, will be an important factor to consider.
- **Diversification crops.** Research on crops to replace cocoa in areas marginal for this cash crop on Bioko is important within the context of the project's diversification program. The major research theme will be the introduction of promising crops to be tested under local conditions on their suitability as diversification crops.
- **Cocoa.** Cocoa applied research will concentrate on control of black pod disease and squirrels, and on measures to improve cocoa quality through fermentation. To rejuvenate old plantings, the demand for new planting material will increase and introduction of improved hybrid material to be tested under local conditions on Bioko for the production of improved planting material will be a major research theme.
- **Seed and Planting Material Production.** The Plant Propagation Unit will be responsible for the production of stock of improved commercial and leguminous seeds, and root/tuber crop planting material. The original germplasm will be collected and tested under local conditions at the research centers or other ecologically suited research fields. After selection, the Unit will undertake the first multiplication of improved seeds and /or vegetative planting material, whereafter selected farmers or farmers' groups will be contracted to produce improved seeds and/or planting material for farmers' use.

- Alley Cropping. This subject matter has been extended successfully within several farmers' groups in Continental Guinea and favorably accepted both by men and women. Alley cropping is important for environmental protection and could be combined with vegetable crops and small livestock husbandry. It will be a major tool in gradually changing the traditional shifting and slash-and-burn farming system into a more permanent one, while maintaining or improving soil fertility through appropriate crop rotation and organic mulching. The major research themes will be the introduction of leguminous arbustive or tree species to be tested on their suitability under local conditions on the mainland, and establishing research-managed alley farms in combination with tree crops (bananas and plantains), vegetables and small livestock.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Road and Ferry Rehabilitation and Maintenance

1. This annex includes: (a) an inventory of the roads being considered for rehabilitation under the project; (b) a brief description of the status of these roads; and (c) an estimate of the cost of rehabilitation and maintenance of the roads under two alternatives: (i) execution by a private enterprise and (ii) a combination of a private enterprise-Ministry of Public Works (MPW).

Road network in the Project Area

2. On Bioko, the roads to be utilized by the project receive some maintenance and are at present without any major problem. The roads in the Continental Region, however, are without maintenance and in a precarious situation.

3. As an example, the principal Continental Region route servicing the project, Mbini-Akalayong (66 km), is technically impassable during the rainy season due to a lack of a road surface layer of laterite over 30 km and to deficient water drainage. In 1985, a study by BCEOM-France recommended as a priority the rehabilitation of this route at a cost of CFAF 510 million.

4. There are three possible solutions for this road: (a) rehabilitation and maintenance at an estimated cost of CFAF 525 million, under the project, (b) rehabilitation and maintenance at the same cost under the First Highway Project (circa 1992), if this project could start in 1991. (In informal discussions, the Equatoguinean Administration accepted the inclusion of this route in the First Highway Project); (c) temporary works to eliminate critical points and spread of a thin laterite layer by the MPW (which possesses the necessary material in Bata). Alternative (c) assumes two conditions: (a) MPW commit itself to perform the works and (b) the cost of this operation (around CFAF 100 million) would be supported fully or partially (minimum CFAF 70 million) by the project or the WFP Project, because MPW cannot finance this operation by itself.

5. According to the information obtained, the Mitomo-Cogo, road which services the project in a slightly less important way has been cut in several places since 1985. Its reopening must be contracted to a private company at an estimated cost of CFAF 570 million. There are currently no budget estimates for this route.

Financing of the Rehabilitation and Maintenance of the Roads through the WFP

6. This method of financing, while non-existent in Equatorial Guinea, has been tried in Ghana and Chad, and could be used to cover part of the necessary costs. The Resident Representative of the WFP in Malabo, confirmed that, under the first phase of the Multipurpose Rural Development Project (NO 3996/Q) 30% or roughly US\$450,000 - CFAF 145 million) of US\$1.5 million approximately could be applied to roads affected by the project. This

amount covers the MPW's optional works by contract with the condition that a solution be found for around CFAF 350,000 to be applied to buy fuel and lubricants, spare parts and miscellaneous material. WFP informed the mission that there could be a solution to this. Approximately US\$100,000 of manpower costs could be covered through the use of food rations.

7. This solution requires an explanation. Rehabilitation and maintenance of laterite roads on a clay foundation are essentially mechanized. The laterite must be extracted from quarries located from 3 to 10 km away, transported, expanded and compacted. Normal maintenance then consists of running the grader once or twice to eliminate potholes. The only important manual work involves cutting roadside vegetation (chapeo). This operation is performed, in Equatorial Guinea, on a regular schedule by the population, as non-paid community work.

#### Crossing of the Benito River in Mbini

8. Because the Sendje Bridge over the Benito river, will not be re-opened for another 4-5 years, it was decided to install a ferry at Mbini, financed by the European Economic Community for approximately US\$1.5 million. The ferry became operational in early 1990. This will permit the access of vehicles and material to perform the maintenance of the road Mbini-Akalayong.

#### Installation of a Ferry between Akalayong, Cogo and Cocobeach (Gabon)

9. One of the most important objectives of the project is to increase Equatorial Guinea's export of agricultural products to Gabon. To achieve this goal, a ferry service has been foreseen, and an amount of US\$1.3 million reserved for this in the project.

10. However, before a ferry service is instituted, the following conditions should be satisfied:

- (a) a feasibility study by a maritime expert and a transport economist should be conducted to establish the type and installation cost of the ferry, and the transport demand for the next five years (including a study on the capacity of the small and medium maritime transport enterprises (SMEs) existing in the region);
- (b) the opening of this ferry service should not take place until the road Mbini-Akalayong is passable and the export agricultural production is important enough to justify this investment;
- (c) at present, there are small private boats that assure the transport between Akalayong, Cogo and Cocobeach. Also, there are some of a capacity of up to 40 tons available for coast transport to and from Gabon, Cameroon and Equatorial Guinea. The private sector should be encouraged to take charge, as the demand increases, of the transport of these products. Through the granting of credits the project could eventually aid interested SMEs; and

- (d) special arrangements should be negotiated between Gabon and Equatorial Guinea to facilitate the transport of agricultural products towards Libreville. It appears that there will be no particular major problems for this link.

COST ESTIMATE FOR THE REHABILITATION  
OF ROAD RESOURCES IN THE PROJECT AREA

11. In the Continent

(a) Roads to consider:

RN 4.	Mbini - Akalayong	= 66 km
RN 3.	Evinayong - Akurenam	= 60 km
RP 1.	Mitomo - Cogo	= <u>64 km</u>
	TOTAL	= 190 km

(b) Actual status of this network:

RN 4. Mbini - Akalayong

Poor, with very reduced characteristics, three to five meters wide. Approximately 30 km without laterite and around 70 mud-holes. There is a thin layer of laterite (5-10 cm) on around 36 km of road. The road is cut at least ten points after heavy rains. The average circulation speed is 20 km/h. There has been no maintenance for the last 6 years.

RN 3. Evinayong - Akurenam (not visited)

This route has many difficult sections and has not been maintained but, according to information obtained, it is passable.

RP 1. Mitomo - Cogo (not visited)

This road, according to information obtained, is in a very bad condition and is impassable during the rainy season. A small broken bridge at km 14 cuts the road.

(c) Rehabilitation and Maintenance Work Costs:

RN 4. Mbini - Akalayong (66 km)

Work by Contract (definitive solution)

Rehabilitation	= 30 km X 12.5 M/km (see BCEOM study)	= CFAF 375.0 M
Regrading and		
Partial Recharge	= 36 km X 3.2 M/km (see BCEOM study)	= <u>CFAF 115.2 M</u>
		CFAF 490.2 M

or approximately CFAF 7.4 M/km

Normal maintenance (by force account)

Regrading (once a year) = 4 years X 66 km X 0.13 M/km = CFAF 35.0 M

TOTAL = CFAF 490.2 M + CFAF 35.0 M = CFAF 525.2 M

Work by Force Account

Restoration to a provisional state (by elimination of critical points) by MPW, Transport and Housing crews at Bata.

Elimination of critical points and recharging  
with 10 cm of laterite = 30 km X CFAF 3.25 M/km = CFAF 97.5 M  
Regrading and compacting = 36 km X CFAF 0.13 M/km = CFAF 4.7 M  
CFAF 102.2 M

Normal maintenance  
Regrading (once a year) = 4 years X 66 km X 0.13 M/km = CFAF 35.0 M

TOTAL = CFAF 102.2 M + CFAF 35.0 M = CFAF 137.2 M

**RN 3. Evinayong - Akurenam (60 km)**

Work by Force Account

Regrading = 60 km X CFAF 0.15 M/km = CFAF 9.0 M  
Elimination of  
critical points = 5 km X CFAF 3.25 M/km = CFAF 16.3 M  
CFAF 25.3 M

Normal maintenance  
Regrading (once a year) = 4 years X 60 km X 0.13 M/km = CFAF 31.2 M

TOTAL = CFAF 25.3 M + CFAF 31.2 M = CFAF 56.5 M

**RP 1. Mitomo - Cogo**

Work by Contract

Rehabilitation (minimum characteristics: 6 m platform,  
5 m laterite 15 cm) = 64 km X CFAF 9.0 M/km = CFAF 576.0 M

Normal maintenance (by Force Account)  
Regrading (once a year) = 4 years X 64 km X 0.13 M/km = CFAF 33.3 M

TOTAL = CFAF 576.0 M + CFAF 33.3 M = CFAF 609.3 M

12. On (Bioko)

(a) Roads to consider:

The 60 km of roads affected by the project are located in the Luba and Riaba regions. The principal access roads to the port of Malabo comprise around 110 km.

(b) Actual status of this network:

In spite of some deterioration, the principal network can be safely used to transport agricultural produce. The feeder roads, passable thanks to good soil quality, are in need of normal maintenance to fill potholes. If volcanic rocks were transported by truck, manual crews paid through the WFP Program could do the work.

(c) Maintenance Work Costs (feeder roads only):

Transport of volcanic material = 4 years X 50 m<sup>3</sup>/km X CFAF 2000 m<sup>3</sup> X 60 km = CFAF 24.0 M

Manual maintenance = 4 years X 50 m<sup>3</sup> X 50 man-days/m<sup>3</sup> X CFAF 600 day = CFAF 6.0 M

TOTAL = CFAF 24.0 M + CFAF 6.0 M = CFAF 30.0 M

13. Synopsis.

Variant I : Execution by the MPW (temporary solution).

Continent	CFAF 227.0 M
Bioko	<u>CFAF 30.0 M</u>
	CFAF 257.0 M (approx. US\$816,000)

Variant II : Execution by the MPW and by Force Account (definitive solution).

Congo)	Continent	CFAF 1271.7 M (including Mitomo-
	Bioko	<u>CFAF 30.0 M</u>
		CFAF 1301.7 M (approx. US\$4.15 M)

Variant III : Execution by the MPW and by Force Account.

	Continent	CFAF 662.4 M (without Mitomo-Cogo)
	Bioko	<u>CFAF 30.0 M</u>
		CFAF 692.4 M (approx. US\$2.2 M)

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Institutional Development

1. The project will have three explicit national institutional development objectives. It will: (a) introduce T&V-based extension services on a national basis, demonstrate the effectiveness of the T&V approach in project areas, and build supporting applied research capabilities; (b) promote private sector development of marketing networks for traditional and non-traditional export crops; and (c) strengthen the social setting for sector development by supporting the organization of small farmers and traders and ensuring that project activities reflect the importance of women in production and marketing.

2. These initiatives will complement and strengthen other already ongoing activities including USAID-assisted efforts to build rural cooperatives, bilaterally-financed crop production and rural development projects, and IDA-supported policy and technical assistance aimed at increasing private sector investment, diversifying export production, and limiting public sector expenditures. They also will strengthen the basis for possible future sector lending by creating conditions for investment in cooperatives and credit unions.

A. Extension and Applied Research

3. Extension and applied research work will build the organizational and managerial framework needed for the adaptation and phased development of national T&V-based management, staff training, and farmer service capabilities. Extension activities will demonstrate the practical effectiveness of the T&V system while also introducing the new farming practices needed to achieve the project's near-term production and export market development goals. The project will strengthen applied research capabilities and link them to market-defined farmer and extension service needs. Extension and research work also will complement the achievement of other policy and institutionally-centered project objectives including improved coordination of donor-funded activities, crop diversification and export promotion, soil conservation, the creation of incentives for small farmer organization, and support for women farmers and traders.

4. At present, Ministry extension and applied research capabilities are inadequate to even the most minimal efforts to increase production or farmer incomes. About five officers with university-level qualifications are responsible for the supervision of about 22 extension agents (including five female home economists), most of whom have only post high school "certificate" training. The two regional extension offices, one in Malabo and the other in Bata, are ill-equipped and almost without transport. In addition to limited staff and logistical support, there are other practical institutional constraints on the early, full-fledged implementation of a T&V extension

system. The acute lack of country-specific knowledge about effective ways to meet the needs of women farmers and support small farmer organization figures prominently in the list of extension management problems that must be resolved during the project period. Other, more mundane institutional constraints include a national scarcity of professionals or para-professionals with the education expected of even Village Extension Workers (VEWs) under a fully-developed T&V system, unattractive salaries and working conditions, and the inability of the Government to sustain the recurrent costs of an adequate extension service. The Ministry undertakes no applied research directly, and what little is done goes forward under an array of uncoordinated donor-managed projects, with no formal ties to the Ministry's extension service.

5. These barriers cannot be removed entirely during the project period. The project will aim, instead, at achieving four quite realistic objectives which, taken together, will set the stage for the long-term development of a sound national extension service. The project will: (a) create the supporting management and training capabilities needed for the long-term growth of an effective, T&V-based extension capability; (b) adapt the T&V approach to conditions in Equatorial Guinea and demonstrate its practical effectiveness; (c) strengthen applied research capabilities and link them to extension service needs; and (d) introduce extension service management and monitoring and evaluation systems that will measure the practical impacts of extension activities, signal needs for change, and support efforts to secure Government and donor financing for long-term recurrent costs.

#### A National T&V Extension System

6. A first extension service development task will be to train a small cadre of senior officers able to support project activities and manage an expanding T&V system. A nucleus of about 13 professionals, including senior Ministry managers, regional and district officers with responsibilities analogous to District Extension Officers (DEOs) under a fully-developed T&V system, and candidates for Subject Matter Specialist (SMS) positions will receive training in basic T&V extension concepts and in fundamental organizational and human resource management techniques. Technical training will include short-term course work in Latin America and practical training in neighboring countries with successful T&V experience. Staff from the Agricultural Training School will receive formal and on-the-job instruction in the management of the training programs required to support an effective T&V system. Complementary training work will aim at explaining the T&V system and its objectives to senior Government executives and to the civil administration in rural areas.

7. A second project task will aim at defining and initiating a practical, long term plan for the development of a national T&V system, including the design of organizational development and staff recruitment and training programs. Extension-related components of all future Government or donor-financed agricultural production, applied research, or rural development projects will be executed within the context of this plan. Project objectives include training about thirty three extension agents for the Continental Region, and about eight on Bioko. A total of eighteen will be new recruits. One agent on Bioko and four on the Continent will receive further T&V training

to allow them to act as Agricultural Extension Supervisors. By the end of the third project year, the Ministry will have about one trained agent per 670 farm families.

8. A third task will be to ensure that extension activities reflect the social setting for agricultural development. Rural women will be consulted during the design of extension service management systems and extension agent and animador training programs. Women will be recruited into professional positions in the extension service. The extension services will be organized and farmer visit scheduling managed so as to induce the development of informal and formal farmer and village marketing organizations.

9. Project training programs will be designed to successfully adapt T&V staff training standards to local conditions and practical needs. Formal T&V training will be provided at the Ministry's Agricultural Training School (ECA) which already provides two year, post high school programs for extension agents. After preliminary testing, Ministry agents already in service will undergo intensive T&V orientation and refresher courses. Recommended on-the-job T&V training standards will be increased to at least two days per week for at least the first year of service, and field supervision will be more intensive than is expected in a fully developed T&V system. Working libraries and audio-visual materials will be made available for regular use by agents. Performance bonuses will be paid to agents as they successfully complete formal and informal programs (including correspondence courses) aimed at meeting agreed skill levels. Project funds will be used to design appropriate courses and training materials; purchase equipment and supplies, complete the development of applied research, training, and demonstration plots; and refurbish buildings for use in training activities.

10. Initial extension improvement activities will require the "compression" of ideal T&V staffing and staff training models. While competent national professionals probably are available at the managerial level, and Subject Matter Specialist (SMS) level officers could be recruited from among already trained agronomists, the Ministry generally will not be able immediately to recruit and retain staff with the full qualifications desired for Agricultural Extension Officers (AEOs) and Village Extension Workers (VEWs) under a fully-developed system. Specially designed and frequent formal and informal training, along with close supervision and support from senior Ministry officers and expatriate specialists will be needed to allow current Ministry extension agents to provide the services expected from an AEO. Further, these officers will have to assume many of the responsibilities normally delegated to VEWs under a fully-developed T&V system. Under these limitations, extension manpower will need to be targeted very carefully and the technical content of extension messages limited to support for very basic improvements in cropping practices.

11. The design of T&V training programs and the management of farmer service work will be facilitated by the fact that early extension service messages will aim at very simple improvements in farm management and crop production techniques. Extension work in the Continent, in particular, will aim at basic changes in farming practices, with little or no need for use of fertilizers, pesticides, or complex soil and water management technologies.

12. Simple soil conservation measures will be addressed explicitly in the design of T&V programs. Recommendations for increasing both marketed and subsistence production will support an urgently needed shift away from slash-and-burn practices and toward the adoption of stable "alley cropping" techniques, the practicality and acceptability of which has been demonstrated already by TA project-financed work. (Alley cropping assists also in organizing women farmers and reducing their insecurity about access to land.)

13. A major adaptive measure, which will have the additional benefits of limiting costs and linking extension activities to rural social structures and the development of small farmer organizations, will involve the recruitment and training of village-based "animadores". These agents would be selected by their own communities. They will be trained in the cultivation of food and non-traditional crops with export potential, in basic alley cropping production techniques, and in family nutrition. Animadores will play roles rather in between the "Village Extension Agents" and the "Contact Farmers" of a fully-developed T & V system. While they will receive logistical support and modest remuneration while in training and during the initial years of the project, they will not be regular Ministry employees. As experience is gained with the effectiveness of this approach, and as expected production benefits become apparent, a few animadores might receive advanced training and be recruited into regular service. Others will continue to act as links between the extension service and other farmers in a village, along lines similar to a Contact Farmer under the T&V system.

14. Training for extension agents will be paced to the development of adequate facilities and the availability of competent training staff, the design and testing of training programs tailored to local conditions, and actual project area and other recruitment needs. No more than about 15 extension agents will undergo extended classroom and fieldwork training during each of the first two years of extension work, with annual training capabilities increasing to about 20 agents per year by about the end of PY3. Extension agent training will be complemented by supporting courses and intensively supervised fieldwork programs for animadores, with the objective of achieving and maintaining an approximate ratio of about five trained and active animadores for each full time extension agent. Animador training will be managed by the extension service, using existing buildings and demonstration plots developed with ongoing IDA financing. More detailed extension service development plans are presented in Annex 2.

#### Demonstration of T&V Effectiveness

15. Project extension work will be based from the outset on the T&V system. On Bioko, ongoing cocoa extension activities, under the IDA-financed Cocoa Rehabilitation Project, will be transferred to the national service. Crop diversification extension work will get underway at an early date, in parallel with the consolidation of cocoa production and the redistribution of IDEPA plantations to smaller farmers. Intensive T&V orientation programs will be provided for the four agents currently working with the Ministry or CRP on Bioko. About six additional agents will be recruited and trained. At least two professionals will be trained to fill cocoa SMS-level positions. Two

others will be trained in non-traditional export crop production. Until additional staff become available, the SMSs also will oversee applied research activities.

16. The fundamental project objective in Rio Muni will be to create essential extension service management and training capabilities for long term development work, provide basic facilities and logistical support for region-wide services, and demonstrate the practical effectiveness of T&V in project areas. Full T&V coverage on the mainland will be paced to the actual development of new export markets, the emergence of small farmer organizations, the completion of long-term training programs, and the ability and willingness of the Government to sustain the recurrent costs of a more fully-developed extension system.

17. In July 1990, 15 extension staff received formal/and on the job-training in the IDA-financed Cameroon National Extension Project (Annex 2, para 17). In addition, most of the extension personnel, including those working under other donor-financed project will receive a two-week training workshop on T&V methodology in late September 1990. About 20 Ministry extension agents working in the Continental Region will receive formal refresher courses in the Agricultural Training School (ECA) and on-the-job training in T&V extension methods. Training capabilities will be used also to introduce T&V approaches to extension personnel working in ongoing donor-funded projects in the Continent. About four Ministry professionals will undertake advanced programs to bring their skills up to the SMS-level. All SMS staff will be trained in alley cropping and other soil conservation techniques, and in the production of crops with regional export market potential. At least one SMS officer will be trained in small-scale poultry and animal health and production.

#### Applied Research

18. The project will support the creation of an applied research planning and management capability and the training of a core group of applied research officers, some of whom will serve also as SMSs. Applied research units will be set up on Bioko and in Mbini in the Continent. Initial work will center on introducing and testing improved varieties of traditional and non-traditional crops imported from neighboring countries. Applied research will aim also at strengthening knowledge about alley cropping and other low-cost soil conservation practices, and at identifying production practices that can be used by organized farmer groups. The applied research centers will provide practical training facilities for T&V agents and animadores.

19. The fundamental institutional objective of this work will be to ensure that research is linked directly to farmer and extension service requirements and, through them, to market signals. Planning and management improvement also will provide an ability to identify priorities for and coordinate and monitor research undertaken in other donor-financed projects.

### Management and Monitoring and Evaluation Systems

20. While technical skills and practical implementation capabilities are weak, the Ministry's organizational structure is adequate to implementation needs. The Directorate General for Training, Extension and Cooperative Development (DGCEC) has a lean management organization with a Director and three senior officers responsible for research, extension, and cooperative development. Equatorial Guinea is a small country, and complex geographical divisions of responsibility are not needed. Headquarters staff are responsible directly for the supervision of Ministry services on Bioko. A small office in Bata, under an Agricultural Delegate supervises activities in the same three functional areas. The project will seek to maintain these appropriately simple arrangements.

21. Ministry competence in sector policy analysis and planning will be strengthened under an FAO/UNDP project which activities started in early 1990. IDA project advisors will collaborate with the FAO/UNDP effort to strengthen Ministry organizational and human resource management skills. The Ministry is weak in information gathering and management capabilities, which should be strengthened as a part of the FAO undertaking. While project-financed market research activities will be limited to problem-oriented work, the development of regional export market and crop production information systems will support the development of these capabilities.

22. A Ministry-wide Extension Service Management Information System (EMIS) will be put in place to plan, monitor, and evaluate the impact of extension development activities, and integrate them into other production and rural development efforts. The EMIS will guide implementation of the long-term extension service development program and measure the impact of project activities aimed at adapting the T&V system to local conditions. The system will be linked to project export market promotion activities, tying applied research and extension service training to market demands and facilitating the monitoring of production increases. The EMIS also will provide a cost-benefit framework for recruitment and training planning, and for measuring the practical effectiveness of extension training, the impact and acceptance of the village-based animadores, and the results of extension programs aimed at meeting the needs of women farmers.

#### B. Private Sector Marketing Systems.

23. The establishment of a supportive environment for the private sector development of now missing marketing networks for the production and export of traditional and non-traditional crops will be an explicit institutional development objective. The creation of such an environment is not always viewed as an "institutional" issue. Markets are, however, every bit as much a part of the institutional landscape of a society as its universities, private firms, churches, voluntary associations, or government agencies.

24. The fundamental objective of institutionally-centered work will be to help generally small, private sector actors to create self-sustaining, entirely private marketing systems to respond to already identified demands for food crops in Gabon and to project-financed efforts to identify new

markets for other non-traditional exports, including both food and cash crops. The project will help establish the conditions needed for a private sector response to these incentives, without creating any significant new public sector responsibilities. Three broad categories of export market development work will be undertaken: (a) the regional marketing of food crops currently produced in the Continent and on Bioko, (b) the identification of new export crops and markets, and (c) the continuation of small farmer cocoa marketing work through a self-financing Agricultural Development Organization (OFA).

### Regional Food Crop Exports

25. Initial food crop export promotion activities will center on the Continental Region. Work will focus on meeting already identified demands in Libreville markets. Project preparation studies showed that most traditional food crops in demand in Libreville already are grown in Equatorial Guinea, and that prices in the Continental Region are competitive; even after consideration of currently high transport costs. In addition to transportation bottlenecks (which the project will remove), exports are limited because small farmers see no incentive to produce food crops in marketable quantities and because traders and truck operators therefore have no incentive to work in rural areas or to develop trading ties with entrepreneurs in Gabon. Examples of project-financed measures to break this vicious circle will include:

- (a) establishing a regular schedule for project staff visits to Cocoabeach and Libreville to gather information on current and expected near-term demand and prices; meet with Gabonese traders to determine future needs and inform them about the availability of Equatorial Guinean produce; and identify potential bottlenecks to increased exports including quality control, and timing and volume requirements;
- (b) initiating a daily radio broadcast program from Bata to inform individual farmers, farmer and marketing groups, truckers, and traders about expected food crop demand and price movements in Gabon and in intermediate domestic markets; support organized farmer production and marketing efforts by providing information about the planned activities of individual truckers and traders; and provide extension service messages to help farmers increase production;
- (c) helping in organizing farmer groups, truckers, and local and Gabonese traders to develop intermediate collection and marketing centers by sponsoring meetings among different groups; coordinating with CLUSA; providing radio broadcast time; identifying and assisting in the renovation of abandoned warehouses; and providing technical assistance in quality control, packing, storage and transportation technologies; and
- (d) identifying practical ways to secure trucker and local farmer participation in the maintenance of project rehabilitated Mbini-Cogo export corridor roads, through the "food for work" programs of the World Food Program.

26. The project will finance the costs of road rehabilitation (Cogo-Mbini and Evinayong-Acurenam) and a ferry service to provide access to Gabonese markets, and help gather and communicate information about export opportunities. Actual production and trading increases will depend almost entirely on the dynamics of a positive private sector response. The principal actors will often be rural women, usually unorganized and without the capital needed to make significant investments in stocks or to confront high operating costs. The IFAD-funded Poverty Alleviation Fund to be established under the project, will provide an important tool in overcoming this initial problem in funding operations. Other groups expected to play important roles are truck owner/operators who often act also as petty traders, merchants (again usually women) in intermediate markets such as Bata, and small Gabonese entrepreneurs (many of whom have family ties to farmers and traders in Equatorial Guinea). While it is not possible to predict exactly how they will respond to new information and incentives, they are precisely the same groups who have most often acted to develop new production, marketing and other income earning opportunities in comparable West African settings.

#### Non-traditional Export Markets

27. Non-traditional food and cash crop export promotion planning will be undertaken on a national basis with the objectives, first, of diversifying production on Bioko by providing incentives to move marginal farmers out of cocoa growing, and, second, building a base for continued agricultural production increases on the Continent. Of necessity, this work will have a longer time perspective than the promotion of mainland food crop exports. However, some initial support for diversification on Bioko should come from the successful opening of export markets in Gabon because food crop demand should increase to a level that also will permit ocean shipments from Malabo. More structured research, planning and promotion activities will be needed to develop new markets for non-traditional exports, including cash crops now not produced on a commercial basis. The first task, most probably, will be to attempt to reopen markets lost since Independence, including high-value fruit and vegetable exports to regional capitals and to Spain (and now to the European Common Market). A second, longer-term effort will support the promotion and production of new cash crops for new markets in the region and elsewhere.

#### The Agricultural Development Organization - OFA

28. Traditional as well as diversified export promotion on Bioko will be supported through the establishment of an independent, self-financing Agricultural Development Organization (OFA). This new entity will take over input supply, credit, and export marketing services now undertaken under the ongoing Cocoa Rehabilitation Project (CRP). Extension responsibilities will be transferred to the Ministry. As a result of the CRP, small and medium-size farmers have access to agricultural inputs, tools, and equipment needed to increase the efficiency of and maintain cocoa production despite falling world prices. The project also has provided a vehicle for the direct marketing of their production (about 15% of the national total), raised their farmgate prices to about 15% above the official price, and reestablished the

international quality premium for Equatorial Guinean cocoa. Additionally, with the failure of the two national banks, the CRP is now the only source of institutionalized credit for small and medium size farmers on the island. Credit accomplishments are particularly important, because the service operates with positive interest rates and solid recovery rates. A separate organizational framework is needed to preserve these capabilities to ensure that recurrent costs are financed internally and because even well-organized small farmers and traders will be unable to operate profitably in the sophisticated international cocoa market.

29. The Government has agreed to establish OFA as an independent organization that will operate on an entirely commercial basis. The definition of appropriate legal and organizational arrangements were agreed upon at negotiations. Government will convert current CRP obligations into equity in OFA, the organization will be structured so as to facilitate the future purchase of its capital by farmer and trader cooperatives and private investors. An integrated financial planning, budgeting, management, and control system will be put in place and a staff training program will be initiated.

30. Input and equipment supply services will be put on a commercial footing from the outset, and expanded to include profitable ventures in non-traditional export crops. Sound procurement and inventory control systems will be introduced. Credit services will be reorganized to encompass savings as well as credit, and the scope of activities will be expanded to include any creditworthy clients in the country. All credit activities will be put on a commercial basis, with market-determined positive interest rates, and with no targeting or allocation of credit. Credit and savings services and record keeping will be managed separately from other OFA activities to facilitate their eventual integration into now missing national commercial and cooperative banking systems. Technical assistance work in marketing will focus on identifying a strategy to limit long-term dependence on expatriate advice and to generate revenues to pay for those that are needed.

### C. The Social Setting

31. Sustained increases in rural incomes in Equatorial Guinea will depend heavily on farmer and trader organization and on the identification and execution of a sector development strategy that reflects the roles of women in production and domestic and export marketing. The design of the proposed project reflects the Government's awareness of the importance of these issues and will help build a more solid base for future work. It does not, however, address them as fully or in as integrated a manner as will be possible if: (a) the Ministry and other concerned government agencies had much stronger human resource and organizational capabilities, (b) more basic knowledge about the social setting for sector work, (c) more farmer organization and women-oriented work were underway, and (d) more project-financing resources were available.

### Farmer and Trader Organization

32. With the exception of the recently initiated CLUSA program and the promising but still informal village farmer organization work started under the Technical Assistance Project, there is little in the way of small farmer organization on which to build. Government-supported farmer organization and cooperative development efforts in Equatorial Guinea have had a turbulent history, and it is unlikely that the Ministry or other public sector agencies will have success with early initiatives to rebuild farmer interest and confidence. About the most that the Government can usefully attempt directly in the near term is to establish policy and legal frameworks that are supportive of essentially independent village-based initiatives, offer CLUSA and other technical assistance to meet management and accounting training needs, and design its farmer service and marketing support programs in a way that will induce farmers and traders to organize themselves. CLUSA already is undertaking work aimed at meeting these needs, and project activities will be managed to provide direct support for promising initiatives.

33. The project will include numerous practical measures aimed at small farmer and trader organization. Extension activities deliberately have been designed to serve small groups and their effectiveness will depend heavily on how well extension agents and animadores can link these services to village-based farming and marketing organizations. Cooperation and coordination with CLUSA will support small group organization for production, transport, and marketing. U.N. Volunteers in the Continental Region will work directly to support informal group organization for marketing and transport. OFA will design its input supply, credit and savings, and marketing operations to provide administrative and cost incentives for small group users of its services, both on Bioko and in the Continental Region and its capital structure will be designed to facilitate small farmer and cooperative ownership. Its credit and savings services will be managed so as to allow them to be "spun-off" when conditions for cooperative credit union development are more promising.

34. Candidates for expatriate extension and marketing specialist positions will be expected to have practical experience in small farmer and trader organization. Additional direct support for small farmer organization will be provided by two short-term experts. One, a specialist in cooperative organization and management in West Africa, will work with project staff and CLUSA representatives to strengthen the national legal and policy framework for cooperative development, train project staff in cooperative development issues, and assist in preparing the long-term work plans for marketing and OFA development activities. A second short-term advisor, with substantial Technical Assistance Credit-financed country experience in the organization of small farmers and cooperative, village-based stores will assist in the design of animador and other extension service training programs and in the identifications of ways to support small group marketing activities without undermining sound T&V management concepts. Both of these advisors will assist the Ministry and IDA in evaluating needs for and the probable practical impact of more direct cooperative and cooperative banking work, with the objective of identifying work that could be financed under future lending programs.

Women's Roles in Production and Marketing

35. Women farmers and traders play such crucial roles in agricultural production and marketing in Equatorial Guinea that most project objectives could not conceivably be accomplished without their full involvement. Attention to and understanding of the "role of women" will not be a separate "project issue", it will be a basic condition of its success. The project management challenge will not be so much to include attention to women as to ensure that Ministry officers and technical assistance staff act in full recognition of this simple fact.

36. Food crop production increases, in particular, will depend on the use of extension training and management approaches that reflect the dominant role of women farmers. Proposed training programs and extension programs will require research on the ability of women farmers to adopt new production technologies. Women will participate in the planning of extension activities. Structured interviews and impact monitoring systems will be used to ensure that proposals for farming system changes or for the introduction of new crops reflect an adequate understanding of village and family decision-making processes, competing demands on women's time, male - female divisions of labor, and possible restrictions on the availability of land for women's use. Studies also will be undertaken to determine the extent to which gender issues should enter into recruitment planning for extension agents and SMSs and, particularly, the selection and management of animadores.

37. Women often play dual roles in the production and initial marketing of food crops, taking responsibility for both activities. Traders in intermediate domestic markets and in Gabon also generally are women. As in the case of extension, the success of export market promotion work will depend heavily on the extent to which project activities reflect realistically the social constraints that might limit the ability of women to respond to market opportunities, the amount of time that they can devote to these activities, and the need for gender sensitivity in managing market information service programs and other efforts to communicate with women. An understanding of male - female divisions of labor will be particularly important in crop diversification and IDEPA resettlement efforts on Bioko, where families will have to reallocate work responsibilities and engage in new marketing activities.

38. Small farmer and trader organization and cooperative development work also will require a sound understanding of the needs and preferences of rural women. Major issues that will need to be addressed by project staff will include women's preferences with regard to group organization and decision-making arrangements, possible social constraints on women with management responsibilities, and limitations on women's rights to own and manage assets and on their access to institutionalized credit. As in the case of extension, recruitment standards for marketing specialists will aim at identifying individuals with prior experience with women in production and marketing projects.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Agricultural Development Organization (OFA)

I. Summary and Introduction

1. Three units were established under the IDA-financed Cocoa Rehabilitation Project (CRP): the Agricultural Credit Department (DCA) to provide credit, the Inputs Supply Unit (ISU) to provide agricultural inputs and equipment, and the Classification, Grading and Marketing Unit (CGMU) to furnish classification, grading and marketing services. The DCA was to provide institutional support to the Credit and Development Bank (BCD), and the two other units to the Chamber of Commerce in Malabo (CAMARA). These institutional development goals of the project have not materialized fully. The BCD went bankrupt and is currently under liquidation and the CAMARA has severe financial difficulties and is unable to perform its main functions of exports promotion.

2. Although credit, inputs supply and marketing services are being run efficiently under the CRP, it became apparent during project implementation that these services could not be sustained after the closing date of the CRP credit (December 31, 1990). This is because of the absence of: (a) viable public institutions (BCD and CAMARA); (b) commercial banks willing to provide credit to small farmers and traders; and (c) private sector institutions, such as farmers' organizations, capable of assuming responsibility for credit and marketing operations.

3. The Government and IDA agree that under current conditions, a separate organizational framework is needed to preserve input supply, credit and export marketing capabilities. The Agricultural Development Organization (OFA) will be established to take over these services. Input and equipment supply as well as marketing services will be put on a commercial footing from the outset. Credit and savings activities will be set on a commercial basis, with market-determined positive interest rates, and with no targeting or allocation of credit.

4. This service-oriented organization will be established as a legal entity (para 12), and will be managed as an autonomous and commercial enterprise. It will provide to all sectors of the economy, with an emphasis on the agricultural sector, unsubsidized credit and inputs, savings facilities, and marketing assistance. Initial equity and operating capital for credit facilities will be provided by the Government from CRP balances. Over the project period private sector operators will be encouraged to replace Government's initial equity. Income and expenditure projections (tables 1 to 4) show that after two to three years of OFA's establishment, OFA will become financially sustainable and operate at a profit.

## II. Background

5. As noted in para 1, under the Cocoa Rehabilitation Project, capabilities were built to assist Government in providing agricultural credit and inputs to cocoa farmers, and in grading and marketing cocoa for exports.
6. Agricultural Credit. In 1985, the project-supported Agricultural Credit Department (DCA) was established, with its main task to on-lend credit to selected cocoa farmers under supervised conditions. As creditworthiness was the overriding issue in EQG, DCA's first activities focused on establishing strict credit procedures and putting in place a system to evaluate farmers' eligibility for agricultural credit. DCA's accounting and credit supervising staff were trained by project-financed expatriate consultants in applying strict credit criteria, verifying potential clients' credit records and evaluating the agricultural potential of the clients' cocoa farms. After credit approval, credit supervisors, often doubling up as agricultural extension agents, closely supervised credit through regular farm visits.
7. By the end of 1988, most of the national senior staff of the Agricultural Credit Department were trained-on-the-job and overseas, and expatriate technical assistance reduced. By that time, the CRP had established a viable credit system and a competent service organization, with a solid credit portfolio of mainly smallholder farmers, and recovering its credit at a rate of 98%. This is a remarkable performance by any standards, and more so in an environment where credit was poorly administered and the banking system had collapsed. Credit was supplied at a positive interest rate of 15%.
8. Inputs Supply. A project-supported Inputs Supply Unit (ISU) was established to help Government in organizing the purchase, storage, and supply of agricultural inputs, equipment and machinery. National senior staff were assisted by an expatriate consultant in establishing appropriate procurement procedures and inventory control. Staff have received in-service and overseas training. By the end of 1989, an effective system was largely in place and the expatriate consultant's contract came to an end.
9. Cocoa Classification, Grading and Marketing. A project-supported Classification, Grading and Marketing Unit (CGMU) was created to help Government in promoting cocoa exports of improved quality. CGMU started virtually from scratch, as no quality control system was in place, no communication links existed with the cocoa markets, and cocoa exports were monopolized by Spanish traders.
10. With the effective assistance provided by a project-financed expatriate marketing consultant, an international cocoa classification system was put in place. The unit has maintained strict supervision of quality control in storage, grading and shipping. The Unit has been instrumental in improving the quality of the cocoa exported. At present, 90% of the country's

cocoa is classified as Grade 1, while 100% of the cocoa exported by project's clients is grade 1, receiving during the 1989/90 cocoa campaign a premium in the world market. This compares favorably with discounts of nearly 10% prior to the project. Telex communications were established with the major world market cocoa traders and export licence procedures were simplified.

11. The achievements of the CGMU have been remarkable. Not only did it restore the world market confidence in Bioko cocoa, it also has broken the monopoly of the traditional shippers and traders. Currently Bioko cocoa is being shipped, by various lines, to a number of mainly North European countries, including Spain. CGMU is exporting the clients' cocoa on their behalf directly on the international market and has managed to get consistently better prices than the traditional exporting firms. Staff of the unit have received on-the-job and overseas training.

### III. Agricultural Development Organization

12. OFA will be established to provide the essential services of: (a) savings and credit (Savings and Credit Service - SAC); (b) inputs supply and distribution (Inputs Supply Service - SI); and (c) marketing of traditional and non-traditional export crops (Marketing Service SC). To ensure the financial sustainability of OFA, each Service eventually should become its own profit center, recuperate its financial start-up losses and conduct its affairs without subsidy on a commercial basis.

13. OFA will be constituted according to the existing laws and banking legislation of Equatorial Guinea, upon proclamation of a Government decree by which the Statutes of OFA will be approved. The draft statutes were agreed upon by the Government and IDA during negotiations.

#### Constitution and Objectives

14. At negotiations, the Government and IDA also agreed on proposals for establishing the organization. OFA will need to be established legally before the proposed credit becomes effective towards the end of 1990 (para 7.03 (c)).

15. OFA will be an autonomous, self-financing legal entity to be constituted according to the laws and banking legislation (Decree no. 2, 1987) of Equatorial Guinea. Its main objective will be to support small and medium-size farmer export marketing. OFA will provide unsubsidized input supply, credit and savings, and marketing assistance to all sectors of the economy with a natural emphasis on the agricultural sector. Credit and savings services, to be managed by the Savings and Credit Service of OFA (SAC), will operate without subsidy, with commercially-determined interest rates, and without targeting of credit. Initial equity and operating capital for SAC will be provided by the Government, from CRP balances. Borrowers will purchase equity in OFA as a requirement for further lending, gradually increasing private-sector ownership of the undertaking.

16. Options will remain open to an eventual integration of OFA's Savings and Credit Services, when conditions will be appropriate, into future national commercial or cooperative banking systems. To facilitate such integration, SAC's records and accounts will be managed separately from other OFA activities. Similarly, options will exist to either continue operating OFA as a input supply and marketing oriented enterprise or eventually integrate/sell off these services to now still missing private-owned and -operated marketing organizations. In either case, the exclusive marketing arrangements between SAC and the Marketing Services, (SC) will remain.

17. More specifically, OFA will:

(a) through its Savings and Credit Services (SAC):

- (i) provide non-targeted credit at market-determined positive interest rates to all sectors of the economy, which meet its strict creditworthiness criteria, beginning with existing CRP's borrowers;
- (ii) mobilize domestic resources through savings deposits and the rediscounting of credit operations through BEAC, which facility is currently unused; and
- (iii) conduct any banking service, in compliance with the existing banking legislation of Equatorial Guinea);

(b) through its Input Supply Service (SI):

- (i) be demand-driven in its procurement of inputs and equipment,
- (ii) introduce sound procurement procedures, acceptable to the Government and IDA, and stock inventory control systems; and
- (iii) establish adequate warehouse facilities; and

(c) through its Marketing Service (SC):

- (i) continue its leadership, established under the CRP, of promoting traditional exports, in particular cocoa, and operating profitably in the sophisticated international commodities market;
- (ii) market available cocoa from non-OFA clients, and extend its activities to support exports of diversified non-traditional agricultural crops;
- (iii) strengthen its commercial and economic information system by updating existing computer facilities and extending direct contacts with potential overseas markets; and

- (iv) continue assisting Government, on a commercial and contractual basis, in improving the quality of export cocoa through a strictly controlled grading system, rationalizing Government export procedures for traditional and non-traditional commodities, and lowering marketing costs through improved terms of trade.

18. OFA will support MALFF with cocoa grading and classification services. It will cooperate with the Ministry of Economy, Commerce, and Plan to rationalize import and export procedures, and where necessary, with any other institutions. It will have complete operational flexibility and autonomy, as authorized by current legislation, to conduct any business, provide any banking services, and take whatever initiatives necessary for the achievement of its objectives.

#### Financial Framework

19. Government will initially fund OFA by transferring to OFA's Savings and Credit Service, fixed, moveable, credit portfolio and liquid assets, held by CRP's Agricultural Credit Department, currently valued at some CFAF 300 million. Government will also transfer to OFA's Inputs Supply Service, stock of goods, held in stores and warehouses by CRP's Input Supply Unit, current value estimated at about CFAF 1,500 million. Government will also transfer to OFA, office warehouse and store facilities (para 7.02 (b)). Assets valuation will be carried out by an independent auditor, acceptable to IDA and according to Government's procedures at the time of transfer of these assets to OFA. These fixed, moveable and liquid assets will then become the property of OFA and constitute its fully subscribed share capital.

20. The transfer of portfolio and liquid assets held by CRP's Agricultural Credit Department to OFA will ensure the continued effective utilization of these funds for purposes of the proposed project.

21. The articles of incorporation of OFA will specify under which conditions, and when, utilizers of OFA's services will be allowed to acquire OFA shares, in order to eventually replace Government's original equity and convert OFA into a private-owned and -operated legal entity.

22. In order to carry out its tasks, OFA will have the following financial characteristics:

- (a) market-determined positive interest rates, initially established at 18% per annum on SAC's loans, to be reviewed yearly, to finance the recurrent costs of the Savings and Credit Service;
- (b) a margin, initially set at 15% of the price of acquired inputs, machinery and equipment of all types, to be revised periodically, to finance the recurrent costs of the Inputs Supply Service;

- (c) commissions, initially set at CFAF 4 per kg of export cocoa and at CFAF 2 per kg for non-traditional exports, for services rendered by the Marketing Service, including preparation of export documents and contracts, and
- (d) all income and benefits generated by assets belonging to OFA.

### Membership

23. The articles of incorporation will define under which conditions, and when, utilizers of OFA services will be allowed to acquire OFA shares and become members/shareholders of this entity. All individual or group-organized persons or private sector legal entities owning or leasing agricultural enterprises, involved in the agricultural or other sectors of the economy, will be eligible to become members/shareholders, under conditions and restrictions defined under above articles.

### Organization

24. The basic structure of OFA will comprise three Services (see chart):

- (a) the Savings and Credit Services;
- (b) the Input Supply Service; and
- (c) the Marketing Service.

25. OFA will be managed by a Management Team, consisting of OFA's General Manager and the three Service Managers. The functions of the General Manager will be defined under the statutes of incorporation. OFA's managerial and administrative tasks will be carried out by the above management team, consisting of selected national senior staff, who will be supported by an expatriate Savings and Credit Specialist and a Marketing and Procurement Specialist. To achieve this latter objective, a qualified expatriate Project Coordinator and a Training Advisor will prepare a long-term training plan to develop technical and management skills needed in OFA. Apart from the Project Coordinator, additional part-time technical assistance will be provided by the expatriate Financial Advisor and the Extension and Agricultural Production Specialist.

26. OFA's management will have complete authority, as defined under its statutes, to recruit, appoint and dismiss its personnel. The recruitment, nomination and dismissal of OFA's senior management staff, however, will require prior approval of its Board of Directors and IDA.

27. OFA's senior management, including its General Manager, will be recruited following recruitment procedures, accepted by IDA. Selection procedures would strictly be based upon technical and performance criteria. Selection of candidates, acceptable to IDA, would follow transparent and

standard procedures. To permit an early start of OFA, national staffing of its three services and selection of above mentioned Savings and Credit Specialist and Marketing and Procurement Specialist, should be completed before credit's effectiveness.

28. OFA's management team will be assisted by its Board of Directors, consisting of the Minister of MALFF (chairman), the Minister of Economy, Commerce and Plan, representatives of group-organized farmers, and representative(s) of other operators in the private sector. OFA's General Manager will be a non-voting member and Secretary to the Board. The terms of office of the Board, its composition and definition of its tasks and duties other than mentioned earlier, will be defined under the statutes of incorporation.

### Operations

29. National staffing, and recruitment of the Savings and Credit Specialist and the Marketing and Procurement Specialist should be completed by the end of 1990. Provided that the proposed project will be effective by that time, OFA's PY1 will start as of January 1, 1991.

30. OFA's management team, assisted by above-mentioned specialists, will prepare the Preliminary PY1 Annual Work Plan, covering the first four months of PY1, with the following major objectives: (a) establish a management support system to include quarterly reporting, monitoring and evaluation procedures, budgeting, procurement and financial controls, and Annual Work Plan preparation; (b) introduce improved input procurement and inventory management procedures; and (c) continue small farmer input supply, credit and cocoa marketing activities.

31. Sound internal budgeting, accounting and cost-control systems will be established. SAC's records and accounts systems will be administered and managed separately from other OFA Services, so as to facilitate the eventual incorporation of the Savings and Credit Services into future national banking and/or cooperative credit union systems, if such systems were to be developed within the next few years (para 16).

32. A revised Annual Work Plan for the balance of PY1 will be presented for the review by the Board of Directors and IDA after the fourth month of OFA's initial activities. Thereafter, Annual Work Plans for the following year will be prepared in the last quarter of every fiscal year.

33. Similarly, in the last quarter of every fiscal year, individual and consolidated annual income and expenditure budgets for the following year will be prepared. This draft budget, will be submitted by the General Manager to the Board of Directors for review and approval.

34. In addition, OFA's management will prepare Quarterly and Annual Progress Reports. Full financing reporting, in a format that will meet OCAM accounting and auditing standards, will be included with each Quarterly and

Annual Report. A monitoring and management information system will be put in place that will track progress toward OFA's commercial targets and the achievement of commercial sustainability for OFA operations.

35. Within the first quarter of every fiscal year, and for the first time in PY2, each Service Manager will finalize his Service budget general accounts, close the previous financial year and prepare the closing statement of assets to December 31. OFA's General manager will be responsible for the preparation of the consolidated accounts. The accounts will be submitted to OFA's Board of Directors for review and approval. OFA's records and accounts for each fiscal year will be audited in accordance with appropriate auditing principles by independent auditors, acceptable to IDA within six months after the end of each year.

#### Financial Sustainability of OFA Services

36. Achievement of financial sustainability of OFA's operations should be OFA's management main task. Efficient management of each income-earning service, strict control of operational expenditure, and close financial monitoring will be conditions to obtain this objective.

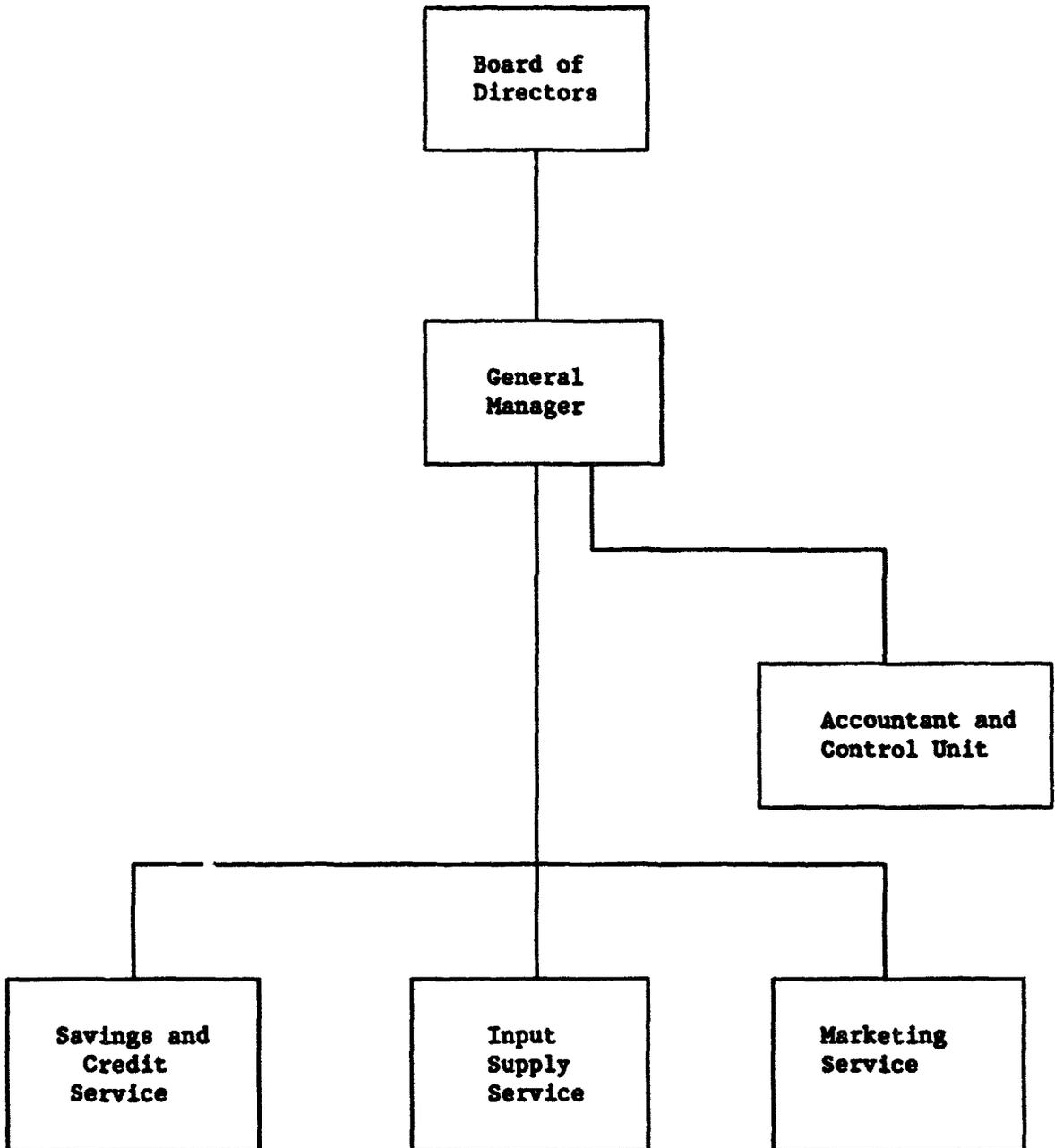
37. Income and expenditure projections for OFA as a whole and for each of its services are presented in Tables 1 to 4 of this annex. Projections indicate that after initial losses in the first two to three years, each income-earning service will become profitable. The accumulated losses of CFAP 69 million will be financed under the project. The margins, however, are small and close monitoring of the achievement of financial sustainability for OFA operations will be required. The moment that any one of OFA's services will become unsustainable, measures should be taken to either redress that situation or terminate operations of the relevant service.

EQUATORIAL GUINEA

Crop Diversification and Agricultural Services Project

Agricultural Development Organization

Organizational Chart



EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Agricultural Development Organization

Estimated Income Statement

Table 1. Savings and Credit Service (SAC)  
(CFAF million)

Item		PY0 a/	PY1	PY2	PY3	PY4	PY5
<b>1. REVENUES</b>							
Interest - Cocoa Rehab.	b/	-	6	24	48	39	26
Interest - Cocoa Campaign	c/	27	23	27	37	48	54
Interest - Cocoa Marketing	d/	-	3	4	8	11	13
Interest - Cocoa Diversification	b/	-	-	5	12	23	32
Interest - Other Sectors	b/	-	6	9	14	20	25
Interest - Seed Capital for Cooperatives	b/	-	-	1	1	2	2
<b>TOTAL REVENUES</b>		<b>27</b>	<b>38</b>	<b>70</b>	<b>112</b>	<b>143</b>	<b>152</b>
<b>2. EXPENDITURES</b>							
Salaries and Emoluments	e/	24	16	16	18	18	18
Per Diem/travel	e/	8	3	3	4	4	4
Doctor and medicines		2	2	2	3	3	3
Telephone and Telexes		1	1	1	1	1	1
Equipment Maintenance		2	2	2	2	2	2
Fuel	f/	11	2	2	3	3	3
Motorcycle leasing	g/	-	2	2	3	3	3
<b>TOTAL EXPENDITURES</b>		<b>48</b>	<b>28</b>	<b>28</b>	<b>34</b>	<b>34</b>	<b>34</b>
Interest Paid on Savings Accounts	i/	-	2	3	5	7	8
Interest BEAC Discounts	h/	-	9	19	30	35	32
Other Interest	j/	12	-	-	-	-	-
<b>TOTAL FINANCING EXPENDITURES</b>		<b>12</b>	<b>11</b>	<b>22</b>	<b>35</b>	<b>42</b>	<b>40</b>
Appropriation for Bad Debts	k/	6	11	17	25	27	38
Vehicle Depreciation	f/	7	2	2	2	2	2
Other Depreciation	l/	3	5	5	5	6	6
<b>TOTAL APPROPRIATIONS</b>		<b>16</b>	<b>18</b>	<b>24</b>	<b>32</b>	<b>35</b>	<b>46</b>
Contingencies	m/	8	6	8	10	12	13
<b>TOTAL EXPENDITURES</b>		<b>84</b>	<b>63</b>	<b>92</b>	<b>111</b>	<b>123</b>	<b>133</b>
Profit/Loss		(57)	(25)	(12)	1	20	19

- a/ Projected 1990 position for the Agricultural Credit Department (DCA) established by the Cocoa Rehabilitation Project (PRC) in the Development Credit Bank (BCD). This bank is being liquidated.
- b/ 18% p.a. on the loan balance.
- c/ 18% p.a. on the loan balance over eight months (six-month average).
- d/ 13% p.a. on the loan balance over three months.
- e/ In the first year, the drivers will be eliminated, because the vehicles currently allocated to the supervisors and the input Section staff will be withdrawn. In the third year, two additional supervisors will be appointed.
- f/ In the first year, the 4 wheel-drive vehicles assigned to supervisors will be withdrawn and replaced by all-terrain motorcycles.
- g/ The motorcycles will be provided on credit and will be the property of the supervisors, who will be paid a rental fee for their use in SAC-related activities equivalent to the motorcycle's depreciation of the motor and the amortization rate of the loan.
- h/ 11% p.a. on the BEAC rediscount balances. Average period = six months.
- i/ 6.5% p.a. on balances, payable half-yearly.
- j/ DCA currently has to pay 8% p.a. to the Government and 4% p.a. to BCD on the loans granted, which in the future would be suspended because (i) the Government would become a shareholder in SAC, and shareholders are eligible for dividends, but not interest; (ii) BCD will be liquidated and will not provide any services to SAC.
- k/ 2% on the value of the loans granted for cocoa production and 4% for other loans.
- l/ 10% on "other assets."
- m/ 10% on "total expenditures."

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Agricultural Development Organization

Estimated Income Statement

Table 2. Inputs Service (SI)  
(CFAF million)

Item	PY0	PY1	PY2	PY3	PY4	PY5
<b>1. REVENUES</b>						
Sales <u>a/</u>	<u>390</u>	<u>598</u>	<u>910</u>	<u>1.274</u>	<u>1.560</u>	<u>1.820</u>
<b>2. EXPENDITURES</b>						
2.1 Sales Purchases <u>b/</u>	<u>332</u>	<u>508</u>	<u>774</u>	<u>1.083</u>	<u>1.326</u>	<u>1.547</u>
Sales Margins <u>c/</u>	58	90	136	191	234	273
2.2 OPERATING COSTS						
Warehouse Rental	2	2	2	2	2	2
Salaries <u>d/</u>	18	18	25	25	31	31
Maintenance Vehicles	8	8	12	14	16	17
Fuel/Oil	3	4	5	6	8	9
Electricity	2	2	2	3	4	5
Telephone/Telex	2	3	4	5	6	7
Maintenance Buildings	<u>5</u>	<u>5</u>	<u>5</u>	<u>10</u>	<u>10</u>	<u>10</u>
	<u>40</u>	<u>42</u>	<u>55</u>	<u>65</u>	<u>77</u>	<u>81</u>
2.3 Financial Expenditures <u>e/</u>	-	17	28	38	44	52
2.3 DEPRECIATION						
Vehicles <u>f/</u>	2	2	2	2	2	2
Merchandise	17	25	39	54	66	77
Others	3	3	5	6	8	10
	<u>22</u>	<u>30</u>	<u>46</u>	<u>62</u>	<u>76</u>	<u>89</u>
2.4 CONTINGENCIES <u>g/</u>	<u>6</u>	<u>9</u>	<u>13</u>	<u>16</u>	<u>20</u>	<u>22</u>
Total Expenditures	68	98	140	179	217	244
3. Profit/Loss	(10)	(8)	(4)	12	17	29

a/ 70% to SAC clients and 30% to general public.

b/ 85% of sales.

c/ 15% of marketing margins.

d/ Represents 2% of sales (PY3 and PY5) - includes only local staff.

e/ 10% per annum in 4 months over value of purchases.

f/ 5% over purchases.

g/ 10% over expenditures.

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Agricultural Development Organization

Estimated Income Statement

Table 3. Marketing Service (SC)  
(CFAF million)

Item	PY0	PY1	PY2	PY3	PY4	PY5
<b>1. REVENUES</b>						
1.1 Charges for export services to clients						
- Cocos <u>a/</u>	2.0	5.0	7.1	9.9	12.7	14.4
- Other Products <u>a/</u>	-	-	0.4	0.8	1.2	2.0
	<u>2.0</u>	<u>5.0</u>	<u>7.5</u>	<u>10.7</u>	<u>13.9</u>	<u>16.4</u>
1.2 Charges for export services to non-clients <u>b/</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>	<u>8.4</u>
<b>TOTAL REVENUES</b>	<b><u>11.2</u></b>	<b><u>14.0</u></b>	<b><u>15.9</u></b>	<b><u>19.1</u></b>	<b><u>22.3</u></b>	<b><u>24.8</u></b>
<b>2. EXPENDITURES <u>c/</u></b>						
Salaries	5.0	5.0	5.0	6.0	6.0	6.0
Operation & Maintenance of Vehicles	1.0	1.0	1.0	1.0	1.5	1.5
Fuel	0.7	0.7	0.7	0.7	1.0	1.0
Electricity	0.5	0.5	0.5	0.7	0.7	0.7
Telephone, Telex, Fax	0.7	0.7	0.9	1.1	1.3	1.5
Warehouse Rental	3.0	3.0	3.0	3.0	3.0	3.0
Sub-Total	<u>10.9</u>	<u>10.9</u>	<u>11.1</u>	<u>12.5</u>	<u>13.5</u>	<u>13.7</u>
<b>DEPRECIATION</b>						
Vehicles	1.0	1.0	1.0	1.0	1.0	1.0
Other	1.0	1.0	1.0	1.0	1.0	1.0
Sub-Total	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>
<b>CONTINGENCIES <u>d/</u></b>						
	1.0	1.0	1.0	1.0	1.5	1.5
<b>Total Expenditure</b>	<b>13.9</b>	<b>13.9</b>	<b>14.1</b>	<b>15.5</b>	<b>17.0</b>	<b>17.2</b>
<b>Profit/Loss</b>	<b>(2.7)</b>	<b>0.1</b>	<b>1.8</b>	<b>3.6</b>	<b>5.3</b>	<b>7.6</b>

a/ CFAF 4/Kg to project clients since it includes identification of markets. CFAF 2/kg to other exporters.

b/ CFAF 2/Kg to all exporters.

c/ All charges (shipment, transport insurance, taxes, etc) will be passed on to owners of products. These expenses have not been included in the financial projections because they will be recovered.

d/ It represents 10% of total expenditures.

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Agricultural Development Organization

Table 4. Estimated Income Statement  
(CFAF million)

Item	PY1	PY2	PY3	PY4	PY5
<b>1. REVENUES</b>					
1.1 Savings and Credit Service (SAC) <sup>a/</sup>	38	70	112	143	152
1.2 Inputs Supply Service (SI) <sup>b/</sup>	90	130	191	234	273
1.3 Marketing Service (SC) <sup>c/</sup>	<u>14</u>	<u>18</u>	<u>19</u>	<u>22</u>	<u>25</u>
<b>TOTAL REVENUE</b>	<b>142</b>	<b>222</b>	<b>322</b>	<b>399</b>	<b>450</b>
<b>2. EXPENDITURES</b>					
<b>2.1 General Administration</b>					
General Manager	2.4	2.4	2.4	2.4	2.4
Bookkeeper	1.2	1.2	1.2	1.2	1.2
Supervisor	1.0	1.0	1.0	1.0	1.0
Secretaries	1.0	1.0	1.0	1.0	1.0
Operation and Maintenance Vehicles	1.0	1.0	1.0	1.0	1.0
Fuel and Oil	0.2	0.2	0.2	0.2	0.2
Telephone, telex, fax	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>
<b>SUB-TOTAL</b>	<b>8.5</b>	<b>8.5</b>	<b>8.5</b>	<b>8.5</b>	<b>8.5</b>
Vehicles Depreciation	1.0	1.0	1.0	1.0	1.0
Contingencies	<u>0.9</u>	<u>0.9</u>	<u>0.9</u>	<u>0.9</u>	<u>0.9</u>
<b>Sub-Total</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>
<b>2.2 Expenditures (SAC) <sup>a/</sup></b>	<b>63.0</b>	<b>82.0</b>	<b>111.0</b>	<b>123.0</b>	<b>133.0</b>
<b>2.3 Expenditures (SI) <sup>b/</sup></b>	<b>98.0</b>	<b>140.0</b>	<b>179.0</b>	<b>217.0</b>	<b>244.0</b>
<b>2.4 Expenditures (SC) <sup>c/</sup></b>	<b><u>14.0</u></b>	<b><u>14.0</u></b>	<b><u>16.0</u></b>	<b><u>17.0</u></b>	<b><u>17.0</u></b>
<b>SUB-TOTAL</b>	<b>175.0</b>	<b>236.0</b>	<b>303.0</b>	<b>357.0</b>	<b>394.0</b>
<b>TOTAL EXPENDITURES</b>	<b><u>166.0</u></b>	<b><u>247.0</u></b>	<b><u>317.0</u></b>	<b><u>368.0</u></b>	<b><u>405.0</u></b>
<b>Profit/Loss <sup>d/</sup></b>	<b>(44.0)</b>	<b>(25.0)</b>	<b>5.0</b>	<b>31.0</b>	<b>45.0</b>

a/ See table 1 (SAC).

b/ See table 2 (SI).

c/ See table 3 (SC).

d/ The accumulated losses during the installation period (PY1 and PY2) would be financed by the Project.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Project Implementation

1. This Annex outlines preliminary project implementation plans. It describes: (a) the project management strategy; (b) project organization and technical assistance team staffing; (c) periodic planning, monitoring, and reporting arrangements; and (d) project start-up arrangements and a preliminary first year work plan. Project management organization is outlined in Table 1. Table 2 presents an expatriate staffing plan and timetable. Detailed Terms of Reference for long and short-term expatriate advisors, U.N. Volunteers, and locally-recruited administrative staff are presented in Annex 8.

A. Project Management Strategy

2. The management approach will support the achievement of three inter-related project objectives: (a) the production and marketing targets; (b) the institutional development goals; and (c) the sustainability of project achievements.

3. Management requirements for meeting production, marketing and institutional objectives are straightforward. They include: (a) the timely and efficient execution of project activities; (b) effective supervision of and support for technical assistance staff and U.N. Volunteers; and (c) the continued adjustment of project implementation plans to capitalize on accomplishments and respond to changing circumstances. These needs will be met by the assignment of qualified nationals to key project management positions; the selection of a competent consulting firm, recruitment of technical assistance staff in accordance with the Terms of Reference in Annex 8; a carefully-managed project start-up period; and the use of a project planning, monitoring, and reporting system that will allow timely intervention when problems arise.

4. The achievement of the third objective -project sustainability- will require a willingness on the part of the Ministry and IDA to balance the pace of progress toward quantitative production and marketing targets against the need for time to meet training requirements, allow the maturing of national management skills, and gain the confidence of farmers and traders. Appropriate criteria will be built into Annual Project Work Plans to measure progress toward these objectives and to evaluate project and technical assistance team performance in terms of their achievement. The following general project design steps have been taken to help balance near-term output and longer-term sustainability objectives and to reduce barriers to sustainability:

- (a) the project will depend heavily on and will provide incentives for private sector initiative and investment, thereby limiting needs for sustained, long-term Ministry financial support or management;
- (b) extension service, applied research, and export promotion work will be paced to realistic estimates of market demand for the products that will be produced, and project returns should be demonstrably commensurate with investments;
- (c) performance criteria for project extension and marketing work will reflect the social setting for the project, with an emphasis on supporting the development of independent, village based farmer organizations and on ensuring that project activities reflect the crucial roles of women farmers and traders; and
- (d) all project components will include explicit training elements to ensure that national managerial and technical skills are sufficiently strong to sustain project accomplishments without substantial continued expatriate involvement.

5. The sustainability of project activities in the Continent, where technical assistance support will be limited, will receive further special attention. Much of the Continent's institutional development work, with particular regard to farmer organization, will require a longer time frame to achieve sustainable results. From a different perspective, transitory climatic difficulties or export marketing problems could delay the impact of fundamentally sound institutional development work by the technical assistance group. Project management arrangements with the U.N. contemplate one-year extensions for the three Volunteers in Bata. A longer-term program with additional volunteers will be proposed if the Mid-term Review suggests significant benefits from a continued U.N. Volunteer presence.

6. Sustainability will depend also on the early development and full use of national management skills. The project management strategy maximizes local responsibility for project policy and decision-making, while still providing for the effective use of expatriate technical skills that are not yet available in the Ministry or in OFA.

#### B. Project Organization and Staffing

7. Overall responsibility for project success will rest, from the outset, with a national Project Director. He will act on behalf of and answer to the Minister of Agriculture, Livestock, Fisheries and Forestry. The Project Director will be responsible for Ministry and OFA compliance with the Annual Project Work Plan. He will have authority over extension service officers and the General Manager of OFA with respect to project-financed matters. The Project Director and the expatriate Project Coordinator will prepare Annual Project Work Plans, for submission to and approval by the Ministry and IDA. The Project Director will ensure that the Annual Project Work Plan include no long-term undertakings that could not be continued without major expatriate technical assistance support. He will work with the

Project Coordinator to redesign any work proposals that did not meet this criteria.

8. The Project Coordinator, the Financial Advisor, and the short-term Training Advisor will work directly with the national Project Director. Together, they will provide him with the professional resources needed to execute the project without creating a new -and financially unsustainable - Ministry management structure. The expatriate Project Coordinator will act as the principal technical assistance advisor with respect to the achievement of institutional development, training, and sustainability objectives. He will work directly with the General Manager and the Financial Advisor to ensure that OFA operations are put on a commercial footing. Export promotion, extension and applied research will be integrated under his overall guidance and direction to secure a national impact and the coordination of other donor activities. He will be responsible for ensuring that all project work reflects the needs of rural women and for incorporating farmer and trader organization objectives into individual work plans. He will supervise the activities of all short-term consultants to ensure that their work goes forward in the context of overall project needs. The Coordinator will be also responsible for ensuring that expatriate staff and U.N. Volunteers complied with their Annual Project Work Plans, design and manage a project monitoring and management information system, and meet Ministry and IDA reporting and communications requirements.

9. The Financial Advisor will assist the General Manager of OFA in putting operations on a self-financing basis, implementing a long-term business development strategy, modernizing procurement and inventory management, and establishing sound internal budgeting, accounting, and cost-control systems. He will work with extension and marketing advisors to identify and promote investment in private sector export marketing opportunities. He will assist also in improving internal extension service planning and budgeting procedures and in designing an extension service monitoring and evaluation system. The Financial Advisor will have full responsibility for all project budget planning, accounting, and procurement activities. No financial commitment could be made or expenditure incurred without his explicit agreement. He will supervise two locally-recruited Administrative Officers in the use of a project financial management and record keeping system.

10. The Training Specialist (short-term consultant) will participate in Annual Work Plan preparation exercises to ensure that both managerial and technical training requirements for project implementation and sustainability are identified and addressed early in the project period. He will work with each expatriate advisor to prepare annual formal and informal training programs for local staff, and to cast those plans in measurable terms so that they could be used in evaluating project performance. He will establish a separate Quarterly Training Report System to ensure that these plans are implemented. He will arrange for foreign training programs, assist in the design of in-country training, and help procure training materials and equipment.

11. Production and applied research and extension work will be undertaken by the Ministry's extension service with assistance from the expatriate Extension and Agricultural Production Specialist. On Bioko, the principal direct responsibility of the Extension Specialist, will be to accelerate crop diversification efforts. He also will continue efforts to lower the costs of cocoa production and processing, oversee the transfer of cocoa extension and applied research activities to the Ministry, and supervise the development of IDEPA plantation land for smallholder use. On the Continent, he will assist the Ministry's Agricultural Delegation in T&V system development, applied research management and staff and animador training. This is a large and complex task, and he will therefore be assisted by senior short term specialists and by two U.N. volunteers with advanced training and experience in extension and applied research. The Project Coordinator will guide the nationally-focussed T&V development and applied research work.

12. Two expatriates will work with OFA. A Credit and Savings Specialist will help OFA to extend already sound credit services to other sector borrowers and introduce complementary savings services. He will work with the Project Coordinator and the Financial Advisor to structure OFA credit and savings services so as to facilitate their incorporation into future national banking and cooperative credit union systems. He will be responsible for building a national capability to manage these services by the middle of PY3.

13. A Marketing and Procurement Specialist will continue cocoa exporting work and identify opportunities for OFA and other private sector initiatives in non-traditional export marketing. It is unlikely that OFA will attempt to develop a full range of "in house" international marketing capabilities. The Marketing Specialist will be expected to design a practical strategy for financing the foreign exchange costs of specialized export services in the future. He will take direct responsibility for export market promotion and trader organization efforts on the Continent, and be assisted by one U.N. Volunteer with training and experience in marketing. In addition, he will support OFA import of agricultural inputs and equipment.

#### C. Project Planning, Monitoring and Evaluation and Reporting.

14. Initial project implementation work will follow the Preliminary PY1 Annual Work Plan outlined in para 19. A Final PY1 Work Plan will be presented for Ministry and IDA review after the fourth month of project activity. Annual Project Work Plans for succeeding years will be presented to the Ministry and IDA at the beginning of the fourth quarter of each year. The Project Coordinator will prepare Quarterly and End Of Year Progress Reports for submission to the Ministry and IDA. The Ministry and IDA will undertake a mid-term project review to assess progress of project implementation.

15. Project reporting and reviews will be supported by a Project Monitoring and Management Information System that will track progress toward project production and marketing targets. It will be supported also by the development of national, T&V-based extension and applied research systems; and the achievement of commercial sustainability for OFA operations. The system

also will provide information on farmer and trader organization, cooperative and credit union development work, and measures to address the needs of women. It will treat project sustainability as a separate issue, identifying and measuring progress toward organizational and management development and the achievement of training objectives. Full financial reporting, in a format that will meet OCAM accounting and auditing standards, will be included with Quarterly and Annual Reports. A preliminary design of this Project Monitoring and Management Information System will be presented by firms proposing to provide technical services under the project. A final version will be submitted for Ministry and IDA review before the end of the first quarter of PY1.

#### D. Project Start-up and PY1 Work Plan

##### (a) Project start up

16. Effective project management will require an ability to incorporate ongoing activities, and to draw effectively on other work initiated under the Technical Assistance Project. In the Continent, applied research and extension activities need to be continued. Marketing and farmer organization activities need to get underway to complement and keep pace with USAID-financed cooperative development work.

17. A first Project Preparation Facility of US\$ 450,000 was approved on December 23, 1989, and a second PPF of US\$ 220,000 was approved in September 1990. PPF funds are being used for the completion of preparatory studies for the creation of small holdings on IDEPA plantations appropriate for cocoa production and the initiation of complementary crop diversification work, including plans for the provision of extension and other production assistance and the organization of input supply and marketing services. These studies should be prepared before the end of 1990.

18. To permit an early start of project implementation, selection of key national staff and of expatriate technical assistance will be completed before credit effectiveness. They will include: (a) the nomination of national candidates, acceptable to IDA, for the positions of Project Coordinator and General Manager of OFA; (b) the evaluation of proposals, and tentative selection of a consulting firm to provide technical assistance services; and (c) the formalization of arrangements for the posting of three United Nations Volunteers.

##### (b) Preliminary PY1 project work plan

19. A revised Project Work Plan for the balance of PY1 will be agreed upon after the fourth month of project implementation. The plan outlined below will guide project work during the start-up period. It addresses nation-wide and general project management preparation work separately from early activities in the Continent and on Bioko.

National project activities

- (i) secure Ministry and IDA approval of a long-term T&V extension service and applied research development plan prepared with assistance from short-term specialists;
- (ii) establish a Ministry mechanism to coordinate other donor-funded extension and applied research activities;
- (iii) design a T&V extension training curriculum and begin to train agricultural school faculty in its use, and initiate formal training programs for extension service managers and Subject Matter Specialists;
- (iv) update export marketing studies, start a radio marketing broadcast service, begin to identify and publicize investment opportunities, and establish a planning system to link export promotion, applied research, and extension service management;
- (v) begin programs to address farmer and trader organization needs and ensure that extension and marketing programs reflect the roles of women;
- (vi) complete a project training plan that will build the technical and managerial skills needed for project sustainability;
- (vii) establish a project management support system to include quarterly reporting, Annual Work Plan preparation, monitoring and evaluation cycle; budgeting, procurement, and financial controls; expatriate technical assistance and U.N. Volunteer staff work planning and performance evaluation; and liaison with IDA;
- (viii) orient and provide housing and logistical support for U.N. Volunteers upon their arrival; and
- (ix) procure project vehicles and other logistical and support facilities and equipment.

Continental Region

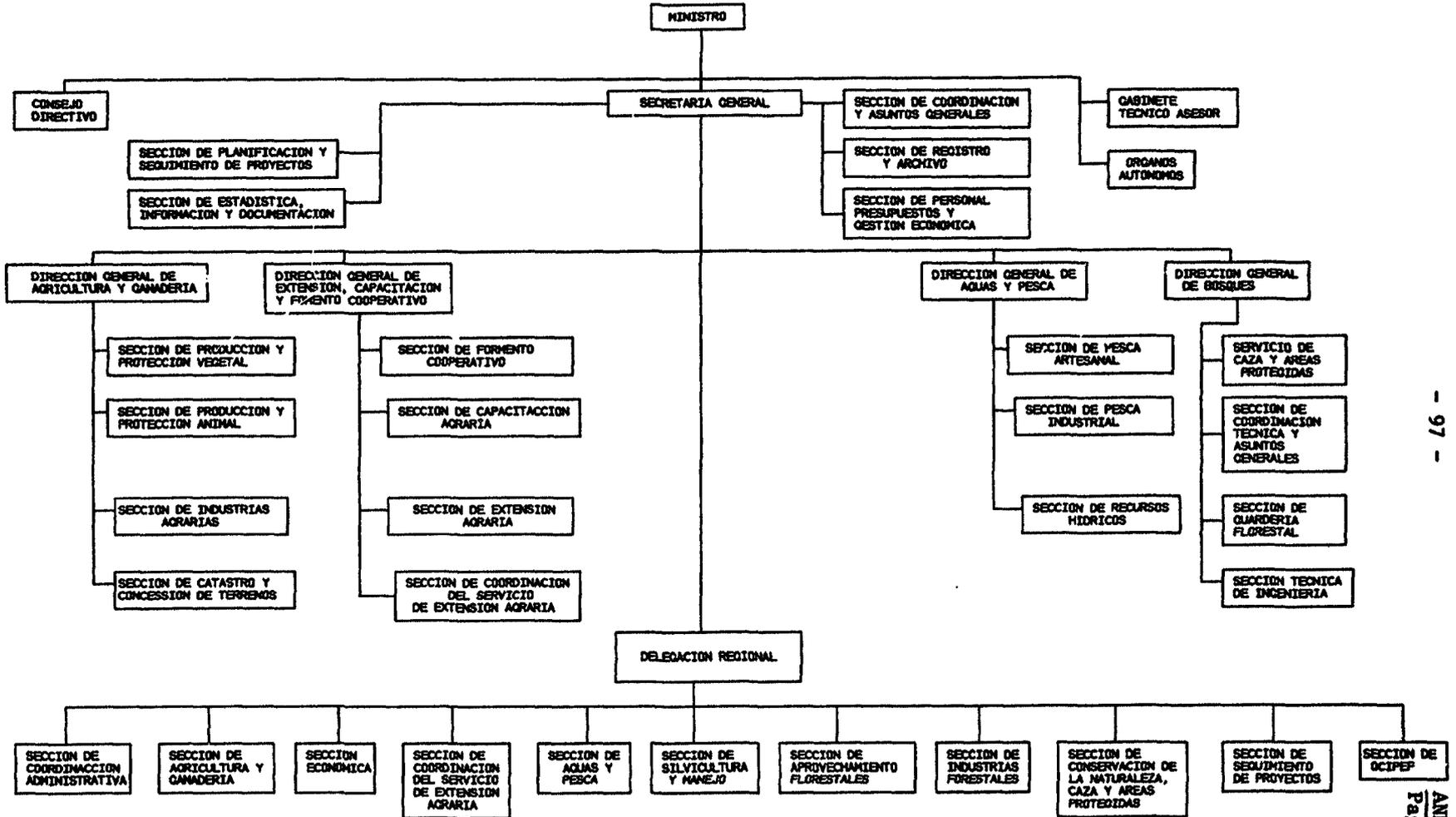
- (i) initiate food crop marketing activities in Gabon using available production and transport, begin marketing information broadcasts, and provide orientation for civil administration and customs officials;
- (ii) prepare and begin to implement a food crop production and marketing support plan in PY1/PY2 in coordination with U.N. applied research, extension, and marketing Volunteers;
- (iii) provide T&V orientation and refresher training for current extension service agents and design and begin training programs for animadores;

- (iv) consolidate and continue TAP-initiated food crop applied research and alley cropping demonstration programs; and
- (v) complete planning for road rehabilitation and the initiation of a ferry service to Cocoabeach in Gabon.

Bioko

- (i) continue small farmer input supply, credit, and cocoa marketing activities;
- (ii) introduce improved input procurement and inventory management procedures;
- (iii) initiate allocation of IDEPA plantation lands to small farmers;
- (iv) transfer CRP extension activities to the Ministry and provide T&V orientation and refresher training for current extension service agents; and
- (v) prepare a marketing study and applied research on potential non-traditional export crops.

**MINISTERIO DE AGRICULTURA  
PESCA, Y FORESTAL**



### EQUATORIAL GUINEA

Table 1. CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

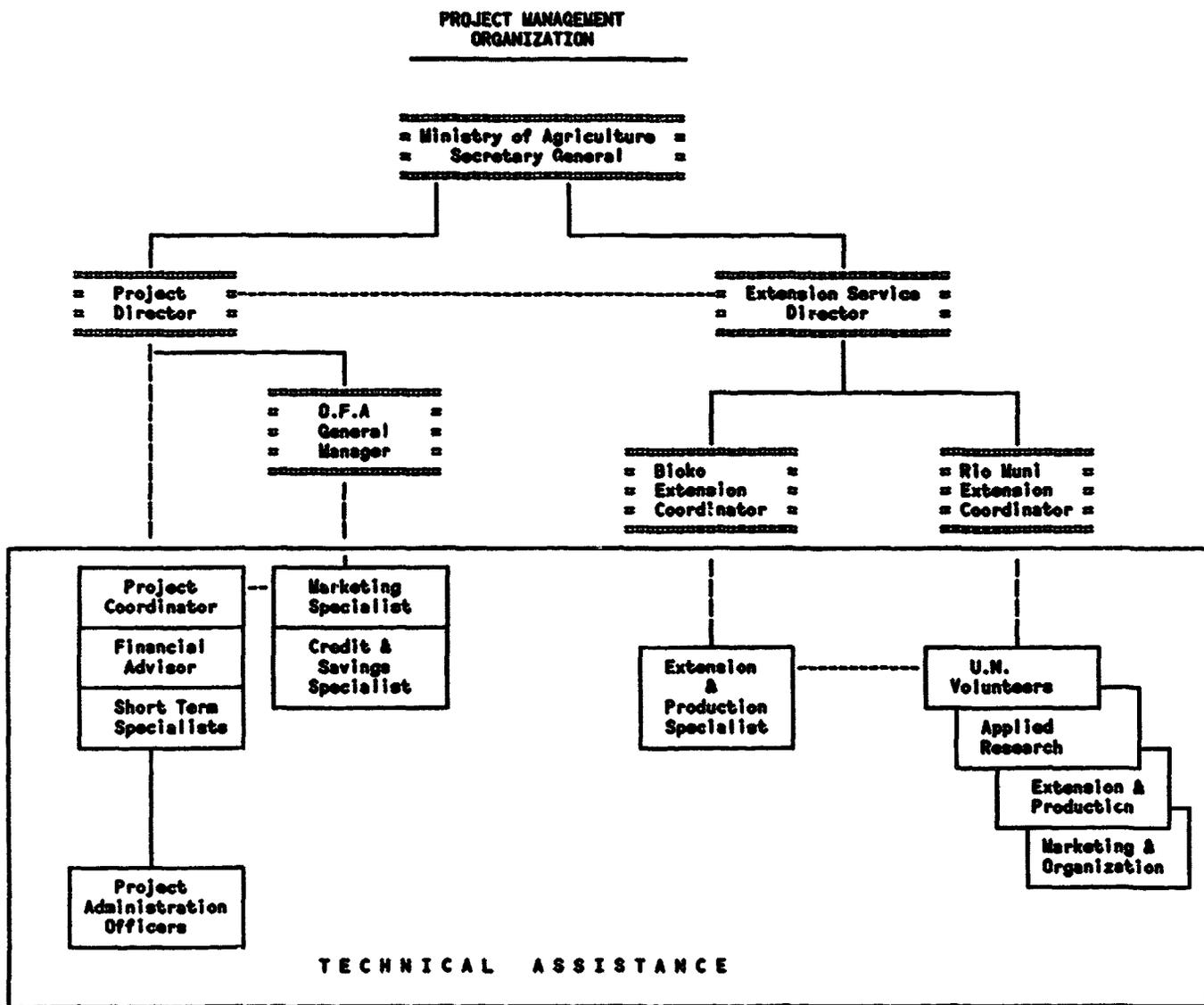


Table 2. Expatriate Technical Assistance Plan

	PY1	PY2	PY3	PY4	Man Yrs
<u>Long Term Advisors</u>					
A. Project Coordinator					3.5
B. Financial Advisor					3.0
C. Extension & Production Specialist					3.0
D. Marketing Specialist					3.0
E. Credit & Savings Specialist					3.0
Sub-Total Long Term					15.5
<u>Short Term Advisors</u>					
F. Training	—	—	—	—	0.75
G. Cooperatives	—	—	—	—	0.75
H. Extension - SMS and Training	—	—	—	—	0.75
I. Extension and Cooperatives	—	—	—		1.50
J. Applied Research	—	—	—	—	0.50
K. Roads & Ferry	—				0.25
L. Monitoring and Evaluation			—		0.25
M. Unallocated		—	—		0.30
Sub-Total Short Term					5.05
<u>U.N. Volunteers Continent</u>					
N. Applied Research					3.0
O. Extension					3.0
P. Marketing					3.0

Total Man Years Excluding U.N. Volunteers

20.55

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Terms of Reference for Technical Assistance

Introduction

1. This Annex presents proposed Terms of Reference for all expatriate project advisory and administrative positions. Terms of Reference were prepared as a guide for project planning and for consulting firms interested in providing technical assistance services. The project requires expatriate technical assistance with the overall mix of skills and experience described in this annex. Final staffing decisions will aim at that objective and not at meeting the precise qualifications suggested for each position.

2. The Terms of Reference are organized as follows:

(a) Long- Term

- (i) Project Coordinator
- (ii) Financial Advisor
- (iii) Extension and Agricultural Production Specialist
- (iv) Marketing and Procurement Specialist
- (v) Credit & Savings Specialist

(b) Short-Term

- (i) Training
- (ii) Cooperative Development
- (iii) T&V Extension/Subject Matter Specialist
- (iv) Extension & Cooperatives
- (v) Applied Research
- (vi) Infrastructure and Ferry Planning

(c) U.N. Volunteers

- (i) Applied Research
- (ii) Agriculturist/Extension
- (iii) Marketing/Farmer Organization

(d) Project Administrative Officers

( Long-Term

POSITION (i):        PROJECT COORDINATOR

Tasks

1.            The Project Coordinator would work directly with the Project Director, who will answer to the Minister of Agriculture, Livestock, Fisheries and Forestry. He will be responsible for: (a) the achievement of institutional development objectives and the sustainability of project accomplishments; (b) directing nationally-focused organizational, management development, and training objectives in the extension service and in the Agricultural Development Organization (OFA); (c) ensuring that OFA is put on a self-financing basis; (d) supervising the activities of expatriate project staff; and (e) project planning, administration, reporting, and record keeping. He will plan and ensure the satisfactory management of U.N. Volunteer assignments, in collaboration with the UNDP Resident Representative when needed. He will coordinate project management with other Government and donor-financed activities, with a particular emphasis on CLUSA and other small farmer organization and cooperative development efforts. He will oversee road rehabilitation and ferry procurement and installation. He will be assisted directly by a Financial Advisor and a short-term Training Advisor. Project Administrative Officers on Bioko and the Continent will assist in internal project administration, accounting, and record keeping.

2.            Expected institutional development outputs for which he will be responsible will include: (a) the establishment of an overall planning, management, and training system for the introduction of a national T&V extension service; (b) the creation of private sector export marketing networks; (c) the establishment of OFA on a self-sustainable, commercial basis; and (d) the implementation of extension management and export marketing promotion strategies that reflect the importance of women in production and marketing and support the development of small farmer organizations and cooperatives.

3.            Organizational and management development tasks for which he will be responsible will include: (a) directing the design and use of management information and monitoring and evaluation systems in the extension services and in OFA; (b) supervising training activities to ensure a project-period transition to full national management of major project activities; and (c) overseeing the introduction of planning and financial management and control systems to minimize investment and recurrent costs.

4.            Technical assistance team management responsibilities will include expatriate project staff planning and recruitment, the supervision of advisory team activities, and the maintenance of acceptable professional performance standards.

5.            Project administration responsibilities will include preparing and securing Ministry and IDA agreement to Annual Project Work Plans, the

implementation of a project monitoring and management information system, the submission of quarterly and annual project progress reports, oversight of project procurement and inventory management activities, and the supervision of project budgeting and accounting activities.

Assignment

6. Three and a half years. Duties will require work both on Bioko and in the Continental Region.

Qualifications

7. The qualifications of the Project Coordinator will include: (a) at least 10 years of successful experience in agricultural development project management including in a country with conditions comparable to those in Equatorial Guinea; (b) an understanding of Government and IDA sector policy objectives; (c) substantial project-level experience in management and organizational development, including work with cooperatives and private sector firms; and (d) a practical familiarity with the T&V approach to extension management and small-farmer agricultural production. Formal, graduate-level training in planning and management-related disciplines, along with an agriculture or rural development background would be required to meet Project Coordinator responsibilities. Fluent written and spoken Spanish would be essential.

Reports: Preparation of an initial report proposing a work plan after six weeks in assignment.

POSITION (ii): FINANCIAL ADVISOR

Tasks

1. The Financial Advisor will work directly with the Project Coordinator to: (a) ensure that all project activities respond to market signals and minimize investment and recurrent costs; (b) assist the General Manager of OFA and the Project Coordinator in designing an appropriate organizational structure for OFA; (c) establish financial planning and control and procurement and inventory management systems to ensure that all OFA services operate on a commercial footing; (d) design budget planning and accounting systems for the extension service and assist in implementing a monitoring and evaluation system; (e) supervise Project Administrative Officers and Ministry accountants in the use of project budgeting, accounting, and procurement management systems; and (f) assist in the introduction of a project monitoring and management information system.

2. The Advisor will assist directly in OFA input procurement and inventory management operations until new systems are tested and staff training is completed.

3. The Advisor will assist OFA in identifying and meeting staff training requirements in management, finance, and accounting; and execute on-the-job training programs for OFA officers.

4. The Advisor will assist also the Extension and Marketing Specialists in identifying and promoting potential OFA and private sector export promotion investments.

Assignment

5. Three years with third year option review before the end of PY2. Assignment will require work both on Bioko and in the Continental Region.

Qualifications.

6. At least ten years professional experience in the design and implementation of financial planning and management systems for both public and private sector clients. Demonstrated knowledge of procurement and inventory management and OCAM accounting and auditing standards. At least three year's successful project experience in a country setting comparable to Equatorial Guinea. Graduate training in finance or a related discipline. Fluent spoken and written Spanish.

Reports: Preparation of an initial report after six weeks in assignment proposing a work plan.

POSITION (iii): EXTENSION AND AGRICULTURAL PRODUCTION SPECIALIST

Tasks

1. The Specialist will concentrate on crop diversification efforts on Bioko, working with the Marketing and Applied Research Specialists to identify and test appropriate crops for domestic and export markets.

2. He will be responsible for small cocoa farmer extension activities, and for their integration into the Ministry extension service. He will continue applied research on cocoa production and post-harvest processing. He will train two professionals to the Subject Matter Specialist level. These officers will assume the Specialist's responsibilities at the end of his assignment. He will design and assist in testing a cocoa production training program for Ministry extension agents.

3. He will assist the Director of the Extension Service and the Project Coordinator in the preparation of plans for the introduction of T&V - based extension services on a national basis. He will assist in identifying and training two non-traditional export crop Subject Matter Specialists, who will work on Bioko. He will assist in designing and executing T&V training programs for Bioko extension agents and animadores.

4. He will oversee land use planning and the allocation to small holders of IDEPA plantation lands. He will supervise the provision of extension services to these farmers.

5. He will support other project activities as needed, including:  
(a) assisting in the design of a planning system for OFA inputs and equipment

import and supply activities, production credit services, and marketing programs; (b) linking Bioko non-traditional export crop extension services to market development programs; and (c) supporting the organization of small farmers to assist in the delivery of extension services and to facilitate crop marketing.

Assignment

6. Three years. Assignment will require work both on Bioko and in the Continental Region.

Qualifications.

7. The Specialist will have at least five years of experience in small holder cocoa production and post-harvest processing, prior training or experience in T&V extension systems, at least three year's successful project experience in a country where conditions are comparable to Equatorial Guinea. He will have graduate level training in agriculture. Fluent spoken and written Spanish.

Reports: Preparation of an initial report after six weeks in assignment proposing a work plan.

POSITION (iv): MARKETING AND PROCUREMENT SPECIALIST

Tasks

1. The Specialist will support OFA cocoa and non-traditional export marketing activities and import of inputs supplies and equipment. To put OFA services on a fully commercial footing, he will assist OFA's General Manager and the Project Coordinator in designing definitive organizational, management, and staffing arrangements for the organization. His principal responsibility in this respect will be to identify and implement a practical strategy for reducing OFA's dependence on expatriate technical assistance for cocoa marketing, the continued cost of which will endanger the organization's commercial viability. A sustainable solution probably will require a mix of measures including: (a) contracting with international traders or agencies; (b) intensive formal and practical training for OFA staff; and (c) increasing marketing service foreign exchange earnings to finance specialized assistance in the future.

2. Related responsibilities will include: (a) the design of an input and equipment procurement and supply system that will tie future purchases and inventories to probable farmer demand; (b) the development of a system to estimate credit demands and repayment capabilities; and (c) supporting general OFA management improvement and cost reduction efforts.

3. In addition to cocoa-centered work, the Specialist will assist the Ministry in identifying non-traditional export markets for Bioko and Continental Region farmers, help design complementary cocoa crop diversification programs, and organize farmers to produce for these markets. He will assist OFA in undertaking non-traditional export crop production and

promotion directly, when it appeared likely that proposed ventures will be commercially viable. He will guide and supervise the work of the UNV Marketing Specialist and assist in the preparation of marketing related programs for the Continental Region.

Assignment

4. Three years. Assignment will require work both on Bioko and in the Continental Region.

Qualifications.

5. The Specialist will have at least five years of practical, preferably private sector experience in international cocoa or other tree crop marketing, and/or food crop marketing and at least two years project experience in West Africa in cash crop marketing. He will have project experience in farmer and trader organization and cooperative development. A qualified Specialist probably will have advanced academic training in a marketing related discipline, but successful practical experience will have a higher priority. Fluent spoken English and Spanish, with working knowledge of French.

Reports: Preparation of an initial report after six weeks in assignment proposing a work plan.

POSITION (v):        CREDIT AND SAVINGS SPECIALIST

Tasks

1. The Credit and Savings Specialist will work with the General Manager of OFA, the Project Coordinator, and the Financial Advisor to ensure that legal, capitalization, and organizational arrangements for the establishment of the organization will support operation of a sound credit and savings services that could achieve a fully self-financing status before the end of PY3.

2. The Specialist will take principal responsibility for consolidating smallholder credit activities and transferring them to OFA, where they will be managed from the outset along self-financing, commercial lines. He will work with the Managing Director to expand OFA services to include savings as well as credit, and to serve any credit-worthy client. He will ensure that OFA credit and savings services will use market-determined, commercially viable rates of interest.

3. The Specialist will develop and implement training programs to permit full national management of OFA credit and savings services by the end of PY3.

4. The Specialist will study and present recommendations to support the eventual development of financially viable commercial and cooperative credit union banking systems, and structure OFA credit and savings operations so that they could be incorporated into such a larger system.

Assignment

5. Three years. Assignment will require work both on Bioko and in the Continental Region.

Qualifications.

6. At least five years of experience in the management of credit and savings services. At least three years successful project experience under conditions comparable to those in Equatorial Guinea. Graduate training in banking or finance. Fluent written and spoken Spanish.

Reports: Preparation of an initial report after six weeks in assignment proposing a work plan.

(b) Short-Term

POSITION (i): SHORT-TERM TRAINING ADVISOR

Tasks

1. The Training Advisor will assist the Project Coordinator to ensure that all project activities include sufficient training inputs to allow their continuation after the project period.

2. He will establish working contacts with Spanish language and other appropriate sources of formal and informal training, assist in planning and budgeting training activities, and design a financial and administrative support system for foreign training.

3. He will assist in preparing the long-term Project Work Plan and in reviewing Annual Work Plans for PY2 and PY3 to ensure that training needs are addressed fully. He will assist the Project Director, Ministry staff, and technical assistance advisors in the identification of specific training needs and the formulation of academic and practical training programs to meet identified needs. He will design and train expatriate staff in the use of a Quarterly Training Report system that will link evaluation of their professional performance to the achievement of project training needs.

4. He will assist in planning T&V training programs, and in procuring needed training supplies and equipment. He will work with project staff to identify and meet project library and periodical requirements.

Assignment

5. Short-term assignments during the first four years of project implementation (9 months).

Qualifications.

6. A qualified Training Advisor will have graduate level training in education or other manpower development-related discipline; a demonstrated knowledge of Spanish-language training centers with programs in extension, marketing, credit and other project-related areas; and at least two years of project experience under conditions comparable to those in Equatorial Guinea. Fluent written and spoken Spanish.

POSITION (ii):     SHORT-TERM COOPERATIVE DEVELOPMENT ADVISOR

Tasks

1. Review past and ongoing farmer and trader organization and formal cooperative and credit union development efforts and plans to evaluate their applicability to project needs.
2. In close cooperation with CLUSA, study Government policies and the legal framework for cooperative and credit union development and present recommendations for their improvement.
3. Assist Ministry and technical assistance staff in designing a project Work Plan that will support formal and informal farmer and trader organization.
4. Assist in preparing work plans for the U.N. Volunteers assigned to extension and marketing/cooperative development work.
5. Prepare training recommendations for extension service and marketing personnel, and assist directly in arranging and supervising visits to regional cooperative and credit union development projects.
6. Participate in the Mid-term Project Review taking responsibility for farmer and trader organization efforts and evaluation of long-term cooperative and credit union development perspectives.

Assignment

7. About nine months in separate assignments over the first three project years.

Qualifications

8. Experience in cooperative development and credit union organization in countries in the region.

POSITION (iii)      T&V EXTENSION SPECIALIST (SUBJECT MATTER SPECIALIST)

Tasks

1.            Review current extension training, staffing, and management arrangements and assist Ministry and technical assistance staff to design a long-term plan for the introduction of T&V-based extension on a national basis.
2.            Study ongoing donor-funded extension activities and prepare recommendations to incorporate gradually these efforts into the national T&V development program.
3.            Prepare extension service management training program recommendations.
4.            Prepare recommendations for Subject Matter Specialist (SMS) training programs.
5.            Assist in designing extension agent and animador training programs and in their introduction.
6.            Participate in the Mid-term Project Review, taking responsibility for the evaluation of T&V extension system development efforts.

Assignment

7.            About 9 months over the project implementation period.

Qualifications

8.            Agricultural extension experience in IDA-financed extension development projects in West Africa.

POSITION (iv).      EXTENSION AND SMALL FARMER ORGANIZATION SPECIALIST

Tasks

1.            Assist Ministry and technical assistance staff in continuing extension, applied research and "alley cropping", soil conservation activities in the Continental Region, initiated under the Technical Assistance Project.
2.            Assist the Marketing Specialist in continuation of farmer and trader organization efforts including development of village shops "economatos" for supply of staple goods and agricultural tools.
3.            Prepare a work program for Extension Specialist UN Volunteer to be implemented in between periodic visits to the country.

4. Support project staff and the T&V Extension Specialist in the design and testing of training programs for extension services "animadores".
5. Participate in the Mid-term Project Review, taking responsibility for the evaluation of T&V extension system development efforts.

Assignment

6. About 18 months over three years.

Qualifications

7. Prior experience in small farmer organization, extension and training of extension staff in West African Countries.

POSITION (v).      APPLIED RESEARCH SPECIALIST

Tasks

1. Review applied research activities and draft a long-term development plan, including provisions for linkages with regional research centers.
2. Assist project staff and the Applied Research U.N. Volunteer in preparing applied research development plans for Bioko and the Continental Region.
3. Assist in preparing training programs for SMS-level agents.
4. Arrange applied research training visits in neighboring countries.
5. Participate in the Mid-term Project Review taking responsibility for evaluation of applied research activities and revision of long-term development plans.

Assignment

6. About six months over project implementation period.

Qualifications

7. Experience in applied research in countries in West Africa.

POSITION (vi).      INFRASTRUCTURE AND FERRY SPECIALIST

Tasks

1. Prepare work plan and procurement documents for Mbini-Cogo road rehabilitation work.

2. Prepare Terms of Reference for feasibility study and cost estimates for ferry service, and bidding documents for the procurement of the ferry.

Assignment

3. About three months during first project year.

Qualifications

4. Civil Engineer with experience in rural road rehabilitation under West African conditions, a knowledge of marine equipment and ferry operations, and familiarity with IDA procurement procedures.

(c) U.N. Volunteers

Preface

Three U.N. Volunteers will be assigned to work with the project team. They will be based in Bata. The Project Director and Project Coordinator will take direct responsibility for ensuring the overall management of their assignments in accordance with an agreement to be signed with the United Nations. Initial assignments will be for a period of two years, with provisions for extensions and/or the posting of additional Volunteers for a third year.

Each Volunteer will be expected to have relevant graduate level training or equivalent practical experience in his or her area of expertise. Spanish fluency will be required before arrival in the country.

The individual Terms of Reference outlined below represent the overall mix of skills expected of the Volunteers. Individual assignments could be modified as long as the overall skill mix is made available.

POSITION (i) APPLIED RESEARCH VOLUNTEER

Tasks

1. Assist in preparing and then execute work plans to further develop applied research farms on the Continent including a farm in the Mbinicogo area and Km 13 of the Bata-Niefang Road.
2. Work with the UNV Marketing and Farming Organization Specialist to identify and begin research on food crops in demand in Gabon and other regional markets and with the Agronomist/Extension UNV and related consultants to ensure appropriate links between extension and research.
3. Assist in training Subject Matter Specialists (local) in applied research management, and collaborate in extension agent and "animador" training programs.

4. Study traditional farming patterns and the roles of women farmers and identify and test approaches to introduce new cropping practices that will support both farmer organization and soil conservation.
5. Assist the Ministry to improve the national coordination of research work funded by other donors. Ensure link between research and extension and other market-defined needs and implement these programs in the Continental Region.
6. Prepare Quarterly annual progress reports on work undertaken under the Applied Research Sub-Component.

Qualifications

Graduate level training in agronomy or a related discipline. Practical research experience with rainfed food crops. Knowledge of sound soil conservation practices including alley cropping system of production. Fluent written and spoken Spanish.

POSITION (ii) AGRONOMIST/EXTENSION VOLUNTEER

Tasks

- (a) assist the short-term Extension and Small Farmer Organization Specialist in preparing and executing a plan to introduce T&V-based extension service in the Continental Region.
- (b) work with the Applied Research volunteer to ensure adequate linkages between applied research and extension activities.
- (c) help the Ministry in designing training programs and materials and in training and supervising Subject Matter Specialists (local), extension agents, and village-based animadores.
- (d) design and test extension approaches that reflect the importance of women in food production and reinforce farmer organization efforts.
- (e) incorporate soil conservation and family nutrition objectives into extension messages.
- (f) assist directly in the provision and supervision of project extension services.
- (g) assist the Ministry to design a national extension services development program, introduce T&V management concepts on a national basis, and coordinate and integrate extension activities in other donors funded projects.

- (h) prepare quarter and annual progress reports on extension activities undertaken under the Extension and Research Component.

Qualifications:

Graduate level training in extension or agronomy. Practical experience in small-farmer extension, preparation of training materials and actual training of extension agents and farmers. Working knowledge of the Training and Visit extension system will be an advantage. Fluent written and spoken Spanish.

POSITION (iii).     MARKETING/FARMER ORGANIZATION VOLUNTEER

Tasks

- (a) Under the overall guidance of the Bioko-based Marketing Specialist, market survey work in Gabon, in marketing broadcast and other communications programs, in planning long-term export promotion work, and in the initiation of new exports to Gabon.
- (b) assist in linking Ministry applied research and extension planning to market demand.
- (c) support village organization for production, trading, and the purchase of staple goods and agricultural tools.
- (d) study and test ways to support the organization of rural women for production and marketing, and to link extension services to organized farmers.
- (e) assist the short-term consultant in identifying and acting on needs for the future development of formal cooperatives and credit unions.
- (f) prepare quarter and annual progress report on activities undertaken.

Qualifications

Training and practical experience in food crop marketing and farmer and trader organization, preferably including cooperatives and credit unions. Fluent written and spoken Spanish and working knowledge of French.

(d). Project Administrative Officers

Preface

Two Project Administrative Officers will be recruited locally to provide internal project management and logistical support on Bioko and in the Continental Region. Project management support and accounting systems will be designed by the Project Coordinator and the Financial Advisor, who will be responsible for training and supervising the Administrative Officers in their use. Both officers will:

1. Establish secure project support offices with clerical, communications, and logistical support facilities and personnel.
2. Control the use of and ensure the repair and maintenance of project vehicles and equipment.
3. Maintain project filing systems.
4. Maintain project budgeting, accounting, procurement, inventory and record keeping systems.
5. Provide administrative and logistical support for U.N. Volunteers.
6. In addition to these duties, the Bata Administrative Officer will coordinate World Food Program Support for road rehabilitation, provide direct assistance to U.N. Volunteers, OFA staff in the Continental Region, and the IFAD-funded Poverty Alleviation Fund.

Qualifications

7. Prior satisfactory experience providing administrative and logistical support to an internationally-funded technical assistance project.

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Economic Analysis

A. Introduction

1. The benefits that the project will generate are of several types. On Bioko, the principal economic activity concerns the production and export of cocoa, which generates over 30% of the country's value of exports. Since 1985, international cocoa prices have fallen steadily to the point where they are now 30% of the real value reached that year. The forecast is for slow recovery of prices, such that by the year 2000, they will be only 50% of the 1985 level, in constant value.
2. In view of this situation, the expectation is for further reduction of cocoa production on Bioko, with the resulting negative effects ripping through the economy. In these circumstances, the project will seek to focus efforts on areas with the highest potential because of better ecological conditions. In these places, incentives will be offered, through the supervised credit program started under the ongoing Cocoa Rehabilitation Project (CRP), to make the technological changes essential to keep cocoa exports viable. At the same time, support will be given to diversification of farm production for the purpose of starting the development of non-traditional exports that offer good sales prospects in external markets.
3. As a result, on Bioko, the short term benefits that are easiest to quantify will come from the added value of cocoa production and the resulting gains in earnings. Over the medium and long term, the benefits will also come from development of non-traditional exports.
4. In the Continental Region, the project plans to develop food crops production for export. At this time, an estimated 3,000 tons of plantains, pineapples, citrus fruit and others are transported by different routes to Gabon where there is a great shortage of supply of these traditional foods for the human diet.
5. By means of specific actions, the project will help expand the exported volume of these goods. The estimate is for 6,000 additional tons by Year 10. Although this will represent a 200% gain over present volumes of exports, a significant development for the exports of Equatorial Guinea, it constitutes a small percentage of what is currently imported to Gabon, primarily from other countries of the region in general which are farther from Gabonese consumer centers. If access routes from the Continental Region to the Gabon border are improved, the cost of imports to supply Libreville will be lower for products from this region.
6. In the continent, the benefits will be of differing types. First, the project will start actions aimed at developing an export corridor through Cogo to Gabon, where the increased food production will be marketed. These foods are part of the traditional diet in this part of Africa. These benefits

in terms of added income can be quantified with relative ease. In addition, there will be other medium and long term benefits, more difficult to quantify, that will relate to:

- (a) establishment of domestic and external marketing channels, including the organization and development of infrastructure such as roads, bridges and warehouses which will strengthen the actions that other internationally-aided projects are undertaken on the mainland region;
- (b) strengthening the Extension Service of the Ministry of Agriculture, resulting in improvements in production techniques, establishment of village shops (economatos) and farmer organizations, improvement of communications in rural communities, and other activities. These will raise the standard of living of the rural population and enhance their opportunities for development; and
- (c) improved communications, lowering the costs of transport and food supply, medicines and others, with the resulting positive effects on rural incomes.

B. Assumptions made in the Analysis

Exchange Rate

7. In the economic analysis all prices of tradable inputs and outputs have been adjusted with a shadow exchange rate to account for the degree of over-valuation of the CFA franc. The estimated over-valuation is 30%.

Prices

8. On the Island, the prices used for labor, inputs and goods are actual current prices during November 1989, with the exception of the cocoa price, which is related to the cocoa world market price. The following table shows movements in domestic prices of cocoa beans for 1990, 1995 and 2000, as projected by the World Bank in January 1990.

Estimated Farm Prices for Cocoa

		-----Years-----		
		1990	1995	2000
		(In US\$/t)		
<b>1. Project prices (CIF, NY &amp; London)</b>				
(In constant 1985 US\$)	1/	690	760	1,130
(In constant 1989 US\$)		950	1,050	1,550
<b>2. Premium for origin</b>	2/	70	70	70
<b>3. <u>CIF Prices, Europe</u></b>		1,020	1,120	1,620
Freight	2/	87	87	87
Insurance	2/	20	22	32
Shrinkage	2/	10	11	16
<b>4. <u>FOB prices, Malabo</u></b>		903	1,000	1,485
		(In CFAF/kg)		
<b>5. Expenses and Fees</b>	2/	284.4	315.0	467.8
Customs duty		2.9	3.2	4.7
Ministry of Commerce		2.1	2.1	2.5
CAMARA		2.0	2.2	3.2
Port fee		0.9	0.9	1.5
Agency (Besora)		3.2	3.2	3.5
Maintenance		1.0	1.0	1.5
Grading		0.5	0.5	0.5
Shipment to port		1.0	1.0	1.0
Storage		3.0	3.0	3.0
Handling		7.6	7.6	7.6
Freight to warehouse		3.0	3.0	3.0
Drying		20.0	20.0	20.0
Contingencies		7.2	7.3	5.8
<b>6. <u>Farm prices</u></b>		230.0	260.0	410.0

1/ Price projections from World Bank, January 1990.

2/ The figures for premiums, commissions, fees, export expenses, conditioning, storage and shipping of cocoa used here come from real figures declared by the CRP.

9. As can be seen from this table, these projections were put in constant 1989 US\$, adding a premium for origin which actually is granted to cocoa from Equatorial Guinea in buyer markets. Deducting the costs of insurance, freight and shrinkage to get the FOB price Malabo, and the rates and expenses for export, conditioning, storage and domestic freight, will yield a domestic price to the cocoa producer of CFAF 230, 260 and 410 per kg of dry cocoa, for the years given. In the economic analysis, these prices were adjusted upwards by 30% to account for the exchange rate over-valuation.

10. In the Continental Region, the farm-gate prices of the added products generated by the project were determined based on November 1989 prices in Equatorial Guinea and Gabon. These are as follows:

Cassava bars	CFAF	15/kg
Pineapple	CFAF	150/kg
Pepper	CFAF	800/kg
Pumpkin	CFAF	80/kg
Plantain	CFAF	100/kg
Citrus	CFAF	80/kg

In the economic analysis, these prices were adjusted upwards by 30% to account for exchange rate over-valuation.

11. The prices used for inputs are the market prices in the country for the last months of 1989, at which time product prices were also taken. The analysis of the market prices for the principal supplies revealed that these prices are at the international level plus costs of bringing them into the country and distributing them. Again, in the economic analysis, the importable input prices were adjusted upwards by 30% to reflect the exchange rate over-valuation.

12. Labor, for its part, was dealt with differently in developing its value. On the Island of Bioko, where labor is in short supply, family labor and sharecropper labor were valued at the 1989 national minimum wage which is the equivalent of CFAF 500 per day. Seasonal labor, which consists of labor required during peak periods for agricultural work (phytosanitary treatment and harvesting, primarily) was valued at CFAF 1,500 per day, which is actually the amount paid to secure workers (piece workers) during times of highest demand.

13. The following table shows the values normally assigned to land and to labor, and the prices of the major inputs used to produce cocoa:

Prices of Inputs and Costs of Labor

<u>Item</u>	<u>Unit</u>	<u>Amount (CFAF)</u>
Land rent	Hectare	10,000
Purchase of land	Hectare	50,000
Copper sulfate	Kilogram	260
Lime	Kilogram	85
Labor:		
- Family	Day	500
- Contract	Daily	1,500
- Sharecropper	Day	500

14. The prices of tools (machetes, files, hoes, shovels, sacks, etc.) used are November 1989 prices in Equatorial Guinea. Labor, for its part, was not considered a production cost paid in cash since it is primarily family in nature and has an opportunity cost of close to zero. For the farm models, an estimate was made of income generated per day of work after determining the net benefit in cash from the projected activity.

Budgets and Farm Models

15. To estimate the benefits of the project, three partial budgets were prepared for cocoa production systems and these were used to build five farm models that represent the situation of the beneficiaries on the island of Bioko. For the mainland, two farm budgets were prepared for food crop production. Based on these models and the pace of adding beneficiaries to the project, their figures were aggregated to quantify the project benefits.

16. The family consumption of the beneficiaries consists of two parts: one is the amount of foods produced for on-farm consumption (cassava, cocoyams, plantains, groundnuts, etc.) Their value was not quantified in the farm models, because these are usually raised on non-commercial farms, with women supplying the labor. On the mainland, crops for on-farm consumption sometimes leave surpluses that are marketed. As a rule, mainland crops are less market-oriented than in Bioko. As a result of this, the labor and tool requirements in the Continent were included in the farm models. However, a value was assigned only to the portion of production that exceeds family consumption, that is, crops that go to market.

17. Besides this, it is believed that family consumption is supplemented by a minimum cash income of approximately CFAF 10,000 per month with which a family meets its needs.

C. Budgets for Cocoa and Foodcrop Production

18. For cocoa production on Bioko, Staff Working Paper 8 provides the details on the yields that will be obtained, the inputs and the family labor requirements per hectare. The three following per-hectare budgets have been determined:

- Budget 1: cocoa crop from small, medium and large beneficiary clients of the Cocoa Rehabilitation Project;
- Budget 2: cocoa crop from the new beneficiaries who were not clients of the CRP;
- Budget 3: sharecroppers and landless beneficiaries settling in abandoned cocoa plantations in the most suitable regions.

19. Different results are expected depending on the starting condition of the crop. In the case of the plantations of the ongoing cocoa project beneficiaries (budget 1), whose yields are expected to be 600 kg/ha in 1990/91 (year zero of this project), the planned actions in this project will boost the yield to 800 kg/ha at the end of four years (a 33% gain). For beneficiaries who were not clients of that project (budget 2), the average starting yield will be 450 kg/ha, increasing to an average of 700 kg/ha by PY4 of incorporation (a 56% gain). The third budget, which assumes abandoned plantations on the most suitable lands, shows yields that will go from zero to 800 kg/ha by the fourth year of rehabilitation.

20. The crop budgets mentioned above incorporate the technological changes which have been introduced under the CRP and will continue to be implemented under the proposed project. These will result in land production gains and more efficient labor usage (owing to the effects of less shading, better fungicide application methods, better plantation management, etc) and a similar reduction in production costs per hectare by reducing by half the amount of copper sulfate, lime and water used to control black pod disease. Similarly, the budget for the plantations, which will be purchased and rehabilitated by farmers resettling on the former IDEPA plantations includes the following items in the investments:

- (a) land purchase costs, using the present system in Equatorial Guinea, known as the "10% procedure," through which the buyer pays 10% of the price as a down payment and the balance in five equal installments per year, conditioned on rehabilitation of the property;
- (b) the costs of rehabilitating the plantation; and
- (c) the individual share for a stationary crop spraying unit, consisting of one motorized pump, high pressure hoses and other accessories. Each set, costing some CFAF 2.4 million, will be shared by ten farmers each farming 6 ha.

21. A farm budget was also prepared for food crop production in the Continental Region, which gives details on expected yields, inputs and family labor requirements per ha. That crop budget incorporates introduction of higher yielding cultivars and varieties, and improved farming techniques, and replanting of low-yielding citrus by improved rootstock. The impact of these measures on production in PY5 would be as follows. Cassava production would increase by 30% from 8 to 10.4 tons/ha; groundnuts and maize production by 40%

from 600 to 840 kg/ha; citrus by 60% from 3 to 4.8 tons/ha at full production; and plantains by 67% from 2.4 to 4 tons bunches/ha.

#### D. Farm Models

22. Based on above mentioned crop budgets, five cocoa farm models and two food crop farm models were prepared, to represent the expected evolution of production by project beneficiaries.

##### Cocoa Farmers (Bioko):

- (a) Model A: smallholder clients of CRP; on an average, these persons work 4 ha. It has been estimated a total of 400 beneficiary farmers working under this model. Of the 550 clients of the present CRP, it is expected that only 400 clients, cultivating 1,600 ha will be able to keep working under the new situation of falling international prices;
- (b) Model B: first project clients, both medium and large (20 beneficiaries), who will work an average of 20 ha, making a total of 400 ha for the project;
- (c) Model C: new smallholder clients, working an average of 4 ha, who will account for approximately 275 beneficiaries with a total production area of 1,100 ha;
- (d) Model D: new medium and large scale clients, who operate an average of 20 ha each. This model will represent approximately 45 beneficiaries with a production area of 900 ha;
- (e) Model E: this model is for 340 new farmers that the project will settle in 2,000 ha assigned by the Government for this purpose. These are abandoned cocoa plantations in the most suitable locations.

##### Foodcrop Farmers (Continental Region):

- (f) Model F: this model will represent 640 foodcrop farmers in the Mbini and Cogo Districts on the mainland. These farmers cultivating some 1.90 ha, of which 0.38 ha in fallow, located at various sites, are maintaining the traditional shifting cultivation system, within which over time they are introducing better yielding and/or higher remunerative crops.
- (g) Model G: this model will represent 160 foodcrop farmers in the districts of Mbini and Cogo, who will transform their slash-and-burn shifting cultivation system into a permanent alley cropping farming system. Total farm size will remain 1.90 ha, located in one block and subdivided in five plots of each 0.38 ha. Annual crops will rotate within these plots. To the extent possible, small ruminants will be integrated within this system. Soil fertility will be enhanced by the use of leguminous crops, soil mulching, improved soil conservation and organic manure.

23. The analysis of the cocoa farm model budgets shows that the level of family income would vary with type of beneficiary and project year. The range would be from 36% to 1,120% in year one, and from 55% to 140% in year ten, respectively, as can be seen in the following summary table:

<u>Farm Family Income</u>			
<u>(CFAF '000)</u>			
	<u>Year 1</u>	<u>Year 5</u>	<u>Year 10</u>
<u>Situation without project</u>			
<u>Cocoa Farmers (Bioko)</u>			
Model A 1/	247	304	665
Model B	686	974	2,774
Model C 1/	114	157	427
Model D	20	236	1,586
Model E 2/	120	240	360
<u>Foodcrop Farmers (Continental Region)</u>			
Model F	103	103	103
Model G	103	103	103
<u>Situation with the project</u>			
<u>Cocoa Farmers (Bioko)</u>			
Model A 1/	338	554	1,034
Model B	1,142	2,221	4,621
Model C 1/	159	450	870
Model D	244	1,701	3,801
Model E	141	445	1,450
<u>Foodcrop Farmers (Continental Region)</u>			
Model F	103	281	308
Model G	100	384	404
<u>Increase of income</u>			
<u>Cocoa Farmers (Bioko)</u>			
Model A	91 (36%)	250 (82%)	369 (55%)
Model B	456 (66%)	1,247 (128%)	1,847 (66%)
Model C	45 (39%)	293 (188%)	443 (104%)
Model D	224 (1120%)	1,465 (621%)	2,215 (140%)
Model E	21 (17%)	205 (85%)	1,855 (515%)
<u>Foodcrop Farmers (Continental Region)</u>			
Model F	0 (0%)	177 (173%)	205 (199%)
Model G	-3 (-3%)	281 (273%)	301 (292%)

1/ Includes farm benefits and the allocation which appears as family labor in the cost figures.

2/ It is assumed that the farmers to be settled in new areas would have some income from alternative activities.

24. The figures given in the summary table (for the situation with the project) show that in all cocoa models considered, net family income after financing exceeds CFAF 12,000 monthly, which can be considered a threshold that ensures ability to pay the credits necessary to finance the activities included in the project to expand the cocoa production. In foodcrop production on the mainland, the margins are clearly less and here farm income and production increases will mainly result from improved planting material and cultivation techniques.

25. Furthermore, although the food crops component of the project will pertain to the entire mainland area, the expected actions in support of the extension service of the Ministry of Agriculture and the creation of export channels through the Bata-Cogo corridor and the Akurenam border also include specific actions located in the districts of Mbini and Cogo. Based on these planned actions, the estimate is that 50% of the benefits of this component will come from these districts and the remainder from the other parts of the country.

26. For the purpose of quantifying the expected impact of the project on production and farm income, representative farm models F and G were prepared for the farmers of Mbini and Cogo. The following summary table shows the major characteristics of those models, including expected change in land use, production, labor input, value of sales and income and expenses in cash, as estimated. The chief distinction between the two models is that Model F will maintain the migratory nature of agriculture in the region while Model G will make substantial changes in land use by considering the establishment of permanent farms as opposed to the traditional migratory system (alley cropping farms).

27. As can be seen in the table, the project will boost the level of cash income from its present level estimated at CFAF 100,000 to approximately CFAF 280,000 to 380,000 by year 5, and to CFAF 300,000 to 400,000 by year 10. This will mean an increase of approximately 200% to 300% in the net farm income, by boosting family labor alone from 220 workdays per year to approximately 300 in year 5 and 350 in year 10. As a result, the earning per day of work will increase from approximately CFAF 460 to CFAF 880 and to CFAF 1,320, in year 5, for models F and G, respectively.

Foodcrop Production in the Continental Region  
Key Data Farm Model F and G

<u>Model</u>	<u>Year 1</u>		<u>Year 5</u>		<u>Year 10</u>	
	<u>F</u>	<u>G</u>	<u>F</u>	<u>G</u>	<u>F</u>	<u>G</u>
1. <u>Land Use (ha)</u>						
Cassava	0.56	0.56	0.76	0.76	0.76	0.76
Plantains	0.03	0.03	0.11	0.38	0.11	0.38
Annual Food/Cash Crops	0.28	0.28	0.38	0.38	0.38	0.38
Perennial Cash Crops	0.65	0.65	0.27	0.38	0.27	0.38
Fallow Land	<u>0.38</u>	<u>0.38</u>	<u>0.38</u>	-	<u>0.38</u>	-
Total	1.90	1.90	1.90	1.90	1.90	1.90
2. <u>Participating Farmers</u>	140	0	640	160	640	160
3. <u>Manual Labourdays (LD)</u>						
Female	118	118	169	148	187	163
Male	84	84	122	113	151	149
Various	<u>18</u>	<u>18</u>	<u>29</u>	<u>29</u>	<u>32</u>	<u>28</u>
Total	220	220	320	290	370	340
4. <u>Production (kg)</u>						
Cassava	2240	2240	3952	3952	3952	3952
Plantains	72	72	504	1451	297	1244
Annual Food/Cash Crops	956	956	1451	1573	1451	1573
Perennial Cash Crops	<u>593</u>	<u>593</u>	<u>180</u>	<u>270</u>	<u>972</u>	<u>1368</u>
Total	3861	3861	6087	7246	6672	8137
5. <u>Financial Data ('000 CFAF)</u>						
Value of Sales	125.4	125.4	297.2	404.0	339.8	458.9
Total Expenditures	22.8	25.0	16.3	20.3	32.1	45.4
Net Farm Family Income	102.6	100.4	280.9	383.7	307.7	403.5
6. <u>Net Remuneration</u> (CFAF/LD)	466	456	878	1323	831	1222
7. <u>Incremental Production (kg)</u>	0	0	2226	3385	2811	4276

E. Incorporation of Beneficiaries

28. On Bioko, at the closing date of the credit of the ongoing CRP in December 1990, the estimated number of beneficiaries will be 600, working approximately 3,500 ha of cocoa plantations. The further decline in international cocoa prices in 1990 lead to a decrease in domestic price in Equatorial Guinea for the 1990/91 harvest (year 0 of the new project) from CFAF 300 to CFAF 250/kg. It is expected that this will lead to more

plantations abandoned in areas marginal for cocoa, having yields of 450/kg per hectare or less.

29. Because of these circumstances, it is expected that the area of former CRP clients will decrease from 3,500 ha in 1990/91 to some 2,000 ha in year 2 (1992/93). In year 2, this will include approximately 400 small beneficiaries (4 ha each, 1,600 ha together), and 20 medium and large beneficiaries (20 ha each, 400 ha together). The farms are represented by Models A and B, respectively.

30. On Bioko, the proposed project will incorporate 320 beneficiaries (275 small and 45 medium and large), having a total of approximately 2,000 ha (1,100 ha in small farms and 900 ha in medium and large). In addition, implementation of the farmer resettlement program on abandoned plantations, in the most suitable areas, will benefit approximately 340 more farmers who will be assigned some 6 ha each, which each beneficiary will rehabilitate in two years. This last sub-component will help rehabilitate approximately 2,000 hectares of plantations located in one of the most suitable areas for cocoa production on Bioko.

31. In the Continental Region, the proposed project will incorporate 800 direct beneficiaries in the Mbini and Cogo Districts. Of these, 640 small farmers will exploit their improved shifting cultivation farms (represented by farm model F, 1.90 ha each and together 1,216 ha), and 160 their permanent alley cropping farms (represented by farm model G, 1.90 ha each and together 304 ha). In addition, some 800 small farmers will benefit indirectly in other districts of the Continental Region. The following table shows the pace of incorporation of beneficiaries into the proposed project.

Incorporation of Beneficiaries

	----- Year -----					<u>Total</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
<u>Cocoa Farmers (Bioko)</u>						
Small Farmers, ex CRP	400	-	-	-	-	400
Medium/Large Farmers, ex CRP	20	-	-	-	-	20
Small Farmers, New Beneficiaries	50	70	80	50	25	275
Medium/Large Farmers, New Benef.	10	10	10	10	15	55
Small Farmers, Resettl., New Benef.	<u>65</u>	<u>65</u>	<u>65</u>	<u>65</u>	<u>80</u>	<u>340</u>
Sub-Total	545	145	155	125	120	1090
<u>Foodcrop Farmers (Continental Region)</u>						
Small Farmers (Mbini, Cogo)	140	340	320	-	-	800
Small Farmers (Other Districts)	-	<u>140</u>	<u>340</u>	<u>320</u>	-	<u>800</u>
Sub-Total	140	480	660	320	-	1600
Total	685	625	815	440	120	2690

F. Benefits

32. At the individual farm level, the project will result in an increase of net farm family income ranging from 55% to 515% in Year 10. There will be an increase in family labor employment in the Continental Region from approximately 220 to about 350 workdays per year in PY10, resulting in gain in income per day of work from CFAF 460 to CFAF 875 and 1323 in PY5 for the two models considered. Incremental farm income is indicated in para 28.

Other economic activities

33. In addition to the incremental benefits to be received by the direct project beneficiaries, other economic activities will be promoted by the project as a result of the incremental volumes of inputs, services and labor required and products exported. In addition, starting the savings and credit service will help channel idle resources into new productive activities that cannot be established today since there is no source of credit such as the one this service will create.

34. The following table gives an estimate of the financial benefits from various project activities. These are estimated at 10% of the incremental value of the inputs involved, 50% of the additional amount paid to labor contracted by individual farms and a 10% marketing margin for incremental exports of cocoa. The marketing margin of exports means the difference between the FOB value of the export and the farm-gate value, which represents the payment for the services mobilized to produce cocoa, specifically, conditioning, transport, drying, storage and export. In addition, the following table includes 24% in additional benefits that will come from the other agricultural, industrial and/or commercial activities which the savings and loan service will finance.

Estimated Incremental Benefits Generated by the  
Island Component of the Project

Year 10  
(CFAF Millions)

1. Farm level	932.8
2. Inputs mobilized	4.0
3. Contracted labor	15.0
4. Services to incremental export	15.0
<b>TOTAL</b>	<b>966.8</b>

G. Economic Rate of Return

35. The economic benefits of the project have been estimated on the basis of the farm models with prices adjusted to represent economic prices where appropriate. On the Island of Bioko, the economic analysis include 100% of projects costs. In the Continental Region, the economic analysis includes 100% of project costs with the exception of project costs related to roads and ferry where a 60% of the costs was included. The reason to consider only 60%

of the costs of roads and ferry in the Continental Region is that, as mentioned in paragraph 6, it is impossible to estimate the benefits that infrastructure works in roads and transshipment, will generate for the other economic activities (forest, other projects, etc.).

36. The economic rate of return to the project estimated on the foregoing bases will be 21% (Table 1). Taking separately the benefits and costs of the project in the two regions, the island and the mainland, the economic rate of return has been estimated at 28% and 13%, respectively (Tables 2 and 3). The best expected results on the island relate to the greater response capacity on Bioko where the on-going Cocoa Rehabilitation Project has already laid the foundation for the recovery of cocoa production, even under the adverse conditions in the international market. As for the Continental Region, the project will start in a relatively backward situation as far as level of beneficiaries, available technology and training of farmers and extension agents is concerned.

#### H. Sensitivity Analysis

37. The sensitivity analysis for this project shows that the benefits will have to fall by more than 25% from the estimated level or the costs increase by more than 50% for the economic rate of return to fall below 10%.

38. As for the results by region, the sensitivity analysis shows:

- (a) on the Island, the benefits will have to fall by about 50% or the costs increase by more than 50% for the economic rate of return to fall below 10%. Such changes are not very likely since the yields expected for cocoa are feasible if the changes in production technology are implemented and since the low prices used for cocoa, taken from price projections that are thought pessimistic, are extremely low. The costs used, on the other hand, have been estimated on real bases, that is, the experience gained by the CRP in execution.
- (b) in the Continental Region, the sensitivity analysis shows greater project vulnerability. A 10% rise in expected costs or a 10% drop in projected benefits would reduce the economic rate of return to 10%. The possibility of occurrence of these circumstances is relatively high since the project will start activities in a little known context where the efficiency of the eventual beneficiaries is not sufficiently known and where, unlike what occurs on the island, the quantifiable benefits depend on the start of a flow of formal exports for which there is no experience. These circumstances make it necessary that measures be taken in an early stage of project execution to promote production and develop market opportunities.

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

TABLE 1. Economic Analysis for Total Project

(CFAF Million)

Year	0	1	2	3	4	5	6	7	8	9	10-20	TOTAL
Investment Costs	9.0	1,437.2	776.6	1,388.0	551.6	242.8	-	-	-	-	-	4,388.2
Less Investments Attributable To Tertiary Benefits (Continent)	0.0	61.3	19.4	269.6	-	-	-	-	-	-	-	350.3
Total Net Investment Costs	0.0	1,375.9	757.2	1,118.4	551.6	242.8	-	-	-	-	-	4,037.9
Recurrent Costs	0.0	269.6	481.0	719.0	694.8	673.7	669.5	663.7	659.7	655.4	665.4	12,694.4
Less Recurrent Costs Attributable To Tertiary Benefits (Continent)	0.0	0.0	16.5	74.7	76.1	96.4	96.4	96.4	96.4	96.4	96.4	1,551.7
Total Net Recurrent Costs	0.0	269.6	464.5	644.9	618.7	577.3	572.1	577.3	572.3	569.0	569.0	11,142.7
Incremental Net Benefits	0.0	67.6	214.0	479.3	856.4	1,228.9	1,574.2	1,865.2	2,093.4	2,262.4	2,408.4	37,138.6
Net Annual Cash Flow	0.0	(1,677.9)	(1,007.7)	(1,276.0)	(311.9)	399.0	992.1	1,287.9	1,521.1	1,693.4	1,839.4	21,953.2

- 127 -

Rate of return = 20.6%

SENSITIVITY ANALYSIS

ECONOMIC RATE OF RETURN V/S CHANGE IN COSTS AND BENEFITS

<u>COSTS</u>			<u>BENEFITS</u>			
	-50	-75	-90	100	+110	+125
-80	0.1816	0.1840	0.2264	0.2531	0.2789	-
-90	0.0815	0.1630	0.2039	0.2293	0.2539	0.2693
100	0.0627	0.1440	0.1938	0.2084	0.2319	0.2050
+110	0.0447	0.1266	0.1657	0.1896	0.2122	0.2440
+125	0.0188	0.1029	0.1413	0.1645	0.1863	0.2171
+150	-0.0252	0.0674	0.1060	0.1286	0.1496	0.1789

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

TABLE 2. Economic Analysis

Island Component  
(CFAP Million)

Year	0	1	2	3	4	5	6	7	8	9	10-20	TOTAL
Investment Costs	0.0	563.0	372.9	701.0	182.4	154.9	-	-	-	-	-	1,075.0
Recurrent Costs	0.0	168.6	294.7	433.1	422.4	401.7	396.6	391.7	386.7	383.4	383.4	7,496.2
Incremental Net Benefits	0.0	67.6	196.3	388.6	624.0	846.2	1,083.7	1,275.6	1,429.7	1,563.3	1,697.0	26,146.0
Net Annual Cash Flow	0.0	(664.8)	(471.3)	(748.3)	19.2	289.6	687.2	883.9	1,043.0	1,179.9	1,313.6	16,668.0

Continental IRR  
Rate of return = 27.8%

SENSITIVITY ANALYSIS

ECONOMIC RATE OF RETURN V/S CHANGE IN COSTS AND BENEFITS

BENEFITS

COSTS	0.278323	-50	-75	-90	100	+110
	-90	0.1157	0.2278	0.2684	-	-
	-95	0.0993	0.2084	0.2644	-	-
	100	0.0840	0.1905	0.2444	0.2783	-
	+110	0.0559	0.1587	0.2091	0.2405	0.2707
	+125	0.0182	0.1184	0.1651	0.1937	0.2209
	+150	0.0385	0.0642	0.1076	0.1333	0.1573

EQUATORIAL GUINEA  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

TABLE 3. Economic Analysis

Continental Component  
(CFAF Million)

Year	0	1	2	3	4	5	6	7	8	9	10-20	TOTAL
Investment Costs	0.0	873.4	483.7	678.2	389.2	87.9	-	-	-	-	-	2,412.4
Less Investments Attributable To Tertiary Benefits	0.0	61.3	19.4	269.6	-	-	-	-	-	-	-	350.3
Total Net Investment Costs	0.0	812.1	384.3	408.6	389.2	87.9	-	-	-	-	-	2,062.1
Recurrent Costs	0.0	161.0	186.3	288.5	272.4	272.0	272.0	272.0	272.0	272.0	272.0	5,198.2
Less Recurrent Costs Attributable To Tertiary Benefits	0.0	0.0	16.5	74.7	78.1	86.4	86.4	86.4	86.4	86.4	86.4	1,551.7
Total Net Recurrent Costs	0.0	161.0	169.8	211.8	194.3	185.6	185.6	185.6	185.6	185.6	185.6	3,646.5
Incremental Net Benefits	0.0	0.0	17.7	92.7	232.4	382.7	498.5	589.6	663.7	699.1	711.4	18,993.8
Net Annual Cash Flow	0.0	(813.1)	(336.4)	(527.7)	(331.1)	189.2	304.9	404.0	478.1	519.5	525.8	5,285.2

Rate of return = 12.5%

SENSITIVITY ANALYSIS

ECONOMIC RATE OF RETURN V/S CHANGE IN COSTS AND BENEFITS

<u>COSTS</u>	<u>BENEFITS</u>							
	-50	-75	-90	100	+110	+125	+150	+150
0.124888	-2.77142	-2.77142	-2.77142	-2.77142	-2.77142	-2.77142	-2.77142	-2.77142
-50	0.1249	0.2092	0.2498	0.2750	-	-	-	-
-75	0.0481	0.1249	0.1611	0.1829	0.2033	0.2318	0.2750	-
-90	0.0133	0.0900	0.1249	0.1456	0.1648	0.1915	0.2318	-
100	(0.0078)	0.0702	0.1046	0.1249	0.1436	0.1694	0.2082	-
+110	(0.0275)	0.0523	0.0885	0.1065	0.1249	0.1501	0.1878	-
+125	(0.0567)	0.0281	0.0625	0.0823	0.1003	0.1249	0.1611	-
+150	(0.1082)	(0.0076)	0.0281	0.0481	0.0688	0.0900	0.1249	-

EQUATORIAL GUINEA  
CROPS DIVERSIFICATION AND AGRICULTURAL SERVICES  
Project Cost Summary

	FCFA 000			US\$ 000			% Total	
	Local	Foreign	Total	Local	Foreign	Total	% Foreign Exchange	Base Costs
A. MARKETING	545550.0	1757100.4	2302650.4	1028.0	6251.5	8079.5	76.3	52.9
B. EXTENSION AND RESEARCH	377530.0	630050.1	1007580.1	1297.4	2239.0	3536.4	82.5	23.1
C. INSTITUTIONAL DEVELOPMENT	63434.3	981079.2	1044513.5	214.9	3450.1	3665.0	93.9	24.0
<b>Total BASELINE COSTS</b>	<b>986514.2</b>	<b>3368243.8</b>	<b>4354758.0</b>	<b>3340.3</b>	<b>11939.5</b>	<b>15279.9</b>	<b>78.1</b>	<b>100.0</b>
Physical Contingencies	49973.7	242623.9	292597.6	175.3	851.3	1026.7	82.9	6.7
Price Contingencies	112295.5	370400.6	482696.1	515.1	1178.5	1693.7	69.6	11.1
<b>Total PROJECTS COSTS</b>	<b>1148783.5</b>	<b>3981268.3</b>	<b>5130051.7</b>	<b>4030.8</b>	<b>13969.4</b>	<b>18000.2</b>	<b>77.8</b>	<b>117.8</b>

Values Scaled by 1000.0 - 8/28/1990 12:46

**EQUATORIAL GUINEA**  
**CROP DIVERSIFICATION AND AGRICULTURAL SERVICES**  
**Summary Account by Project Component**  
**FCFA 000**

	MARKETING	EXTENSION AND RESEARCH	INSTITUTI ONAL DEVELOPME NT	Total	Physical Contingencies		Price Contingencies	
					%	Amount	%	Amount
<b>I. INVESTMENT COSTS</b>								
A. TECHNICAL ASSISTANCE	271429.0	224971.4	565478.2	1081776.2	0.0	0.0	0.0	84814.0
B. VEHICLES	59059.3	0.0	28952.4	88010.7	10.0	8801.1	15.2	13395.4
C. EQUIPMENT	441612.0	48879.4	11173.6	501465.0	10.0	50146.6	12.9	64922.0
D. CIVIL WORKS	249187.1	32181.3	103140.0	384408.5	15.0	57518.8	8.4	12935.1
E. CREDIT	316500.0	0.0	0.0	316500.0	10.0	31650.0	18.4	42314.4
F. DIVERSIFICATION FUND	78533.3	0.0	0.0	78533.3	0.0	0.0	12.2	9329.0
G. VEHICLES	15227.1	135178.0	0.0	150405.1	10.0	15040.5	11.1	16600.7
H. PPF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total INVESTMENT COSTS</b>	<b>1428497.3</b>	<b>440910.1</b>	<b>708742.1</b>	<b>2678149.5</b>	<b>6.3</b>	<b>103150.9</b>	<b>9.5</b>	<b>244971.2</b>
<b>II. RECURRENT COSTS</b>								
A. OPERATION AND MAINTENANCE	440904.1	47092.0	29087.1	517084.0	10.0	51708.4	17.1	88401.0
B. O&M VEHICLES	244125.0	90556.0	38091.4	372772.0	10.0	37277.3	10.0	52181.4
C. LOCAL SALARIES	109150.0	264401.3	20650.0	482201.3	0.0	0.0	11.3	54341.2
D. Training	0.0	158827.3	239942.0	398770.2	10.0	39857.0	10.9	43451.2
<b>Total RECURRENT COSTS</b>	<b>874159.1</b>	<b>500679.0</b>	<b>336771.4</b>	<b>1770609.0</b>	<b>7.3</b>	<b>129440.7</b>	<b>13.4</b>	<b>238824.0</b>
<b>Total BASELINE COSTS</b>	<b>2302650.4</b>	<b>1007590.1</b>	<b>1044518.5</b>	<b>4354759.0</b>	<b>6.7</b>	<b>292597.0</b>	<b>11.1</b>	<b>482090.1</b>
Physical Contingencies	188901.3	53440.0	50196.7	292597.0				
Price Contingencies	271577.7	115103.1	90015.4	482090.1	6.4	30894.1		
<b>Total PROJECT COSTS</b>	<b>2768195.4</b>	<b>1178131.8</b>	<b>1190724.0</b>	<b>5138051.7</b>	<b>6.3</b>	<b>323491.7</b>	<b>9.4</b>	<b>482090.1</b>
Taxes	0.0	0.0	0.0	0.0	0.0	0.0		
Foreign Exchange	2120150.0	744082.9	1117034.0	3981266.9	6.7	268388.7		

Values Scaled by 1000.0 7/14/1990 13:50

**EQUATORIAL GUINEA**  
**CROPS DIVERSIFICATION AND AGRICULTURAL SERVICES**  
**Financing Plan by Disbursement Category**  
**US\$ 000**

	IDA		BADEA		OPEC		IFAD		GOVERNMENT	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. TECHNICAL ASSISTANCE	2875.6	88.0	0.0	0.0	0.0	0.0	718.9	20.0	0.0	0.0
B. VEHICLES	0.0	0.0	615.4	60.0	410.3	40.0	0.0	0.0	0.0	0.0
C. EQUIPMENT	216.3	10.0	1947.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0
D. TRAINING AND STUDIES	253.6	15.0	0.0	0.0	678.3	40.0	760.9	45.0	0.0	0.0
E. CIVIL WORKS	159.3	10.0	1483.4	90.0	0.0	0.0	0.0	0.0	0.0	0.0
F. OPERATION AND	1382.7	35.0	0.0	0.0	395.1	10.0	2172.9	55.0	0.0	0.0
G. CREDIT	267.4	10.0	0.0	0.0	0.0	0.0	200.6	12.0	1203.4	72.0
H. INCREMENTAL LOCAL STAFF	602.4	32.0	0.0	0.0	0.0	0.0	1129.6	60.0	150.6	8.0
I. PPF	428.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Disbursement</b>	<b>6188.0</b>	<b>34.4</b>	<b>3995.8</b>	<b>22.2</b>	<b>1481.7</b>	<b>8.2</b>	<b>4982.8</b>	<b>27.7</b>	<b>1354.0</b>	<b>7.6</b>

Values Scaled by 1000.0 8/28/1990 12:44

EQUATORIAL GUINEA

CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT

Implementation Schedule and Supervision Plan

I. IMPLEMENTATION SCHEDULE

A. Preamble

1. The following actions to implement the project are defined in either the Development Credit Agreement (DCA), the Staff Appraisal Report (SAR), the Statutes of the Agricultural Development Organization (OFA), or other project-related documents, such as IFAD's Loan Agreement. To the extent possible, each action will be identified by its source base.
2. The Implementation Schedule may be modified from time to time, if so called for by project development, in a manner satisfactory to IDA. In the early stage of project implementation, completion dates are indicated by number of months after Negotiations (NGB) or Credit Effectiveness Date (CED); and later by Calendar month dates.
3. Project implementing agencies are the Ministry of Agriculture, Livestock, Fisheries and Forestry (MALFF), its Dirección General de Capacitación, Extensión y Fomento Cooperativo (DGCEC), and OFA.

B. Project Implementation

<u>Task</u>	<u>Agency Responsible</u>	<u>Completion Date</u>
(1) <u>Appointment of Technical Assistance Staff</u>		
(a) prepare short-list of consulting firms to provide long term TA, and of letter of invitation to be sent to these short-listed firms,	MALFF	at NGB
(b) sign contract with selected consulting firm providing: (i) a Project Coordinator; (ii) a Marketing and Procurement Expert; (iii) a Credit and Savings Expert; (iv) a Financial Expert; and (v) an Extension and Agricultural Production Expert (sections 3.04 (b), 3.05 and 3.13 of DCA),	MALFF	before or at CED

- |   |  |                  |
|---|--|------------------|
| (c) nominate the Project Director (section 3.04 (b) of DCA),  | MALFF  | before or at CED |
| (d) employ TA staff, defined under (b), and have them at their duty station,  | MALFF  | CED + 1          |
| (e) enter into contractual arrangements with the United Nations Volunteers Program for the execution of Parts A and B of the project (section 3.12 of DCA), | MALFF  | 03/31/91         |
| <u>(2) Agricultural Development Organization (OFA)</u>  |  |                  |
| (a) prepare draft statutes of OFA, to be reviewed by IDA at NGB,  | MALFF  | at NGB           |
| (b) establish OFA legally with the assets of the former ACD, and of the input supply unit of CAMARA (section 3.11 of DCA),                                  | MALFF  | before or at CED |
| (c) nominate OFA's first General Manager (section 3.04 (b) of DCA),   | MALFF  | at CED           |
| (d) contract Managers of OFA's Services, counterpart and other local staff in adequate numbers (section 3.08 of DCA),                                       | OFA  | CED + 2          |
| (e) establish the Rules and Regulations of OFA, satisfactory to IDA and IFAD,   | MALFF<br>OFA<br>Proj. Director<br>Proj. Coord. | CED + 3          |
| (f) constitute OFA's first Board of Directors in accordance with OFA statutes (Art. 21 of OFA statutes),  | MALFF  | CED + 3          |
| (g) sign Subsidiary Loan Agreement (section 3.03 of DCA),   | MALFF and<br>OFA                               | CED + 3          |
| (h) establish the Credit Supervision and Monitoring Unit, established within SAC of OFA (section 3.04 (a) of DCA),  | OFA  | CED + 3          |
| (i) establish OFA branch in the Continental Region (section 3.04 (c) of DCA),   | OFA  | CED + 4          |

- |     |   |  |           |
|-----|---|--|-----------|
| (j) | enter into an agreement with OFA for the provision of cocoa classification and grading support to MALFF (section 3.10 of DCA),  | MALFF  | 03/31/91  |
| (k) | review annually the adequacy of the interest rates specified in Schedule 5 of DCA, and on the basis of the results of such review cause SAC to adjust interest rates to levels satisfactory to IDA (section 4.03 (b) of DCA), | MALFF<br>OFA                                 | 04/30/91* |
| (l) | hold OFA's first Annual Shareholders' Meeting and elect the new Board of Directors (Art. 13 of OFA statutes),   | OFA  | 12/31/91  |
| (3) | <u>Annual Work Plans, Reporting, Monitoring and Evaluation</u>  |  |           |
| (a) | prepare and furnish to IDA the PY1 Annual Work Plan for the project and OFA (paras 14 and 19, Annex 7 of SAR),  | MALFF<br>Proj.Director<br>Proj.Coord.<br>OFA | CED + 4   |
| (b) | put in place a Project Monitoring and Management Information System satisfactory to IDA and IFAD (para 15 of Annex 7 of SAR),   | MALFF<br>Proj.Director<br>Proj.Coord.<br>OFA | CED + 4   |
| (c) | prepare and furnish to IDA yearly annual work programs and budgets, including training plans for counterpart and other local staff referred under (j) of this schedule (section 3.06 of DCA),                                 | MALFF  | 10/31/91* |
| (d) | carry out a Mid-Term Review (MTR) of the project to evaluate project performance in respect of its objectives (section 3.07 (a) of DCA),  | MALFF<br>Proj.Director<br>Proj.Coord.<br>OFA | 12/31/93  |
| (e) | carry out a Mid-Term Evaluation on the basis of the MTR (section 3.07 (a) of DCA),  | MALFF<br>IDA<br>IFAD                         | 03/31/94  |

(4) Accounting and Auditing

- |  |   |           |
|--|---|-----------|
| (a) establish and maintain records and accounts of the project and OFA (section 4.01 of DCA),  | MALFF<br>Fin. Expert<br>Proj.Director<br>Proj.Coord.<br>OFA | CED + 1   |
| (b) close the accounts and books not later than two months after the end of the FY,  | MALFF<br>Fin. Expert<br>Proj.Director<br>OFA                | 02/28/92* |
| (c) have the records and accounts audited by an independent auditor and furnish to IDA a certified copy of the audit report (section 4.01 (b) of DCA), | MALFF<br>OFA  | 06/31/92* |

(5) Studies and Surveys

- |   |       |          |
|---|-------|----------|
| (a) furnish the study on land tenure system on Bioko to IDA for comments (section 3.09 (a) of DCA), and | MALFF | 03/15/91 |
| (b) implement those recommendations agreed upon with IDA (section 3.09 (b) of DCA).                     | MALFF | 06/30/91 |

(6) Policy Reforms Measures

- |  |              |           |
|--|--------------|-----------|
| (a) review annually the Public Investment Program for agriculture (section 4.03 (a) of DCA),   | MALFF<br>IDA | 04/30/91* |
| (b) prepare and furnish to IDA for its approval a formula for the establishment of cocoa producers' prices, and put into effect cocoa producers' prices satisfactory to IDA (section 4.02 (a) of DCA),                       | MALFF        | 05/31/91* |
| (c) maintain measures to provide a system of adequate production incentives and taxation for cocoa exports, satisfactory to IDA, and review annually the adequacy of such system with IDA (section 4.02 (c) and (d) of DCA), | MALFF        | 06/31/91* |

**C. Project Implementation supported by Short-Term Technical Assistance**

1. Project implementing agencies and staff will be supported by short-term consultants:
  - (a) The Training Advisor (A) will assist the Project Coordinator to ensure that all project activities include sufficient training inputs to allow their continuation after the project period,
  - (b) The Cooperative Development Advisor (B) will review past and ongoing farmer and trader organization and formal cooperative and credit union development efforts,
  - (c) The T&V Extension Specialist (C) will review extension training, staffing and management arrangements and assist Ministry and TA staff in designing a long-term plan for the introduction of T&V-based extension on a national basis,
  - (d) The Extension and Small Farmer Organization Specialist (D) will assist Ministry and TA staff in continuing extension, applied research and "alley cropping", soil conservation activities in the Continental Region, initiated under the IDA-financed TA Project,
  - (e) The Applied Research Specialist (E) will review applied research activities and draft a long-term development plan, including provisions for linkages with regional research centers and donor-financed agricultural development projects on the mainland,
  - (f) The Infrastructure and Ferry Specialist (F) will prepare a work plan and procurement documents for the road rehabilitation works, and prepare TOR for a feasibility study and cost estimates for ferry service, and bidding documents for the procurement of the ferry.

**II. SUPERVISION PLAN**

1. Project supervision by IDA staff will be demand-driven, and where possible be planned around key project activities. During the initial stage of project development, supervision will focus in particular on: (a) establishing OFA, as the major vehicle of project implementation; and (b) developing action plans for the Continental Region. In the following stage, supervision will emphasize the strengthening of the basis established as result of project activities, with the support of short-term consultants. During the final stage of project development, supervision will aim at consolidating project achievements and identifying opportunities for new activities.

2. Missions will brief the Minister of Agriculture and his senior staff on arrival. Mission's objectives of supervision will be discussed with all concerned parties, including counterpart and other senior local staff.

3. MALFF, OFA and the long-term TA staff will be responsible for coordinating arrangements for IDA supervision missions, and for providing information required by missions. The adequate functioning of the Project Monitoring and Management Information System will be essential for this purpose. IDA missions concentrating on the implementation of a particular project component, will be completed by staff or consultants specialized in that particular field.

4. The Minister of Agriculture or his Secretary General normally will chair the wrap-up meeting, where the mission will discuss its major supervision findings and recommendations for follow-up actions, laid down in its aide-memoire to the Government.

5. The supervision plan is summarized as follows.

<u>CY</u>	<u>Mission's Objectives</u>	<u>Participants</u>	<u>SW</u>
90-IV	Review progress in meeting conditions of effectiveness; participate in IDA-organized seminar on extension.	AF1AG/AF1AA staff	5.0
91-I	Monitor: progress in staffing and structuring OFA; preparing Work Plan; setting up of the Project Monitoring and Management Information System; and review: Bioko land tenure study; PIP for agriculture; on-lending interest rates to OFA's beneficiaries.	AF1AG/AF1AA staff Consultant (B) Consultant (C) (Consultant (D))	6.0 3.0 3.0 3.0
91-II	Review: actions implemented; draft PY2 work plans; land tenure study implementation of agreed recommendations; and monitor: project implementation in the Continental Region.	AF1AG/AF1AA staff Consultant (A) Consultant (E) Consultant (F)	10.0 3.0 3.0 3.0
92	Two supervision missions, one concentrating on activities on Bioko, the other on those in the Continental Region, with emphasis on development of farmer and trader groups, including women.	AF1AG/AF1AA staff Consultants (A), (B), (C) (D), (E) and (F)	12.0 18.0

93	Two supervision missions, one to coincide with the preparation of the Mid-Term Review.	AF1AG/AF1AA staff Consultants (A), (B), (C), (D), (E) and (F)	8.0 15.0
94	Two supervision missions, one being the Mid-Term Evaluation Mission.	AF1AG/AF1AA and IFAD staff FAO/CP staff	10.0 6.0 9.0
95	Two supervision missions.	AF1AG/AF1AA Specialists as needed	8.0 8.0
96	Two supervision missions, of which the second one will discuss the TOR for the PCR to be prepared by Borrower.	AF1AG/AF1AA staff Specialists as needed	6.0 6.0

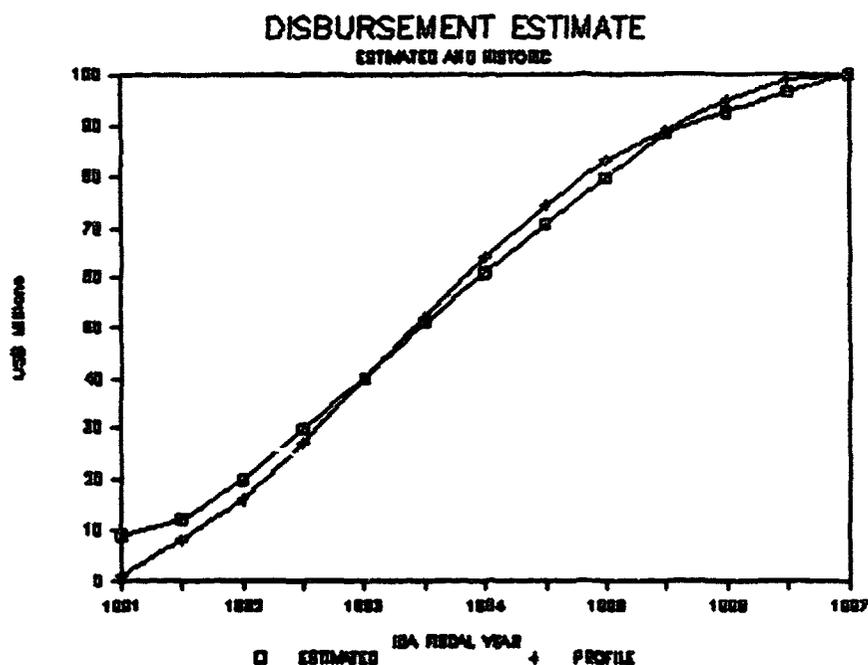
\* = yearly

- 140 -

EQUATORIAL GUINEA  
-----  
CROP DIVERSIFICATION AND AGRICULTURAL SERVICES PROJECT  
-----

DISBURSEMENT ESTIMATE  
-----

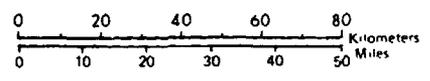
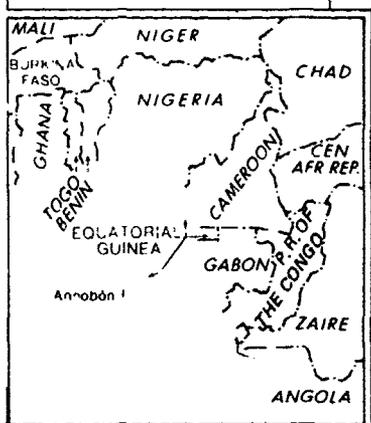
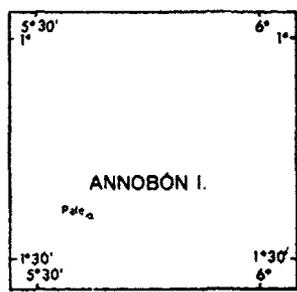
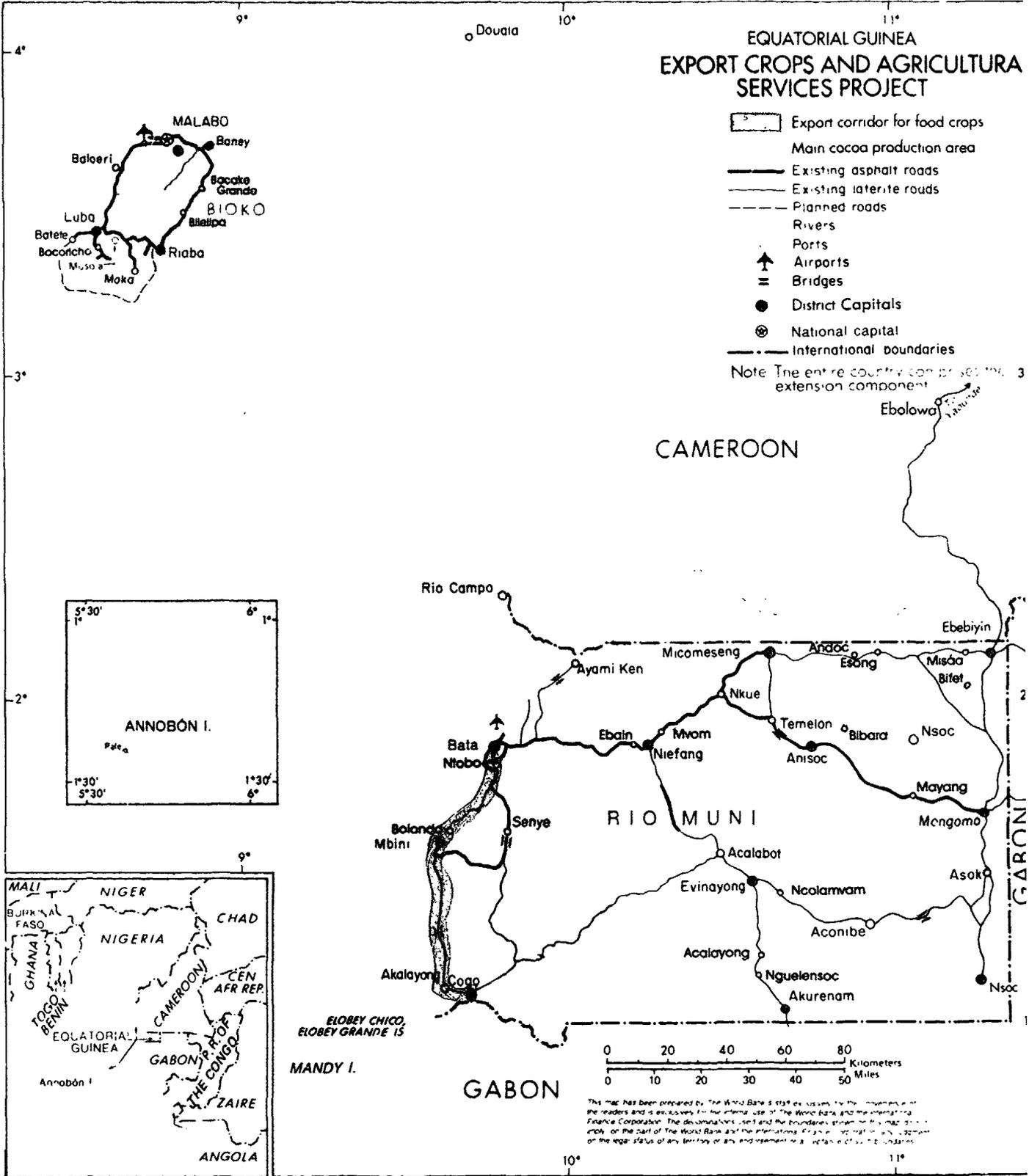
IDA FISCAL YEARS & SEMESTERS	ESTIMATE		STANDARD DISBURSEMENT 6.5 YEARS DISBURSEMENT PROFILE		
	(US \$000)		(US \$000)		
	SEMI-TER.	CUMUL PERCENT.	CUMUL	PERCENT.	
	-----	-----	-----	-----	-----
1991 I	555	555	9	62	1
II	182	737	12	494	8
1992 I	492	1229	20	988	16
II	614	1843	30	1666	27
1993 I	614	2458	40	2469	40
II	676	3134	51	3209	52
1994 I	614	3748	61	3950	64
II	614	4362	71	4567	74
1995 I	553	4915	80	5123	83
II	553	5468	89	5493	89
1996 I	246	5714	93	5863	95
II	348	6160	97	6160	99
1997 I	140	6300	100	6300	100



# EQUATORIAL GUINEA EXPORT CROPS AND AGRICULTURE SERVICES PROJECT

- Export corridor for food crops
- Main cocoa production area
- Existing asphalt roads
- Existing laterite roads
- Planned roads
- Rivers
- Ports
- Airports
- Bridges
- District Capitals
- National capital
- International boundaries

Note: The entire country can be served by 3 extension components



The map has been prepared by The World Bank's staff exclusively for the information of the readers and is exclusively for the internal use of The World Bank and the International Finance Corporation. The dimensions, used and the boundaries shown on this map are not to be taken as the official position of The World Bank and the International Finance Corporation with respect to the legal status of any territory or any endorsement or a certain of its boundaries.