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AGRICULTURE AND RURAL DEVELOPMENT:

FUNCTIONAL REVIEW FY 1978-1984

Africa Bureau
Office of Technical Resources
Agriculture and Rural Development Division

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PREFACE

This fifth ARD Functional Review was prepared by staff of the Agriculture and Rural Development Division of the Office of Technical Resources. Major contributions to the analysis were made by:

Wendell McMillan, who developed the data collection and classification systems and coordinated the preparation of the data on all projects for computer processing; and

Don Brown, who developed the computer programs and coordinated the entry, processing and retrieving of the data for all the projects.

Other ARD staff assisting with the review included Larry Abel, Everett Headrick, Fred Holmes, Frank Mertens, Jerry Rann, Evert Van Voorthuizen and Boyd Whittle. Appreciation is also due to the Agriculture and Rural Development officer who verified and clarified data on projects in their mission portfolios.

SUMMARY

Introduction

The ARD Functional Review provides management, technical and project staff with analyses of the Africa Bureau's portfolio of projects in Agriculture and Rural Development.

This Functional Review is the initial output of the Functional Information System (FIS) established in AFR/TR/ARD. This computer-based information system has three important characteristics:

1. It represents a new methodology that, for the first time, provides the Bureau with specific financial and other information on the individual technical components of projects rather than on projects in toto;

2. In addition to Development Assistance (FN) funding, it also analyzes, for the first time, the components of projects funded under the Economic Support Fund (ES) and the Sahel Development Program (SH); and

3. It is ongoing, expandable and easily accessible.

This information system consists of a data base of financial, functional and related information important to the Bureau on 381 bilateral and regional agricultural and rural development projects.

Overview of the Africa Bureau's Agricultural Portfolio

A. Scope and Major Characteristics

- There were 381 projects in the agricultural portfolio over the 7-year period, FY 1978-1984.

- Of this total, 87 percent (332) were bilateral projects and 13 percent (49) were regional projects.

- The average number of active agricultural projects over the past six years was 242.

- The number of active projects increased from 201 in FY 1978 to 263 in FY 1983, and totalled 253 in FY 1984.

- Agricultural projects account for 52 percent of the 729 projects in the total Africa Bureau portfolio during FY 1978-1984.

- The number of countries with active agricultural projects increased from 25 in FY 1978 to 38 in FY 1984.

B. Agriculture's Share of the Total Bureau Portfolio

- While annual obligations and expenditures have increased for agricultural projects, the rate of growth has not been as fast as for the Bureau as a whole. Consequently, the share of agricultural projects in total Bureau funding has declined.

- In terms of obligations, agricultural projects dropped from 55 percent of total Bureau obligations in FY 1979 to 47 percent in FY 1984. (Average annual obligation growth rates: Agriculture - 14 percent; Africa Bureau - 18 percent.) (See Table III-3)

- In terms of expenditures, the drop in agricultural projects' share of the Africa Bureau portfolio was greater, declining from 61 percent of total Bureau expenditures in FY 1979 to 48 percent in FY 1984. (Average annual expenditure growth rates: Agriculture - 31 percent; African Bureau - 38 percent.) (See Table III-3)

C. Type of Source and Funding - Total Bureau Portfolio

- Use of loan funding continued to decline. Loans were 21 percent of all Bureau funding in FY 1978, then 8 to 10 percent in FY 1979-1981 and 6 to 7 percent in FY 1982-1984. (See Table III-4)

- ARDN and ESF accounts have been the predominant source of loan funds, but use of ARDN increased sharply in recent years. ESF provides 54 to 66 percent of all loan funds through FY 1982, but then dropped to 36 percent in FY 1983 and to none in FY 1984. At the same time, ARDN provided 21 to 42 percent of the total through FY 1982, then rose to 64 percent in FY 1983 and to 97 percent in FY 1984. (See Table III-5)

D. Type and Source of Funding - Agricultural Portfolio

- Use of loans was concentrated in the agricultural sector: In most of the past 7 years, agricultural components of projects accounted for 70 to 100 percent of all Bureau loan funds.

- However, within the agricultural portfolio, loans remained a minor funding mechanism, ranging from 11 to 17 percent of total funding for agricultural projects.

- The ESF account became an increasingly important funding source for the agricultural portfolio, almost equalling the level of DA funding by FY 1984. In FY 1978, 24 percent of the agricultural portfolio obligations was funded through the ESF account. By FY 1984 this had increased to 38 percent. Most of this funding (85 percent) went to agricultural sector support activities. (See Table III-2)

- The DA (103 account) funding has remained the most important funding source for agricultural projects. However, its share in total funding of these projects has declined from 53 percent in FY 1979 to 42 percent in FY 1984. (See Table III-2)

- Funding of agricultural projects from the Sahel account varied from year to year. It rose from 17 to 31 percent of total agricultural obligations by FY 1981, and by FY 1984 had declined to 20 percent. (See Table III-2)

Agricultural Portfolio's Project Purpose Analysis

The Functional Information System provides a unique capability to analyze the Africa Bureau's agricultural portfolio in terms of technical components based on the purpose of each project. These purposes were identified as encompassing all the aspects involved in the development process. They include purpose categories such as Planning and Policy Analysis, Technology Development, Commodity Marketing and Credit Development.

With this new capability, the ARD Functional Review analyzed the trends of Bureau funding for these purpose components, by obligations and expenditures, over 7-year period FY 1978-1984. (See Tables IV-1 to 4) This analysis was undertaken to examine how responsive the portfolio has been to the changing agricultural development strategies and policies of the Bureau.

Following are highlights of changes in relative importance and funding trends by the various purpose components comprising the agricultural portfolio of the Africa Bureau.

- Currently in FY 1984, more than 80 percent of the funds in the agricultural portfolio are concentrated in five purpose categories: Agricultural Sector Support, Agricultural Marketing, Technology Development, Agricultural Education and Technology Transfer.

- Over the past seven years, the composition of the agricultural portfolio showed substantial changes: Purpose categories tending to increase their relative importance in the portfolio included Agricultural Sector Support, Technology Development and Agricultural Marketing; those maintaining a fairly constant share were Technology Transfer and Planning and Policy Analysis; while those showing declines to varying extents included Agricultural Education, Natural Resource Development and Rural Roads.

- Viewed in relation to the Bureau's agricultural strategy, those purpose categories whose relative importance in the agricultural portfolio increased or held constant over the FY 1978-1984 period were supportive of the strategy's main components. Conversely, most of those categories with declining shares in the portfolio were not priority elements of the Bureau's strategy.

The changes in each purpose's share of the agricultural portfolio can be summarized as follows:

- Agricultural Sector Support became the increasingly dominant purpose category for which funds were obligated and expended during the FY 1978-1984 period. This purpose is comprised of projects that provide balance of payments support primarily for development of agricultural production and marketing.

Its relative importance increased dramatically, with obligations for this purpose more than doubling from 17.0 to 37.5 percent of the total agricultural portfolio. In addition, despite a major drop in FY 1982, expenditures increased even faster, rising from 4.8 to 32.6 percent of the portfolio. (See page 39)

Note: Because of its major size and annual variations, the Agricultural Sector Support (SEC) component tends to obscure the analysis of other components' relative share in the agricultural portfolio. Other purpose categories are examined as a percentage of the total agricultural portfolio, less SEC funds.

- Technology Development, alone among all the purpose categories, showed increases in its share of the agricultural portfolio for both obligations and expenditures. Expenditures rose from 10.5 to 18.1 percent, the largest net increase of any purpose category. Obligations rose from 10.1 to 24.1 percent by FY 1981, but then levelled out at 20.4 percent in FY 1984. (See page 41)

- Agricultural Marketing, here including Commodity Marketing (MKT), Input Supply (INP), Credit (CRE) and Agro-Industry (AGI), showed a steady decline in expenditures from 25.6 to 13.3 percent of the portfolio by FY 1983. Then there was a major jump to 20.8 percent in FY 1984. Obligations rose from 13.8 to 26.6 percent of the portfolio, with most of the increase taking place in FY 1984. Changes in relative importance of MKT, INP, CRE and AGI were small, except that expenditures for Credit declined from 14.0 to 5.4 percent of the portfolio. (See page 43)

- Technology Transfer's relative importance remained at a fairly constant level throughout the FY 1978-1984 period. Its share of expenditures fluctuated between 15.4 and 18.8 percent of the portfolio, and its share of portfolio obligations varied between 14.3 and 21.2 percent. (See page 45)

- Planning and Policy Analysis's share in the agricultural portfolio remained relatively constant over the FY 1978-84 period. Its share of obligations fluctuated between 6.2 and 9.5 of percent of the portfolio total, while expenditures ranged between 6.0 and 8.1 percent (See page 47)

- Agricultural Education's share in the portfolio has been at a relatively high level over the FY 1978-1984 period. Nevertheless, its share of portfolio obligations continued to decline substantially from 30.2 percent to 15.1 percent. Also, while its share of portfolio expenditures showed a net increase and rose to 25.2 percent in FY 1981, this share then declined to 17.8 percent by FY 1984. (See page 49)

- Natural Resources Development showed a substantial decline in its share of agricultural portfolio funding. In terms of obligations, its relative importance dropped from 14.6 to 9.1 percent, with most of the decline in FY 1983 and 1984. Its share of expenditures declined from 17.3 to 12.9 percent. (See page 51)

- Rural Roads showed a generally declining share in agricultural portfolio funding, except in the two most recent years. In terms of expenditures, its share dropped from 13.0 to 4.7 percent by FY 1983, and then rose to 8.3 percent in FY 1984. Obligations ranged between 3.3 and 7.4 percent, and then increased to 11.7 and 7.5 percent, respectively, in FY 1983 and 1984. (See page 53)

- Land Tenure's share in the agricultural portfolio's funding did not exceed 0.5 percent in any year, except FY 1979 when obligations were 1.4 percent of the portfolio total. (See page 55)

AGRICULTURE AND RURAL DEVELOPMENT: FUNCTIONAL REVIEW FY 1978-84

I. Introduction

ARD Functional Reviews provide analyses of trends and issues relating to the Africa Bureau's portfolio of projects in the Agricultural Sector. This present analysis focuses primarily on the portfolio's relationship to the Bureau's development assistance strategies for Sub-Saharan Africa over the seven year period from from FY 1978 through FY 1984.

To carry out this analysis, a new methodology was developed to provide both more detailed and more readily accessible information on the portfolio for Bureau management, as well as for technical and project staff. In contrast to previous methods which classified a project in toto, this Functional Information System (FIS) provides information at a sub-project, or project component, level. This was done by identifying and quantifying the nature and scope of each project's purposes, as well as the activities used to achieve these purposes. These data were then coded and programmed for processing in micro-computers so as to provide both ready and continuous access to both technical and financial information on 381 bilateral and regional projects active during FY 1978-1984.

While the FIS methodology was developed for analysis of the Bureau's agricultural portfolio, it is applicable to non-agricultural sectors as well. Also, in carrying out the agricultural analysis, similar financial and technical information was acquired on some 348 projects in other sectors. Thus, projects in these other sectors could be incorporated into the FIS with assistance from relevant technical staff in other Divisions.

A. Purpose and Scope of the Analysis

The primary purposes of this functional review are to provide management, technical and project staff with (a) current and trend data on the nature and scope of the Africa Bureau's portfolio of development assistance projects in Agriculture, Rural Development and Nutrition; and (b) an assessment of this portfolio in relation to the strategies and policies the Bureau has established for development assistance in Sub-Saharan Africa.

The focus of the review is all Africa Bureau projects for which obligations and/or expenditures were made during the period FY 1978 through FY 1984, and that had or have purposes relating to the Agricultural Sector. It includes projects having non-agricultural as well as agricultural components. The analysis covers projects funded under Development Assistance (DA) functional accounts, as well as the Sahel Development Program (SH) and the Economic Support Fund (ES).

The analysis is based on the 381 projects comprising the Bureau's agricultural portfolio during the FY 1978-1984 period. Of this total, 87 percent, or 332, were bilateral projects undertaken by USAID Missions in 39 countries of Sub-Saharan Africa, and 13 percent, or 49, were regional projects.

II. Methodology - Functional Information System

In developing a methodology to provide more detailed and more readily accessible information on the Africa Bureau's project portfolio, it was necessary to consider the kinds of information needed by management, technical and project staff, as well as the availability and accessibility of technical and financial data from existing Bureau data sources.

Daily experience in the ARD Division has shown that information needs vary widely. Bureau, Agency, Congressional and other personnel require information ranging from portfolio-wide analysis of major trends over a period of years; to country, sector and sub-sector data on project purposes, outputs and inputs; to information on projects dealing with special concerns and policy initiatives of the Agency; to specific technical and financial facts on a specific project. Often as not, the information must be obtained within a very short time frame. Also, because the need for these types of information is a continuing one, the information must be updated regularly to retain its relevance. This requires institutionalization of the information system.

While much relevant data in varying forms presently exists in numerous Agency documents, the current availability and accessibility of data is generally very limited. Users of "purpose", "technical" and "functional sub-category" codes, for example, encounter many problems of incompleteness and/or ambiguity. Considerable information is regularly provided on many financial aspects of projects, but these data almost always are related to the

project in toto and not to its various inputs and components. In addition, only limited and usually highly aggregated information is readily available on the technical purposes of the projects. By "purposes" is meant the developmental changes that are to be brought about by the project so as to solve or mitigate specific sector or country problems. Similarly, little information is readily available on the specific activities being taken within a project to achieve the project's developmental purposes; as well as on the scope of the project, such as the agricultural commodities involved, or on the participants in the project, such as host country institutions, target groups, contractors and other donors.

Taking into account the varying types of information needed and the characteristics of existing data sources, ARD developed a methodology to meet the analytical purposes of this portfolio-wide Functional Review, and, at the same time, provide the basis for a Functional Information System that can supply continuing, more detailed and more rapidly accessible information on the Bureau's portfolio of development projects. In establishing and maintaining this Functional Information System, primary emphasis was given to the use of technical staff in the ARD Division. The technical background and operational activities of these staff members is suitable for maintaining consistency in the classification and coding of data, for adapting the system as needed from time to time to meet changing information needs, and for minimizing the burden of data requests on field staff. The use of a microcomputer within the Division greatly increases the accessibility of information to management, technical and project staff, as well as allows for expanded analyses of the portfolio.

To establish the Functional Information system, each project was analyzed in terms of purpose, sector and sub-sector classifications. These classifications were integrated with financial data continuing onward from FY 1978, and included related data on project status, scope, participants and special concerns. Data on individual projects were recorded onto a one-page Work Sheet for each project, see Figure II-1, and then after editing, directly entered into a micro-computer. The collection, classification and coding of data was done by ARD staff. Field personnel were asked only to verify and clarify data, and this was initially done at the Agriculture and Rural Development Officers Workshop in Zimbabwe in December 1983.

Details on the procedures used to classify and describe the projects follows.

A. Project Classification.

The classification of development assistance projects is difficult because most projects are multi-faceted. With several purposes being implemented as components of a project, a single classification is not appropriate. In addition, while efforts have been made in the past to classify projects, this was usually done to meet an immediate need. While the categories used may have been useful for that exercise, the categories could not be disaggregated and thus the data could not be reanalyzed to provide other types of information. Thus, there is a need to provide information in as disaggregated a basis as possible. However, at the same time, the information system has to be feasible. The needs of information users and the availability of data must be fully considered before and during the development of a classification system.

ARD Functional Review -- Work Sheet

Country/Region_____

Project Number_____

(Incl. Sub-projects_____)

Project Title_____

G/E	Oblig. Dates Init.	Oblig. Dates Fin.	Complete Date	LOP Cost ($000) Auth.	LOP Cost ($000) Plan.	Approp Symbol	FY 78 Actual	FY 79 Actual	FY 80 Actual	FY 81 Actual	FY 82 Actual	FY 83 Actual	FY 84 Est.
							Obligations ($000)						
Totals						XX							
							Expenditures ($000)						
						XX							

AID Inputs	$000	% Total
Personnel		
Training		
Commodities		
Construction		
Other		
Cont.&Infl.		
Total		100

"Functional Subcategory"_____

Sector	Sub-sector	Project Purpose Code	Est. % of Plan LOP	Est. $000	Project Outputs: Actions to be taken/results to be produced in order to achieve the project purpose	
Totals			100			

Target Groups/Beneficiaries Involved:

Commodities Involved:

Institutions Involved:

Special Concerns:
- ___Institution Building
- ___Integrated Rural Development
- ___Nutrition Improvement
- ___Women in Development
- ___Cooperatives
- ___Title XII Institutions
- ___Farming Systems Research
- ___Private Sector

Status of Project
(As of _____198)
- ___Identification
- ___Implementation
- ___Completed

Contractor(s) Involved:

USAID Project Manager:

Figure II-1

In this Functional Information System each project was analyzed in terms of its primary purpose or purposes. Project Purpose was defined as the developmental changes to be achieved so as to solve or mitigate a sector or country problem, and in turn contribute to country development goals. Based on the experience of senior technical staff, twelve Purpose Categories for the Agricultural Sector were identified as encompassing the major factors affecting the developmental process of this sector, see Table II-1. It should be noted, however, that four of these categories - Commodity Marketing, Input Supply, Credit Development and Agro-Industrial Development - can be subsummed under a more general category of Agricultural Marketing.

It can also be noted that in the case of non-agricultural sectors, different purpose categories would be required, although some categories would be common with the purposes identified for the agricultural sector. In addition, some purposes, such as Agricultural Education and Rural Roads, could be included in other sectors, such as Education and Transportation. Under the FIS, data on these categories are maintained separately and thus can be reaggregated as required by the information user.

After each Project Purpose was identified, it was then related to Project Outputs. These outputs were defined as the actions to be taken, or the results to be produced, in order to achieve the project purpose. The Outputs were summarized in a short sentence of 80 characters or less, and, following further analysis at a later date will be classified and coded into relevant categories.

Table II-1. ARD Functional Information System: Project Purpose Categories, Codes and Definitions

Code	Purpose Categories/Definitions
PPA	Planning and Policy Analysis To conduct*, or to improve* the capacity for conducting development planning and analyses of policy issues. Includes data collection/processing.
TDE	Technology Development To conduct*, or to improve* the capacity for conducting research on improved technologies for agricultural production and marketing.
TTR	Technology Transfer To extend*, or to improve* the capacity for extension/diffusion/transfer of improved technologies for agricultural production and marketing.
MKT	Commodity Marketing To improve*, or to strengthen* the capacity to improve the assembly, handling, storage, transport and/or distribution of crops/livestock and products.
INP	Input Supply To provide*, or to strengthen* the capacity for the provision of physical inputs (seeds/tools/fertilizer/etc.) for agricultural production/marketing.
CRE	Credit Development To provide*, or to strengthen* the capacity for the provision/delivery of credit for agricultural production/marketing/agro-industry. Includes rural financial markets.
AGI	Agro-Industry Development To provide*, or to strengthen* the capacity to provide commodity processing/tool manufacture/off-farm storage/etc.
LTE	Land Tenure To improve*, or to strengthen the capacity to improve access to, and/or ownership of agricultural land, water, and other resources.

* Or expand, establish, strengthen, study, organize, etc., as appropriate.

(Continued)

Table II-1. Continued

Code	Purpose Categories/Definitions
NRE	Natural Resource Development To improve*, or to strengthen* the capacity to improve/manage/conserve cropland, water, range, forestry and fisheries resources.
RRO	Rural Roads To construct*, or to strengthen* the capacity to construct and/or maintain rural feeder or market access roads.
AED	Agricultural Education To improve*, or to strengthen* the capacity to improve agricultural education/training and rural human resources development.
SEC	Agricultural Sector Support To provide balance of payments support primarily for development of agricultural production and marketing. Includes Commodity Import Programs, Sector Grants, etc.

Each Project Purpose was also quantified in terms of its percentage share of the project's planned Life of Project (LOP) Cost. With the percentage shares of all the purposes totalling 100 percent, double-counting was avoided. Each purpose percentage share of the LOP cost was applied to the obligations and expenditures data to indicate the amount of funds obligated and/or expended each year on that purpose.

Each Project Purpose was also related to its relevant Sector and Sub-Sector, as shown in Table II-2. The ten Sectors are designed to include development activities throughout the national economy. Sub-Sectors for Agriculture are shown along with tentative Sub-Sectors for some other sectors.

The major sources of data used for classifying the projects were project documents (PPs, PIDs, etc.), DIU print-outs of Project Design Information Sheets and Planned Program Summary Sheets in Congressional Presentations (CP) from FY 1976 through FY 1985.

B. Financial Characteristics

Measures of trends in funding for each project included annual Obligations from FY 1978 through FY 1984, as well as annual Expenditures from FY 1979 through FY 1984. Data through FY 1983 are actual, while for FY 1984 they are estimates. Both measures were further indentified as to Grant or Loan, and as to funding source. These sources are primarily Development Assistance (DA) functional accounts, Sahel Development Program (SH), and Economic Support Fund (ES). Major sources of these data were print-outs from PPC/PB showing Expenditures by project and Obligations by functional sub-category, as well as Congressional Presentations from FY 1976 through FY 1985.

Table II-2. ARD Functional Information System: Sector and Sub-Sector Categories and Codes 1]

Sector/Sub-Sector		
AGR	Agriculture	
	CRO	Crops - Irrigated and Rainfed
	CAL	Crops - Irrigated, Rainfed and Livestock
	CIL	Crops - Irrigated and Livestock
	CRL	Crops - Rainfed and Livestock
	CRI	Crops - Irrigated
	CRR	Crops - Rainfed
	LIV	Livestock
	FOR	Forestry
	FIS	Fisheries
	NUT	Nutrition
	RDE	Rural Development
	NSS	No specific sub-sector
EDU	Education	
HLT	Health	
	RWS	Rural Water Supplies
POP	Population	
TRA	Transportation	
	ROA	Roads
	WAT	Waterways and Ports
	MOD	Other modes
ENG	Energy	
	ALS	All Sources
	REN	Renewable
	FOF	Fossil Fuels
	FUW	Fuelwood
BUD	Budgetary Support	
PSU	Program Support	
REF	Refugees/Disasters	
OTH	Other	
	SSH	Special Self-Help
	HOU	Housing
	MIS	Miscellaneous (Human Rights, etc.)

1] Sub-sectors for non-agricultural sectors are preliminary

The total cost of each project is the most recent planned Life of Project (LOP) cost shown in the various CPs. Projects currently being designed and implemented show the LOP cost in the FY 1985 CP, while completed projects show LOP costs from earlier CPs, or from DIU print-outs of Project Design Information Sheets. The authorized LOP costs are also recorded in the FIS.

AID financed inputs into each project are shown under the following categories: Personnel, Training, Commodities, Construction, Other, and Contingencies and Inflation. The total Operating Program Grant (OPG) was used for private and voluntary organizations (PVOs). The major sources for these inputs were project documents, which were obtained largely through the AFR/PD/IPS project micro-fiche system. They were supplemented with inputs shown in pre-FY 1982 CPs.

C. Other Portfolio Characteristics

In addition to financial aspects, other characteristics of each project were identified and categorized to provide information on the scope and status of projects in the portfolio.

Project Participants. Persons and organizations involved in each project were identified under the categories of Institutions Involved (i.e., the type and name of host country institutions participating in project implementation); Target Groups; and Contractors. At a later date Other Donors Involved directly in the project will be added. (However, Peace Corps volunteers are already included in this category.) The categories and their codes are shown in Table II-3.

Agricultural Commodities. The agricultural commodities (plants, animals and their products), as well as the agricultural production and

Table II-3. ARD Functional Information System: Commodity, Participant, Special Concern and Project Status Categories and Codes

Target Groups

SMF Small farmers
SHR Small herders
RFL Rural families
RRE Rural residents
GTP Government technical personnel
NTP Non-govt. technical personnel
SUL Skilled/unskilled workers
REN Rural entrepreneurs
STU Faculty and students
WOM Women
REF Refugees
AGR Agricultural sector
GNP National economy

Institutions Involved

GOV Government
MOA Ministry of Agriculture
OGM Other govt. ministries/agencies
PAR Parastatals
LRO Local/regional organizations
UNV Universities/schools

Commodities Involved

CRO Crops
CER Cereals
- MIL Millet
- SOR Sorghum
- COR Corn
- WHE Wheat
- RIC Rice

FRU Fruits/nuts
VEG Vegetables
ROO Roots/tubers
LEG Legumes
OIL Oil Crops

Contractors

UNV Universities
PVO Private/voluntary org.
PRI Private firms
USG USDA/other U.S. Govt.
PSC Personal services contractors
HCO Host country
INO International organizations

Special Concerns

IBL Institution building
IRD Integrated rural development
NUT Nutrition improvement
WID Women in development
COO Cooperatives
TI2 Title XII institutions
FSR Farming systems research
PRE Private sector

Project Status

IDE Identification
IMP Implementation
COM Completed

Other Donors

PEC Peace Corps

Commodities Involved (Cont'd)

WOD Wood
MED Spices/herbs
STI Stimulants (coffee, etc.)
LIV Livestock
POU Poultry
FIS Fish
INP Inputs (production/marketing)
SEE Seeds
FOR Forage
FIB Fibers

marketing inputs involved in each project were identified. The Primary Categories and their codes are shown in Table II-3. Secondary Categories are also shown for Cereals.

Special Concerns. To provide quick identification of projects having activities related to Agency Special Concerns, these Concerns were noted for each project. The categories and codes presently in use are shown in Table II-3.

Project Status. The current status of each project is noted under one of these categories: Identification (including Design), Implementation, and Completion (including Termination), see Table II-3. Also recorded in the FIS are the AID/W and Field Project Managers.

D. Computer Processing

The size and complexity of the functional information database necessitated computer processing. This work was initially done on an IBM PC with dBase software. Later, files were transferred to a Tandy 2000 microcomputer obtained under a USDA contract to fully develop a series of menu-driven programs that can maintain, retrieve and print out information from the data base.

The size of the data base and supportive programs require about 2 million bytes of storage space so a hard disk is required for full use of the system. The Tandy 2000 has a 10 million byte Winchester drive. After development, the

entire system was transferred to a Wang PC with a 10 million byte Winchester drive. Because of its menu skills, the Wang PC provides a good environment to run the Functional Information System by non-computer trained staff and other personnel.

The data base itself is on four files in dBase II. The dBase program files allow entry and retrieval of information among these four files. Maintenance of the system's data is done with a password protected menu-driven system of programs. One of these programs allows updating of the financial data base from files downloaded into the Wang PC from the Agency's mainframe.

Much of the programming for the FIS was written by a staff person of ARD. A contract with a programmer was established for continued additional programming work. Staff in ARD have received training in dBase to do minor maintenance of programs.

III. Portfolio Overview

Major aspects of the Africa Bureau's portfolio of development projects in the functional area of agriculture are examined in this Chapter. In addition to data on numbers of projects, portfolio investment trends over the seven-year period FY 1978 through FY 1984 are reviewed in terms of obligations and expenditures, as well as by type and source of funding.

Trends and relative importance of project components are analyzed in terms of their purposes in Chapter IV.

A. Scope and Current Status

During the seven-year period FY 1978 through FY 1984, the Africa Bureau's agricultural portfolio was comprised of 381 projects. Of this total, 87 percent, or 332, were bilateral projects undertaken by USAID Missions in 39 countries of Sub-Saharan Africa, and 13 percent, or 49, were regional projects. The regional projects were distributed as follows: Sahel - 26; Southern Africa - 3; East Africa - 1; and Africa - 19.

During this same seven-year period, as shown in the following tabulation, agricultural projects accounted for 52 percent of all the projects in the Bureau's total portfolio:

Sector	Bilateral projects		Regional projects		Total projects	
	No.	%	No.	%	No.	%
Agriculture	332	56	49	36	381	52
Non-agriculture	262	44	86	64	348	48
Total	594	100	135	100	729	100

The distribution of the non-agricultural projects by sector is shown in Appendix Table A-1.

On an annual basis, the number of active agricultural projects in the Bureau's portfolio by fiscal years was as follows:

Type of project	1979	1980	1981	1982	1983	1984	Average
Bilateral	173	201	219	217	231	226	211
Regional	28	31	32	33	32	27	31
	201	232	251	250	263	253	242

The number of Sub-Saharan countries with active agricultural projects by fiscal years was: 1978 - 25; 1979 - 31; 1980 - 33; 1981 - 36; 1982 - 36; 1983 - 37; and 1984 - 38.

As of FY 1984, the current status of the 381 projects in the agricultural portfolio during the FY 1978-1984 was as follows: 69 projects, or 18 percent of the total, were in the identification or design stage; 184 projects, or 48 percent, were under implementation; and 128 projects, or 34 percent, had been completed.

The planned life-of-project (LOP) cost of all the agricultural projects that were funded during the FY 1978-1984 period totalled $2,186 million. As of FY 1984, $492 million, or 23 percent of the total LOP cost, was in projects in the identification or design state; $1,357 million, or 62 percent, was in projects under implementation; and $337 million, or 15 percent, was in projects that had been completed.

B. Agriculture's Share in the Africa Bureau Portfolio

In terms of both obligations and expenditures, funding of agricultural projects rose substantially over the FY 1978-1984 period. Annual obligations increased from $173.2 million in FY 1979 to $338.8 million in FY 1984, an

average annual growth rate of 14 percent over this five year period. Annual expenditures rose more than twice as fast in this same period. In 1979, expenditures were $103.8 million, or about three-fourths the level of obligations. However, by FY 1984, annual expenditures -- despite a decline in FY 1982 -- exceeded annual obligations, having risen to $408.0 million. Over the five year period, annual expenditures had an average annual growth rate of 31 percent. See Tables III-1 and 2 and and Figures III-1 and 2.

However, taking into account the trends in total Africa Bureau funding for all sectors, the relative position of agriculture showed a substantial decline during the FY 1978-1984 period. Where obligations for agriculture rose at an average annual rate of 14 percent, total Bureau obligations had a 18 percent growth rate, rising from $329.3 million in FY 1979 to $715.1 million in Fy 1984. Similarly, while expenditures on agricultural projects grew at a 31 percent rate, total Bureau expenditures showed an annual growth rate of 38 percent, rising from $170.1 million in FY 1979 to $871.8 million in FY 1984.

As a result of the lower growth rate in funding for agriculture, this sector's share of the total Africa Bureau's portfolio declined, in terms of obligations, from a level of 55 percent in the FY 1978-1980 period to 44 percent in FY 1982, and then increased to 47 percent in FY 1983 and 1984. See Table III-3 and Figure III-3. For expenditures, the agricultural sector's share declined continuously from 61 percent in FY 1979 to 41 percent in 1983, with an increase to 48 percent estimated for FY 1984.

Table III-1. Agricultural Portfolio: Expenditures by Funding Sources, FY 1979-1984

Funding Source Code/Account	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	--------- Million Dollars					----------
FN Development Assistance (Agriculture, Rural Development and Nutrition)	72.3	68.1	86.8	92.4	91.7	162.2
ES Economic Support Fund	7.4	41.4	61.3	22.8	66.4	158.9
SH Sahel Development Program	12.2	29.5	44.4	42.3	44.1	79.6
1/ Other	11.9	10.3	9.3	9.3	8.8	7.3
Total - Agric. Portfolio	103.8	149.3	201.8	166.8	209.0	408.0
	---------- Percent of Total					----------
FN Development Assistance (Agriculture, Rural Development and Nutrition)	69.7	45.6	43.0	55.4	43.9	39.8
ES Economic Support Fund	7.1	27.7	30.4	13.7	30.8	38.9
SH Sahel Development Program	11.8	19.8	22.0	25.4	21.1	19.5
1/ Other	11.4	6.9	4.6	5.5	4.2	1.8
Total - Agric. Portfolio	100.0	100.0	100.0	100.0	100.0	100.0

1/ Includes Security Supporting Assistance, Foreign Disaster Assistance, African Refugee Assistance, etc.

Table III-2. Agricultural Portfolio: Obligations by Funding Sources, FY 1978-1984

Funding Source Code/Account	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	Million Dollars						
FN Development Assistance (Agric., Rural Dev. & Nutrition)	95.0	95.8	97.9	101.7	131.5	133.5	139.3
ES Economic Support Fund	43.9	25.2	65.2	55.6	60.9	89.9	128.8
SH Sahel Development Program	31.4	48.6	57.7	72.1	73.2	63.4	66.1
1/ Other	10.6	3.6	7.6	6.9	8.1	1.7	4.6
Total - Agric Portfolio	180.9	173.2	228.4	236.3	273.7	288.5	338.8
	Percent of Total						
FN Development Assistance (Agric., Rural Dev. & Nutrition)	52.5	55.3	42.9	43.0	48.0	46.3	41.1
ES Economic Support Fund	24.3	14.5	28.5	23.5	22.3	31.2	38.1
SH Sahel Development Program	17.4	28.1	25.3	30.6	26.7	22.0	19.5
1/ Other	5.8	2.1	3.3	2.9	3.0	0.5	1.3
Total - Agric. Portfolio	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Includes Security Supporting Assistance, Foreign Disaster Assistance, African Refugee Assistance, etc.

Table III-1. Agricultural Portfolio: Expenditures by Funding Source, FY 1979-1984

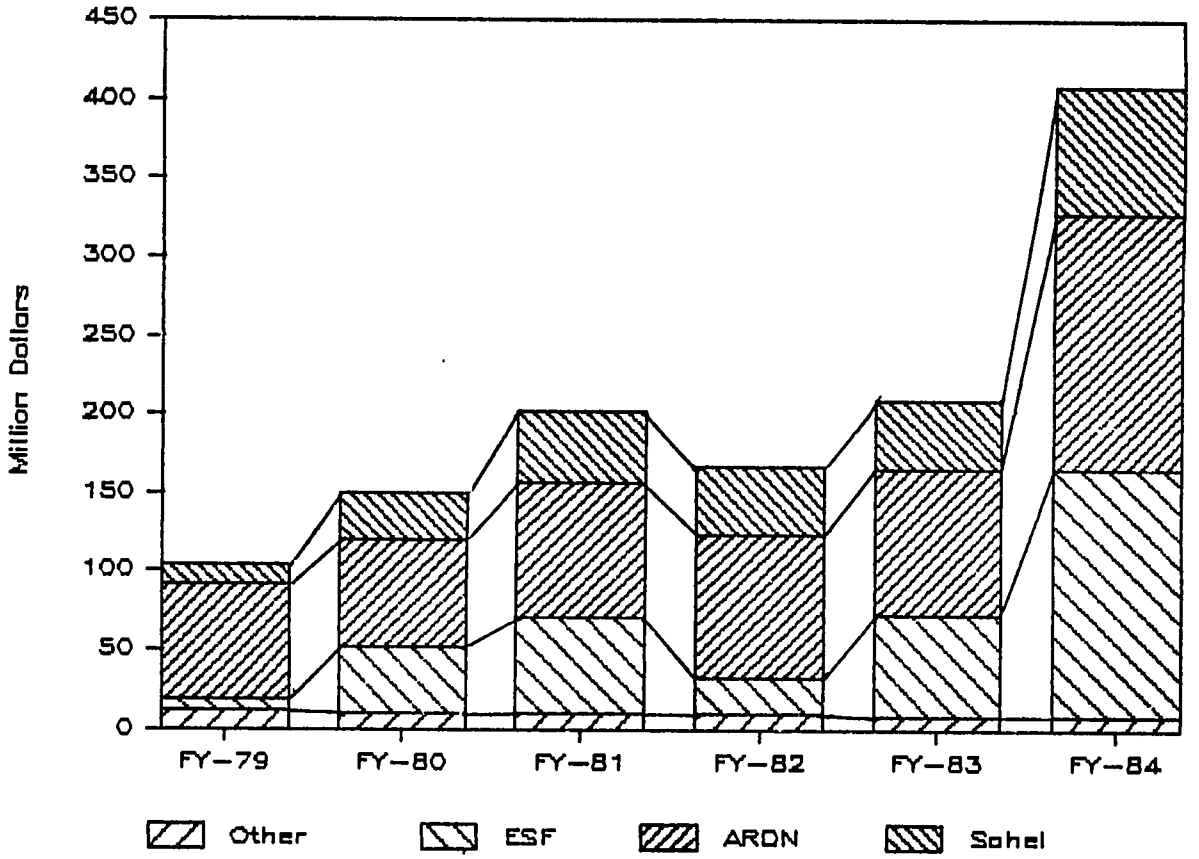


Table III-2. Agricultural Portfolio: Obligations by Funding Source, FY 1978-1984

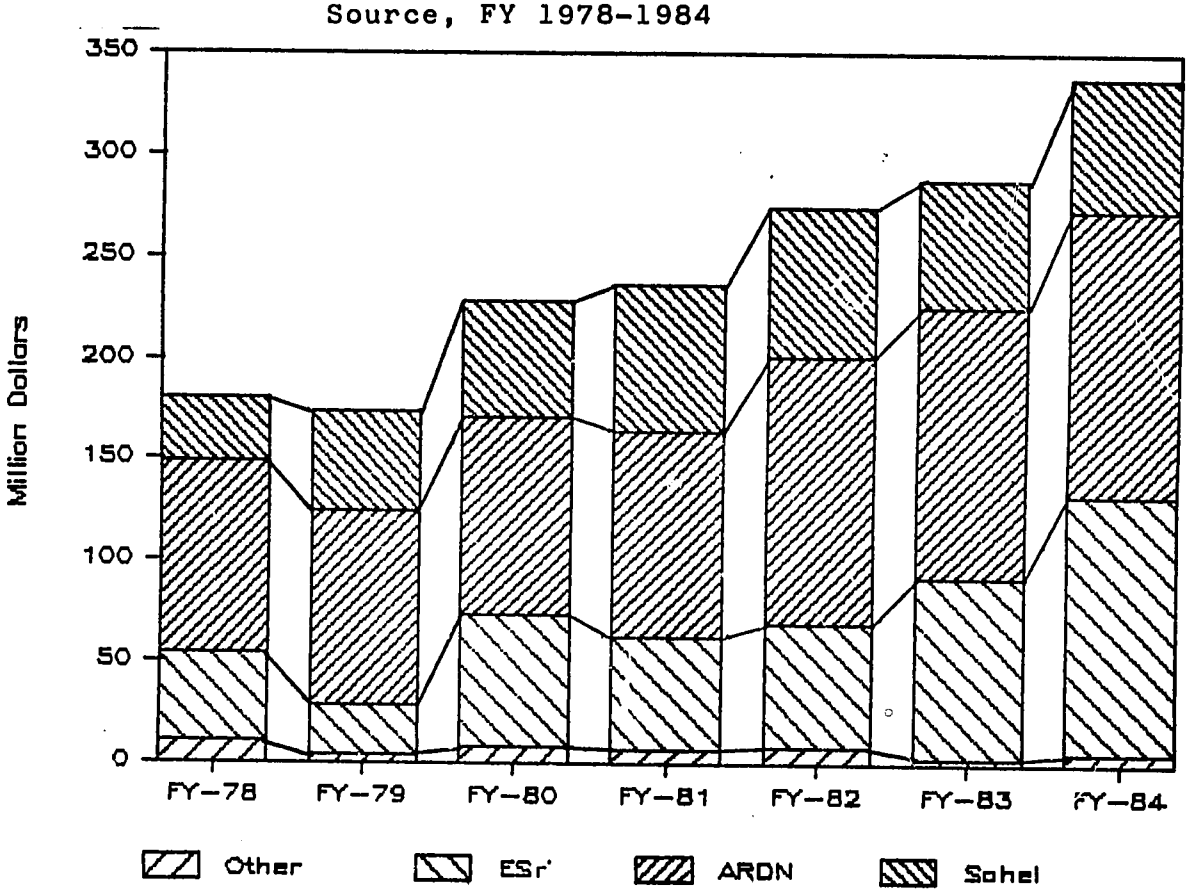
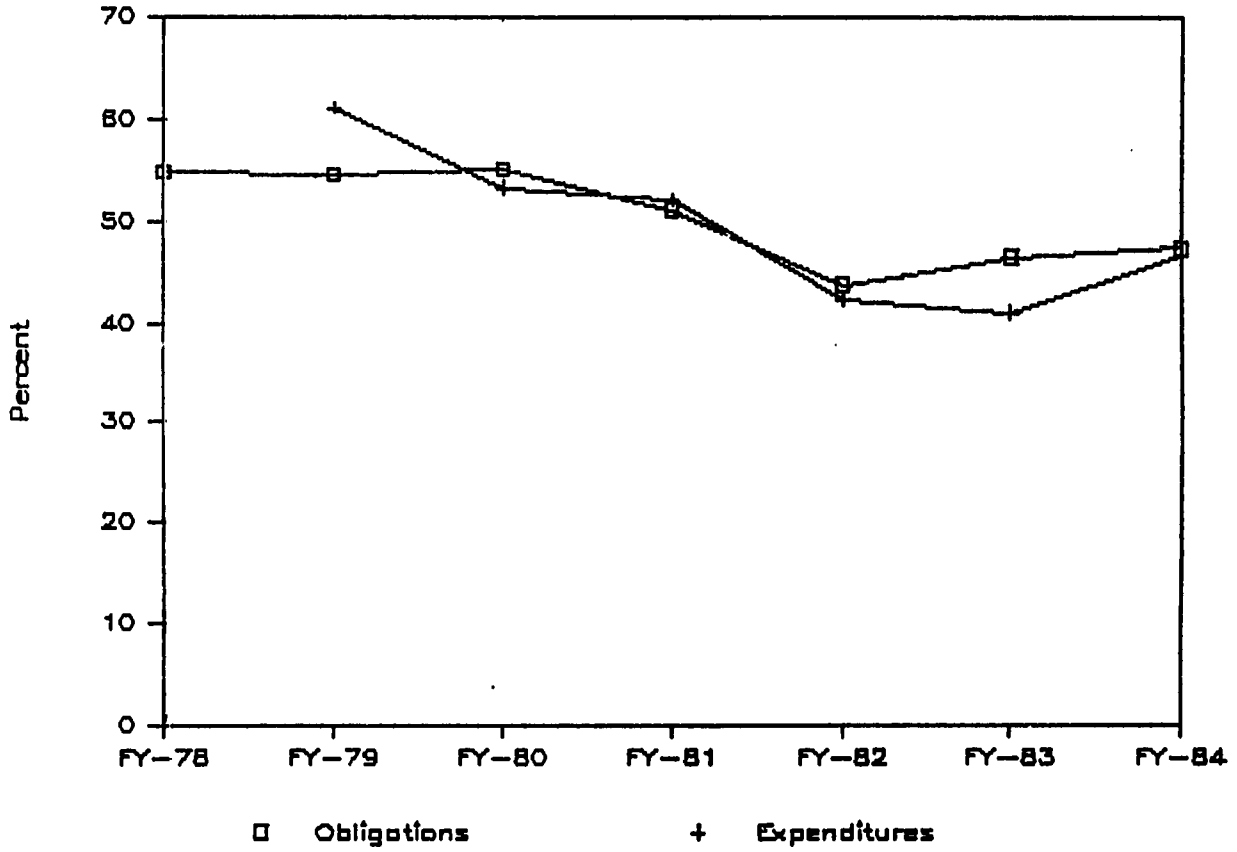


Table III-3. Agriculture's Share in the Africa Bureau Portfolio, FY 1978-1984
(Million Dollars)

	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	Obligations						
Africa Bureau Portfolio Total	329.3	317.2	414.9	467.9	624.9	619.8	715.1
Agricultural Portfolio Total	180.9	173.2	228.4	236.3	273.7	288.5	338.8
Agricultural Total as Percent of Africa Bureau Total	55	55	55	51	44	47	47
	Expenditures						
Africa Bureau Portfolio Total	--	170.1	279.7	387.3	392.8	508.4	871.8
Agricultural Portfolio Total	--	103.8	149.3	201.8	166.8	209.0	408.0
Agricultural Total as Percent of Africa Bureau Total	--	61	53	52	42	41	47

Figure III-3. Agriculture's Share in the Africa Bureau Portfolio, FY 1978-1984



Further aspects of this relative decline can be seen in the following section on the sources of funding used in the Bureau's portfolio.

C. Type and Source of Funding - Africa Bureau Portfolio

In comparison with the use of grants, loans have continued as a minor and declining type of funding mechanism in the Africa Bureau's total portfolio. Although loans accounted for 21 percent of total Bureau funding in FY 1978, they were 8 to 10 percent of the portfolio in FY 1979-1981, and 6 to 7 percent in FY 1982-1984. For FY 1984, loan funding is estimated at $41.7 million, or 5.8 percent of the Bureau's total funding of $715.1 million. See Table III-4.

The predominant sources of these loan funds have been the ARDN and ESF accounts, but the relative roles of these accounts have changed dramatically in recent years. ESF accounted for 54 to 66 percent of all loan funds from FY 1978 through FY 1982, but then dropped to 36 percent in FY 1983 and to none in FY 1984. At the same time, ARDN increased greatly as a source of loan funding. From FY 1978 through FY 1982, ARDN accounted for 21 to 42 percent of total loan funds, then rose to 64 percent in FY 1983 and to 97 percent in FY 1984. See Table III-5.

D. Type and Source of Funding - Agricultural Portfolio

The predominate user of loans as a funding mechanism continued to be the agricultural sector. In addition to use of ARDN funds for loans, a large part of the ESF funds were also used for agricultural development loans. From FY 1978 through FY 1984, respectively, agricultural components of projects accounted for the following percentages of all Bureau loan funds: 91, 89, 100, 53, 70, 100 and 79.

Table III-4. Africa Bureau Portfolio: Grant and Loan Funding, FY 1978-1984

Type of funding	1978 Act.	1979 Act	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	Million Dollars						
Loans	70.5	30.4	34.6	47.1	37.5	41.3	41.7
Grants	258.8	286.8	380.3	420.8	587.4	578.5	673.4
Total	329.3	317.2	414.9	467.9	624.9	619.8	715.1
Loan as % of total	21	10	8	10	6	7	6

Table III-5. Africa Bureau Portfolio: Loan Funding Sources, FY 1978-1984

Account	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	Million Dollars						
ARDN	22.2	10.4	14.6	9.8	11.1	26.3	40.3
Health	--	--	--	11.8	4.6	--	--
Education	--	--	--	--	--	--	1.4
SDP	7.5	--	--	--	--	--	--
ESF	40.8	20.0	20.0	25.5	21.8	15.0	--
Total	70.5	30.4	34.6	47.1	37.5	41.3	41.7
ARDN as % of total	31	34	42	21	30	64	97
ESF as % of Total	58	66	58	54	58	36	--

Within the Agricultural Portfolio itself, loans have continued as a relatively minor type of funding. In terms of obligations, loans were 40 percent of the agricultural portfolio's total funding in FY 1978, and then ranged between 11 and 17 percent through FY 1984. Expenditures of loan funds were 30 percent in FY 1978, 25 percent in FY 1979, and then ranged between 13 and 16 percent in FY 1981 through FY 1984.

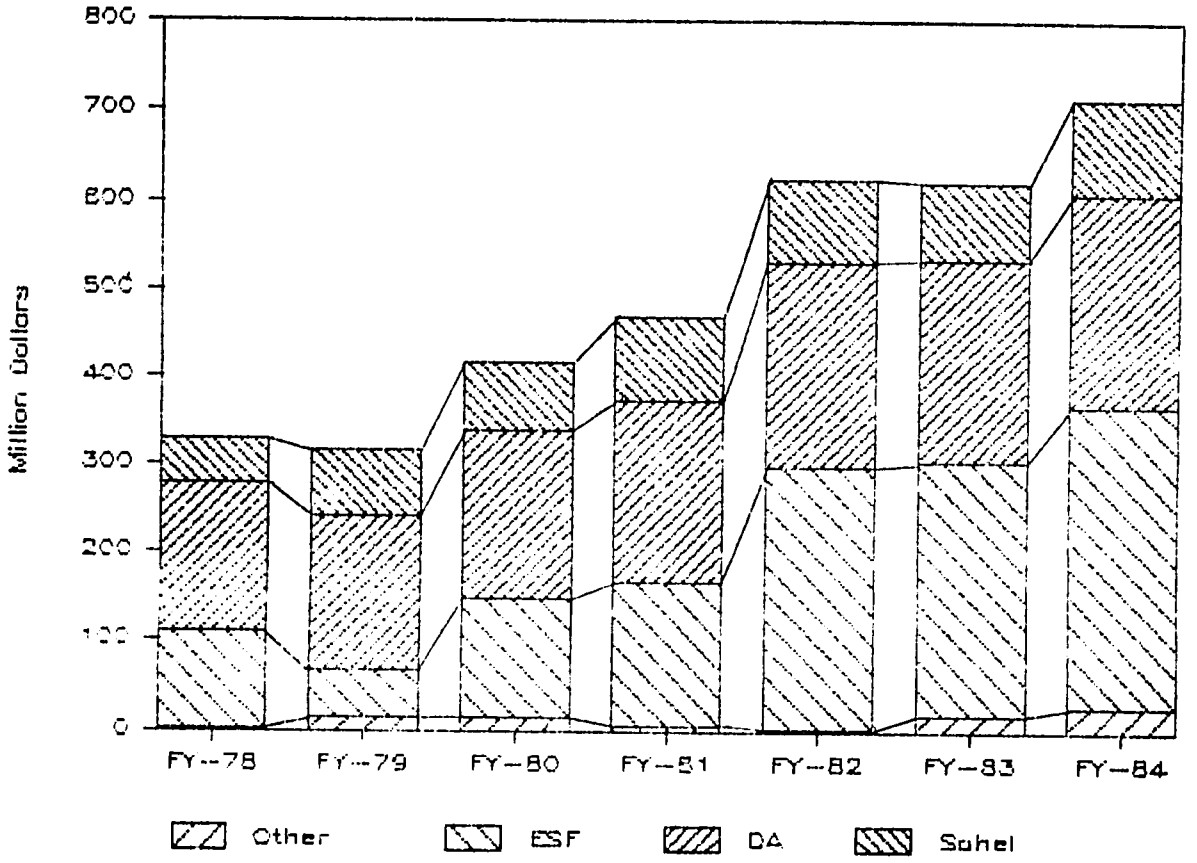
The three major sources of funding for agricultural components of projects, as well as for the total Africa Bureau portfolio, were the functional Development Assistance (DA) accounts, which include Agriculture, Rural Development and Nutrition (FN, ARDN or 103 account); the Economic Support Fund (ES); and the Sahel Development Program (SH). While other funding sources were also used, such as Security Supporting Assistance, Foreign Disaster Assistance and African Refugee Assistance, they have been of relatively minor and declining importance, see Table III-1 and 2. Development projects funded under PL 480 were not included.

Trends in the use of the various funding sources were roughly parallel for agricultural components and the total Bureau portfolio in that ES funding grew rapidly throughout the FY 1978-1984 period, while DA and SH funding showed only modest increases. Expressed as percentages of total portfolio funds, the Bureau's relative use of ES and DA funds were reversed over the FY 1978-1984 period: ES obligations rose from 34 to 47 percent, while DA funding declined from 51 to 34 percent. Use of SH funding rose from 15 percent in FY 1978 to 20 percent in FY 1981, but then declined to 15 percent in FY 1984. See Figure III-4 and Appendix Table A-2.

For the Agricultural Portfolio, ES funding of obligations rose very rapidly over the five year period, increasing at an average annual rate of 39 percent, while the FN and SH annual growth rates were only 8 and 5 percent, respectively. See Figure III-2 and Table III-2. However, in contrast with trends in the total Bureau portfolio, the FN development assistance accounts remained the most important funding source for agricultural components throughout the FY 1979-1984 period. Nevertheless, ES funding of agricultural components became increasingly important. As shown in Figure III-5 and Table III-2, while FN obligations declined from 53 to 41 percent of total agricultural funding, ES obligations rose from 24 to 38 percent. SH funding of obligations rose to 31 percent of the total in FY 1981, but declined to 20 percent in FY 1984.

Trends in funding of expenditures for the Agricultural Portfolio were essentially the same as for obligations, except that the average annual growth rates were very much higher: 18, 46 and over 200 percent for FN, SH and ES, respectively. See Figure III-6 and Table III-1. By FY 1984, sources of funding for expenditures as a percentage of total funding were 40, 39 and 20 percent, respectively, for FN, ES and SH.

Figure III-4. Africa Bureau Portfolio: Obligations by Funding Sources, FY 1978-1984



Source: Appendix Table A-2.

Figure III-5. Agricultural Portfolio: Obligations by Funding Sources, FY 1978-1984 (Percent of Total)

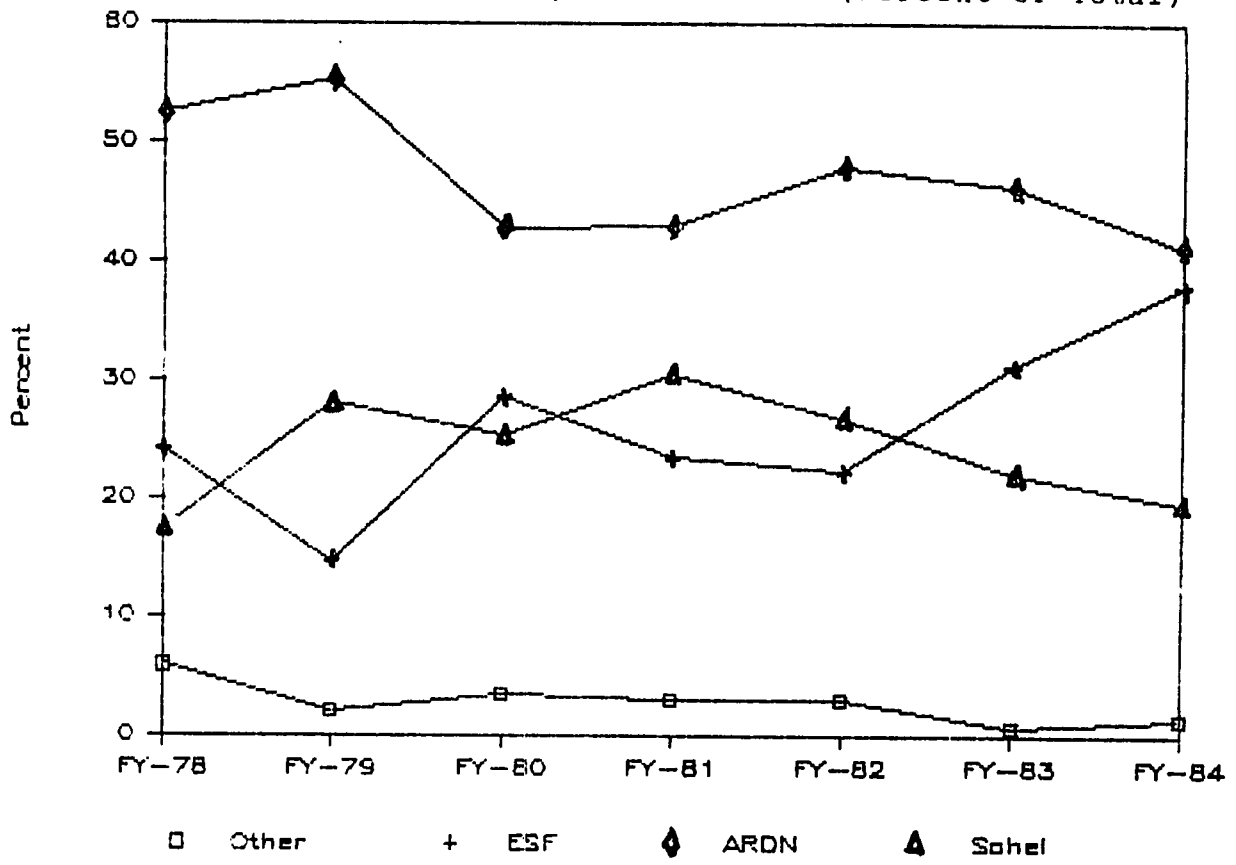
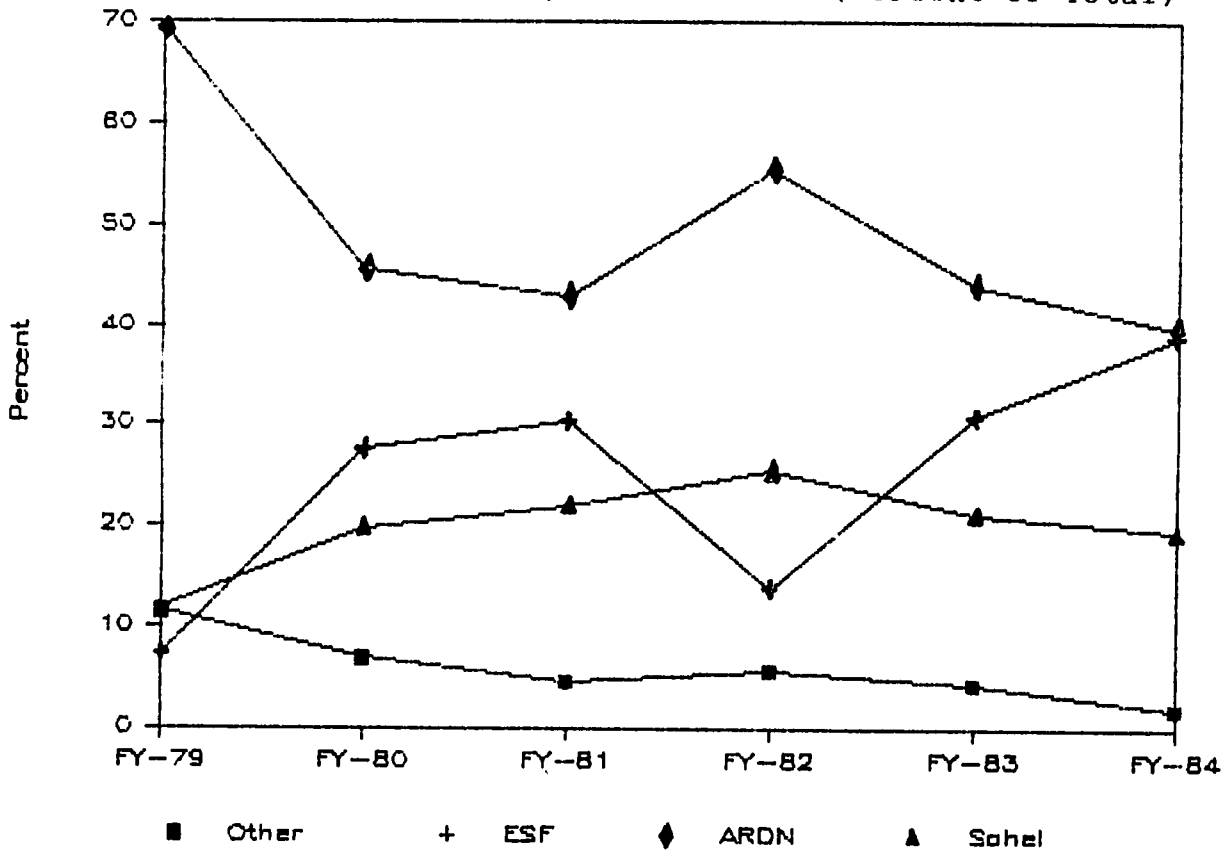


Figure III-6. Agricultural Portfolio: Expenditures by Funding Sources, FY 1979-1984 (Percent of Total)



IV. Project Purpose Analysis

As previously outlined in Chapter II on Methodology, each project in the Africa Bureau's portfolio that was related to agriculture was analyzed in terms of its purpose or purposes. Project purpose was defined as the developmental changes to be achieved so as to solve or mitigate a sector or country problem, and in turn contribute to country development goals.

For the Agricultural Sector, twelve Purpose Categories were identified as encompassing all the aspects involved in the development process. (The Purpose Categories with their codes and definitions are given in Table II-1). Each purpose of a project was then quantified in terms of LOP Cost and of the funds obligated and expended each fiscal year for that purpose. The funds used for one of these purposes is referred to as a project component. Since the sum of the components comprising a project equals the project's total obligations and expenditures, double counting of funds is avoided.

Following a brief Overview, this chapter examines changes in the relative importance and funding trends of the various purpose components which comprise the 381 projects in the Africa Bureau's agricultural portfolio over the FY 1978-1984 period. This analysis is based on the obligation and expenditure data shown by purpose categories in Table IV-1 through 4.

Table IV-1. Agricultural Portfolio: Purpose Categories by Annual Expenditures, FY 1979 - 1984

Code	/Purpose Categoires	1978 Actual	1979 Actual	1980 Actual	1981 Actual	1982 Actual	1983 Actual	1984 Estimate
		Million Dollars						
PPA	Planning and Policy Analysis	0.0	5.8	7.8	11.5	10.6	12.0	17.9
TDE	Technology Development	0.0	10.2	14.8	24.0	25.9	29.3	49.4
TTR	Technology Transfer	0.0	15.6	20.2	25.9	27.7	24.9	41.9
MKT	Commodity Marketing	0.0	3.4	3.6	4.2	3.9	4.5	12.2
INP	Input Supply	0.0	7.6	4.4	7.5	9.5	8.4	22.5
CRE	Credit Development	0.0	13.6	9.0	7.6	8.3	6.7	14.6
AGI	Agro-Industry Development	0.0	0.3	0.3	0.2	0.0	0.0	7.0
LTE	Land Tenure	0.0	0.3	0.0	0.2	0.2	0.3	0.4
NRE	Natural Resource Development	0.0	16.8	20.0	17.8	17.7	20.7	35.2
RRD	Rural Roads	0.0	12.6	9.7	7.9	10.8	6.9	22.7
AED	Agricultural Education	0.0	10.8	20.4	35.9	32.6	33.7	48.4
SEC	Agrucltural Sector Support	0.0	4.9	35.9	54.5	15.3	55.2	131.4
	Total - Agricultural Portfolio	0.0	101.9	146.1	197.2	162.5	202.6	403.6
	Total - Ag Portfolio less SEC	0.0	97.0	110.2	142.7	147.2	147.4	272.2

Table IV-2. Agricultural Portfolio: Purpose Categories by Annual Expenditures, FY 1979 - 1984

Code	/Purpose Categoires	FY-78 Actual	FY-79 Actual	FY-80 Actual	FY-81 Actual	FY-82 Actual	FY-83 Actual	FY-84 Estimate
		Percent of Total Agric. Portolio, less SEC						
PPA	Planning and Policy Analysis	0.0	6.0	7.1	8.1	7.2	8.1	6.6
TDE	Technology Development	0.0	10.5	13.4	16.8	17.6	19.9	18.1
TTR	Technology Transfer	0.0	16.1	18.3	18.1	18.8	16.9	15.4
MKT	Commodity Marketing	0.0	3.5	3.3	2.9	2.6	3.1	4.5
INP	Input Supply	0.0	7.8	4.0	5.3	6.5	5.7	8.3
CRE	Credit Development	0.0	14.0	8.2	5.3	5.6	4.5	5.4
AGI	Agro-Industry Development	0.0	0.3	0.3	0.1	0.0	0.0	2.6
LTE	Land Tenure	0.0	0.3	0.0	0.1	0.1	0.2	0.1
NRE	Natural Resource Development	0.0	17.3	18.1	12.5	12.0	14.0	12.9
RRD	Rural Roads	0.0	13.0	8.8	5.5	7.3	4.7	8.3
AED	Agricultural Education	0.0	11.1	18.5	25.2	22.1	22.9	17.8
	Total	0.0	100.0	100.0	100.0	100.0	100.0	100.0

Table IV-3. Agricultural Portfolio: Purpose Categories by Annual Obligations, FY 1978 - 1984

Code/Purpose Categoires	FY-78 Actual	FY-79 Actual	FY-80 Actual	FY-81 Actual	FY-82 Actual	FY-83 Actual	FY-84 Estimate
	Million Dollars						
PPA Planning and Policy Analysis	9.6	12.2	12.5	17.6	15.9	9.1	13.0
TDE Technology Development	14.9	29.4	30.5	44.9	45.9	39.6	43.0
TTR Technology Transfer	24.8	29.2	36.0	36.2	30.1	35.2	31.6
MKT Commodity Marketing	8.9	7.4	2.7	4.5	5.5	4.0	11.5
INP Input Supply	6.2	6.0	12.9	11.8	18.7	13.5	11.4
CRE Credit Development	7.2	6.9	8.3	7.8	3.7	16.3	20.1
AGI Agro-Industry Development	0.6	0.0	0.0	0.0	0.0	0.0	13.4
LTE Land Tenure	2.0	0.2	0.5	0.7	0.7	0.9	0.0
NRE Natural Resource Development	21.5	15.2	21.7	26.2	34.0	23.4	19.1
RRD Rural Roads	6.7	6.7	12.5	6.1	7.1	23.4	15.7
AED Agricultural Education	44.4	33.5	32.1	30.2	48.7	34.4	31.9
SEC Agrucltural Sector Support	30.0	23.0	54.5	44.8	54.9	83.7	126.5
Total - Agricultural Portfolio	176.8	169.7	224.2	230.8	265.2	283.5	337.2
Total - Ag Portfolio less SEC	146.8	146.7	169.7	186.0	210.3	199.8	210.7

Table IV-4. Agricultural Portfolio: Purpose Categories by Annual Obligations, FY 1978 - 1984

Code/Purpose Categoires	1978 Actual	1979 Actual	1980 Actual	1981 Actual	1982 Actual	1983 Actual	1984 Estimate
	Percent of Total Agric. Portolio, less SEC						
PPA Planning and Policy Analysis	6.5	8.3	7.4	9.5	7.6	4.6	6.2
TDE Technology Development	10.1	20.0	18.0	24.1	21.8	19.8	20.4
TTR Technology Transfer	16.9	19.9	21.2	19.5	14.3	17.6	15.0
MKT Commodity Marketing	6.1	5.0	1.6	2.4	2.6	2.0	5.5
INP Input Supply	4.2	4.1	7.6	6.3	8.9	6.8	5.4
CRE Credit Development	4.9	4.7	4.9	4.2	1.8	8.2	9.5
AGI Agro-Industry Development	0.4	0.0	0.0	0.0	0.0	0.0	6.4
LTE Land Tenure	1.4	0.1	0.3	0.4	0.3	0.5	0.0
NRE Natural Resource Development	14.6	10.4	12.8	14.1	16.2	11.7	9.1
RRD Rural Roads	4.6	4.6	7.4	3.3	3.4	11.7	7.5
AED Agricultural Education	30.2	22.8	18.9	16.2	23.2	17.2	15.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

A. Overview

Currently in FY 1984, more than 80 percent of the funds in the Africa Bureau's agricultural portfolio are concentrated in five purpose categories. These purposes are shown in the following tabulation, which ranks the categories in terms of their total obligations and expenditures from all funding sources.

FY 84		Million Dollars		% of Portfolio	
Rank	Purpose Categories	Oblig.	Expen.	Oblig.	Expen.
1	Agricultural Sector Support	126.5	131.4	37.5	32.6
2	Agricultural Marketing	56.4	56.3	16.7	13.9
3	Technology Development	43.0	49.4	12.8	12.2
4	Agricultural Education	31.9	48.4	9.5	11.9
5	Technology Transfer	31.6	41.9	9.4	10.4
6	Natural Resource Development	19.1	35.2	5.7	8.7
7	Rural Roads	15.7	22.7	4.7	5.6
8	Planning and Policy Analysis	13.0	17.9	3.8	4.4
9	Land Tenure	1/	0.4	2 /	2/
	Totals	337.2	403.6	100.0	100.0

1/ Less than $50,000. 2/ Less than 0.05 percent

Over the past seven years, the composition of the agricultural portfolio showed substantial changes: Purpose categories tending to increase their relative importance in the portfolio included Agricultural Sector Support, Technology Development and Agricultural Marketing; those maintaining a fairly constant share were Technology Transfer and Planning and Policy Analysis; while those showing declines to varying extents included Agricultural Education, Natural Resource Development and Rural Roads.

The changes in each purpose's share of the agricultural portfolio can be summarized as follows:

Agricultural Sector Support became the increasingly dominant purpose category for which funds were obligated and expended during the FY 1978-1984 period. This purpose is comprised of projects that provide balance of payments support primarily for development of agricultural production and marketing.

Its relative importance increased dramatically, with obligations for this purpose more than doubling from 17.0 to 37.5 percent of the total agricultural portfolio. In addition, despite a major drop in FY 1982, expenditures increased even faster, rising from 4.8 to 32.6 percent of the portfolio.

Note: Because of its major size and annual variations, the Agricultural Sector Support (SEC) component tends to obscure the analysis of other components' relative share in the agricultural portfolio. Thus, the other purpose categories are examined as a percentage of the total agricultural portfolio, less SEC funds.

Technology Development, alone among all the purpose categories, showed increases in its share of the agricultural portfolio for both obligations and expenditures. Expenditures rose from 10.5 to 18.1 percent, the largest net increase of any purpose category. Obligations rose from 10.1 to 24.1 percent by FY 1981, but then leveled out at 20.4 percent in FY 1984. In this category, the purpose is to conduct, or to strengthen the capacity to conduct research on improved technologies for agricultural production and marketing.

Agricultural Marketing, here including Commodity Marketing (MKT), Input Supply (INP), Credit (CRE) and Agro-Industry (AGI), showed a steady decline in expenditures from 25.6 to 13.3 percent of the portfolio by FY 1983. Then there was a major jump to 20.8 percent in FT 1984. Obligations rose from 13.8 to 26.6 percent of the portfolio, with most of the increase taking place in 1984. Changes in relative importance of MKT, INP, CRE and AGI were small, except that expenditures for Credit declined from 14.0 to 5.4 percent of the portfolio.

Technology Transfer's relative importance remained at a fairly constant level throughout the FY 1978-1984 period. Its share of expenditures fluctuated between 15.4 and 18.8 percent of the portfolio, and its share of portfolio obligations varied between 14.3 and 21.2 percent. In this category, the purpose is to extend, or strengthen the capacity for extending/transferring improved technologies in agricultural production and marketing.

Planning and Policy Analysis's share in the agricultural protfolio remained relatively constant over the FY 1978-84 period. Its share of obligations fluctuated between 6.2 and 9.5 percent of the portfolio total, while expenditures ranged between 6.0 and 8.1 percent. This category's purpose is to conduct, or to strengthen the capacity to conduct development planning and analyses of policy issues. It includes data collection/processing.

Agricultural Education's share in the portfolio has been at a relatively high level over the FY 1978-1984 period. Nevertheless, its share of portfolio obligations continued to decline substantially from 30.2 to 15.1 percent. Also, while its share of portfolio expenditures showed a net increase and rose to 25.2 percent in FY 1981, this share then declined to 17.8 percent by FY 1984. In this category, the purpose is to improve, or to strengthen the capacity to improve agricultural education/training and rural human resources development. It includes participant training.

Natural Resources Development showed a substantial decline in its share of agricultural portfolio funding. In terms of obligations, its relative importance dropped from 14.6 to 9.1 percent, with most of the decline in FY 1983 and 1984. Its share of expenditures declined from 17.3 to 12.9 percent. The purpose of this category is to improve, or to strengthen the capacity of improve/manage/conserve cropland, water, range, forestry and fisheries resources.

Rural Road's showed a generally declining share in agricultural portfolio funding, except in the two most recent years. In terms of expenditures, its share dropped from 13.0 to 4.7 percent by FY 1983, and then rose to 8.3 percent in FY 1984. Obligations ranged between 3.3 and 7.4 percent, and then increased to 11.7 and 7.5 percent, respectively, in FY 1983 and 1984. In this category, the purpose is to construct, or to strengthen the capacity to construct and/or maintain rural feeder or market access roads.

Land Tenure's share in the agricultural portfolio's funding did not exceed 0.5 percent in any year, except FY 1979 when obligations were 1.4 percent of the portfolio total. The purpose of this category is to improve, or to strengthen the capacity to improve access to, and/or ownership of agricultural land, water and other resources.

Viewed in relation to the Bureau's agricultural strategy, those purpose categories whose relative importance in the agricultural portfolio increased or held constant over the FY 1978-1984 period were supportive of the strategy's main components. Conversely, most of those categories with declining shares in the portfolio were not priority elements of the Bureau's strategy.

Bureau strategy emphasizes improved policy environments that will, for example, encourage private sector development or provide incentives to farmers to increase production. Agricultural Sector Support grants, a rapidly expanding category, provides leverage for encouraging such policy

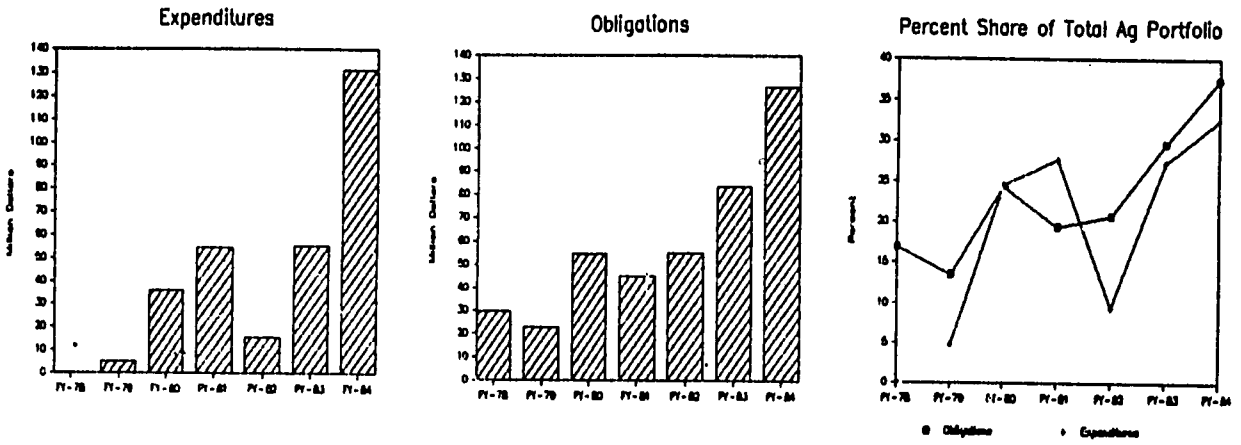
changes. The Planning and Policy Analysis category, with a constant share in the portfolio, strengthens institutional capacity to provide analyses for policy makers.

Bureau strategy also gives priority to strengthening institutions that provide appropriate technology, inputs and services necessary for effective agricultural production and marketing. Expanding categories supporting this strategy include Technology Development and Agricultural Marketing; those with a constant share in the portfolio include Technology Transfer and Planning/Policy Analysis.

Categories with declining shares in the agricultural portfolio are Agricultural Education, which includes both institution building and participant training, as well as Natural Resources Development and Rural Roads, which do not have high priority in the Bureau's strategy.

The following sections examine changes in the relative importance and funding trends of each purpose category over the FY 1978-1984 period.

B. Agricultural Sector Support (SEC)



Definition. To provide balance of payments support primarily for development of agricultural production and marketing. Includes Commodity Import Programs, and variously titled agricultural and rural sector development grants.

Obligations and Expenditures. Agricultural Sector Support was the dominant purpose for which funds were obligated and expended during the FY 1978-1984 period.

In most of the years under review, obligations and expenditures for SEC ranged between one-fourth and one-third of all agricultural funds in the Africa Bureau's portfolio. By FY 1984, in spite of a major drop in FY 1982, annual expenditures on this purpose had reached $131.4 million, or a 26-fold increase over the $4.9 million in FY 1979. Over this same 5 year period, obligations more than quadrupled from $30.0 to $126.5 million.

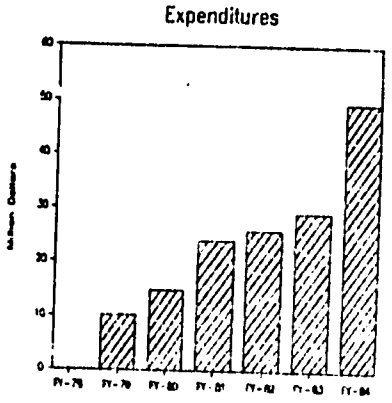
Number and Size. The number of SEC projects used in the FY 1978-1984 period was relatively small, and they ranged widely in size of LOP cost.

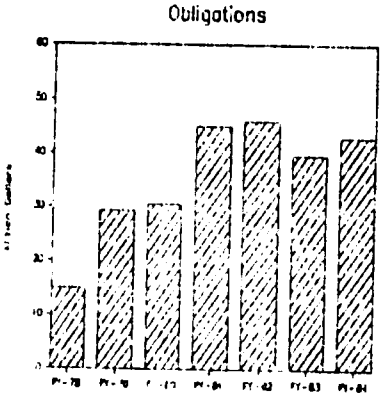
The 22 SEC projects in this period accounted for only 0.6 percent of all agricultural projects. As to size, nine of the projects had LOP costs from $2 to $5 million, and another 10 ranged from $10 to $24 million. The other three, however, had LOP costs of $45 million, $125 million and $135 million. The average LOP cost of the four SEC projects under implementation in FY 1984 was $76.7 million, while the average size of the five projects that had been completed was $17.2 million. The average size of 13 SEC projects in the identification stage was $8.7 million.

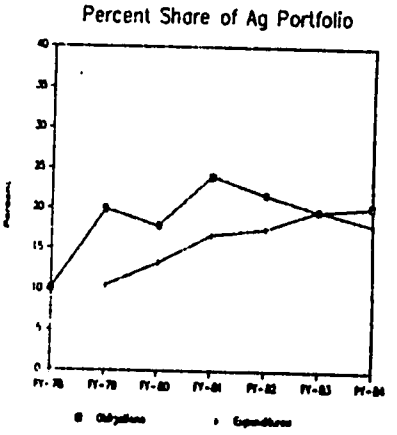
Relation to Strategy. The main thrust of Agricultural Sector Support projects is for balance of payment support. However, many of the commodities provided through this mechanism (such as fertilizer) relate generally to development of the agricultural sector, which sector has high priority in the Bureau's overall strategy. More specifically, SEC funding can provide opportunities to assist in creating national policies that, for example, will give farmers adequate incentive to expand agricultural production, or will encourage private sector development. Where such policy changes are encouraged, a major component of the Bureau's agricultural strategy is being implemented.

Note: Because of its major size and annual variability, the Agricultural Sector Support (SEC) category tends to obscure the analysis of other category's relative share in the agricultural portfolio. Thus, the following purpose categories are examined as a percentage of the total agricultural portfolio, less SEC funds, see Tables VI-1 through 4.

C. Technology Development (TDE)







Definition. To conduct, or to improve, the capacity for conducting research on improved technologies for agricultural production and marketing.

Expenditures. Expenditures on Technology Development had an annual growth rate of 37 percent, the highest of any category in the agricultural portfolio. The expenditure level rose over the FY 1979-1984 period from $10.2 to $49.2 million, with the FY 1984 expenditures the second largest in the portfolio.

TDE's share in the agricultural portfolio also showed the largest net increase, rising from a 10.5 percent share of expenditures in FY 1979 to 19.9 percent in FY 1983 and 18.1 in FY 1984.

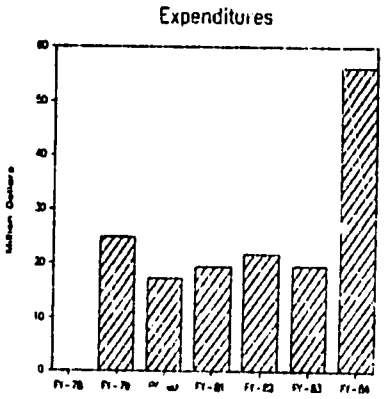
Obligations. Technology Development also ranked high in terms of obligations, with a growth rate of 8 percent, which was exceeded only by the Agricultural Marketing and Rural Roads categories. Obligated funds rose from $14.9 million in FY 1978 to $45.9 million in FY 1982, and then moved down slightly to $43.0 million in FY 1984.

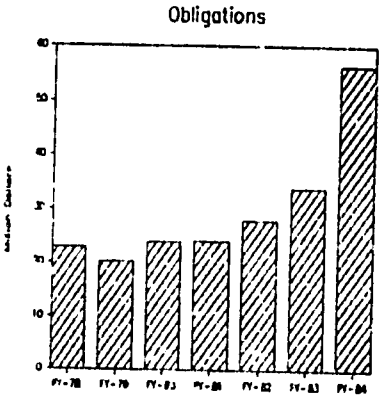
TDE's share of total obligations in the agricultural portfolio rose from 10.1 to 24.1 percent by FY 1981, and then fluctuated at about the 20 percent level in the three latest years. Its net increase of 10.3 percent in share of portfolio obligations was exceeded only by the Agricultural Marketing category.

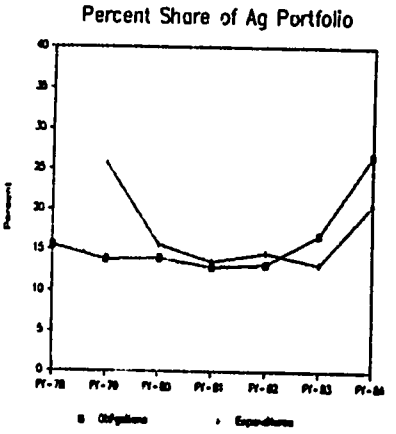
Relation to Strategy. The rapid growth in funding for Technology Development -- both in absolute and relative terms -- has been providing substantial support to a major component of the Bureau's agricultural strategy, i.e., to assist in building self-sustaining institutions that provide the appropriate technology necessary for effective production and distribution of food products.

However, the relative decline shown in obligations for TDE since FY 1981 is now reflected in the drop estimated for expenditures in FY 1984. It also suggests lower levels of expenditures in the future for Technology Development unless relative funding levels of obligations are raised.

D. Agricultural Marketing (MKT, INP, CRE, AGI)







Definition. [Agricultural Marketing here includes four related purpose categories: Commodity Marketing (MKT), Input Supplies (INP), Credit (CRE), and Agro-Industry (AGI)]. To improve, or to strengthen, the capacity to improve the asembly, handling, storage, transport and/or distribution of crop/livestock and products (MKT), and/or to provide, or strengthen, the capacity to provide physical inputs (INP), credit (CRE), and commodity processing, tool manufacture, off-farm storage, etc. (AGI) for agricultural production and marketing.

Expenditures. Expenditures on Agricultural Marketing had an average annual growth rate of 18 percent, the fifth highest in the agricultural portfolio. However, most of this increase took place in FY 1984. Annual expenditures were at about the $20 million level through FY 1983, and then jumped to $56.3 million in FY 1984. This FY 1984 level was the largest in the portfolio.

Agricultural Marketing's share in total portfolio expenditures showed a major decline from a 25.6 percent share in FY 1979 to 13.3 percent in FY 1983, followed by a substantial increase to 20.8 in FY 1984. There was a net decline of -4.8 percent over the period.

Changes in the share of portfolio expenditures for Commodity Marketing, Input Supply and Agro-Industry were very small over the FY 1979-1984 period. However, Credit's share showed a substantial decline of -8.6 percent, moving from 14.0 percent in FY 1979 to 5.4 percent in FY 1984.

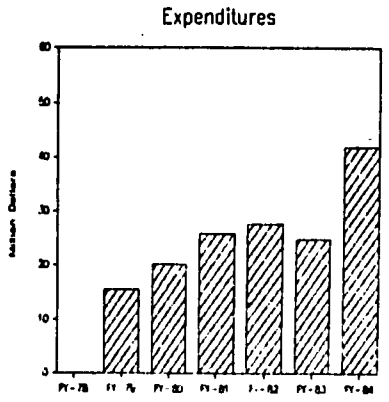
Obligations. In terms of obligations, Agricultural Marketing showed a growth rate of 22 percent, the largest of any category in the portfolio. The obligation level gradually increased from $22.9 to $27.9 million by FY 1982, and then by FY 1984 peaked at $54.4 million.

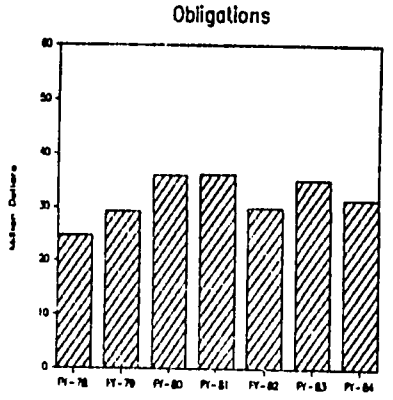
Agricultural Marketing's share in total portfolio obligations was in the 13 to 16 percent range through FY 1982, and then jumped to 26.8 percent in FY 1984. This net increase of 11.2 percent was the largest in the portfolio over the five year period.

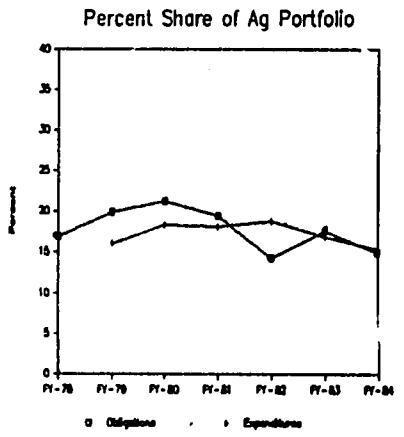
Changes in the share of obligations for Input Supply, Credit and Agro-Industry showed small increases over the FY 1978-1984 period, with Commodity Marketing showing a very small decrease.

Relation to Strategy. Bureau strategy gives priority to strengthening capabilities of agricultural institutions. These include cooperatives and other private sector firms engaged in marketing food and other commodities, as well as those providing seeds, tools and other production inputs to farmers. While the relative importance of funding for these purpose categories was essentially stable up to FY 1983, the increased funding levels estimated for FY 1984 suggests greater support in the future for this aspect of the Bureau's agricultural strategy.

E. Technology Transfer (TTR)







Definition. To extend, or to improve, the capacity for extension/diffusion/transfer of improved technologies for agricultural production and marketing.

Expenditures. Expenditures on Technology Transfer increased at a 22 percent growth rate, or from $15.6 to $41.9 million over the FY 1979-1984 period. This was the fourth highest growth rate among the categories.

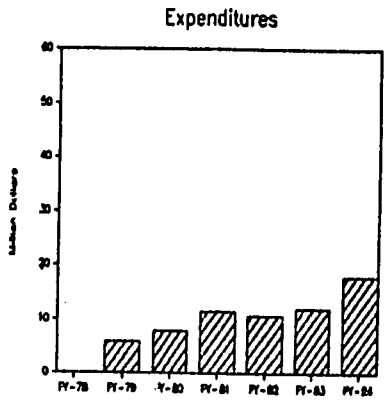
However, in relation to the total agricultural portfolio, TTR's share showed only a modest increase from 16.1 to 18.8 percent by FY 1982, and then declined to 15.4 percent in FY 1984. This was a net decline of -0.7 percent over the five year period.

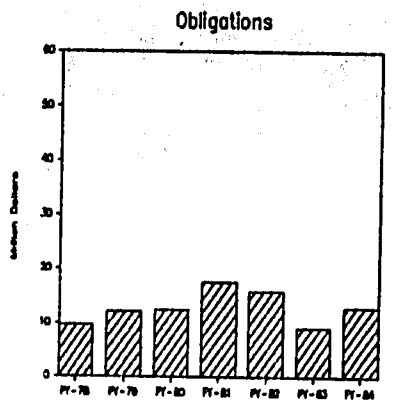
Obligations. Obligations for Technology Transfer rose only marginally at a 2 percent annual growth rate over the FY 1978-1984 period, or from $24.8 to $31.6 million.

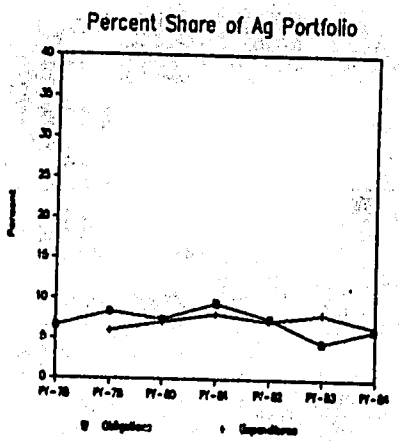
TTR's share of total portfolio obligation funds, as a result, showed a generally declining trend over the period, with a net decrease of -1.9 percent.

Relation to Strategy. Although Technology Transfer has priority ranking in the Bureau's agricultural strategy, its share in the funding of the agricultural portfolio showed relatively little change over much of the FY 1978-1984 period, and then slight downward trends in recent years. This suggests a continuing decline in relative importance of this purpose category in coming years. In order to strengthen institutional capabilities for extending improved technologies, as well as to provide means for greater farmer participation in the development process, relatively greater funding levels will be needed for TTR.

F. Planning and Policy Analysis (PPA)







Definition. To conduct, or to improve, the capacity for conducting development planning and analyses of policy issues. Includes data collection/processing.

Expenditures. Expenditures on Planning and Policy Analysis grew rapidly from $5.8 to $17.9 million over the FY 1979-1984 period, or at an average annual growth rate of 25 percent. Only two other categories had higher rates, Technology Development and Agricultural Education.

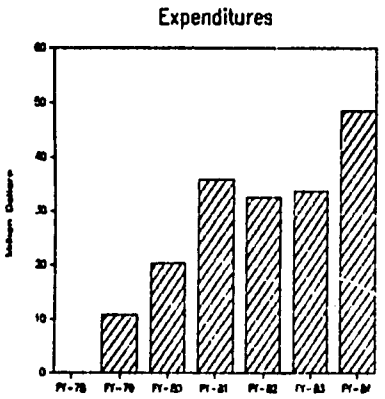
However, in relation to the growth in the total agricultural portfolio, PPA's share remained relatively constant, fluctuating between 6.0 and 8.1 percent.

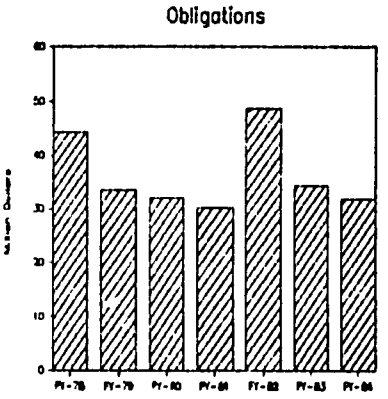
Obligations. In terms of obligations, PPA funding rose from $9.6 million in FY 1978 to $17.6 million in FY 1981, and then declined to $13.0 million in FY 1984. This was an annual growth rate of 1 percent.

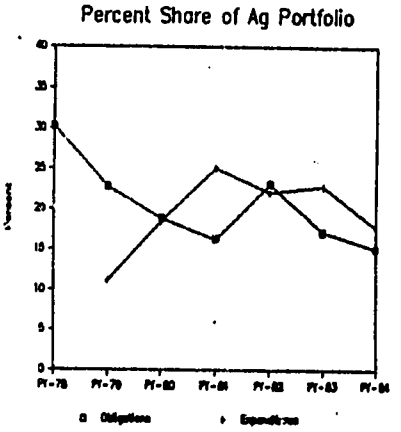
PPA's share of total obligations in the portfolio showed little change, fluctuating in a range of 6.2 to 9.5 percent over the FY 1978-1984 period.

Relation to Strategy. Bureau strategy for agricultural development emphasizes assistance to create policy environments that will provide incentives for farmers to increase production. Some leverage to support this strategy thrust is provided through Agricultural Sector Support projects, as noted in B. above. However, strengthening of institutional capacity to provide the analyses needed for planning and policy decisions is also essential. Since past funding levels have remained relatively static, this aspect of Bureau strategy may require increased funding levels in coming years.

G. Agricultural Education (AED)







Definition. To improve, or to strengthen, the capacity to improve agricultural education/training and rural human resources development.

Expenditures. Agricultural Education showed an expenditure growth rate of 35 percent, the second highest in the agricultural portfolio. Over the FY 1979-1984 period, expenditures rose from $10.8 to $48.4 million.

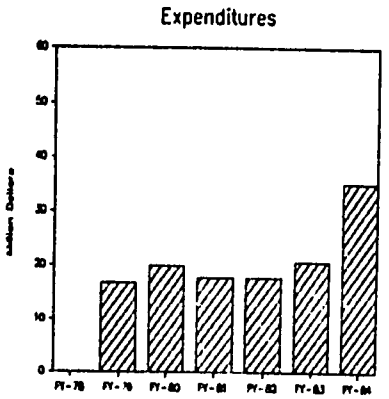
AED's share in the agricultural portfolio also showed the second largest net increase of any category, 6.7 percent, over this same period. However, the relative position of this category, after a rise to 25.2 percent in FY 1981, had declined to 17.8 percent in FY 1984.

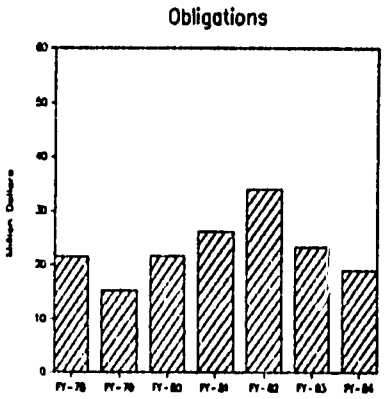
Obligations. In terms of obligations, the funding for AED showed a general downward trend of -1 percent, moving from $44.4 to $31.9 million over the FY 1978-1984 period.

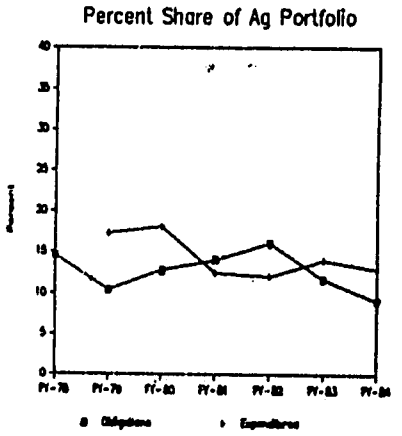
AED's share in total portfolio obligations showed the largest decline of any category, -15.1 percent. From a 30.2 percent share in FY 1978, it dropped to a 15.1 percent share in FY 1984.

Relation to Strategy. Human resource development ranks high in Bureau agricultural strategy and funding for AED, including both institution building and participant training activities, has been at relatively high levels through most of FY 1978-1984 period. Nevertheless, the strong downward trend in obligations has been reflected in substantial drops in expenditure levels in recent years. It also suggests lower levels of expenditures in the future for Agricultural Education unless funding levels of obligations are raised.

H. Natural Resource Development (NRE)







Definition. To improve, or strengthen, the capacity to improve/manage/conserve cropland, water, range, forestry and fisheries resources.

Expenditures. Expenditures on Natural Resource Development grew from $16.8 to $35.2 million over the FY 1979-1984 period, or at an average annual growth rate of 16 percent.

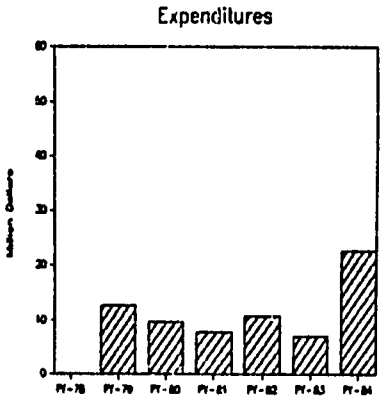
However, in relation to the growth of the total agricultural portfolio, NRE's share showed a gradual decline from 17.3 percent in FY 1979 to 12.9 percent in FY 1984. This was a net decline of -4.4 percent.

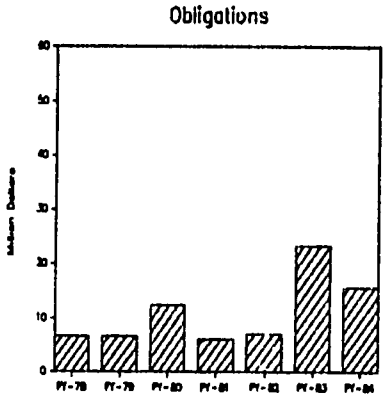
Obligations. In terms of obligations, the funding for Natural Resource Development showed a net decline of -5 percent, the second largest of any category in the portfolio. From $21.5 million in FY 1978, obligations peaked at $34.0 million in FY 1982, but then dropped to $19.1 million in FY 1984.

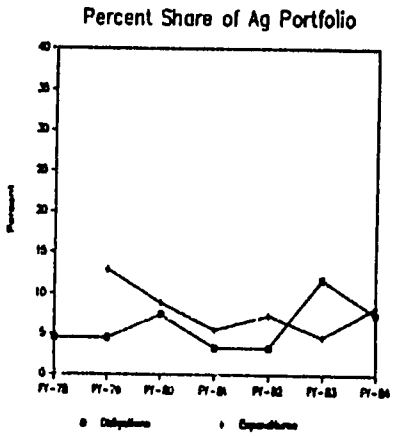
NRE's share in total portfolio obligations also declined over this period from 14.6 to 9.1 percent, for a net decrease of -5.5 percent.

Relation to Strategy. Natural Resource Development's share in the agricultural portfolio has shown substantial decline over the FY 1978-1984 period in terms of both obligations and expenditures. The decline reflects the increased relative importance being given to other purpose categories, such as Technology Development and Agricultural Marketing. Since Bureau strategy gives higher priority to activities oriented towards policy environment and institution building, little change in NRE's relative position seems likely in coming years.

I. Rural Roads (RRO)







Definition. To construct, or to strengthen the capacity to construct and/or maintain rural feeder or market acces roads.

Expenditures. Rural Roads showed an expenditure growth rate of 13 percent, with expenditures increasing from $12.6 to $22.6 million over the FY 1979-1984 period.

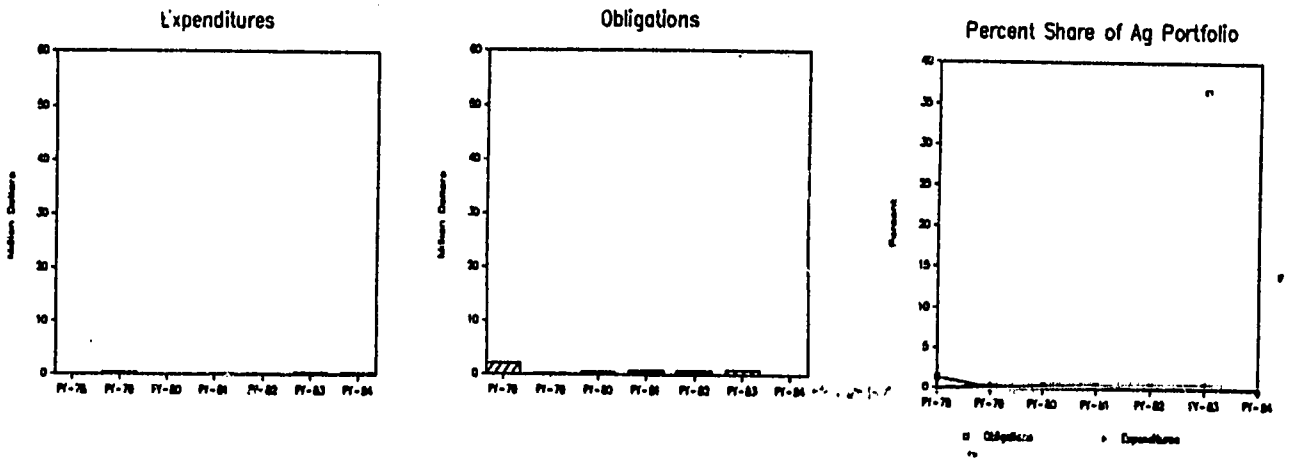
RRO's share in total expenditures of the agricultural portfolio, however, showed a general decline from 13.0 percent in FY 1979 to 4.7 percent in FY 1983, and then a rise to 8.3 percent in FY 1984. The net change in RRO's share was -4.7 percent.

Obligations. In contrast to expenditures, obligations for Rural Roads showed an average annual growth rate of 19 percent, the second largest of any category in the portfolio. The major part of this increase occurred in FY 1983, when funding jumped to $23.4 million from the previous levels which ranged between $6.1 and $12.5 million.

RRO's share in total portfolio obligations ranged between 3.3 and 7.4 percent through FY 1982, then jumped to 11.7 percent in FY 1983 and declined to 7.5 percent in FY 1984. The net increase over the period was 2.9 percent.

Relation to Strategy. Rural Roads' share in the agricultural portfolio showed general decline over the FY 1978-1984 period, with a slight increase in the most recent years. The decline reflects increased relative importance being given to other purpose categories, such as Technology Development and Agricultural Marketing. Since Bureau strategy gives higher priority to activities oriented towards policy environment and institution building, little change in RRO's relative position seems likely in coming years.

J. Land Tenure (LTE)



Definition. To improve, or to strengthen the capacity to improve access to and/or ownership of agricultural land, water and other resources.

Expenditures and Obligations. Land Tenure's share in the agricultural portfolio's expenditures and obligations did not exceed 0.5 percent in any year, except FY 1979 when obligations were 1.4 percent of the portfolio total. Annual expenditures did not exceed $0.4 million, and except for $2.0 million in FY 1978, obligations did not exceed $0.9 million.

Relation to Strategy. Land Tenure's relative importance in the agricultural portfolio has been at a very low level throughout the FY 1978-1984 period, and little change is likely in coming years.

APPENDIX TABLES

Appendix Table A-1. Africa Bureau Portfolio: Number of Projects by Sector, FY 1978-1984 1/

Code	Sector	Bilateral Projects	Regional Projects	Total Projects	Percent of Total
AGR	Agriculture	332	49	381	52
EDU	Education	65	27	92	13
HLT	Health	69	8	77	11
POP	Population	18	6	24	3
TRA	Transportation	13	11	24	3
ENG	Energy	15	1	16	2
BUD	Budgetary Support	19	1	20	3
PSU	Program Support	1	16	17	2
REF	Refugees/Diasters	14	3	17	2
OTH	Other	48	13	61	9
	Total	594	135	729	100

1/ Numbers for non-agricultural sectors based on preliminary data.

Appendix Table A-2. Africa Bureau Portfolio: Obligations by Funding Sources, FY 1978-1984

Funding sources	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Est.
	Million Dollars						
DA:							
ARDN	95.8	98.0	102.7	108.1	135.0	141.7	146.3
POP	4.5	2.1	3.0	4.5	7.3	11.7	15.6
HLT	21.9	34.6	29.4	49.4	43.9	31.0	27.0
EHR	23.3	27.4	30.3	25.1	35.9	29.3	37.2
SDP	22.0	11.0	26.1	17.6	13.0	16.5	16.6
Sub-total	167.5	173.1	191.5	204.7	235.1	230.2	242.7
ESF	110.7*	53.0	132.7	163.0	294.8	286.1	338.2
Sahel	49.8	75.2	76.5	95.6	93.8	85.0	106.6
Other	1.3	15.9	14.2	4.6	1.2	18.5	27.6
Total	329.3	317.2	414.9	467.9	624.9	619.8	715.1
	Percent of Total						
DA	50.9	54.6	46.2	43.8	37.6	37.1	33.9
ESF	33.6	16.7	32.0	34.8	47.2	46.2	47.3
Sahel	15.1	23.7	18.4	20.4	15.0	13.7	14.9
Other	0.4	5.0	3.4	1.0	0.2	3.0	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ARDN as % of Total	29.1	30.9	24.8	23.1	21.6	22.9	20.5
ARDN as % of DA	57.2	56.6	53.6	52.8	57.4	61.6	60.3

* SSA (Security Support Assistance)

Source: AID Congressional Presentations, Annex 1 - Africa, FY 1980-1985