

**AGRICULTURE AND RURAL DEVELOPMENT:**

**FUNCTIONAL REVIEW FY 1978-1986**

**Africa Bureau  
Office of Technical Resources  
Agriculture and Rural Development Division**

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PREFACE

This sixth ARD Functional Review was prepared by staff of the Agriculture and Rural Development Division of the Office of Technical Resources. It is the second Review using ARD's computer based Functional Information System (FIS).

Wendell McMillan, who developed the information system and database, coordinated the updating, computer processing and analysis for this Review.

Other ARD staff assisting with this Review included Tom Worrick and Curt Reintsma, who analyzed technical data on new projects, and Bernard Lane, who prepared the computer graphics.

Don Brown, a former ARD staff member, did most of the computer programs for the FIS.

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 second one to be based on the Functional Information System (FIS) established in AFR/TR/ARD in 1984, and now updated through FY 1986. 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 437 bilateral and regional agricultural and rural development projects.

Overview of the Africa Bureau's Agricultural Portfolio

A. Scope of Major Characteristics

- There were 437 projects in the agricultural portfolio over the 9-year period, FY 1978-1986. Of this total, 86 percent (375) were bilateral projects and 14 percent (62) were regional projects.

- The number of active agricultural projects increased from 201 in FY 1978 to 263 in FY 1983, and totalled 228 in FY 1986. The average number was 238.

- Agricultural projects account for 51 percent of the 729 projects in the total Africa Bureau portfolio during FY 1978-1986.

- The number of countries with active agricultural projects increased from 25 in FY 1978 to 39 in FY 1985 and 1986.

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 54 percent of total Bureau obligations in FY 1979 to 44 percent in FY 1986. (Average annual obligation growth rates: Agriculture - 11 percent; Africa Bureau - 15 percent.) (See Table III-3)

- In terms of expenditures, the drop in agricultural projects' share of the Africa Bureau portfolio was greater, declining from 60 percent of total Bureau expenditures in FY 1979 to 47 percent in FY 1986. (Average annual expenditure growth rates: Agriculture - 22 percent; Africa Bureau - 27 percent.) (See Table III-3)

G. Type and Source of Funding - Total Bureau Portfolio

- Use of loan funding continued to decline: Loans were 21 percent of all Bureau funding in FY 1978, then declined 8 to 10 percent in FY 1979-1981 and to 1 percent in FY 1985-1986. (See Table III-4)

- ARDN and ESF accounts have been the predominant source of loan funds, but their use has changed sharply in recent years. ESF provided 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 1984-1986. At the same time, ARDN provided 21 to 42 percent of the total through FY 1982, then rose to 96 percent in FY 1984. Estimates for FY 1985 are 55 percent and none in FY 1986. (See Table III-5)

D. Type and Source of Funding - Agriculture Portfolio

- Use of loans was concentrated in the agricultural sector as compared to other sectors. Nevertheless, within the agricultural portfolio, loans remained a minor funding mechanism, ranging from 11 to 17 percent of total funding through 1984 and then to 1 percent in FY 1985 and none in FY 1986.

- Of the three funding sources, the ESF account became an increasingly important for the agricultural portfolio, and is projected to exceed the level of DA funding by FY 1986. In FY 1978, 24 percent of the agricultural portfolio obligations was funded through the ESF account. By FY 1986 this had increased to 43 percent. Most of this funding (81 percent) went to agricultural sector support activities. (See Table III-2)

- The DA (103 account) funding has remained an important funding source for agricultural projects. However, its share in total funding of these projects has declined from 53 percent in FY 1979 to 41 percent in FY 1986. (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, but by FY 1986 had declined to 16 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 A/D Functional Review analyzed the trends of Bureau funding for these purpose components, by obligations and expenditures, over the 9-year period FY 1978-1986. (See Table 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.

- Over the past nine 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 and Technology Development; those maintaining a fairly constant share were Technology Transfer, Planning and Policy Analysis, Agricultural Marketing and Rural Roads; while those showing declines to varying extents included Agricultural Education and Natural Resource Development.

- Viewed in relation to the Bureau's agricultural strategy, most of those purpose categories whose relative importance in the agricultural portfolio increased or held constant over the FY 1978-1986 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 1978-1986 period. This purpose is comprised of projects that provide balance of payments support primarily for development of agricultural production and marketing.

However, its relative importance increased dramatically, with obligations for this purpose more than doubling from 16.8 to 37.3 percent of the total agricultural portfolio. In addition, despite a major drop in FY 1982, expenditures increased even faster, rising from 4.8 to 35.8 percent of the portfolio. (See page 38 )

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

- Technology Development showed increases in its share of the agricultural portfolio for both obligations and expenditures. Expenditures rose from 10.4 to 19.2 percent, the largest net increase of any purpose

category. Obligations rose from 10.0 to 23.7 percent by FY 1981, and then leveled out about 19 percent through FY 1985. The planned obligation level of 23.2 percent in FY 1986 will be the largest of any category. (See page 40)

- Technology Transfer's relative importance remained at a fairly constant level throughout the FY 1978-1984 period. However, planned increases in FY 1985 and 1986 will raise TTR's share of total obligations to 21.8 percent, the second highest of any category. (See page 42)

- Planning and Policy Analysis's share in the agricultural portfolio remained relatively constant over the FY 1978-86 period. Its share of obligations fluctuated between 4.4 and 9.3 percent of the portfolio total, while expenditures ranged between 5.9 and 8.0 percent. (See page 44)

- Agricultural Marketing, here including Commodity Marketing (MKT), Input Supply (INP), Credit (CRE) and Agro-Industry (AGI), showed a steady decline in expenditures from 25.5 to 13.0 percent of the portfolio by FY 1983. Planned expenditures for FY 1986 will mean an increase to a 21.5 percent share. Actual obligations rose from 13.7 to 27.5 percent of the portfolio, with most of the increase taking place in 1984. However, planned obligations will mean a drop to a 25.0 percent share by FY 1986. Changes in relative importance of MKT, INP, CRE and AGI were small, except that expenditures for Credit declined from 13.9 to 4.0 percent of the portfolio. (See page 46)

- Rural Road's showed a generally declining share in portfolio expenditures, while obligations increased substantially after FY 1982. In terms of expenditures, its share dropped from 12.9 to 4.6 percent by FY 1983, and then rose to 6.8 percent in FY 1986. Obligations ranged between 3.2 and 5.9 percent, through FY 1982, and then jumped to 15.9 and 17.2 percent, respectively in FY 1985 and 1986. (See page 48)

- Agricultural Education's share in the portfolio has been at a relatively high level over the FY 1978-1986 period. Nevertheless, its share of portfolio obligations continued to decline substantially from 30.2 to 14.8 percent. Also, while its share of portfolio expenditures showed a net increase and rose to 25.2 percent in FY 1981, this share then shows a decline to 16.0 percent by FY 1986. (See page 50)

- Natural Resources Development showed a substantial decline in its share of agricultural portfolio funding. In terms of actual obligations, its relative importance dropped from 14.5 to 9.6 percent by FY 1984, and plans for FY 1986 show a major decline to 2.7 percent. Its share of expenditures shows a decline from 17.1 to 11.9 percent over the seven year period. (See page 52)

- Land Tenure's share in the agricultural portfolio's funding did not exceed 0.4 percent in any year, except FY 1979 when obligations were 1.3 percent of the portfolio total. There were no obligations planned for FY 1984 through FY 1986. (See page 54)

#### Agricultural Portfolio's Sub-Sector Analysis

The Functional Information System was also used to examine the relative importance and funding trends of the various Sub-Sectors encompassed by the Africa Bureau's agricultural portfolio. (See Tables V-1 to 4) Highlights of the analysis follow.

- Sub-Sectors concentrating on Crops accounted for the largest share of agricultural portfolio funding, ranging between 30 and 40 percent of the total during the FY 1978-1986 period. Rainfed Crops was the largest single Sub-Sector over these nine years and its share continued to increase slightly to 27 percent of the portfolio by FY 1986. Funding of Irrigated Crops remained at relatively low levels, between 2 and 8 percent of the portfolio, and showed no upward or downward trends.

- Livestock Sub-Sector funding was relatively low during the FY 1978-1986 period, ranging between 5 and 15 percent of the portfolio. Its share in portfolio expenditures continued to decline from 17 to 7 percent. Obligations fluctuated in the 5 to 11 percent range through FY 1985, with the planned level in FY 1986 dropping to 3 percent.

- Sub-Sectors involved with both Crops and Livestock ranged between 12 and 25 percent of the agricultural portfolio. Projects combining Rainfed Crops and Livestock accounted for most of these funds, but their share declined steadily to 13 and 9 percent by FY 1986 for obligations and expenditures, respectively. Funding for projects combining Rainfed and Irrigated Crops with Livestock was at about the 1 percent level through FY 1983, but is planned to rise by FY 1986 to 7 and 3 percent, respectively, for obligations and expenditures.

- Annual funding for the Fisheries Sub-Sector was at about 1 percent of portfolio totals through FY 1984, with obligations planned to increase to 3 percent by FY 1986.

- Forestry Sub-Sector funding ranged between 0.5 and 2.4 percent of the agricultural portfolio during the FY 1978-1986 period.

- The Rural Development Sub-Sector's share in the agricultural portfolio ranged between 10 and 27 percent over the nine year period. Obligations peaked at 27 percent in FY 1983, and then declined to 10 percent in FY 1986. Expenditures for Rural Development showed a more gradual decline from 23 percent of the portfolio in FY 1979 and 1980 to 16 percent in FY 1986.

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 nine year period from FY 1978 through FY 1986.

This analysis was carried out using a new methodology developed last year 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 to provide both ready and continuous access to both technical and financial information on 437 bilateral and regional projects active during FY 1978-1986.

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 most 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 1986, and that had or have purposes relating to the Agriculture 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). It does not include centrally funded sources, such as the PPC and S&T Bureaus.

The financial data are those contained in the annual Congressional Presentations, and for FY 1978 through FY 1984 these are "actual" obligations and expenditures. For the current year, FY 1985, they are "estimates" and for FY 1986 they are "proposed".

The analysis is based on the 437 projects comprising the Bureau's agricultural portfolio during the FY 1978-1986 period. Of this total, 86 percent, or 374, were bilateral projects undertaken by USAID Missions in 39 countries of Sub-Saharan Africa, and 14 percent, or 63, 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 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 to operate and maintain. The needs of information users and the availability of data must be fully considered before and during the development of a classification system.

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 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

ARD Functional Review -- Work Sheet

Country/Region \_\_\_\_\_

Project Number \_\_\_\_\_

(Incl. Sub-projects \_\_\_\_\_)

Project Title \_\_\_\_\_

G / E	Oblig. Dates		Com-plete Date	LOP Cost (\$000)		Ap-pro Sym bol	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	
	Intr.	Fin.		Auth.	Plan.		Actual	Actual	Actual	Actual	Actual	Actual	Est.	
							Obligations (\$000)							
Totals							XX							
							Expenditures (\$000)							
AID Inputs			\$000	% Total										
Personnel														
Training														
Commodities														
Construction														
Other					XX									
Cont. & Infl.					"Functional Subcategory"									
Total				100										

Sec-tor	Sub-sec-tor	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		

<u>Target Groups/Beneficiaries Involved:</u>		<u>Commodities Involved:</u>	
<u>Institutions Involved:</u>		<u>Special Concerns:</u> <input type="checkbox"/> Institution Building <input type="checkbox"/> Integrated Rural Development <input type="checkbox"/> Nutrition Improvement <input type="checkbox"/> Women in Development <input type="checkbox"/> Cooperatives <input type="checkbox"/> Title XII Institutions <input type="checkbox"/> Farming Systems Research <input type="checkbox"/> Private Sector	
<u>Status of Project</u> (As of _____ 198 ) <input type="checkbox"/> Identification <input type="checkbox"/> Implementation <input type="checkbox"/> Completed	<u>Contractor(s) Involved:</u>  <u>USAID Project Manager:</u>		

Figure II-1

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 subsumed 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 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

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

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

(Continued)

Table II-1. Continued

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

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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.), CDIE/DI print-outs of Project Design Information Sheets and Planned Program Summary Sheets in Congressional Presentations (CP) from FY 1976 through FY 1986.

#### B. Financial Characteristics

Measures of trends in funding for each project included annual Obligations from FY 1978 through FY 1986, as well as annual Expenditures from FY 1979 through FY 1986. Data through FY 1984 are actual, while for FY 1985 they are estimated and for FY 1986 they are proposed. Both measures were further identified as to Grant or Loan, and as to funding source. These sources are primarily Developed Assistance (DA) functional accounts, Sahel Development Program (SH), and Economic Support Fund (ES).

Table II-2. ARD Functional Information System: Sector and Sub-Sector Categories and Codes <sup>1/</sup>

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<u>Sector/Sub-Sector</u>	
AGR	<u>Agriculture</u>
CRO	Crops - Irrigated and Rainfed
GAL	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	<u>Education</u>
HLT	<u>Health</u>
RWS	Rural Water Supplies
POP	<u>Population</u>
TRA	<u>Transportation</u>
ROA	Roads
WAT	Waterways and Ports
MOD	Other modes
ENG	<u>Energy</u>
ALS	All Sources
REN	Renewable
FOF	Fossil Fuels
FUW	Fuelwood
BUD	<u>Budgetary Support</u>
PSU	<u>Program Support</u>
REF	<u>Refugees/Disasters</u>
OTH	<u>Other</u>
SSH	Special Self-Help
HOU	Housing
MIS	Miscellaneous (Human Rights, etc.)

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<sup>1/</sup> 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 1986 CP, while completed projects show LOP costs from earlier CPs, or from CDIE/DI 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 purpose categories and 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 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.

Region. Each project is also identified by region as follows: CAF Central Africa; CWA Coastal West Africa; EAF East Africa; SAF Southern Africa; SWA Sahel West Africa; and REG Africa-wide.

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 to enable full development a series of menu-driven programs that can maintain, retrieve and print out information from the data base.

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

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<u>Target Groups</u>	<u>Contractors</u>
SMF Small farmers	UNV Universities
SHR Small herders	PVO Private/voluntary org.
RFL Rural families	PRI Private firms
RRE Rural residents	USG USDA/other U.S. Govt.
GTP Government technical personnel	PSC Personal services contractors
NTP Non-govt. technical personnel	HCO Host country
SUL Skilled/unskilled workers	INO International organizations
REN Rural entrepreneurs	
STU Faculty and students	<u>Special Concerns</u>
WOM Women	IBL Institution building
REF Refugees	IRD Integrated rural development
AGR Agricultural sector	NUT Nutrition improvement
GNP National economy	WID Women in development
	COO Cooperatives
	TI2 Title XII institutions
	FSR Farming systems research
	PRE Private sector
<u>Institutions Involved</u>	<u>Project Status</u>
GOV Government	IDE Identification
MOA Ministry of Agriculture	IMP Implementation
OGM Other govt. ministries/agencies	COM Completed
PAR Parastatals	
LRO Local/regional organizations	<u>Other Donors</u>
UNV Universities/schools	PEC Peace Corps
<u>Commodities Involved</u>	<u>Commodities Involved (Cont'd)</u>
CRO Crops	WOD Wood
CER Cereals	MED Spices/herbs
MIL Millet	Stimulants (coffee, etc.)
STI	LIV Livestock
SOR Sorghum	POU Poultry
COR Corn	FIS Fish
WHE Wheat	INP Inputs (production/marketing)
RIC Rice	SEE Seeds
FRU Fruits/nuts	FOR Forage
VEG Vegetables	FIB Fibers
ROO Roots/tubers	
LEG Legumes	
OIL Oil Crops	

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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. FY 1984-1986 data used in this report were downloaded through the assistance of PPC/PB.

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 and have continuing access to services from IRM's Technical Resource Center.

### 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 are reviewed over the nine-year period FY 1978 through FY 1986 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 and by Sub-Sectors in Chapter V.

#### A. Scope and Current Status

During the nine-year period FY 1978 through FY 1986, the Africa Bureau's agricultural portfolio was comprised of 437 projects. Of this total, 86 percent, or 375, were bilateral projects undertaken by USAID Missions in 39 countries of Sub-Saharan Africa, and 14 percent, or 62, were regional projects. The regional projects were distributed as follows: Sahel - 29; Southern Africa - 6; East Africa - 1; and Africa - 27.

During this same nine-year period, as shown in the following tabulation, agricultural projects accounted for 51 percent of all the projects in the Bureau's total portfolio:

Sector	Bilateral projects		Regional projects		Total projects	
	No.	%	No.	%	No.	%
Agriculture	375	55	62	35	437	51
Non-agriculture	302	45	114	65	416	49
Total	677	100	176	100	853	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	1985	1986	Average
Bilateral	173	201	219	217	231	196	220	200	207
Regional	28	31	32	33	32	26	37	28	31
	201	232	251	250	263	222	257	228	238

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; 1984 - 37; 1985 - 39; and 1986 - 39.

In early 1985, when the FY 1986 CP was submitted, the current status of the 437 projects in the total agricultural portfolio was as follows: 28 projects, or 6 percent of the total, were in the identification or design stage; 256 projects, or 59 percent, were under implementation; and 153 projects, or 35 percent, had been completed.

The planned life of-project (LOP) cost of all the agricultural projects that were funded during the FY 1978-1986 period totalled \$3,069 million. As of FY 1986, \$352 million, or 12 percent of the total LOP cost, was in projects in the identification or design state; \$2,337 million, or 76 percent, was in projects under implementation; and \$380 million, or 12 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 1978-1986 period. Annual obligations increased from \$173.2 million in FY 1979 to \$357.3 million in FY 1986, an

average annual growth rate of 11 percent over this seven year period. Annual expenditures rose twice as fast in this same period. In 1979, expenditures were \$103.9 million, or at about two-thirds the level of obligations.

However, by FY 1986, annual expenditures -- despite a decline in FY 1982 -- exceeded annual obligations, having risen to \$418.6 million. Over the seven year period, annual expenditures had an average annual growth rate of 22 percent. See Tables III-1 and 2 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 1978-1986 period. Where obligations for agriculture rose at an average annual rate of 11 percent, total Bureau obligations had a 15 percent growth rate, rising from \$217.2 million in FY 1979 to \$819.3 million in FY 1986. Similarly, while expenditures on agricultural projects grew at a 22 percent rate, total Bureau expenditures showed an annual growth rate of 27 percent, rising from \$170.1 million in FY 1979 to \$883.4 million in FY 1986.

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 54 percent in the FY 1978-1980 period to 43 percent in FY 1984. Planned obligations will be at the 41 to 44 percent levels in FY 1985 and 1986. See Table III-3 and Figure III-3. For expenditures, the agricultural sector's share declined continuously from 60 percent in FY 1979 to 41 percent in 1983, with an increase to 47 percent estimated for FY 1986.

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

Table III-1. Agricultural Portfolio: Expenditures by Funding Sources, FY 1979-1986

Funding Source Code/Account	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
----- Million Dollars -----								
FN Development Assistance (Agriculture, Rural Development and Nutrition)	72.4	68.2	87.1	94.8	92.9	95.7	178.5	158.5
ES Economic Support Fund	7.4	41.4	61.3	22.8	66.3	67.6	147.6	147.6
SH Sahel Development Program	12.2	29.5	44.4	42.3	44.1	51.7	77.9	81.8
<u>1/</u> Other	11.9	10.3	9.0	6.9	6.1	4.6	4.4	30.4
<b>Total - Agric. Portfolio</b>	<b>103.9</b>	<b>149.4</b>	<b>201.8</b>	<b>166.8</b>	<b>209.4</b>	<b>219.6</b>	<b>408.4</b>	<b>418.6</b>
----- Percent of Total -----								
FN Development Assistance (Agriculture, Rural Development and Nutrition)	69.7	45.6	43.1	56.8	44.3	43.6	43.7	37.9
ES Economic Support Fund	7.1	27.7	30.4	13.7	31.7	30.8	36.1	35.3
SH Sahel Development Program	11.7	19.8	22.0	25.4	21.1	23.5	19.1	19.5
<u>1/</u> Other	11.5	6.9	4.5	4.1	2.9	2.1	1.1	7.3
<b>Total - Agric. Portfolio</b>	<b>100.0</b>							

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

Table III-2. Agricultural Portfolio: Obligations by Funding Sources, FY 1979-1986

Funding Source Code/Account	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
----- Million Dollars -----									
FN Development Assistance (Agriculture, Rural Development and Nutrition)	95.3	95.8	98.3	104.0	132.7	134.3	135.4	123.5	144.4
ES Economic Support Fund	43.9	25.2	55.2	55.6	62.9	91.9	103.9	134.7	154.7
SH Sahel Development Program	31.4	48.6	55.3	72.1	73.2	63.4	57.7	64.1	56.3
<u>1/</u> Other	10.6	3.6	7.6	4.6	6.9	0.9	2.6	1.5	1.9
<b>Total - Agric. Portfolio</b>	<b>181.2</b>	<b>173.2</b>	<b>226.4</b>	<b>236.3</b>	<b>275.7</b>	<b>290.5</b>	<b>299.6</b>	<b>323.8</b>	<b>357.3</b>
----- Percent of Total -----									
FN Development Assistance (Agriculture, Rural Development and Nutrition)	52.6	55.3	43.4	44.0	48.1	46.2	45.2	38.1	40.4
ES Economic Support Fund	24.2	14.5	28.8	23.5	22.8	31.7	34.7	41.6	43.3
SH Sahel Development Program	17.3	28.1	24.4	30.5	26.6	21.8	19.3	19.8	15.8
<u>1/</u> Other	5.9	2.1	3.4	2.0	2.5	0.3	0.8	0.5	0.5
<b>Total - Agric. Portfolio</b>	<b>100.0</b>								

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

Figure III-1. Agricultural Portfolio: Expenditures by Funding Source, FY 1979-1986

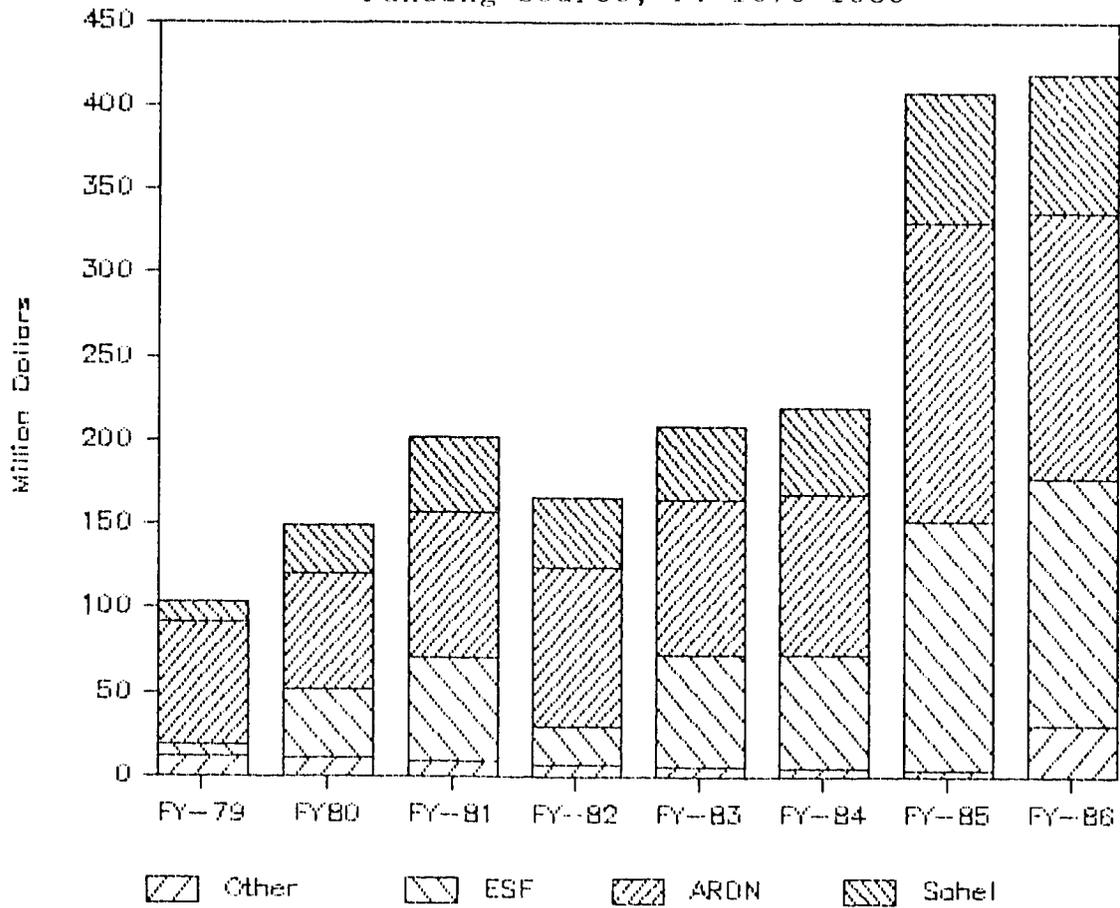


Figure III-2. Agricultural Portfolio: Obligations by Funding Source, FY 1978-1986

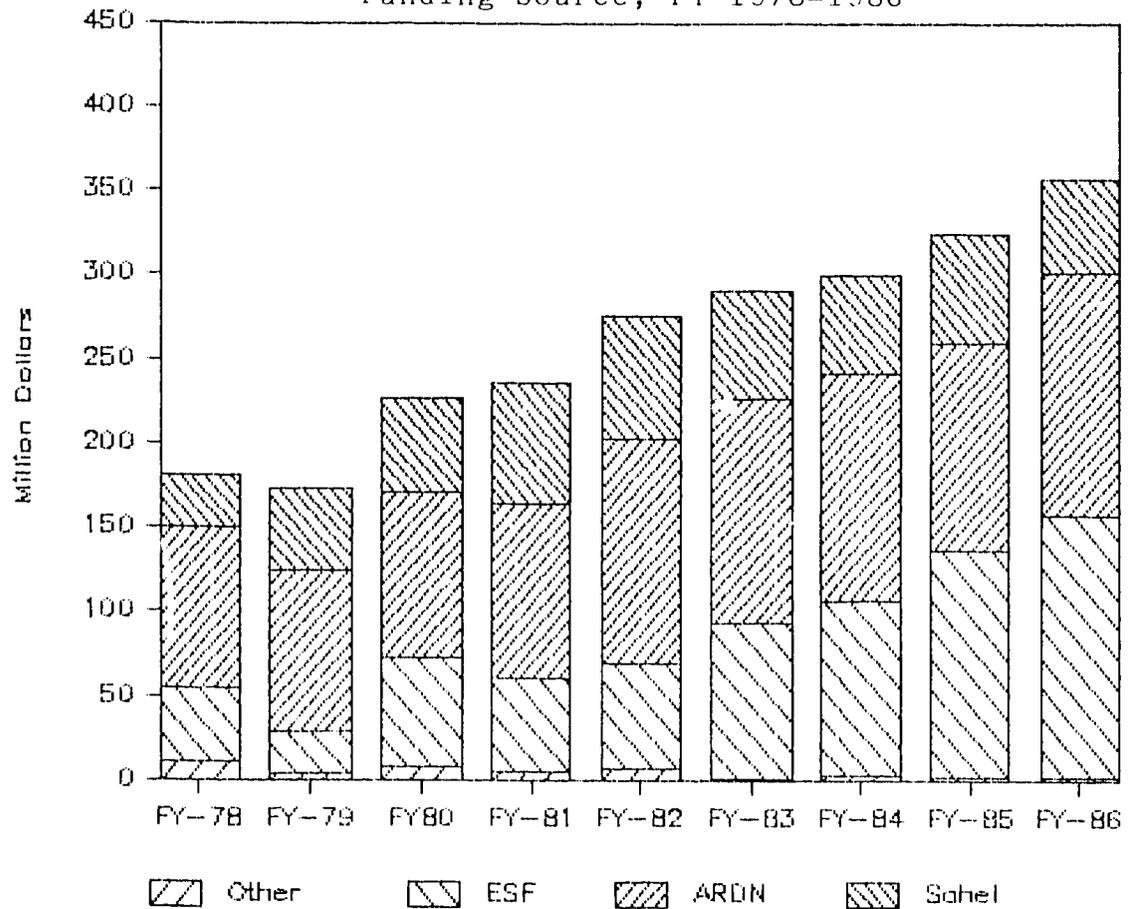
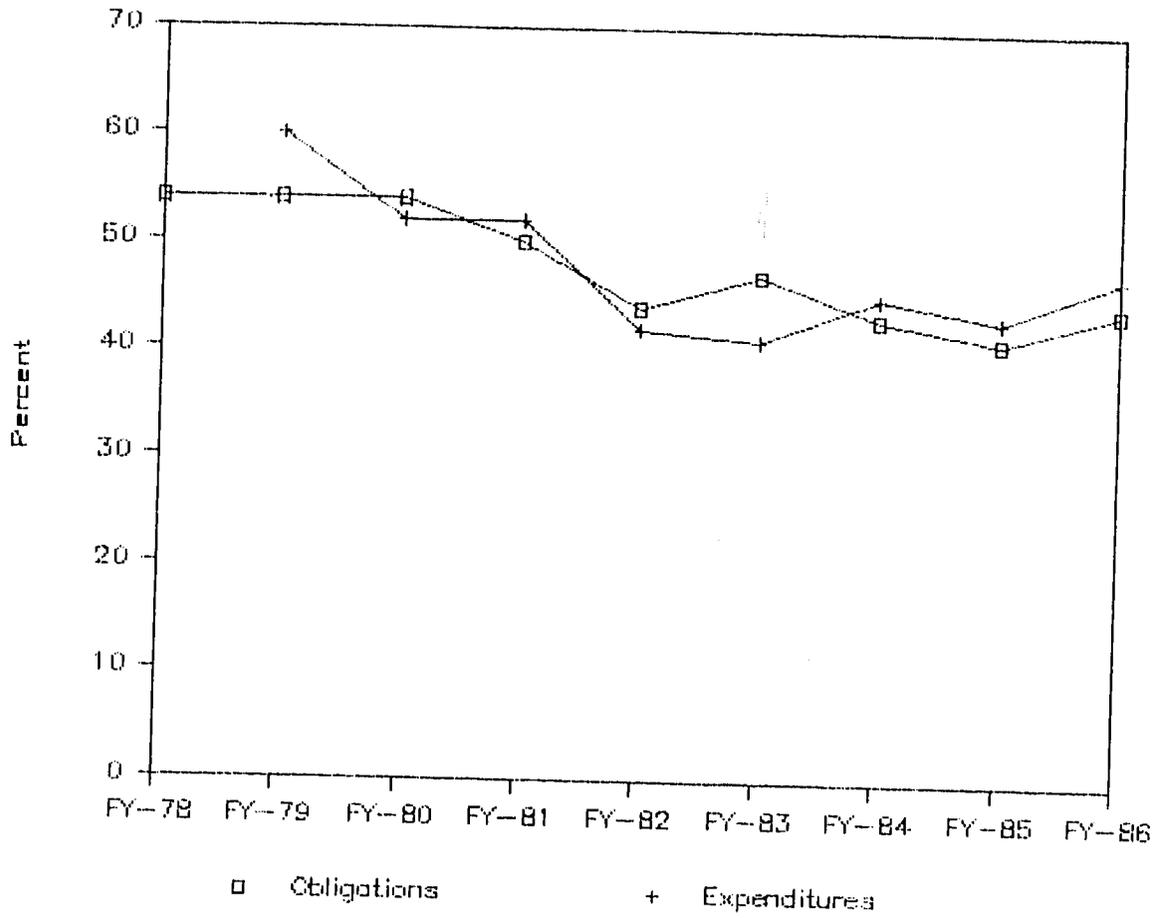


Table III-3. Agriculture's Share in The Africa Bureau Portfolio, FY 1978-1986  
(Million Dollars)

	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
	----- Obligations -----								
Africa Bureau Portfolio Total	329.3	317.2	414.9	467.9	624.9	619.8	690.2	788.5	819.3
Agricultural Portfolio Total	178.5	171.8	224.7	234.3	274.2	289.2	298.7	323.3	357.0
Agricultural Total as Percent of Africa Bureau Total	54	54	54	50	44	47	43	41	44
	----- Expenditures -----								
Africa Bureau Portfolio Total	--	170.1	279.7	387.3	392.8	508.4	487.0	939.8	883.4
Agricultural Portfolio Total	--	102.9	147.7	200.1	165.1	207.9	219.0	405.0	417.5
Agricultural Total as Percent of Africa Bureau Total	--	60	52	52	42	41	45	43	47

Figure III-3. Agriculture's Share in the Africa Bureau Portfolio, FY 1978-1986



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 declined from 8 to 10 percent of the portfolio in FY 1979-1981, to 1 percent in both FY 1985 and 1986. For FY 1986, loan funding is estimated at \$8.5 million, or 1 percent of the Bureau's total funding of \$819.3 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 1984-1986. 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 96 percent in FY 1984. Estimates for FY 1985 are 55 percent and none in FY 1986. See Table III-5.

D. Type and Source of Funding - Agricultural Portfolio

Within the Bureau's portfolio, the predominant 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. However, 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. Estimates are 1 percent for FY 1985 and none for FY 86. Expenditures of loan funds were 30 percent in FY 1978, 25 percent in FY 1979, and then

Table III-4. Africa Bureau Portfolio: Grant and Loan Funding, FY 1978-1986

Type of funding	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
----- Million Dollars -----									
Loans	70.5	30.4	34.6	47.1	37.5	41.3	36.7	6.6	8.5
Grants	258.8	286.6	380.3	420.8	587.4	578.5	653.5	781.9	810.8
<b>Total</b>	<b>329.3</b>	<b>317.2</b>	<b>414.9</b>	<b>467.9</b>	<b>624.9</b>	<b>619.8</b>	<b>690.2</b>	<b>788.5</b>	<b>819.3</b>
Loan as % of total	21	10	8	10	6	7	5	1	1

Table III-5. Africa Bureau Portfolio: Loan Funding Sources, FY 1978-1986

	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
----- Million Dollars -----									
ARDN	22.2	10.4	14.6	9.8	11.1	26.3	35.3	3.6	--
Health	--	--	--	11.8	4.6	--	--	--	--
Education	--	--	--	--	--	--	1.4	3.0	8.5
SDP	7.5	--	--	--	--	--	--	--	--
ESF	40.8	20.0	20.0	25.5	21.8	15.0	--	--	--
<b>Total</b>	<b>70.5</b>	<b>30.4</b>	<b>34.6</b>	<b>47.1</b>	<b>37.5</b>	<b>41.3</b>	<b>36.7</b>	<b>6.6</b>	<b>8.5</b>
ARDN as % of total	31	34	42	21	30	64	96	55	--
ESF as % of Total	58	66	58	54	58	36	--	--	--

ranged between 13 and 16 percent in FY 1981 through FY 1984. Estimates for FY 1985 are 9 percent for FY 1985 and 4 percent for FY 1986.

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 over the FY 1978-1986 period. Expressed as percentages of total portfolio funds, the Bureau's relative use of ES and DA funds was reversed over the FY 1978-1986 period: ES obligations rose from 34 to 56 percent, while DA funding declined from 51 to 34 percent. Use of SH funding was between 15 and 24 percent from FY 1978 and FY 1981, but then declines to 10 percent in FY 1986. 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 17 percent, while the FN and SH annual growth rates were only 5 and 7 percent respectively. See Figure III-2 and Table III-2. Although the FN development assistance account remained the most important funding source for agricultural components through FY 1984, ES funding of agricultural components became increasingly important and will exceed FN in FY 1985 and 1986. 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 43 percent. SH funding of obligations rose to 31 percent of the total in FY 1981, but declined to 16 percent in FY 1986.

Trends in funding of expenditures for the Agricultural Portfolio were similar to those for obligations, except that FN has remained the most important funding source throughout the FY 1979-1986 period. See Figure III-6 and Table III-1.

Figure III-4. Africa Bureau Portfolio: Obligations by Funding Source, FY 1978-1986

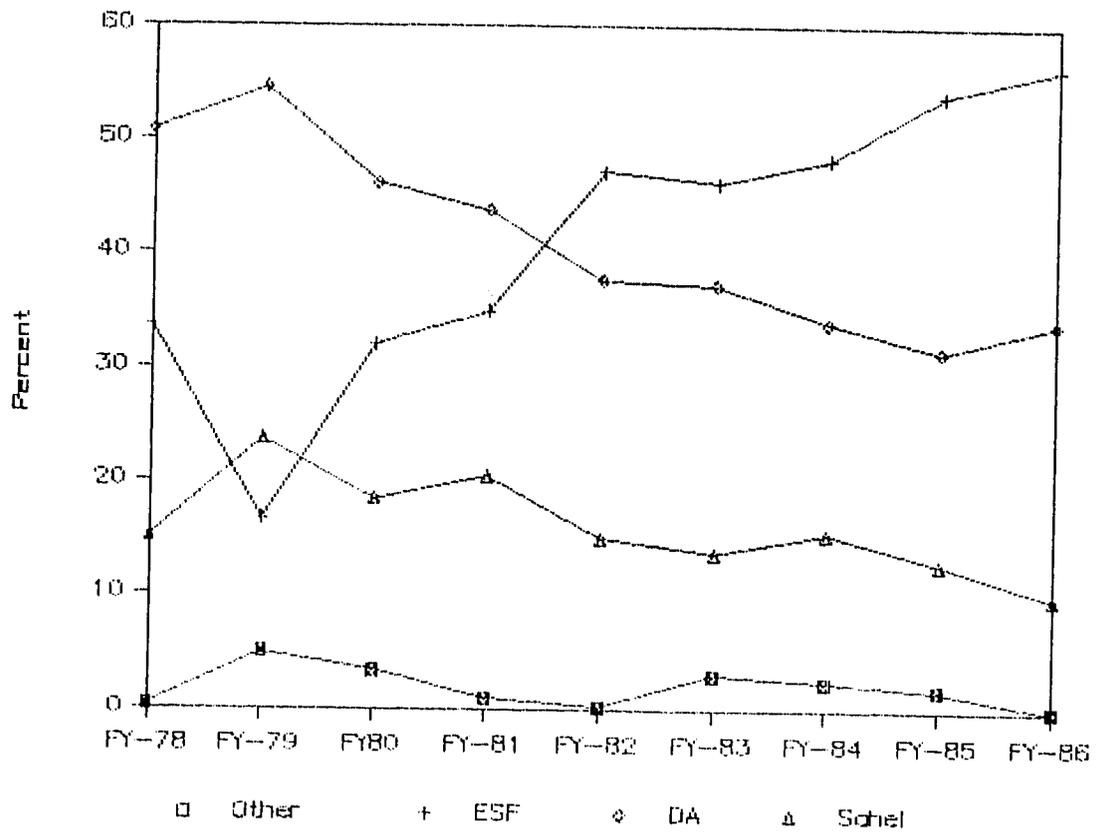


Figure III-5. Agricultural Portfolio: Obligations by Funding Source, FY 1978-1986

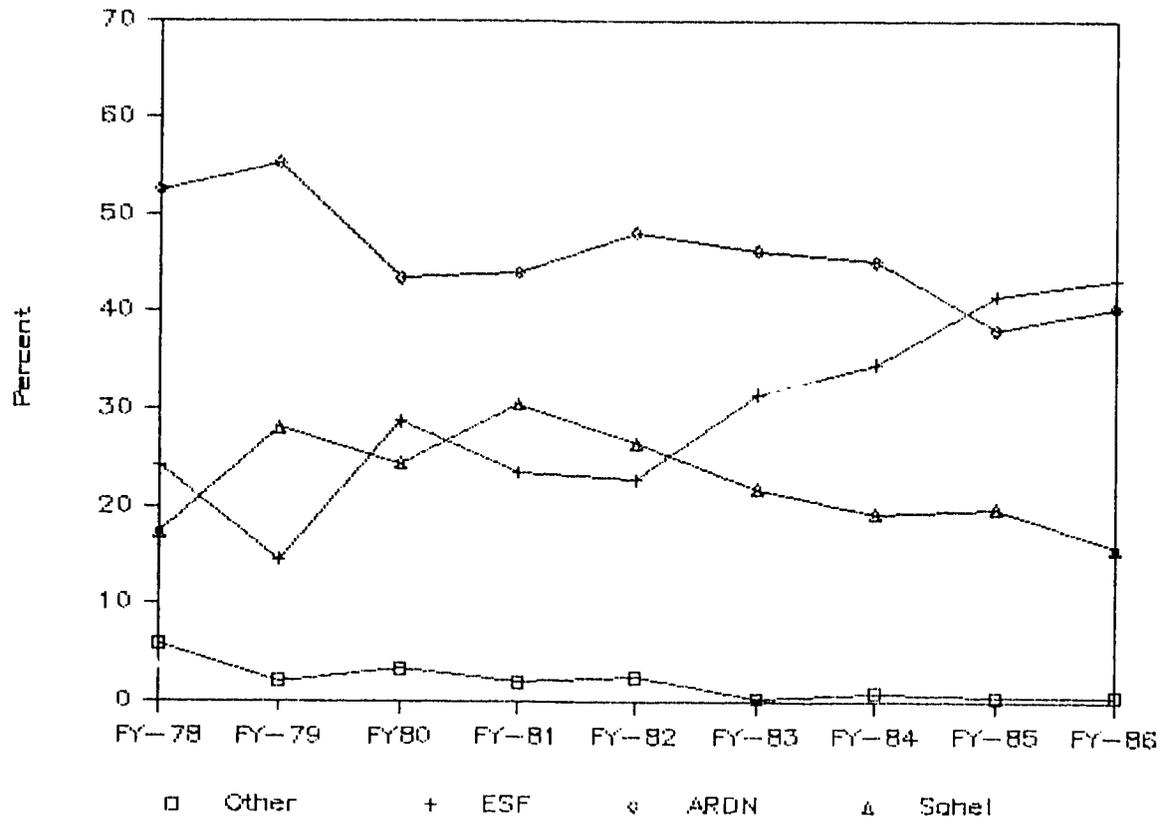
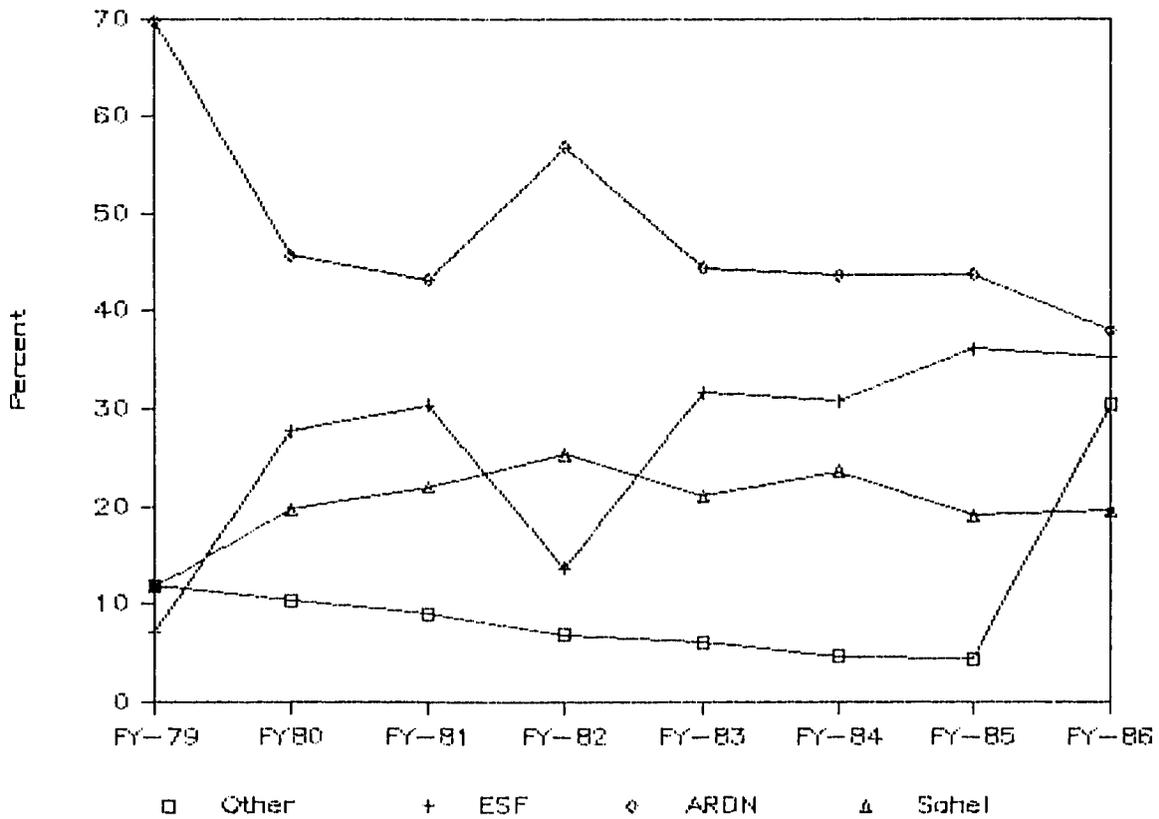


Figure III-6. Agricultural Portfolio: Expenditures by Funding Source, FY 1979-1986



#### 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 437 projects in the Africa Bureau's agricultural portfolio over the FY 1978-1986 period. This analysis is based on the obligation and expenditure data shown by purpose categories in Table IV-1 through 4.





A. Overview

During the past nine 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 and Technology Development; those maintaining a fairly constant share were Technology Transfer, Planning and Policy Analysis, Agricultural Marketing and Rural Roads; while those showing declines to varying extents included Agricultural Education and Natural Resource Development.

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 1978-1986 period. This purpose is comprised of projects that provide balance of payments support primarily for development of agricultural production and marketing.

However, its relative importance increased dramatically, with obligations for this purpose more than doubling from 16.3 to 37.3 percent of the total agricultural portfolio. In addition, despite a major drop in FY 1982, expenditures increased even faster, rising from 4.8 to 35.8 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. Consequently, the other purpose categories are examined as a percentage of the total agricultural portfolio, with SEC funds excluded.

Technology Development showed increases in its share of the agricultural portfolio for both obligations and expenditures over the analysis period.

Only one other category, Technology Transfer, showed similar (though smaller) relative increases. Expenditures rose from 10.4 to 19.2 percent, the largest net increase of any purpose category. Obligations rose from 10.0 to 23.7 percent by FY 1981, and then leveled out about 19 percent through FY 1985. The planned obligation level of 23.2 percent in FY 1986 will be the largest of any category. In this category, the purpose is to conduct, or to strengthen the capacity to conduct research on improved technologies for agricultural production and marketing.

Technology Transfer's relative importance remained at a fairly constant level throughout the FY 1978-1984 period. However, planned increases in FY 1985 and 1986 will raise TTR's share of total obligations to 21.8 percent, the second highest of any category; and its share of total expenditures to 19.1 percent, the third highest of any category. 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 portfolio remained relatively constant over the FY 1978-86 period. Its share of obligations fluctuated between 4.4 and 9.3 percent of the portfolio total, while expenditures ranged between 5.9 and 8.0 percent. This category's purpose is to conduct, or to strengthen the capacity to conduct development planning and analyses to policy issues. It includes data collection/processing.

Agricultural Marketing, here including Commodity Marketing (MKT), Input Supply (INP), Credit (CRE) and Agro-Industry (AGI), showed a steady decline in expenditure from 25.5 to 13.0 percent of the portfolio by FY 1983. Planned expenditures for FY 1986 will mean an increase to a 21.5 percent share. Actual obligations rose from 13.7 to 27.5 percent of the portfolio, with most of the increase taking place in 1984. However, planned obligations will

mean a drop to a 15.0 percent share by FY 1986. Changes in relative importance of MKT, INP, CRE and AGI were small, except that expenditures for Credit declined from 13.9 to 4.0 percent of the portfolio.

Rural Road's showed a generally declining share in portfolio expenditures, while obligations increased substantially after FY 1982. In terms of expenditures, its share dropped from 12.9 to 4.6 percent by FY 1983, and then rose to 6.8 percent in FY 1986. Obligations ranged between 3.2 and 5.9 percent, through FY 1982, and then jumped to 15.9 and 17.2 percent, respectively, in FY 1985 and 1986. In this category, the purpose is to construct, or to strengthen the capacity to construct and/or maintain rural feeder or market access roads.

Agricultural Education's share in the portfolio has been at a relatively high level over the FY 1978-1986 period. Nevertheless, its share of portfolio obligations declined substantially from 30.2 to 14.8 percent. Also, while Agricultural Education's share of portfolio expenditures showed a net increase and rose to 25.2 percent in FY 1981, this purpose then shows a decline to 16.0 percent by FY 1986. 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 from FY 1978 to 1986. In terms of actual obligations, its relative importance dropped from 14.5 to 9.6 percent by FY 1984, and plans for FY 1986 show a major decline to 2.7 percent. Its share of expenditures shows a decline from 17.1 to 11.9 percent over the seven year period. The purpose of this category is to improve, or to strengthen the capacity of improve/manage/conservate cropland, water, range, forestry and fisheries resources.

Land Tenure's share in the agricultural portfolio's funding did not exceed 0.4 percent in any year, except FY 1979 when obligations were 1.3 percent of the portfolio total. There were no obligations planned for FY 1984 through FY 1986. 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, most of those purpose categories whose relative importance in the agricultural portfolio increased or held constant over the FY 1978-1986 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.

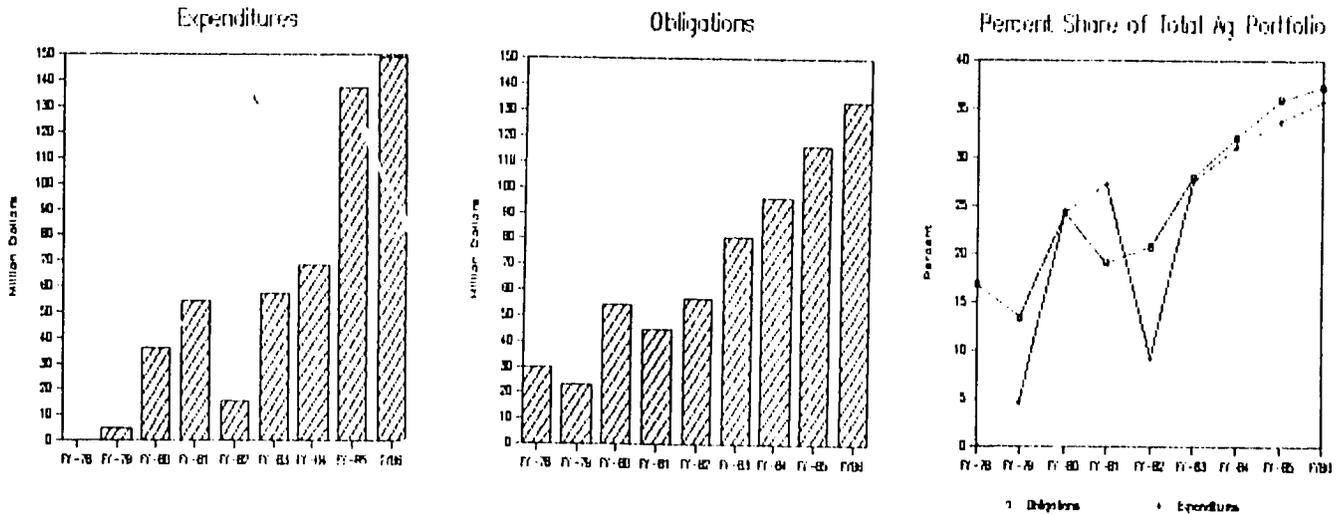
Bureau strategy emphasizes improved policy environments that will, for example, encourage private sector development or provide incentives to farmers to increase production. Agricultural Sector Support grants, a rapidly expanding category, provides leverage for encouraging such policy changes. The Planning 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. Technology Development, as reflected in the "Plan for Supporting Agricultural Research and Faculties of Agriculture in Africa", is an expanding category supporting this strategy; those with a constant share in the portfolio include Technology Transfer, Planning and Policy Analysis and Agricultural Marketing.

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, which has not had high priority in the Bureau's strategy. Although Rural Roads has had a generally constant share, it also has not had high priority in the strategies.

The following sections examine changes in the relative importance and funding trends of each purpose category over the FY 1978-1986 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 1978-1986 period, and its share in the total agricultural portfolio has continued to increase substantially.

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 1986, in spite of a major drop in FY 1982, annual expenditures on this purpose are planned to reach \$149.4 million, or a 30-fold increase over the \$4.9 million in FY 1979. This will increase SEC's share of total expenditures from 4.8 to 35.8 percent. Over this same period, obligations will more than quadruple from \$30.0 to \$133.2 million, or from 16.8 to 37.3 percent of the agricultural portfolio.

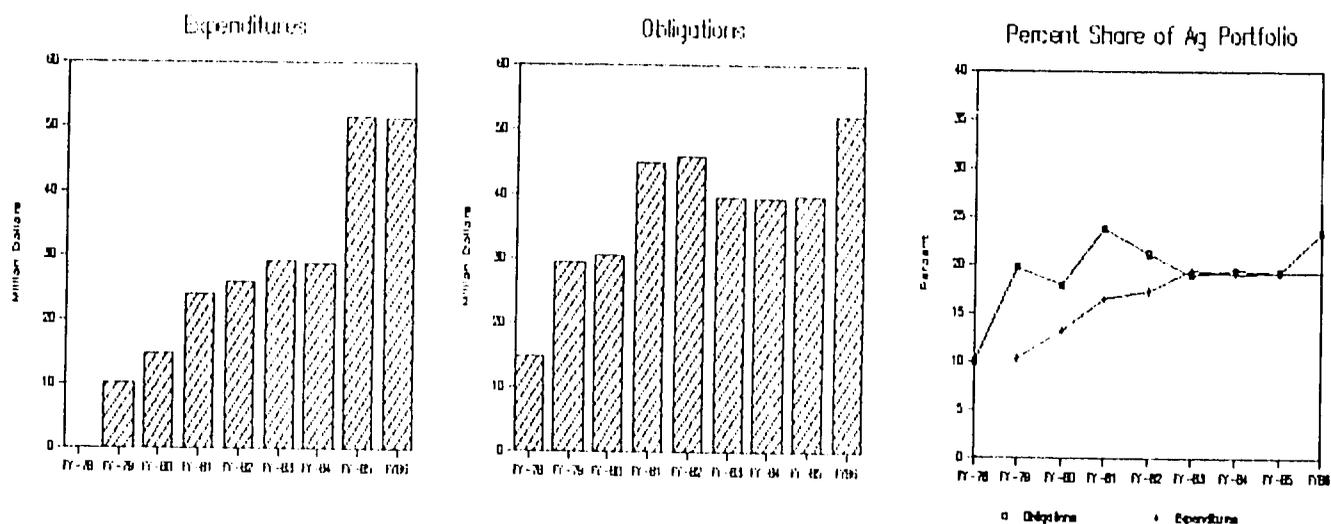
Number and Size. The number of SEC projects used in the FY 1978-1986 period was relatively small, and they ranged widely in size of LOP cost.

The 33 SEC projects in this period accounted for only 0.8 percent of all agricultural projects. As to size, 10 of the projects has LOP costs ranging from \$0.6 to \$9 million; 7 from \$10 to \$19 million; and 8 from \$20 to \$45 million. Two others, however, had LOP costs of \$114 million and \$225 million. The average LOP cost of the 20 SEC projects under implementation was \$29.6 million, while the average size of the 7 projects that had been completed was \$10.0 million. The average size 6 SEC projects in the identification stage was \$9.8 million.

Relation to Strategy. The main thrust of Agricultural Sector Support projects is for balance of payments support. However, many of the commodities provided through this mechanism (such as fertilizer) relate generally to development of the agricultural sector, a 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 incentives 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, with SEC funds excluded, 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 show the highest annual growth rate of any category in the agricultural portfolio. Actual expenditures rose over the FY 1979-1984 period from \$10.2 to \$28.8 million or at an average annual rate of 23 percent. With planned expenditures to rise to \$51.5 million in FY 1986, the growth rate over the FY 1979-1986 period will increase to 26 percent. The FY 1986 expenditure level will also be the second largest of any category in the agricultural portfolio, exceeded only by Agricultural Marketing.

TDE's share in the agricultural portfolio also showed the largest net increase over the seven year period. From 10.2 percent in 1979, its share has risen to over 19 percent in FY 1983 through FY 1986.

Obligations. Technology Development also ranked high in terms of obligations. With an annual growth rate of 9 percent over the seven year period, it was exceeded only by the Rural Roads category. Obligated funds rose from \$14.9 million in FY 1978 to \$45.9 million in FY 1982, and then

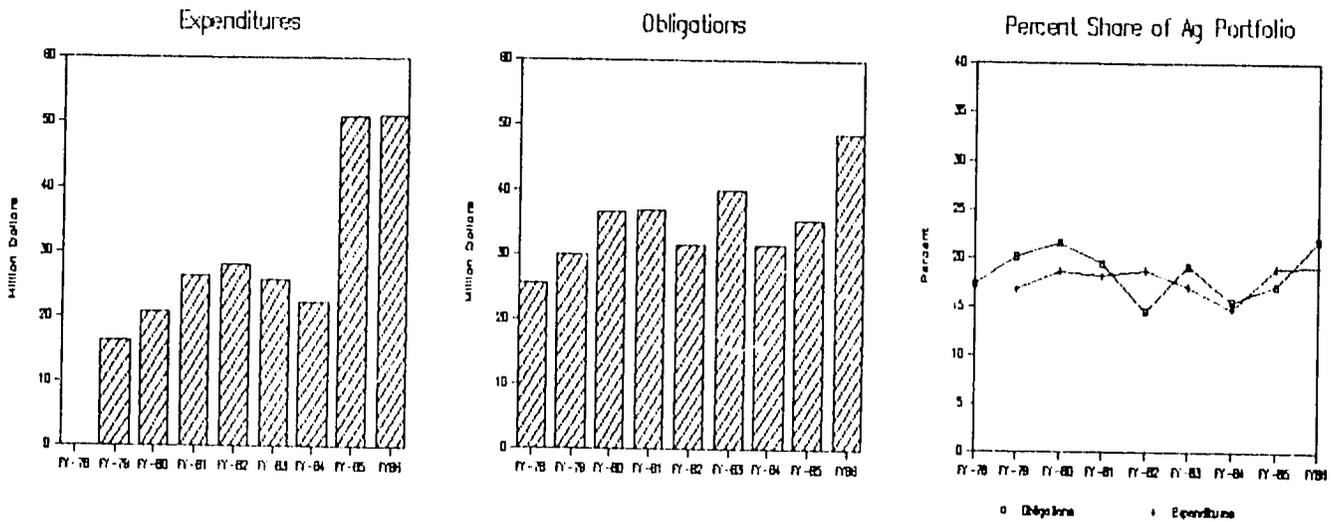
stayed at a \$39 million level through FY 1985. The planned obligation level of \$52.2 million in FY 1986 will be the largest of any category in the agricultural portfolio.

TDE's share of total obligations in the agricultural portfolio rose from 10.0 to 23.7 percent by FY 1981, and then fluctuated at about the 19 percent level through FY 1985. The planned increase to a 23.3 percent share in FY 1986 will result in the largest share of any category in the agricultural portfolio.

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. The new "Plan for Supporting Agricultural Research and Faculties of Agriculture in Africa" outlines the thrust being pursued to continue and further focus efforts in this area.

The upward trend in obligations for FY 1986 suggests continued support for Technology Developing in coming years.

D. Technology Transfer (TTR)



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

Expenditures. Actual expenditures on Technology Transfer increased at a 6 percent growth rate, or from \$16.4 to \$22.3 million over the FY 1979-1984 period. However, a planned doubling of expenditures in FY 1985 and 1986 will increase the rate to 18 percent over the seven year period. This will be the third highest growth rate among the categories.

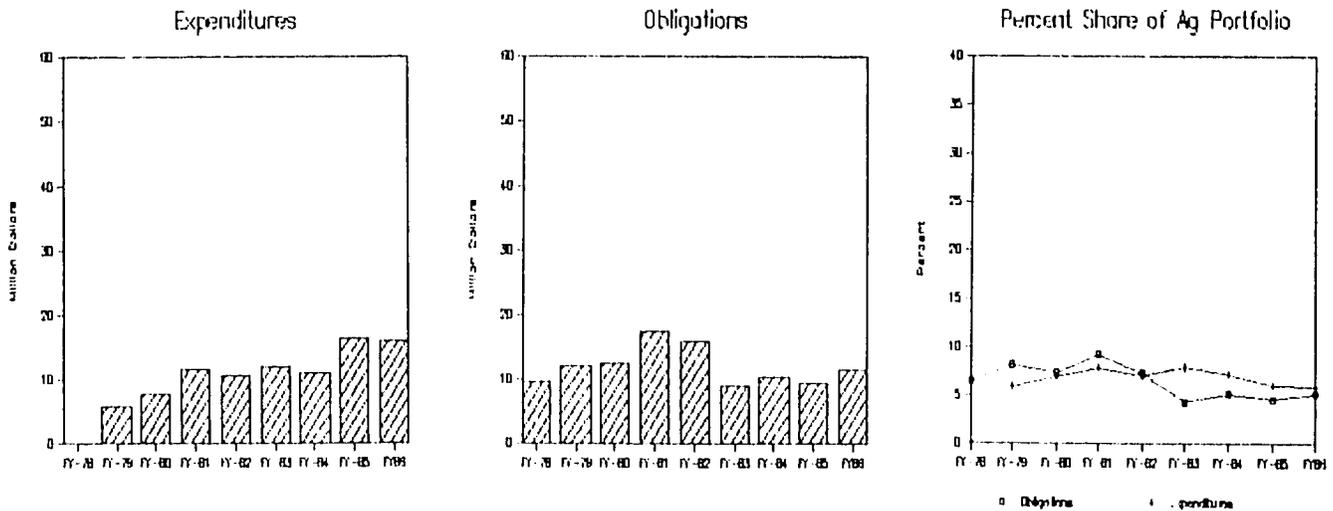
In relation to the total agricultural portfolio, TTR's share showed a modest increase from 16.7 to 19.1 percent over the seven year period. The relative decline from FY 1982 to 1984 will be more than offset by planned expenditures in FY 1985 and 1986.

Obligations. Obligations for Technology Transfer rose only marginally at a 1 percent annual growth rate over the FY 1978-1984 period, or from \$25.6 to \$31.5 million. However, planned obligations of \$48.8 million in FY 1986 will raise the average growth rate to 7 percent over the total period under review.

TTR's share of total portfolio obligation funds, as a result, shows a reversal of the generally declining trend to FY 1984, for a net increase of 4.6 percent over the seven year period.

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. The planned increases for both expenditures and obligations in FY 1985 and 1986 suggest greater support in strengthening institutional capabilities for extending improved technologies, as well as in providing means for greater farmer participation in the development process.

### E. 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 from \$5.8 to \$16.0 million over the FY 1979-1986 period, or at an average annual growth rate of 16 percent. This was the fourth highest growth rate of any category.

However, in relation to the growth in the total agricultural portfolio, PPA's share showed little change, rising from 5.9 percent to 8.0 percent by FY 1983, and then declining to 6.0 percent by FY 1986.

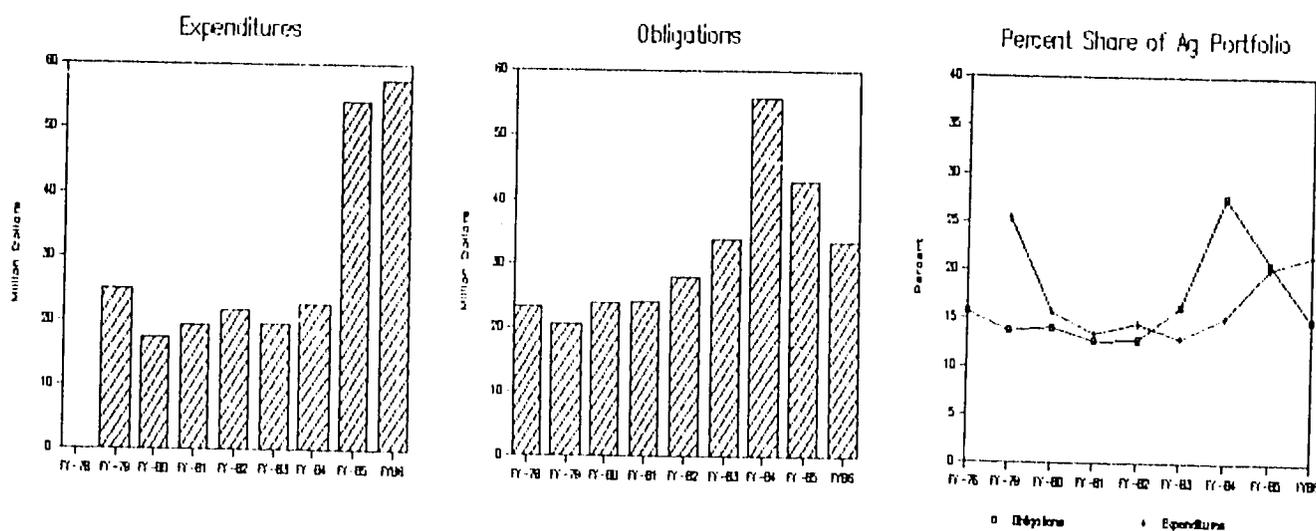
Obligations. In terms of obligations, PPA funding rose from \$9.6 million in FY 1978 to \$17.6 million in FY 1981, and then declined to \$11.6 million in FY 1986. This was an annual growth rate of 2 percent.

PPA's share of total obligations in the portfolio showed little change, fluctuating in a range of 4.4 to 9.3 percent over the FY 1978-1986 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.

F. 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 assembly, handling, storage, transport and/or distribution of crop/live-stock 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 show an average annual growth rate of 13 percent over the FY 1979-1986 period. However, most of this increase is planned after FY 1984. Actual expenditures were at about the \$20 million level through FY 1984, and then are to jump to over \$50.3 million in FY 1985 and 1986. These levels, which are the largest in any category in the agricultural portfolio, reflect a relatively small number of large activities.

Agricultural Marketing's share in total portfolio expenditures showed a major decline from a 25.5 percent share in FY 1979 to 13.0 percent in FY 1983, followed by a substantial increase to 21.5 in FY 1986. There was a net decline of -4.0 percent over the seven year period.

Changes in the share of portfolio expenditures for Commodity Marketing, Input Supply and Agro-Industry are relatively small over the FY 1979-1986 period. However, Credit's share showed a substantial decline of 9.1 percent, moving from 13.9 percent in FY 1979 to 4.0 percent in FY 1986.

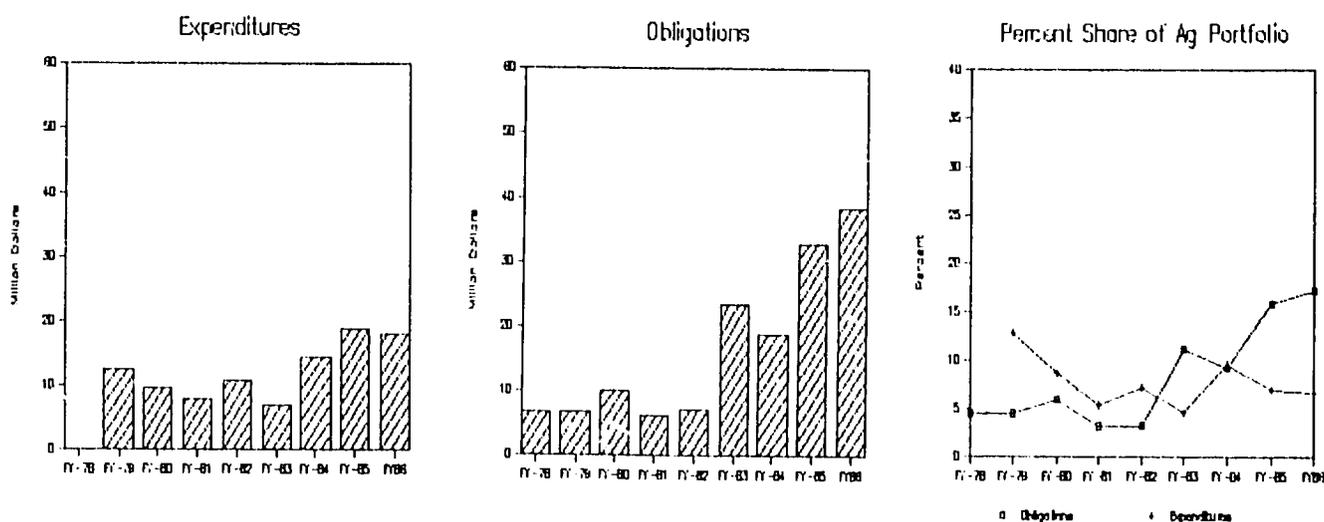
Obligations. In terms of actual obligations, Agricultural Marketing showed an annual growth rate of 22 percent through FY 1984. However, most of this increase was in FY 1984, and after reaching a peak of \$55.8 million, planned obligations drop to \$33.4 million by FY 1986. The growth rate for the seven year period will average 7 percent.

Agricultural Marketing's share in total portfolio obligations was in the 13 to 16 percent range through FY 1983, and then jumped to 27.5 percent in FY 1984. However, a drop to a 15.0 percent share in FY 1986 will mean a net decline of -0.7 percent for Agricultural Marketing over the seven year period.

The share of obligations for Commodity Marketing, Input Supply, Credit and Agro-Industry each showed considerable fluctuation over the FY 1978-1986 period, with no clear cut trends. Both Credit and Agro-Industry rose sharply to peaks in FY 84, but then show rapid drops by FY 1986.

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. The relative importance of funding for these purpose categories was essentially stable up to FY 1983 and expenditures are to rise in FY 1985 and 1986. Although obligations rose dramatically in FY 1984, the steep decline planned after that suggests less support in the future for this aspect of the Bureau's agricultural strategy.

G. Rural Roads (RRO)



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

Expenditures. Rural Roads showed an expenditure growth rate of 5 percent, with expenditures increasing from \$12.6 to \$18.1 million over the FY 1979-1986 period.

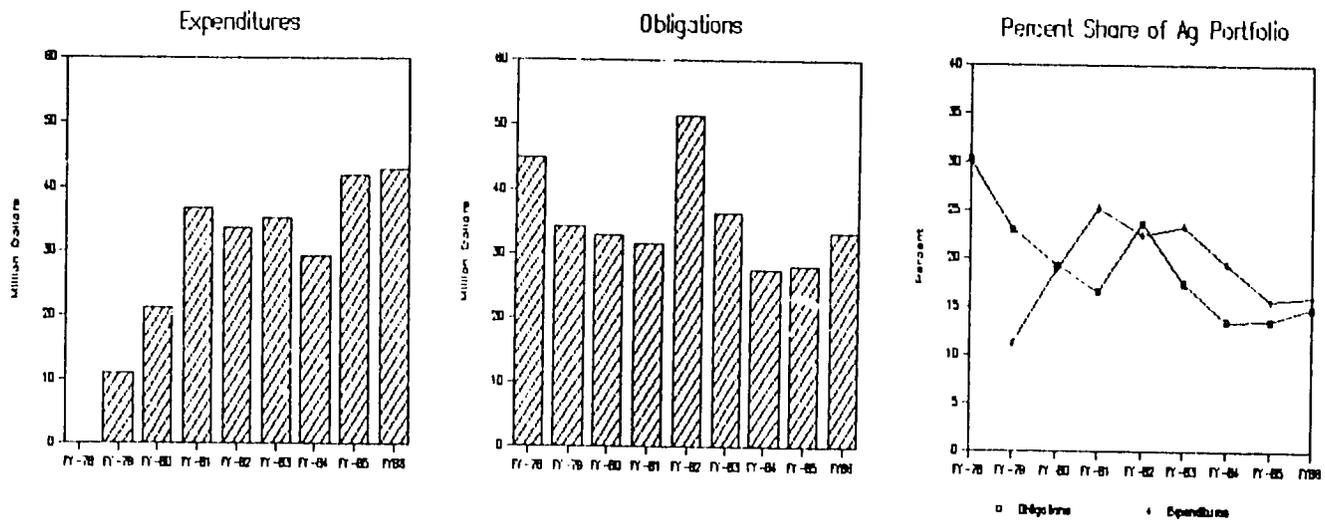
RRO's share in total expenditures of the agricultural portfolio, however, showed a general decline from 12.9 percent in FY 1979 to 4.6 percent in FY 1983, and then a rise to 6.8 percent in FY 1986. The net change in RRO's share was -6.1 percent.

Obligations. In contrast to expenditures, obligations for Rural Roads showed an average annual growth rate of 28 percent, the largest of any category in the portfolio. The major part of this increase occurred after FY 1982 when funding jumped from levels which ranged between \$6.1 and \$10.1 million to \$38.5 million by FY 1986. The increase reflects relatively large activities in only a few countries.

RRO's share in total portfolio obligations ranged between 3.2 and 5.9 percent through FY 1982, then jumped to 11.2 percent in FY 1983 and reached 17.2 percent in FY 1986. The net increase over the period was 12.7 percent.

Relation to Strategy. Rural Roads' share in the agricultural portfolio showed little change over the FY 1978-1984 period, reflecting 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, the rapid increases shown for RRO obligations in FY 1985 and 1986, even though only in a few countries, may require reassessment.

### H. 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 21 percent, the second highest in the agricultural portfolio. Over the FY 1979-1986 period, expenditures rose from \$11.0 to \$42.8 million.

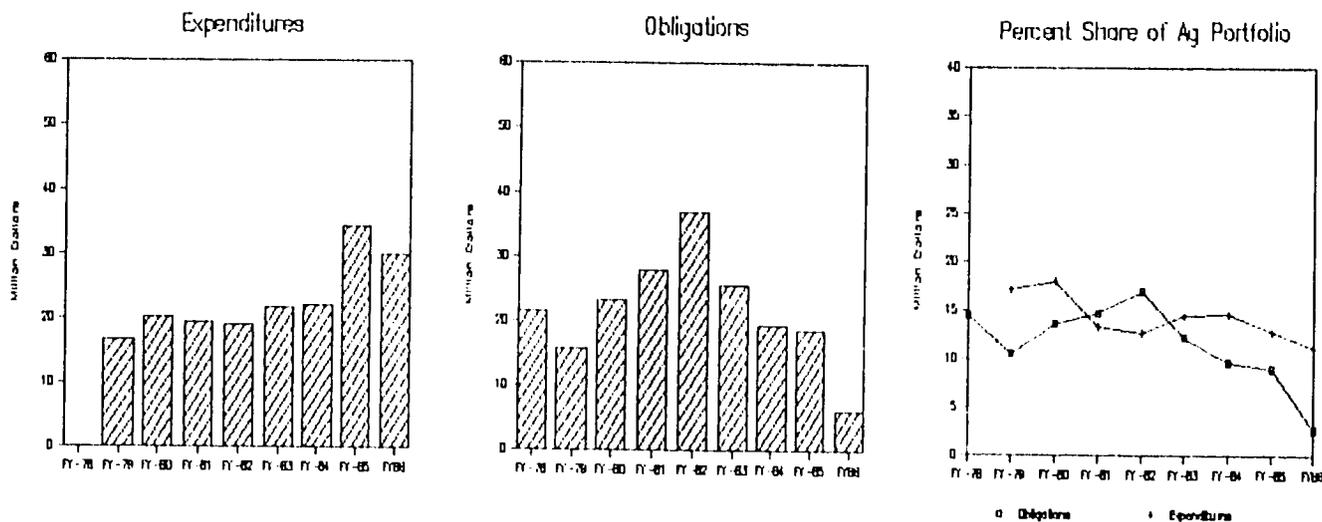
AED's share in the agricultural portfolio also showed the second largest net increase of any category, 4.8 percent, over this same period. However, the relative position in this category, after a rise to 25.2 percent in FY 1981, shows a decline to 16.0 percent in FY 1986.

Obligations. In terms of obligations, the funding for AED showed a general downward trend of -4 percent, moving from \$44.9 to \$33.2 million over the FY 1978-1986 period.

AED's share in total portfolio obligations showed the largest decline of any category, -15.4 percent. From a 30.2 percent share in FY 1978, it dropped to a 14.8 percent share in FY 1986.

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 1978-1986 period. Nevertheless, the strong downward trend in obligations has been reflected in substantial drops in expenditure levels in recent years. The slight increase in planned obligations shown for FY 1985 and 1986 suggest that the decline in expenditures will be halted.

I. Natural Resource Development (NRE)



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

Expenditures. Expenditures on Natural Resource Development grew from \$16.8 to \$30.0 million over the FY 1979-1986 period, or at an average annual growth rate of 9 percent.

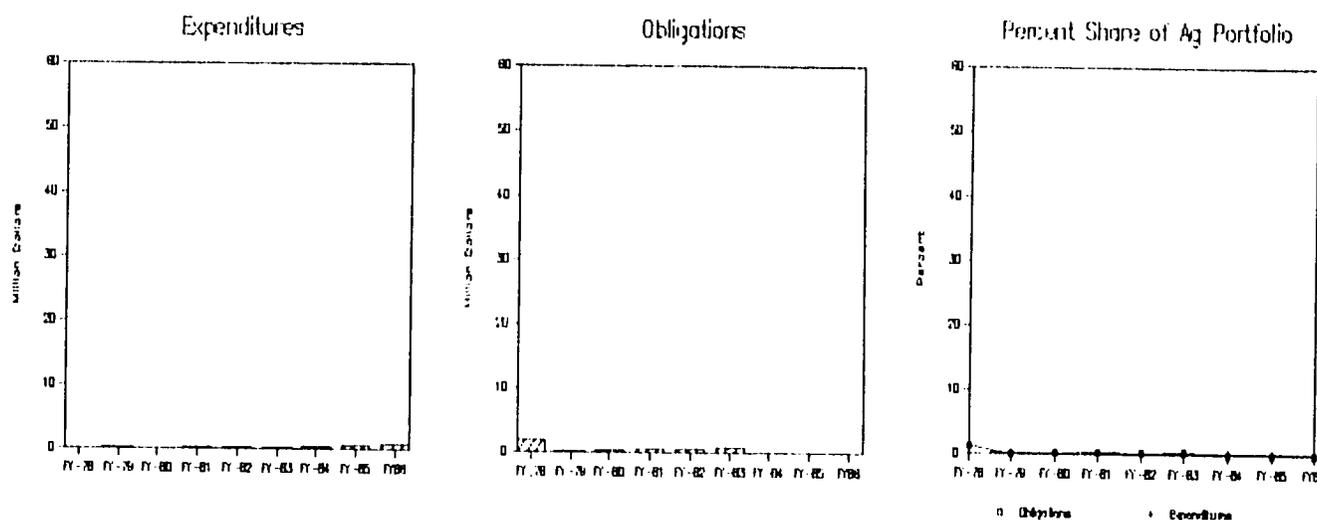
However, in relation to the growth of the total agricultural portfolio, NRE's share showed a gradual decline from 17.1 percent in FY 1979 to 11.2 percent in FY 1984. This was a net decline of -5.9 percent.

Obligations. In terms of obligations, the funding for Natural Resource Development showed a downward trend of -17 percent, the largest of any category in the portfolio. From \$21.5 million in FY 1978, actual obligations peaked at \$36.8 million in FY 1982, but then dropped to \$19.5 million in FY 1984. Planned obligations for FY 1986 drop dramatically to \$6.1 million.

NRE's share in total portfolio obligations also declined over this seven year period from 14.5 to 2.7 percent, for a net decrease of -11.8 percent. This is the largest decrease for any category in the agricultural portfolio.

Relation to Strategy. Natural Resource Development's share in the agricultural portfolio has shown substantial decline over the FY 1978-1986 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. Although Bureau strategy gives higher priority to activities oriented towards policy environment and institution building, the severe decline in future funding for NRE may require reassessment.

### 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 0.4 percent in any year, except FY 1979 when obligations were 1.3 percent of the portfolio total. Actual expenditures did not exceed \$0.4 million through FY 1984, and planned expenditures rise to \$0.8 million in FY 1986. Except for \$2.0 million in FY 1978, actual obligations did not exceed \$0.9 million through FY 1983. There were no obligations planned for FY 1984 through FY 1986.

Relation to Strategy. Land Tenure's relative importance in the agricultural portfolio has been at a very low level throughout the FY 1978-1986 period, and little change is likely in coming years.

## V. Sub-Sector Analysis

This chapter examines changes in the relative importance and funding trends of the various Sub-Sectors encompassed by the Africa Bureau's portfolio of agricultural development projects.

As discussed in Chapter II on Methodology, components of each project in the portfolio were classified as to their development Purposes. In addition, each project component was also related to its relevant Sub-Sector. These Sub-Sectors combine agricultural production and marketing activities by major commodity groupings, such as Crops or Livestock, as well as socio-economic activities supporting development of rural infrastructure, institutions and enterprises. (Sub-Sector categories and codes are shown in Table II-2.)

The analysis is based on the 437 agricultural projects in the Bureau's portfolio over the FY 1978-1986 period. Obligation and expenditure data for these nine years are shown by sub-sector categories in Tables V-1 through 4. As with the Purpose analysis, the relative importance of the various Sub-Sector categories are expressed as a percentage of the total agricultural portfolio, less the Agricultural Sector Support (SEC) funds.

### A. Overview

Sub-Sectors concentrating on Crops accounted for the largest share of agricultural portfolio funding, ranging between 30 and 40 percent of the total during the FY 1978-1986 period. Rainfed Crops was the largest single Sub-Sector over these nine years and its share continued to increase slightly to 27 percent of the portfolio by FY 1986. Funding of Irrigated Crops remained at relatively low levels, between 2 and 8 percent of the portfolio, and showed no upward or downward trends.





Livestock Sub-Sector funding was relatively low during the FY 1978-1986 period, ranging between 5 and 15 percent of the portfolio. Its share in portfolio expenditures continued to decline from 17 to 7 percent. Obligations fluctuated in the 5 to 11 percent range through FY 1985, with the planned level in FY 1986 dropping to 3 percent.

Sub-Sectors involved with both Crops and Livestock ranged between 12 and 25 percent of the agricultural portfolio. Projects combining Rainfed Crops and Livestock accounted for most of these funds, but their share declined steadily to 9 and 13 percent by FY 1986 for obligations and expenditures, respectively. Funding for projects combining Rainfed and Irrigated Crops and Livestock was at about the 1 percent level through FY 1983, but is planned to rise by FY 1986 to 7 and 3 percent, respectively, for obligations and expenditures.

Annual funding for the Fisheries Sub-Sector was at about 1 percent of portfolio totals through FY 1984, but obligations are planned to increase to 3 percent by FY 1986.

Forestry Sub-Sector funding ranged between 0.5 and 2.4 percent of the agricultural portfolio during the FY 1978-1986 period.

The Rural Development Sub-Sector's share in the agricultural portfolio ranged between 10 and 27 percent over the nine year period. Obligations peaked at 27 percent in FY 1983, and then declined to 10 percent in FY 1986. Expenditures for Rural Development showed a more gradual decline from 23 percent of the portfolio in FY 1979 and 1980 to 16 percent in FY 1986.

#### B. Crops

Sub-Sectors involved only with Crops, including both Rainfed and Irrigated Crops, maintained the largest share of portfolio funding throughout the FY

1978-1986 period. Expenditures and obligations ranged between 30 and 40 percent of the total agricultural portfolio. Since FY 1981, the share of expenditures has been moving upward from 27.4 to 37.1 percent, and obligations, which declined from 41.3 to 29.6 percent by FY 1984, are planned to reach a 42.6 percent share by FY 1986.

Rainfed Crops continued as the largest single Sub-Sector over the nine-year period. Actual obligations were \$52.6 million in FY 1984 and are estimated at \$61.4 million in FY 1986. In these same years, expenditures totaled \$40.2 and \$70.9 million. The relative importance of Rainfed Crops in the portfolio tended to increase slightly over the nine-year period: from 22.1 to 27.7 percent in terms of obligations, and from 24.3 to 26.6 percent for expenditures. See Figure V-1.

The most important Purpose carried out by projects in the Rainfed Sub-Sector was Technology Development, which accounted for nearly 40 percent of the Sub-Sector's expenditures. This was followed by Technology Transfer, Input Supply, Agricultural Education and Commodity Marketing purposes.

Irrigated Crops funding remained at relatively low levels throughout the FY 1978-1986 period, with annual expenditures ranging between \$6.5 and \$15.9 million and annual obligations between \$2.6 and \$18.1 million. Its share of total portfolio funding showed no overall upward or downward trends. Expenditures moved in a narrow range between 4.0 and 7.2 percent over the nine-year period, while obligations fluctuated somewhat more widely between 1.7 and 8.4 percent. See Figure V-2.

Nearly two-thirds of the expenditures for projects in the Irrigated Sub-Sector was for the purpose of Natural Resource Development. Other purposes included Technology Development and Technology Transfer.

Figure V-1. Rainfed Crops

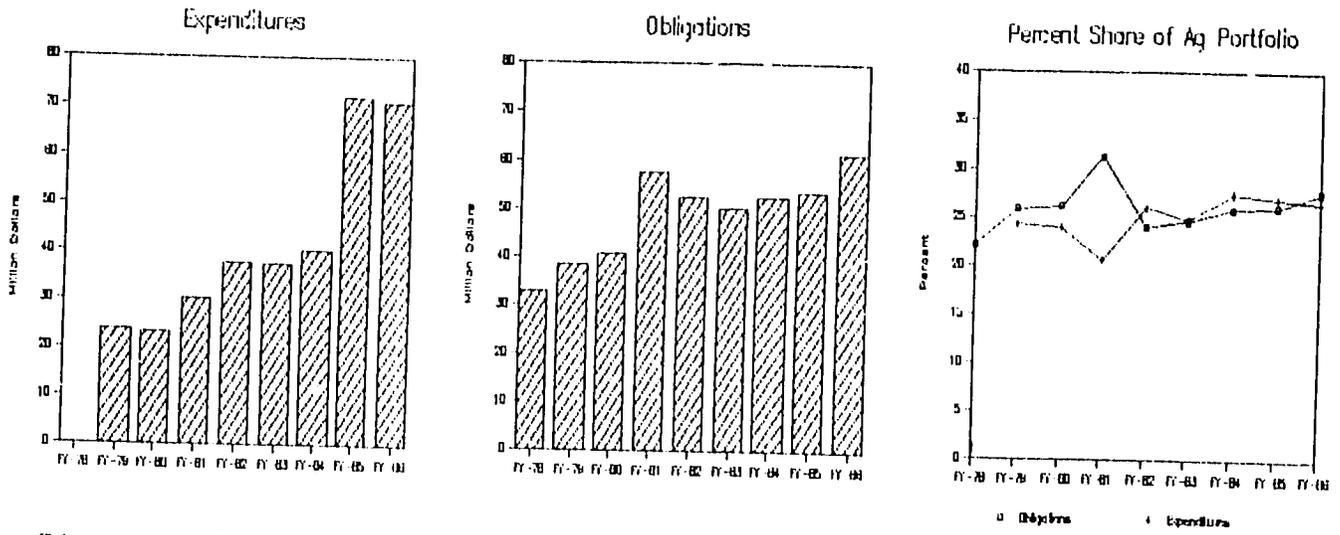


Figure V-2. Irrigated Crops

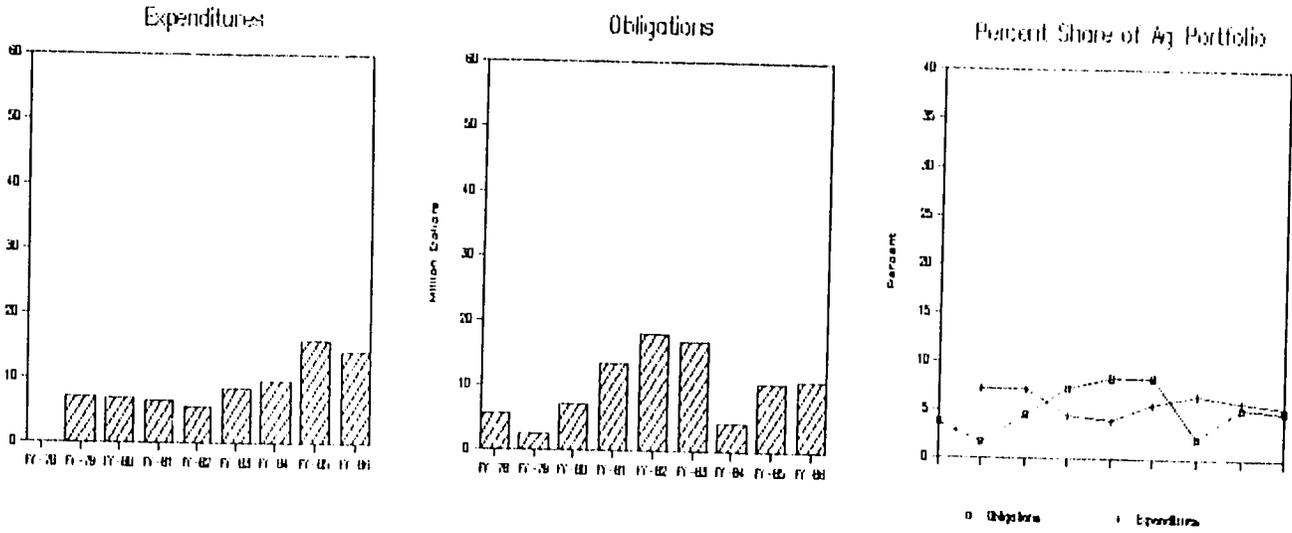
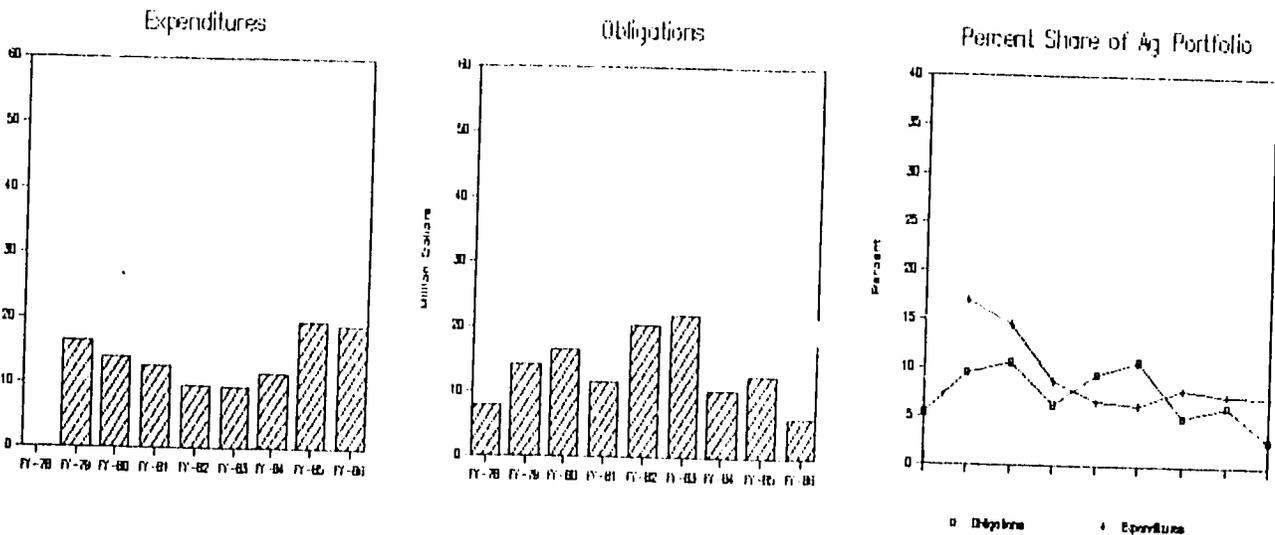


Figure V-3. Livestock



Projects involving both Rainfed and Irrigated Crops had relatively low actual obligation and expenditure levels though FY 1984, ranging between \$1.6 and \$8.7 million. Its share in the total portfolio moved narrowly over the same period between 1.0 and 5.9 percent. However, increased funding is planned that would raise this Sub-Sector's share of portfolio obligations and expenditures to 9.9 and 5.1 percent, respectively, in FY 1986. Project Purposes in this Sub-Sector included Natural Resource Development, Technology Development, Input Supply and Technology Transfer.

### C. Livestock

Funding levels for projects concentrating on livestock development were relatively low during the FY 1978-1986 period, ranging between 5 and 15 percent of the agricultural portfolio in most of the years. Annual obligations and expenditures were between \$6.1 and \$21.9 million during the nine-year period.

In addition, the Livestock Sub-Sector's share in actual expenditures declined steadily from 16.9 to 6.3 percent by FY 1983, then rose to 7.9 percent in FY 1984. Planned expenditures show further declines to 7.2 percent by FY 1986. Annual obligations fluctuated between 5.1 and 10.7 percent of the portfolio through FY 1985, with the planned level dropping to 2.8 percent in FY 1986. See Figure V-3.

The most important purposes of projects in the Livestock Sub-Sector were Natural Resource Development and Technology Transfer, accounting for about half of all expenditures throughout the nine-year period. Technology Development and Planning and Policy Analysis were also relatively important in most of the years.

D. Crops and Livestock

Funding for projects in Sub-Sectors involved with both Crops and Livestock ranged between 12 and 25 percent of portfolio totals over the FY 1978-1986 period. There was little net change in relative importance between the beginning and ending years of this nine-year period. Projects combining Rainfed Crops with Livestock accounted for nearly all funding through FY 1983, with projects involving Rainfed and Irrigated Crops with Livestock showing an increase for FY 1984-1986.

The relative importance of the Rainfed Crops/Livestock Sub-Sector first increased, but then declined throughout most of the nine-year period. From FY 1981-1986, expenditures declined steadily from 22.7 to 13.1 percent of the portfolio totals. Obligations declined from 22.4 percent in FY 1981 to 7.8 percent in FY 1985, and are planned to increase to 8.8 percent in FY 1986. See Figure V-4.

Actual obligation and expenditures for projects combining Rainfed and Irrigated Crops with Livestock were at very low levels (around 1 percent of the portfolio) through FY 1983. However, planned funding to FY 1986 indicates a rise to 7.0 percent for obligations and 3.2 percent for expenditures. See Figure V-5.

Project Purposes in the Crops/Livestock Sub-Sectors included Technology Development, Technology Transfer, Natural Resource Development and Agricultural Education.

Figure V-4. Rainfed Crops and Livestock

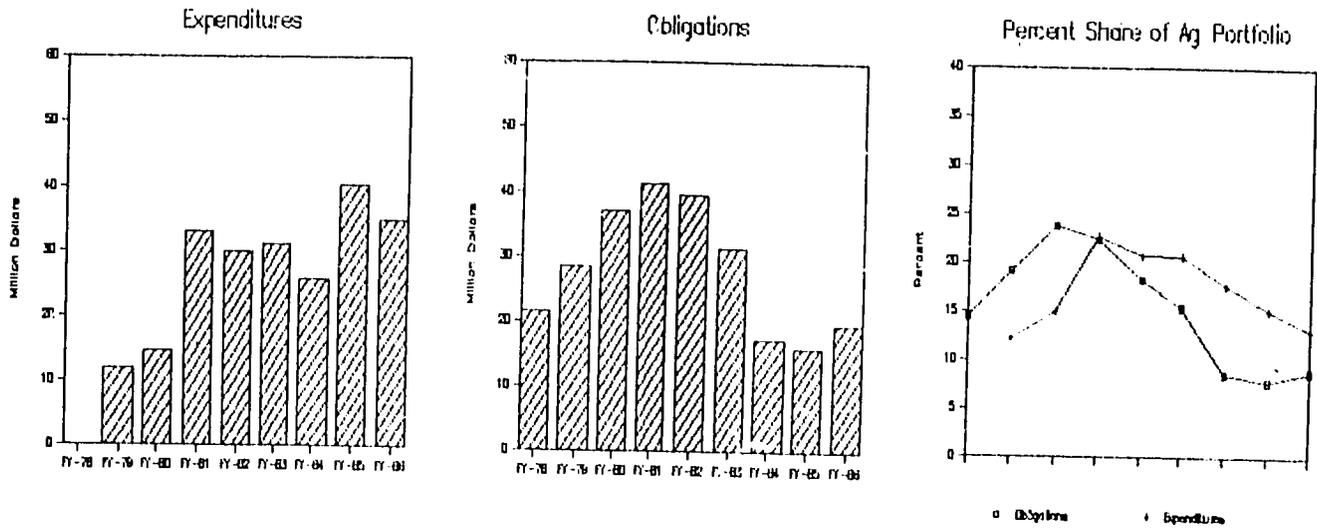


Figure V-5. RF/Irrigated Crops and Livestock

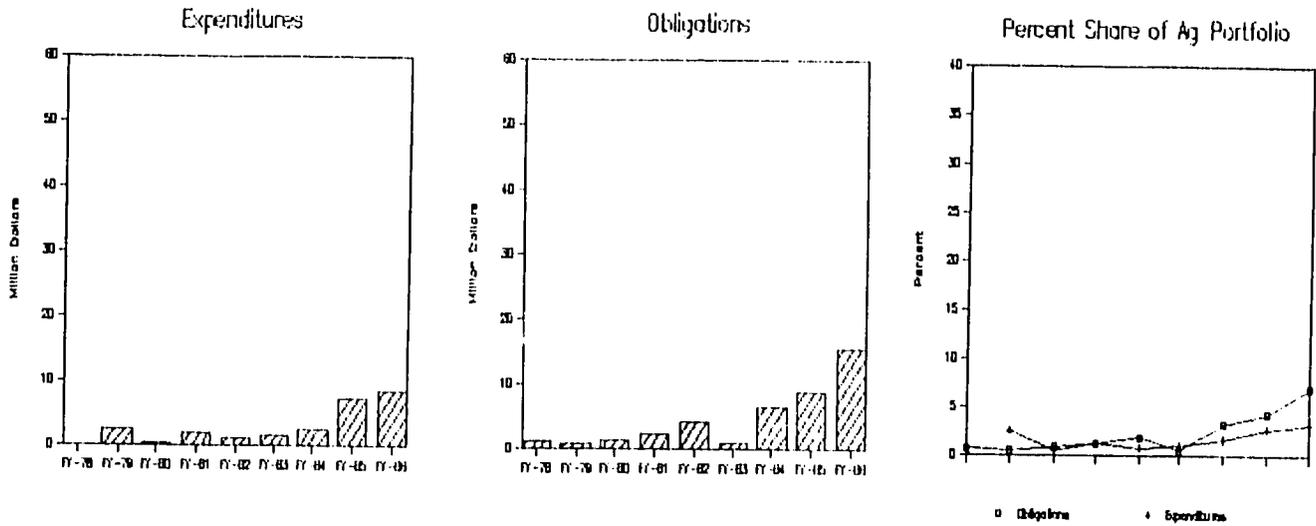
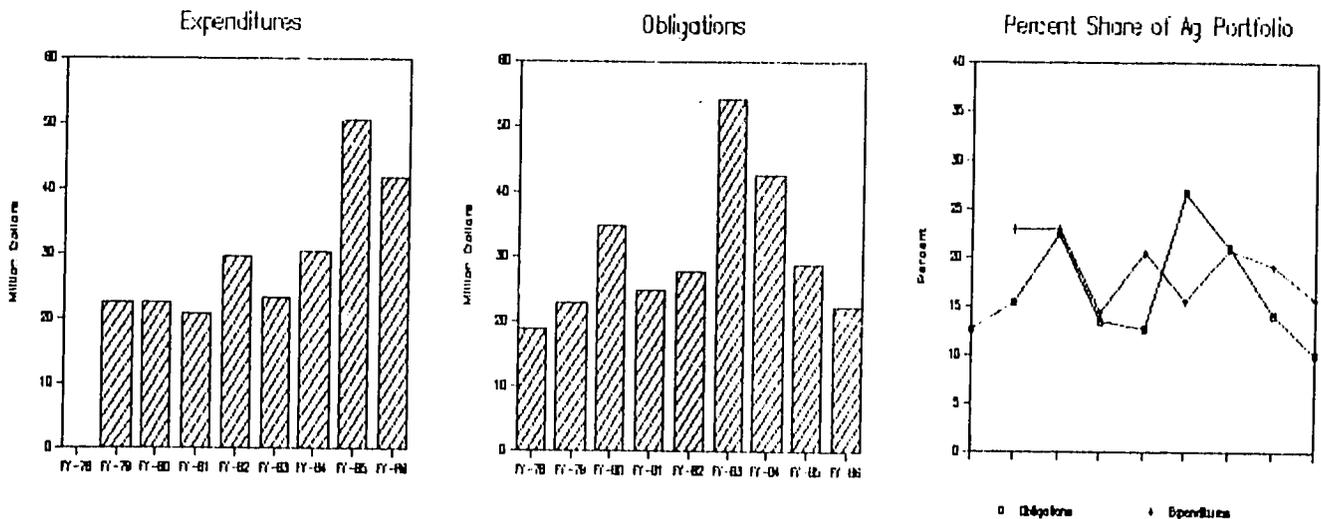


Figure V-6. Rural Development



E. Fisheries

Annual funding for the Fisheries Sub-Sector did not exceed 1.3 percent of the agricultural portfolio during the FY 1978-1984 period. Actual obligations ranged between \$0.5 and \$2.5 million, and actual expenditures between \$0.1 and \$1.9 million. However, planned obligations and expenditures will increase the share of the Fisheries Sub-Sector to 3.2 and 1.5 percent, respectively, by FY 1986.

The most important purposes of projects in the Fisheries Sub-Sector were Technology Transfer and Input Supplies, accounting for about half of all expenditures throughout the nine-year period.

F. Forestry

Except for obligations of 2.0 to 2.4 percent in FY 1979-1981, funding for the Forestry Sub-Sector did not exceed 1.7 percent of the agricultural portfolio during the FY 1978-1986 period. Obligations ranged between \$0.4 and \$2.4 million, and expenditures between \$0.4 and \$1.7 million.

The most important purposes of projects in the Forestry Sub-Sector were Natural Resource Development and Agricultural Education, accounting for about half of all expenditures throughout the nine-year period. Planning and Policy Analysis was important from FY 1982 onward.

G. Rural Development

The Rural Development Sub-Sector includes socio-economic activities supporting development of rural infrastructure, such as farm-to-market roads; rural institutions, such as community service and training organizations; and rural industry and business enterprises, including cooperative organizations.

Funding levels for projects in the Rural Development Sub-Sector ranged between 10 and 27 percent of the total agricultural portfolio over the nine-year period.

Annual obligations rose from \$18.8 to \$54.3 million between FY 1978 and FY 1983, then showed a decline to a planned level of \$22.3 million in FY 1986. As a share of the total agricultural portfolio, the Sub-Sector similarly reached a peak in FY 1983 of 26.7 percent, and then declines to 10.1 percent in FY 1986. In terms of expenditures for Rural Development, the annual variations were less than for obligations, but also showed a decline from 23.0 percent of the portfolio in FY 1979 and 1980 to 15.7 percent in FY 1986. See Figure V-6.

The most important purposes of projects in the Rural Development Sub-Sector were Rural Roads and Technology Transfer, which accounted for nearly one-half and one-fourth, respectively, of all expenditures during the nine-year period. Other purposes included Credit, Agricultural Education and Planning and Policy Analysis.

**APPENDIX TABLES**

Appendix Table A-1. Africa Bureau Portfolio: Number of Projects by Sector, FY 1978-1986 <sup>1/</sup>

Code	Sector	Bilateral Projects	Regional Projects	Total Projects	Percent of Total
AGR	Agriculture	375	62	437	51
EDU	Education	76	31	107	13
HLT	Health	81	11	92	11
POP	Population	19	8	27	3
TRA	Transportation	13	14	27	3
ENG	Energy	17	2	19	2
BUD	Budgetary Support	24	3	27	3
PSU	Program Support	7	17	24	3
REF	Refugees/Disasters	14	8	22	3
OTH	Other	51	20	71	8
	Total	677	176	853	100

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

Appendix Table A-2. Africa Bureau Portfolio: Obligations by Funding Sources, FY 1978-1986

Funding Sources	1978 Act.	1979 Act.	1980 Act.	1981 Act.	1982 Act.	1983 Act.	1984 Act.	1985 Est.	1986 Prop.
----- Million Dollars -----									
DA:									
ARDN	95.8	98.0	102.7	108.1	135.0	141.7	138.6	133.1	155.3
POP	4.5	2.1	3.0	4.5	7.3	11.7	15.5	14.6	24.0
HLT	21.9	34.6	29.4	49.4	43.9	31.0	27.1	44.0	28.4
EHR	23.3	27.4	30.3	25.1	35.9	29.3	35.8	36.2	55.2
SDP	22.0	11.0	26.1	17.6	13.0	16.5	16.7	20.7	14.4
Sub-Total	167.5	173.1	191.5	204.7	235.1	230.2	233.7	248.6	277.3
ESF	110.7*	53.0	132.7	163.0	294.8	286.1	333.1	424.5	461.5
Sahel	49.8	75.2	76.5	95.6	93.8	85.0	106.6	101.1	80.5
Other	1.3	15.9	14.2	4.6	1.2	18.5	16.8	14.3	-
Total	329.3	317.2	414.9	467.9	624.9	619.8	690.2	788.5	819.3
----- Percent of Total -----									
DA	50.9	54.6	46.2	43.8	37.6	37.1	33.9	31.5	33.9
ESF	33.6	16.7	32.0	34.8	47.2	46.2	48.3	53.9	56.3
Sahel	15.1	23.7	18.4	20.4	15.0	13.7	15.4	12.8	9.8
Other	0.4	5.0	3.4	1.0	0.2	3.0	2.4	1.8	-
Total	100.0	100.0	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	20.1	16.9	19.0
ARDN as % of DA	57.2	56.6	53.6	52.8	57.4	61.6	59.3	53.5	56.0

\*SSA (Security Support Assistance)

Source: AID Congressional Presentations, Annex 1 - Africa, FY 1980-1986