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MANAGING AGRICULTURAL DEVELOPMENT IN AFRICA

# A REVIEW AND ASSESSMENT OF U.S. ACTIVITIES TO PROMOTE AGRICULTURAL AND RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA

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# A REVIEW AND ASSESSMENT OF U.S. ACTIVITIES TO PROMOTE AGRICULTURAL AND RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA

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This paper has been prepared as a chapter for a forthcoming MADIA book on aid effectiveness. It is based on the more detailed report (Johnston et al.) as well as the six MADIA country studies by Dijkerman and Jaeger.

# A REVIEW AND ASSESSMENT OF U.S. ACTIVITIES TO PROMOTE AGRICULTURAL AND RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA

This chapter focuses on the activities of the U.S. Agency for International Development (AID) in support of agricultural and rural development in the six countries included in the World Bank's MADIA study. It draws heavily on country studies for Cameroon, Nigeria, and Senegal, carried out by William Jaeger (1987a, b, c) and studies of AID activities in Malawi, Kenya, and Tanzania, prepared by Dirk Dijkerman (1987a, b, c), as well as a more detailed comparative report drawing on all six studies (Johnston et al. 1987). The emphasis is primarily on AID's promotion of agricultural development in the six countries, with attention given to regional and international programs relevant to the six countries. The study also devotes attention to AID's support of rural development,which consisted primarily of road construction and other infra-structure projects and health and population programs.

## I. U.S. Assistance for Sub-Saharan Africa in a Global Context

During the 1963-84 period covered in this review, AID allocations for agricultural development projects and programs in the six study countries amounted to just over $900 million in constant 1983 dollars. Allocations for rural development totalled not quite $520 million for that period. These two sectors account for more than half of the $2.4 billion AID spent in the six countries. Total U.S. assistance for the six was nearly $3.6 billion for the same period. This total includes in addition to AID's funding of projects and programs, P.L 480 food aid, Economic Support Funds (ESF), and the Peace Corps.

For these six countries, and for Sub-Saharan Africa in general, these amounts are modest when compared to the general importance of the U.S. in the foreign assistance initiatives since World War II. It will be seen below that the role of AID and its predecessor agencies in Sub-Saharan Africa has been limited, relatively late, and subject to large variations over time and in country focus. That is, of course, in sharp contrast to the dominant role of the U.S. in the Marshall Plan for European Economic Recovery and also in foreign aid programs in other developing regions, especially Asia, during the 1950s and 1960s. It seems clear in retrospect that the unprecedented size and success of the Marshall Plan was a major factor leading to the innovation in international relations represented by the substantial and sustained foreign assistance provided by the Organization for European Cooperation and Development countries since the OECD and its Development Advisory Committee (DAC) were created 25 years ago (Poats 1985; Lumesdaine 1986). Official Development Assistance (ODA) provided by the U.S. has declined from .58 percent of the country's GNP in 1965 to less than .25 percent between 1979 and 1985, in part the result of "aid fatigue." What is striking, however, is the extent to which the decline in the U.S. contribution to foreign assistance has been more than offset by increases in the ODA provided by other DAC countries. Thus, it is estimated that annual ODA for all developing countries rose from about US$20 billion to US$29 billion (in constant 1983 prices) between 1966 and 1985, in spite of the fact that the U.S. contribution declined from 82 percent of total ODA from DAC countries in 1965 to 30 percent in 1985 (World Bank 1986: 218).

AID's Role in Sub-Saharan Africa

U.S. aid to Africa has been primarily economic aid, with less that 10 percent going to military assistance. The economic aid has been provided primarily for development programs, food aid, and for budgetary support under the Economic Support Fund (ESF); during most of the 1970s this type of funding was referred to as "security supporting assistance." Traditionally, Africa has not been the focus of U.S. economic assistance; before 1978 Africa received only about 5 percent of U.S. aid, but since that time Africa's share has risen above 10 percent.

The role of the U.S. in assisting Sub-Saharan Africa has been modest in comparison with assistance from the World Bank and other multilateral and bilateral donors. It is noted below that among the six MADIA countries it was only in Nigeria that U.S. aid for the period 1970-84 exceeded 20% of total ODA, followed by Kenya at 15%. For the other four countries, the U.S. share ranged from 6%

of ODA in Cameroon to just over 10% in Senegal (where food aid accounted for 45% of total U.S. assistance).

The figures on the U.S. share in total ODA, however, understate the importance of the U.S. role in support of agricultural and rural development. A relatively large share of AID's bilateral assistance was allocated for agricultural and rural development activities. Furthermore, that assistance was directed in considerable measure toward building institutions of higher education in agriculture, such as the three faculties of agriculture in Nigeria. Although U.S. assistance for those and other institutions was sporadic, its contribution to building educational institutions in Kenya, Malawi, and Tanzania as well as Nigeria seems clearly to have had a positive and lasting impact. And the same will probably be true of more recent technical assistance for the establishment of Dschang University in Cameroon.

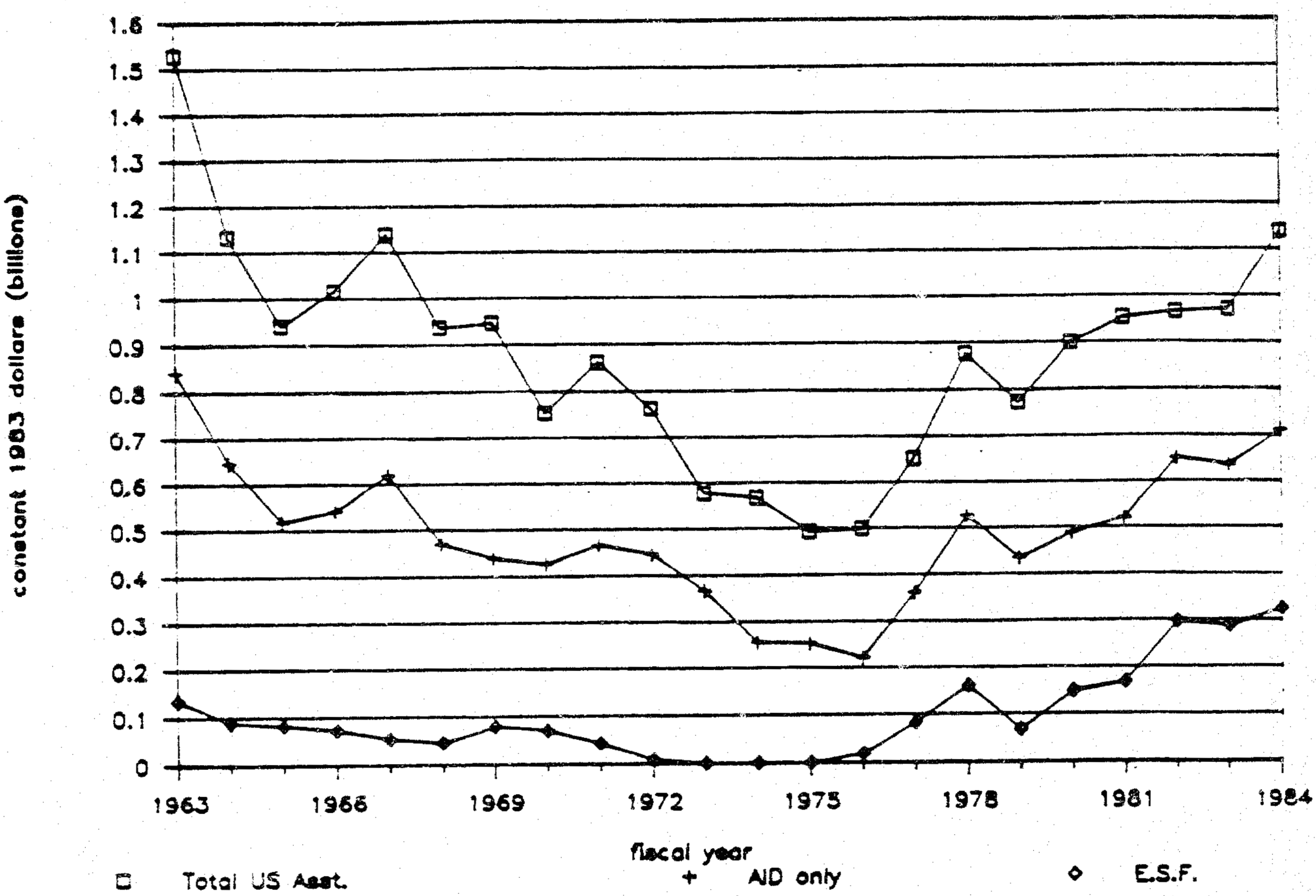
It is also emphasized, however, that the potential payoff to investments in postsecondary institutions for agriculture and veterinary medicine has yet to be realized because of limited progress in establishing effective national agricultural research systems. In considerable measure the creation of educational institutions is an "intermediate product," and the return on that investment cannot be realized fully until the locally trained agricultural scientists and other specialists begin to make important contributions to generating profitable and feasible innovations for a large and growing percentage of a country's small farmers--and also to policy research and analysis. Although AID and other donors have missed some important opportunities to support the difficult but essential process of developing research capacity, it is important to recognize that that is inherently a long-term process. And the substantial assistance that the U.S. has provided for IITA, CIMMYT, ICRISAT, and other International Agricultural Research Centers has had and will continue to have an important impact on agricultural progress in Sub-Saharan Africa.

In constant 1983 dollars, the level of U.S. assistance to Africa was more than $1 billion per year in the early 1960s, declining until the mid-1970s before the level began to rise again. Only in the last three years has U.S. assistance reached levels similar to those of the early 1960s (Figure 1). AID funding has consistently accounted for between half and two-thirds of total U.S. economic assistance in Africa.

The major funding sources of U.S. assistance to Africa have changed dramatically since the 1960s when development programs dominated. Since the mid-1970s, both food aid and ESF have grown in relative and absolute terms. Since 1980 the two together have comprised more than half of all U.S. economic assistance to Africa: Of the total $1.1 billion in aid to Africa in 1984, $333 million was food aid and $346 million was ESF.

ESF programs are intended to serve U.S. political, security, and economic objectives, and they provide a rapid and flexible disbursement instrument. ESF was used in Africa for a brief period in the early 1960s, but reemerged in the mid-1970s as an important part of the aid program. ESF programs can take the form of

Figure 1
US Economic Assistance to Africa, 1963-84, in Constant 1983 Dollars



commodity import programs (CIP), cash/budget support, or project aid. CIP programs have been the most common use of ESF since 1975, although cash/budgetary support has risen since 1983. Project aid has accounted for about 20 percent of Africa's ESF programs since 1980 (Congressional Research Service 1986).

A Comparative Assessment of AID in Six African Countries

This review of AID's programs in six African countries, also provides a farily good picture of the nature of AID's support for agricultural and rural development in Africa generally. This focus on six countries permits a fairly detailed examination of their experience, while at the same time forcing us to reckon with a considerable range of variation. The six countries provide a basis for a wide range of comparisons and contrasts given a number of similarities and differences in their resource endowments, their performance with respect to agricultural production and marketed surpluses generated, and the range of agriculturally-related policies pursued. They also reflect a cross-section of AID programs, and the types of AID support in the six are representative of AID assistance in Africa generally. For example, the share of AID funding going to education and agriculture in the six is similar to the overall shares for Africa as a whole, and food aid represents one-forth to one-third of U.S. assistance for the six countries and for Africa overall.

The selection of countries for the MADIA study was also influenced by the fact that they have experienced relatively more stable political and policy environments than countries such as Zaire, Ethiopia, or Uganda. Only Zaire and Sudan have received more assistance from the U.S. than Nigeria; and Kenya, Tanzania, and Senegal also rank among the top 11 African countries in terms of assistance received from the U.S. between 1946 and 1985.

The analysis is focused on four principal questions about the effectiveness of AID's activities in promoting agricultural and rural development: first, were the activities AID chose to promote appropriate in terms of being critical elements of a well-conceived strategy for agricultural and rural development and capable of having a catalytic effect on efforts being made within a recipient country. Second, was the country situation favorable in terms of the policy environment, the timing and sequencing of the activities, and the country's political leadership being committed to the objectives of the programs undertaken? Third, to what extent are U.S. experience, technical expertise, and institutional models appropriate to the host country needs and contexts? And fourth, does AID have, or can it obtain, the institutional capacity to effectively plan and implement the activities necessary for the success of this type of program under host country conditions.

The first question turns out to be especially difficult and important because of the lack of consensus concerning the type of development strategies that should be promoted by AID. For example, a recent survey of U.S. Aid to Africa carried out by the Congressional Research Service (1986:xi) argues that there is a continuing "tension in the debate over U.S. assistance for African development between 'top-down' and 'bottom-up' strategies of economic growth." A major thesis of the present study that derives from its historical perspective is that this common polarization of the debate is based on an unfortunate and misleading dichotomy between growth and equity. Over the past 35 years a good deal of cumulative progress has been made in our understanding of the complex processes of agricultural and rural development. Asian experience especially has emphasized that the trade-offs between growth and equity objectives can be minimized if serious attention is given to devising and implementing development strategies that are well balanced and effective in furthering multiple objectives. The present study seeks to draw upon the most important lessons of the past 35 years in order to outline an analytical framework for assessing AID's effectiveness in supporting agricultural and rural development. In spite of the continuing controversy, there is an emerging consensus among development specialists that policies and programs should be effective in attaining multiple objectives. In particular, there is a need for agricultural strategies that are effective in simultaneously accelerating the growth of agricultural output and in generating opportunities for productive employment for a large and growing labor force.

The remainder of this chapter takes up these questions, relying heavily -- but not exclusively -- on AID's experiences in the six study countries. Following a description of AID's involvement in each of the six countries, the fourth question is taken up, which addresses AID's institutional capacity to design, implement, and sustain a successful assistance program in Africa. AID's organizational structure, as well as its relationship to Congress and U.S. political constitutencies, are shown to be constraints on effective development assistance.

In order to make judgements about the appropriateness of AID's chosen activities, a conceptual framework is then outlined, drawing on the considerable knowledge that has been acquired about the development process. This is followed by an assessment of the impact of AID's various types of activities across the six countries, and judgements about the reasons for the degree of success or failure achieved.

## Overview of the Six Study Countries

The six countries being examined differ considerably in the size, pattern, and content of U.S. assistance. Nigeria has received the highest total assistance. Between 1963 and 1984 U.S. assistance to Nigeria totaled $1.2 billion when valued in constant 1983 dollars (Table 1) . Kenya has had the second largest program with $835 million, followed by Tanzania ($645 million), and Senegal ($428 million). The smallest programs have been in Cameroon and Malawi, receiving $277 million and $190 million, respectively.[1] In terms of their share of total U.S. assistance to Africa, Nigeria has received over 6 percent (although nearly 9 percent of AID's total). Malawi has received less than 1 percent of total U.S.

[1] Military aid -- relevant only for Kenya -- is excluded from these figures.

Table 1. Total U.S. Assistance to the MADIA Countries, 1963-84, in thousands of constant 1983 dollars

| | Cameroon | Kenya | Malawi | Nigeria | Senegal | Tanzania |
|---|---|---|---|---|---|---|
| Total U.S. assistance[a] | 277,657 | 835,673[a] | 190,884 | 1,208,439 | 428,569 | 645,309 |
| AID projects and programs | 213,839 | 519,418 | 146,732 | 943,020 | 174,311 | 341,474 |
| Agriculture | 85,218 | 269,296 | 25,517 | 284,233 | 114,716 | 126,292 |
| Rural development | 90,681 | 135,855 | 84,114 | 36,087 | 13,385 | 157,636 |
| Other | 37,940 | 114,267 | 37,101 | 623,680 | 46,210 | 57,547 |
| PL 480 food aid | 19,655 | 181,184 | 12,168 | 182,541 | 192,713 | 247,723 |
| Other economic assistance | 44,163 | 135,071 | 31,984 | 82,878 | 61,545[b] | 56,112 |
| Total US assistance per capita (average) | $1.36 | $2.10 | $1.33 | $0.61 | $3.25 | $1.48 |
| Per capita GNP | $890 | $390 | $210 | $860 | $490 | $280 |
| Average ratio of total U.S. assistance to GDP (%) | 0.17 | 0.77 | 0.65 | 0.09 | 0.76 | 0.64 |
| Share of total U.S. assistance for Africa 1963-84 (%) | 1.43 | 4.31 | 0.98 | 6.23 | 2.21 | 3.33 |
| Share of AID assistance for Africa 1963-84 (%) | 1.97 | 4.78 | 1.35 | 8.68 | 1.61 | 3.14 |
| U.S. share of total ODA for 1970-84 (%) | 6.10 | 15.40 | 8.50 | 22.00 | 10.40 | 7.30 |

a. Excludes military aid ($245 million for Kenya).
b. Includes Peace Corps.

assistance to Africa, but a slightly larger share (1.35 percent) of AID's funding (Table 1).[2]

The ranking of the six is quite different in terms of per capita aid averaged over the 22-year period. With a population of only 6 million, Senegal's average annual assistance was by far the highest, \$3.23 per capita. Kenya ranks second with an average of \$2.09 per capita. Nigeria, with 90 million people (a population fifty percent larger than the other five combined) is lowest with an average of \$0.60 per capita per year.

When compared to GDP, U.S. aid to Senegal and Kenya has averaged three-quarters of one percent of GDP, followed closely by Tanzania and Malawi at around 0.65 percent. Cameroon and Nigeria, the two petroleum exporters, received much smaller amounts relative to GDP.

Patterns of U.S. Assistance in Six Countries

The levels of assistance in these six countries over the past

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[2] A recent report of the Congressional Research Service (1986) provides a convenient summary of AID assistance to Sub-Saharan Africa for the period 1946 to 1985. The following table, in millions of 1985 dollars (rather than 1983 dollars used in this chapter) shows the position of 4 of the 6 MADIA countries:

| | | | | | |
|---|---|---|---|---|---|
| 1 | Zaire | \$1,895 | 7 | Kenya | \$ 951 |
| 2 | Sudan | \$1.687 | 8 | Somalia | \$ 812 |
| 3 | Nigeria | \$1,305 | 9 | Tanzania | \$ 663 |
| 4 | Ethiopia | \$1,298 | 10 | Zambia | \$ 537 |
| 5 | Liberia | \$1,181 | 11 | Senegal | \$ 508 |
| 6 | Ghana | \$1,128 | | | |

A breakdown by 5-year periods from 1960-1985 included in the CRS report shows the sharp changes over time in country emphasis.

25 years have fluctuated, in part, because of changes in U.S. funding levels for Africa as a whole (Figures 2-4).

Although AID's experience in each of the six countries differs, there are a number of events and responses to them that affected several of them. The recommendations of the 1966 Korry Report that AID concentrate on a small number of priority countries, resulted in the phasing out of bilateral programs in Senegal, Cameroon, and Malawi. But in both Senegal and Cameroon, the AID program was later enlarged and redirected as a result of the Sahel drought in the early 1970s, although the effect on AID's Senegal program was more pronounced. Malawi, Cameroon, and Senegal are all characterized by low and somewhat erratic funding levels until the mid-1970s (Figure 4). The large spikes in Figure 4 between 1969 and 1975 were for regionally funded infrastructure development -- railroads in the case of Cameroon, and highway construction in Malawi.[3]

Because of its size and the priority that it received during the Kennedy years, aid for Nigeria dominated U.S. assistance to the MADIA countries until the early 1970s (Figures 2, 3). U.S. aid for Nigeria reached a peak of $87 million in 1969 immediately after the civil war; that represented $248 million in constant 1983 dollars. The U.S. rapidly phased out its bilateral aid to Nigeria beginning in 1972 because of large increases in petroleum revenues. By 1977 the AID mission was closed and since that time Nigeria has

[3] Only those obligations which are clearly attributable to the country in question are represented in the figures and tables. Further discussion of regional accounts is found below.

Figure 2
US Economic Assistance to the Six MADIA Countries,
1963-84, in Constant 1983 Dollars

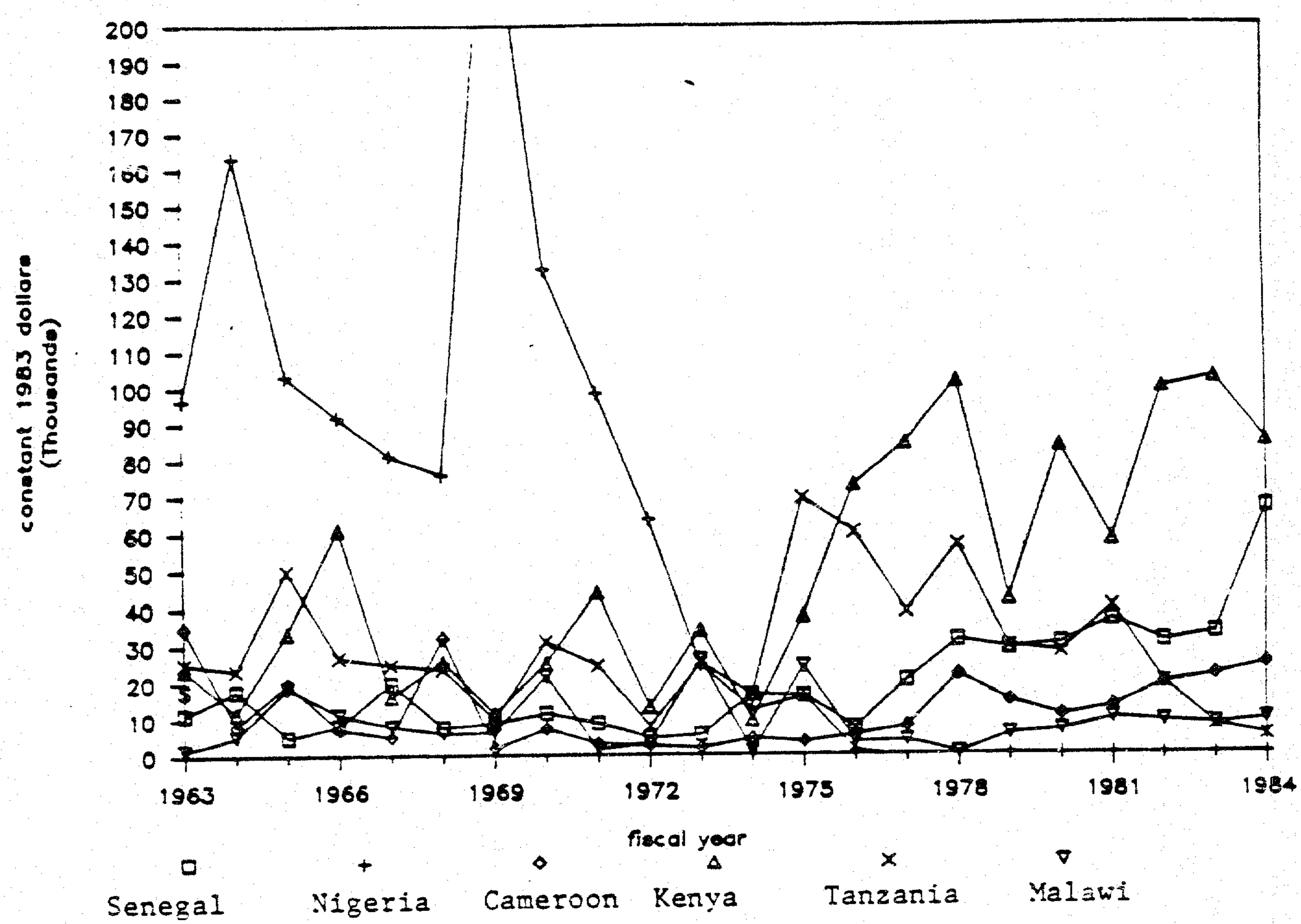


Figure 3
AID Project and Program Assistance to Nigeria, Kenya and Tanzania, 1963-84, in Constant 1983 Dollars

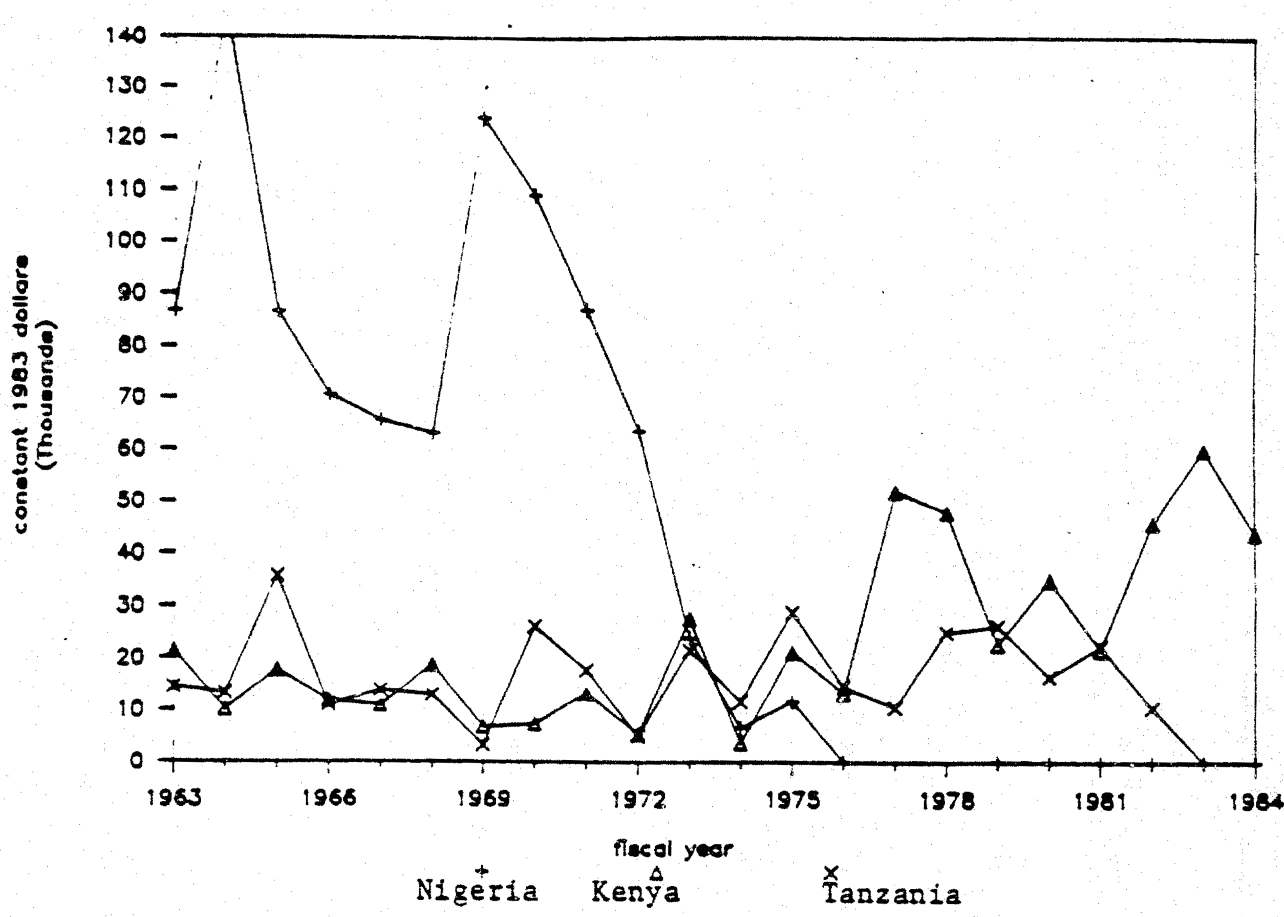
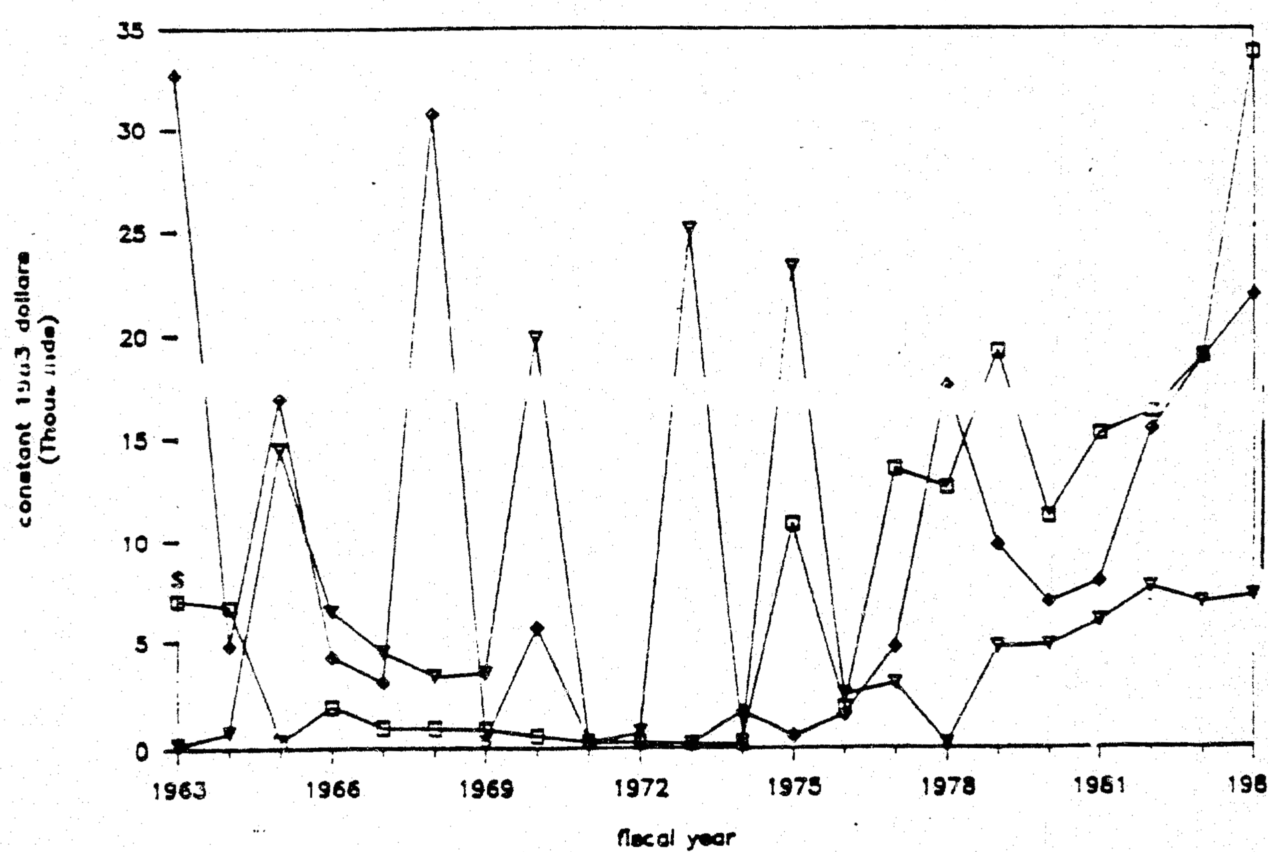



Figure 4
AID Project and Program Assistance to Senegal, Cameroon and Malawi, 1963-84, in Constant 1983 Dollars



benefitted only from a small program grant, and regional and centrally funded AID programs such as support for IITA in Ibadan and some health and population activities.

Both Kenya and Tanzania have received relatively steady levels of AID assistance over most of the period under consideration, although AID's program in Tanzania has recently been phased out. Kenya is the only country that has witnessed a generally growing U.S. economic assistance program due to its increased political importance to the U.S..

In addition to the country AID mission, regional accounts and centrally funded programs contribute importantly to AID's total assistance program for Africa. More than 10 percent of U.S. assistance to Africa has been obligated through regional accounts. Seven different regional accounts have been used since 1963, for specific regions within Africa, or for special purposes. Several of these accounts administered only minor amounts and have been discontinued. Between 1963 and 1984, $1.35 billion was disbursed through AID's Africa regional accounts (in constant 1983 dollars).

In addition to these regional accounts, centrally funded assistance plays an important role in AID's Africa programs. For example, centrally allocated funds to support the Consortium Group for International Agricultural Research (CGIAR) are used in core funding for IITA and other international centers active in Africa (Jaeger 1986b).

In the six countries, the U.S. share of total ODA varies considerably across countries and over time, ranging from zero to fifteen percent of the total. Only in Nigeria, which has received very little aid since the mid-1970s, does U.S. assistance for the period 1963 to 1984 surpass 20 percent of the total and exceed the aid from other donors.

The U.S. share of total ODA for Kenya has remained relatively constant at about 15 percent (Tables 1 and 2, Figure 5). The total for Senegal is 10 percent, resulting from the growth of the AID program in the late 1970s, and large food aid commitments in the early 1970s. Tanzania received between 10 and 20 percent of its ODA from the U.S. until the late 1970s. The average U.S. shares for Cameroon and Malawi are small. (The large shares for Malawi in 1973 and 1975 indicated in Figure 5 are misleading in that they represent obligations for multi-year infrastructure development projects.)

In general, the leading source of aid has been the former metropolitan country. This is true for the United Kingdom with respect to Kenya and Malawi, and for France in the cases of Senegal and Cameroon. The U.S. is ranked first for Nigeria for the period of observation. And Tanzania has attracted an unusual set of major contributors headed by Sweden, and including the World Bank, West Germany, and the Netherlands.

## Sectoral Distribution of AID Funds

AID funding is broken down by sector and subsector below for each of the six countries. Additional detail is given in the country studies by Jaeger and Dijkerman. Project funds are

Table 2. U.S. Share of Total ODA for the MADIA Countries, 1970-84, in percent

| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 |
|---|---|---|---|---|---|---|---|---|
| Cameroon | 4.3 | 2.5 | 1.7 | 1.6 | 4.5 | 2.0 | 2.9 | 3.4 |
| Kenya | 15.2 | 24.8 | 7.6 | 17.7 | 5.0 | 15.7 | 9.9 | 29.1 |
| Malawi | 20.5 | 1.9 | 4.0 | 43.8 | 1.2 | 26.9 | 3.9 | 3.7 |
| Nigeria | 42.7 | 34.7 | 31.6 | 15.9 | 10.4 | 13.6 | 1.3 | -1.7 |
| Senegal | 9.4 | 6.2 | 4.1 | 3.5 | 7.4 | 8.6 | 4.2 | 12.9 |
| Tanzania | 21.1 | 14.9 | 5.4 | 12.4 | 6.3 | 16.6 | 16.2 | 8.9 |

| | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|---|
| Cameroon | 11.2 | 5.4 | 4.4 | 6.9 | 9.5 | 16.7 | 13.6 |
| Kenya | 22.8 | 8.4 | 16.7 | 12.0 | 14.2 | 20.2 | 14.9 |
| Malawi | 0.4 | 4.0 | 5.1 | 7.5 | 7.5 | 6.9 | 6.1 |
| Nigeria | -0.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Senegal | 12.6 | 9.6 | 12.7 | 9.7 | 11.2 | 10.3 | 20.8 |
| Tanzania | 12.2 | 5.1 | 4.6 | 6.0 | 3.0 | 1.2 | 0.9 |

assigned to specific sub-sectors depending on the activities undertaken.[4] The choice of categories was based on the intended focus of the study and to facilitate consistence with the other MADIA donor studies. Compiling these data proved to be a complex and time-consuming task due to missing or conflicting data, especially for the earlier period. Assigning annual project funds to specific categories was a major undertaking and would have been impractical for all of Sub-Saharan Africa.

The shares of AID funds allocated to agriculture in these countries have fluctuated enormously from year-to-year, although there was a trend toward increased emphasis on agriculture during the 1970s. (See Figure 6.)

With total assistance for all six countries combined (Table 3), the average share of AID obligations for agriculture and rural development comes to 60 percent. Within those two sectors, the largest subcategories have been agricultural education and training, and rural infrastructure, each with about 13 percent of the AID total. They are followed by input supply (6.9%) -- which includes both seed multiplication farms and fertilizer import programs -- and livestock (5.4%). Agricultural extension,

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[4] For the period 1978-84 extensive use was made of the "Agriculture and Rural Development: Functional Review FY 1978-84" prepared by AID's Africa Bureau to attribute project totals to different subsectors. In the three West African countries, Senegal, Cameroon, and Nigeria, funds for individual projects are divided among several sub-sectors when they contain different components. These shares are estimated from Project Papers, end-of-project financial data, and are invariant between years. For Kenya, Tanzania, and Malawi, each project was assigned to one subsector.

Figure 6
AID Agricultural Assistance to the Six MADIA Countries, 1963-84, in Constant 1983 Dollars

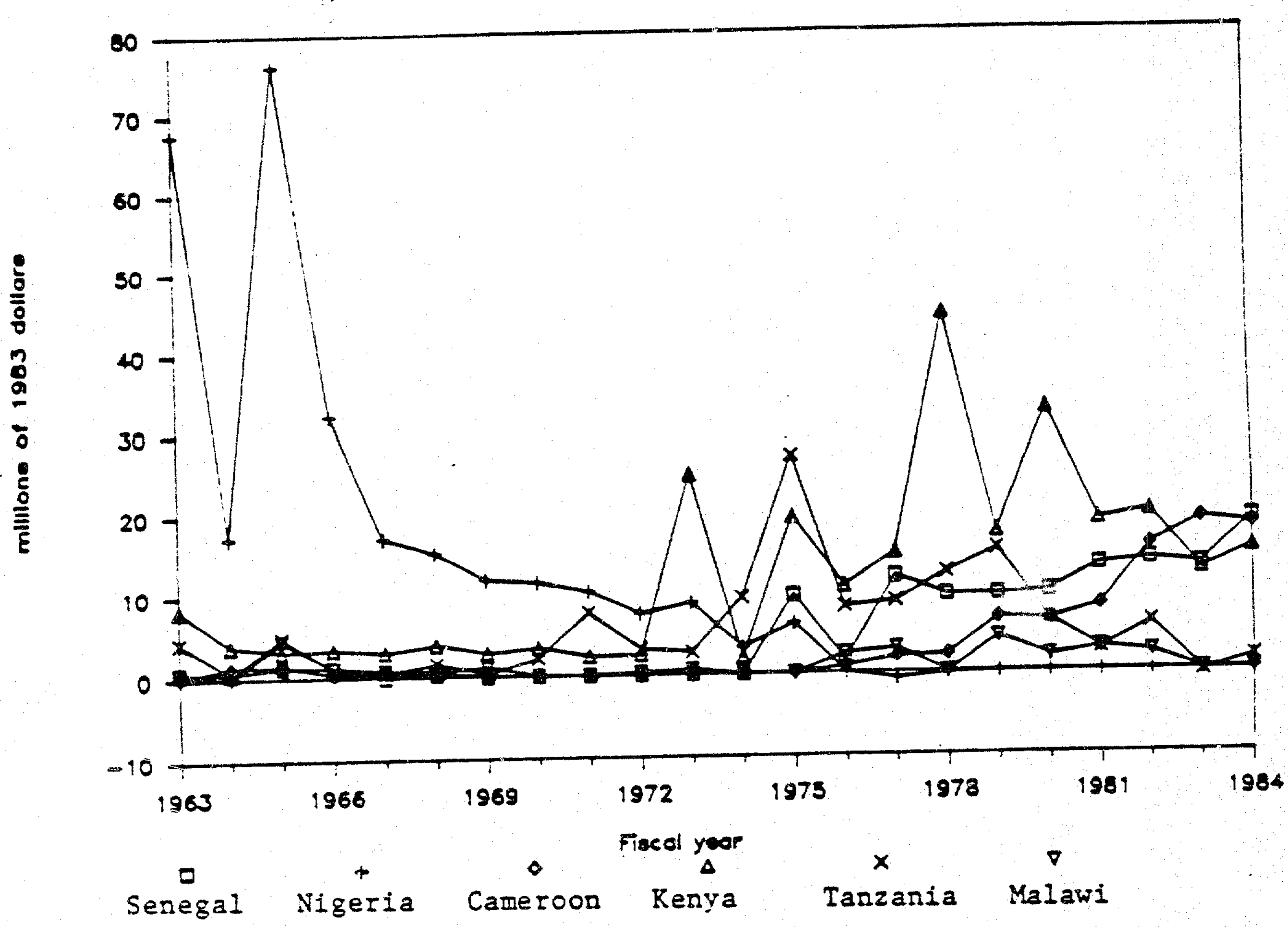


Table 3. Sectoral Breakdown of U.S. Assistance to the MADIA Countries, 1963-84, in thousands of constant 1983 dollars

| Sector and subsector | Total | Percentage | Cameroon | Kenya | Nigeria | Malawi | Senegal | Tanzania |
|---|---|---|---|---|---|---|---|---|
| AID projects and programs | 2,407,690 | 100.0 | 213,839 | 550,093 | 943,020 | 152,221 | 174,311 | 374,205 |
| Agriculture | 905,271 | 37.6 | 85,218 | 269,296 | 284,233 | 25,517 | 114,716 | 126,292 |
| of which: | | | | | | | | |
| Crop production | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage & processing | 21,901 | 0.9 | 0 | 8,070 | 3,981 | 0 | 9,850 | 0 |
| Input supply | 161,589 | 6.7 | 13,488 | 89,603 | 79 | 0 | 15,255 | 43,164 |
| Credit | 11,875 | 0.5 | 1,645 | 5,504 | 3,249 | 0 | 1,477 | 0 |
| Research | 55,954 | 2.3 | 6,199 | 5,801 | 14,341 | 10,050 | 4,697 | 14,866 |
| Extension | 77,375 | 3.2 | 5,528 | 2,604 | 35,972 | 0 | 28,420 | 6,852 |
| Education & training | 311,882 | 13.0 | 35,999 | 80,531 | 135,971 | 15,467 | 11,762 | 32,153 |
| Planning & management | 80,627 | 3.3 | 8,030 | 27,533 | 26,811 | 0 | 15,070 | 5,183 |
| Irrigation | 39,965 | 1.7 | 7,228 | 0 | 23,227 | 0 | 9,510 | 0 |
| Marketing | 3,217 | 0.1 | 0 | 0 | 0 | 0 | 0 | 3,217 |
| Livestock | 127,349 | 5.3 | 8,281 | 43,743 | 38,499 | 0 | 15,969 | 20,857 |
| Forestry | 9,613 | 0.4 | 0 | 5,294 | 0 | 0 | 4,319 | 0 |
| Fisheries | 3,924 | 0.2 | 820 | 613 | 2,104 | 0 | 387 | 0 |
| Rural development | 517,768 | 21.5 | 90,681 | 135,865 | 36,087 | 84,114 | 13,385 | 157,636 |
| of which: | | | | | | | | |
| Infrastructure | 308,735 | 12.8 | 78,419 | 48,420 | 28,344 | 69,128 | 8,602 | 77,823 |
| Health & population | 84,845 | 3.5 | 4,487 | 27,736 | 7,743 | 0 | 8,881 | 36,197 |
| Education | 6,547 | 0.3 | 6,485 | 0 | 0 | 0 | 62 | 0 |
| Water supply | 6,988 | 0.3 | 802 | 0 | 0 | 6,186 | 0 | 0 |
| Community development | 41,748 | 1.7 | 488 | 29,024 | 0 | 3,312 | 40 | 8,885 |
| Other | 985,641 | 40.9 | 37,940 | 144,942 | 623,680 | 42,590 | 46,210 | 90,278 |
| Food aid | 835,984 | | 19,655 | 181,184 | 182,541 | 12,168 | 192,713 | 247,723 |
| Other economic assistance | 411 753 | | 44,163 | 135,071 | 82,878 | 31,984 | 61,545 | 56,112 |
| Total[a] | 3,586,533 | | 277,657 | 835,674 | 1,208,439 | 190,884 | 428,569 | 645,309 |

a. Excludes military assistance.

research, management and planning, and health and population have all received from 2 to 4 percent of the total AID funds.

In several cases, individual countries diverge from this average profile considerably. Agricultural education is not as predominant in Senegal. And rural infrastructure has only been of minor importance for Nigeria and Senegal, but has been the largest subsector for Malawi, Cameroon, and Tanzania. In Kenya, funding levels have been highest for input supply, and in Senegal for agricultural extension where most of the agricultural projects had large extension components (Table 3).

The patterns of emphasis over time for several of these subsectors are shown in Figures 7-12. The high share of total obligations for agricultural education results from the Nigeria program in the 1960s and early 1970s, and from Kenya and Cameroon in the late 1970s (Figure 7). AID's focus in the area of extension was reduced at the end of the 1960s,but then expanded in Senegal and Cameroon after the Sahel Drought.

AID bilateral support for agricultural research is recent; earlier funding in this area was made through regional and centrally funded accounts. Figure 9 indicates that by 1979 four of the five existing missions (the Nigeria mission had closed) expanded their support in this area. The levels, however, have been relatively low. The support for agricultural research in Nigeria in the 1960s, shown in Figure 9, amounts to less than 2 percent of the total AID program during that period. Research has

Figure 7
AID Assistance to Agricultural Education in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars

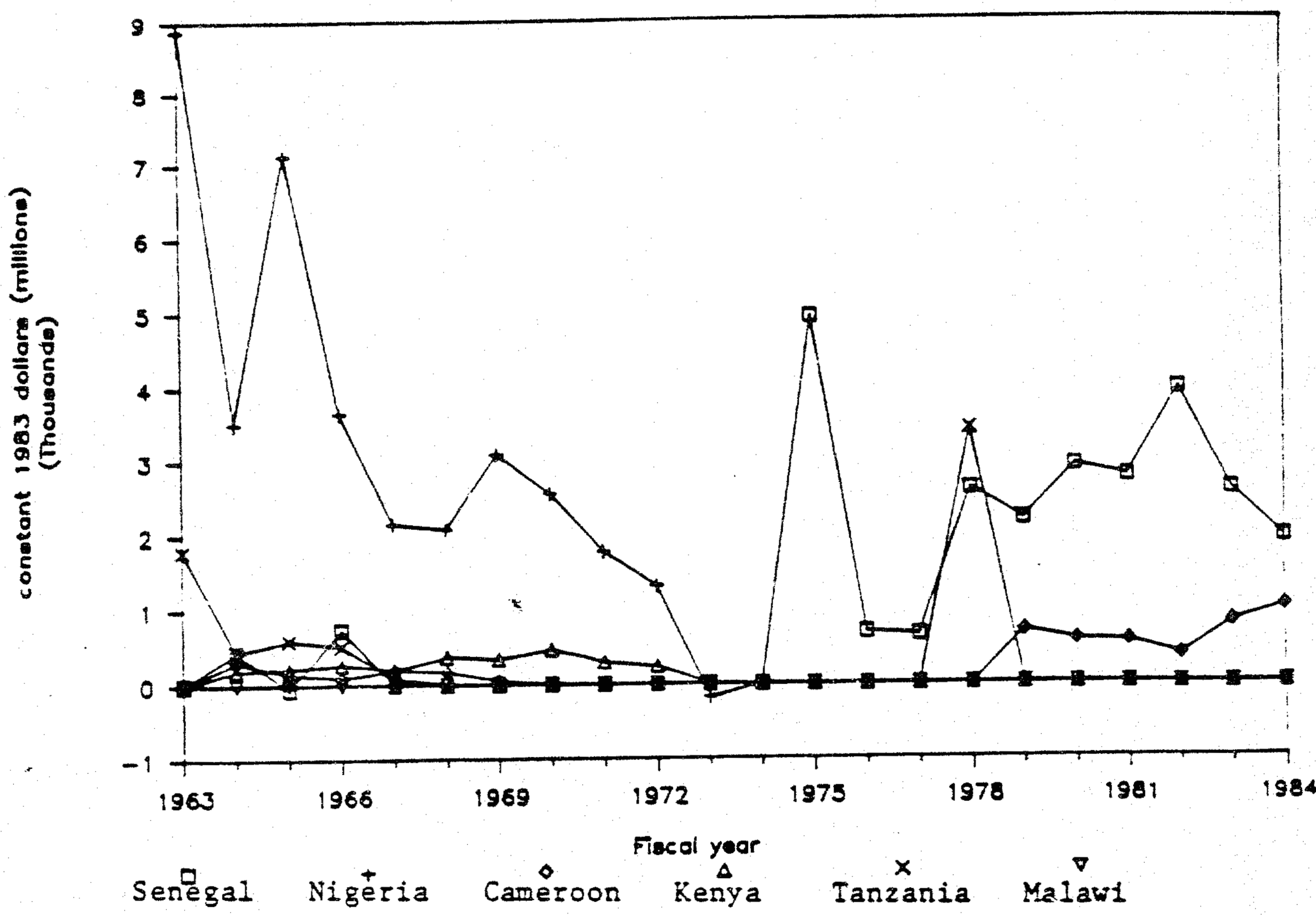
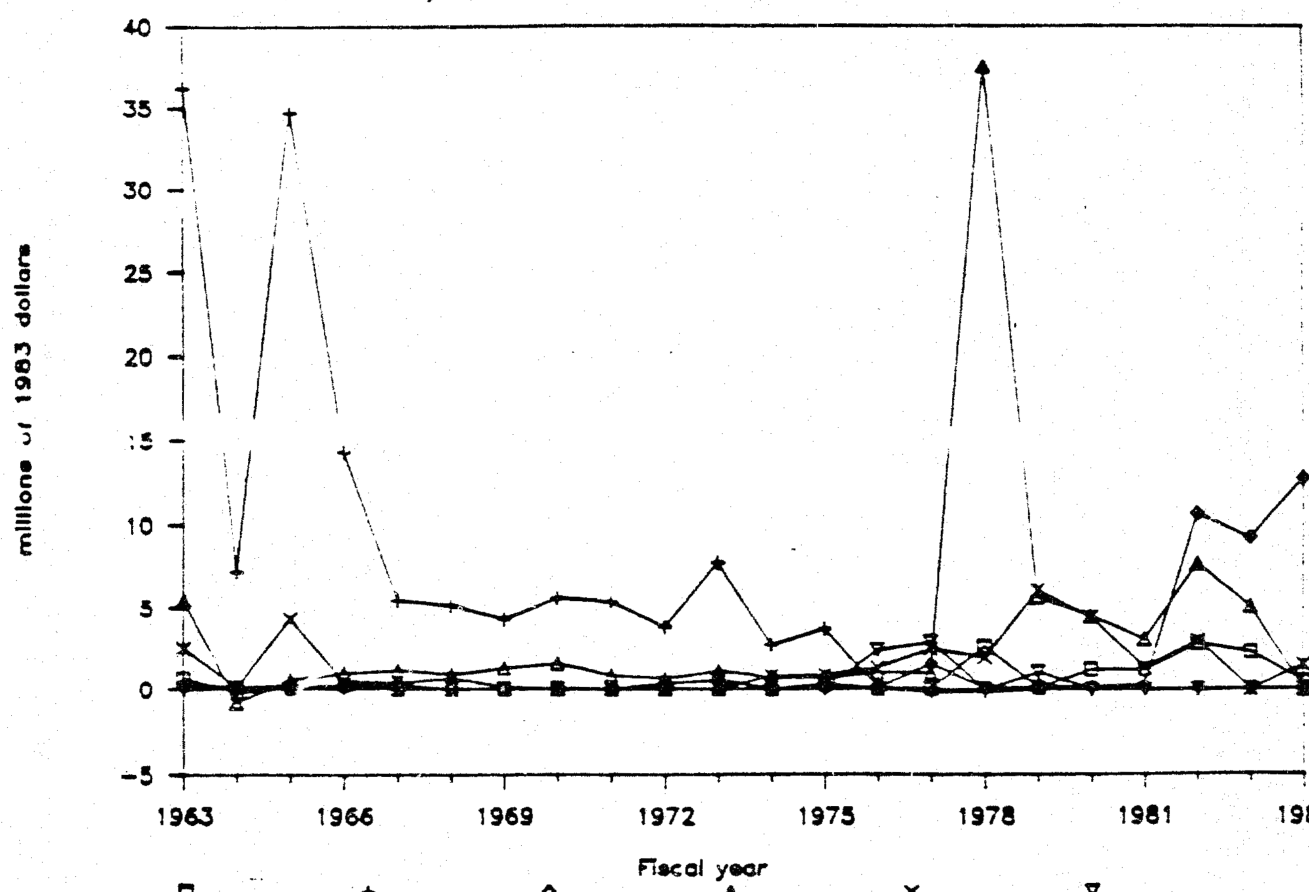



Figure 8
AID Assistance to Agricultural Extension in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars



AID Assistance to Agricultural Research in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars

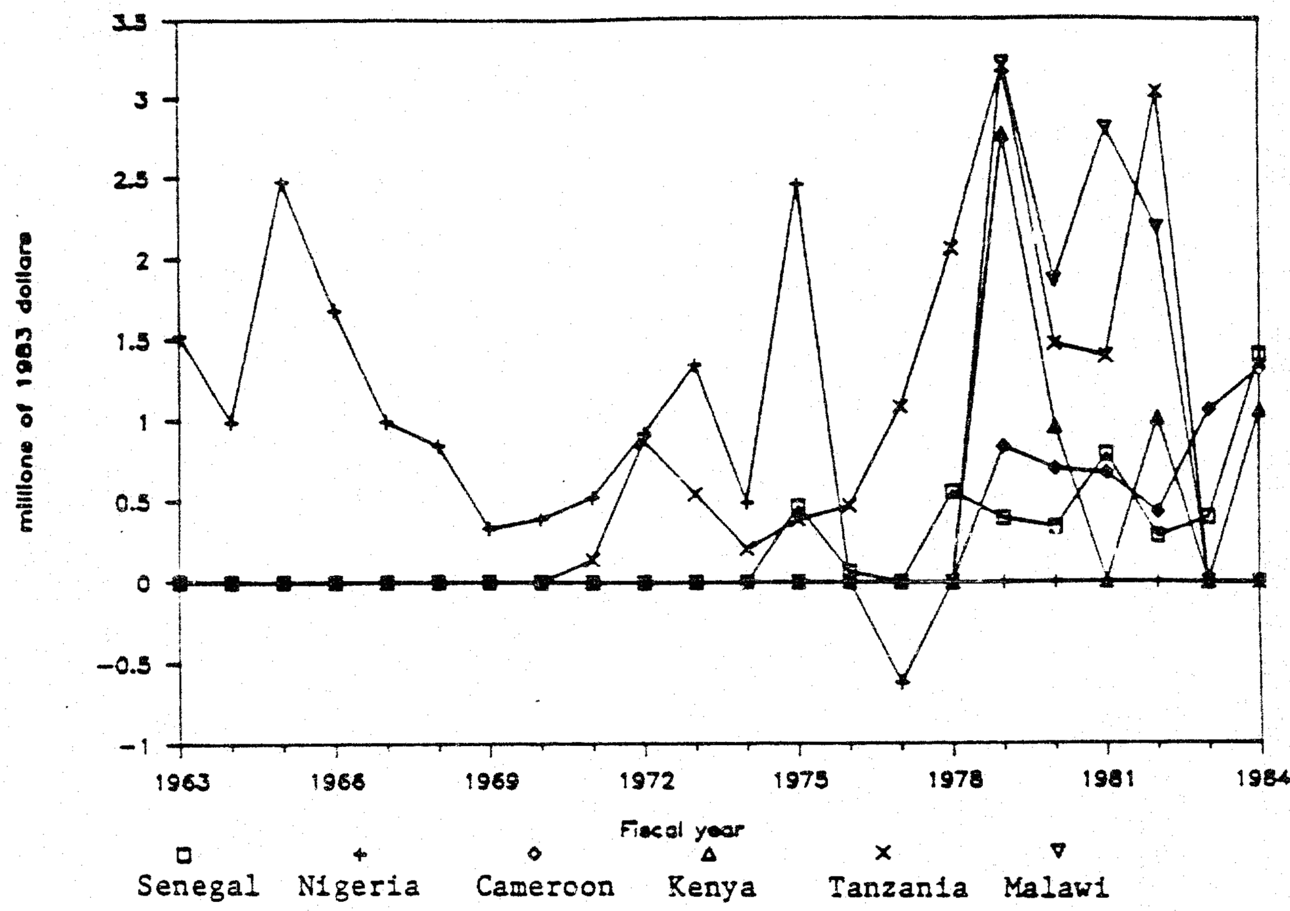
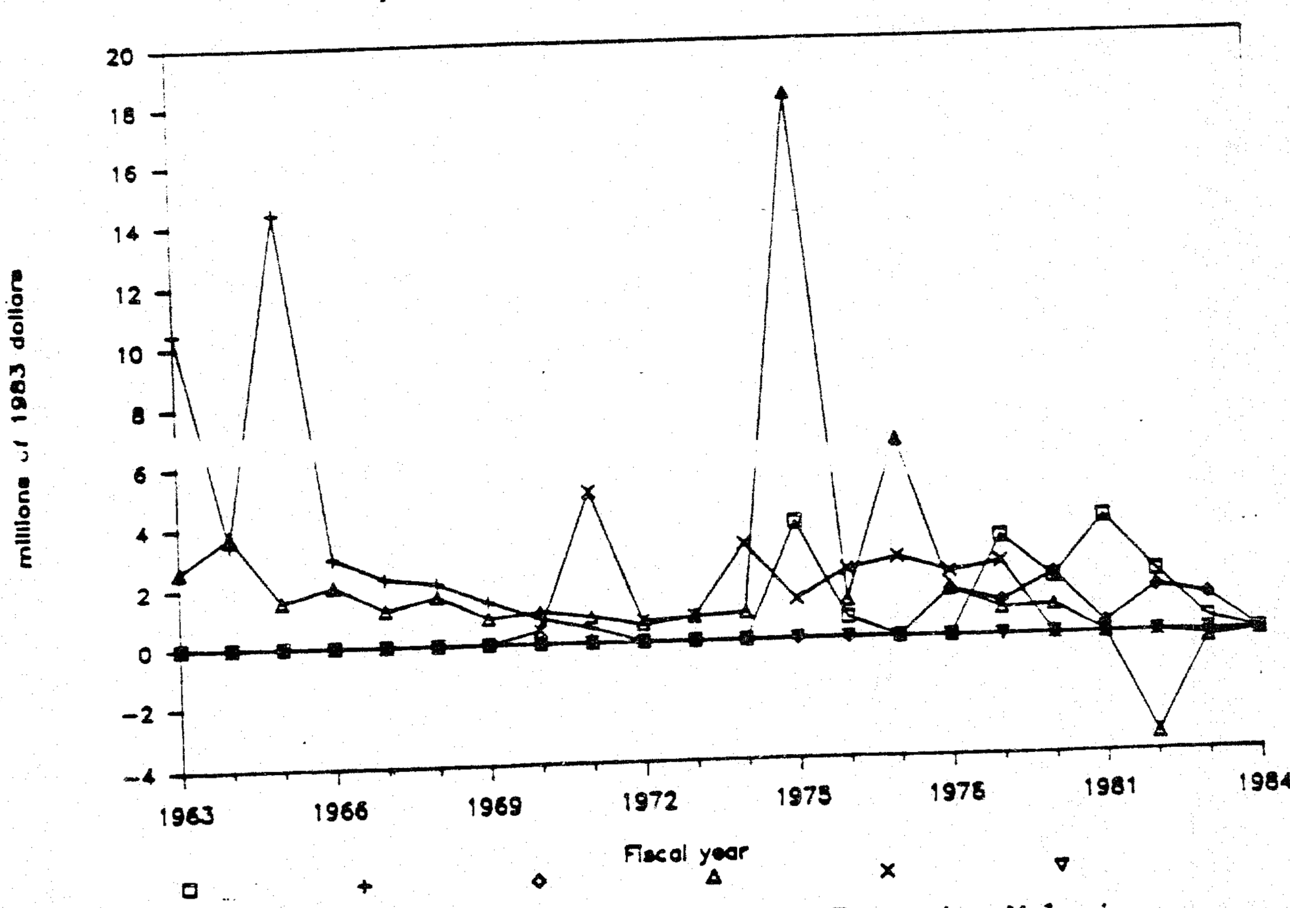



Figure 10
AID Assistance to Livestock in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars



AID Assistance to Agricultural Input Supply in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars

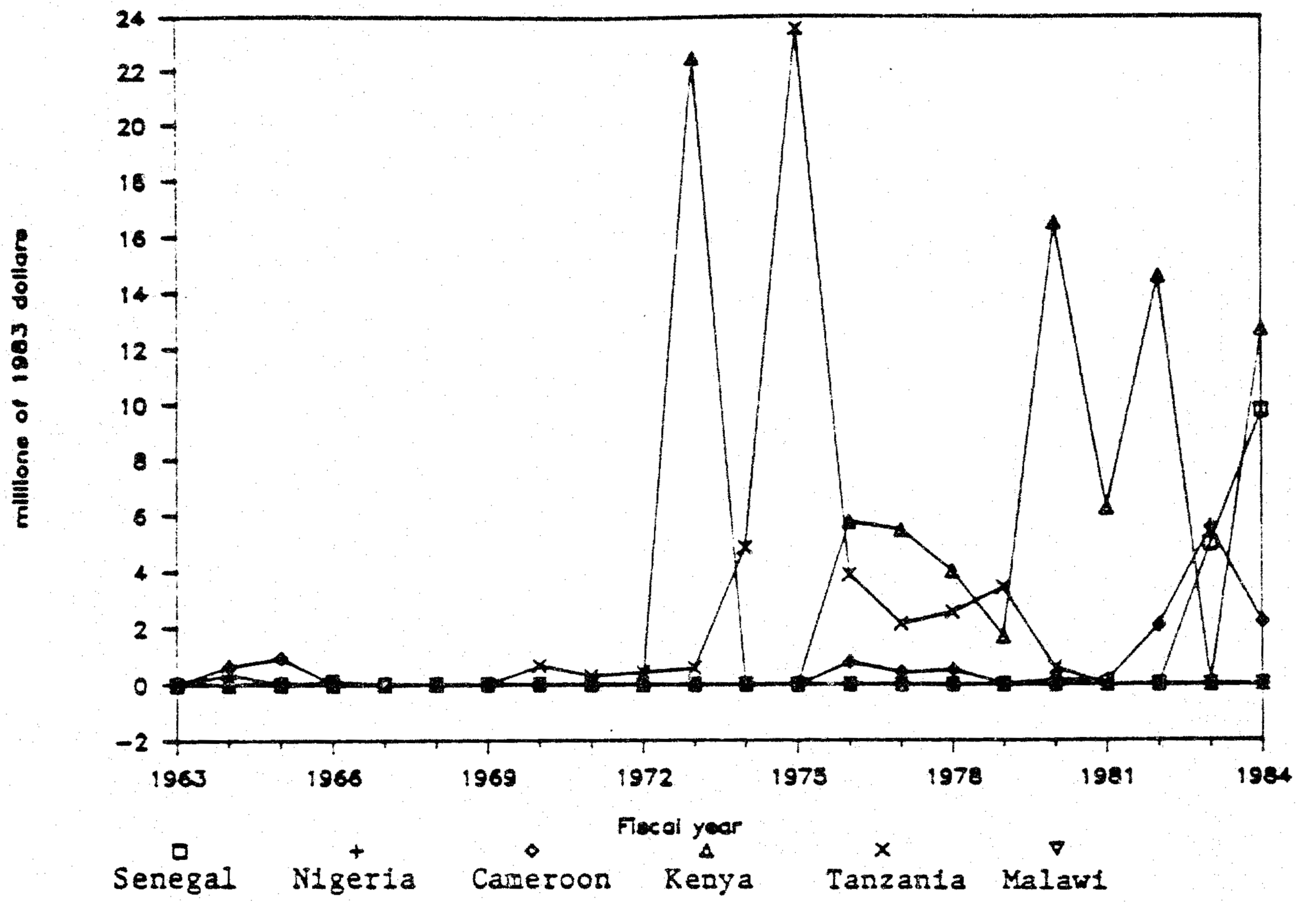
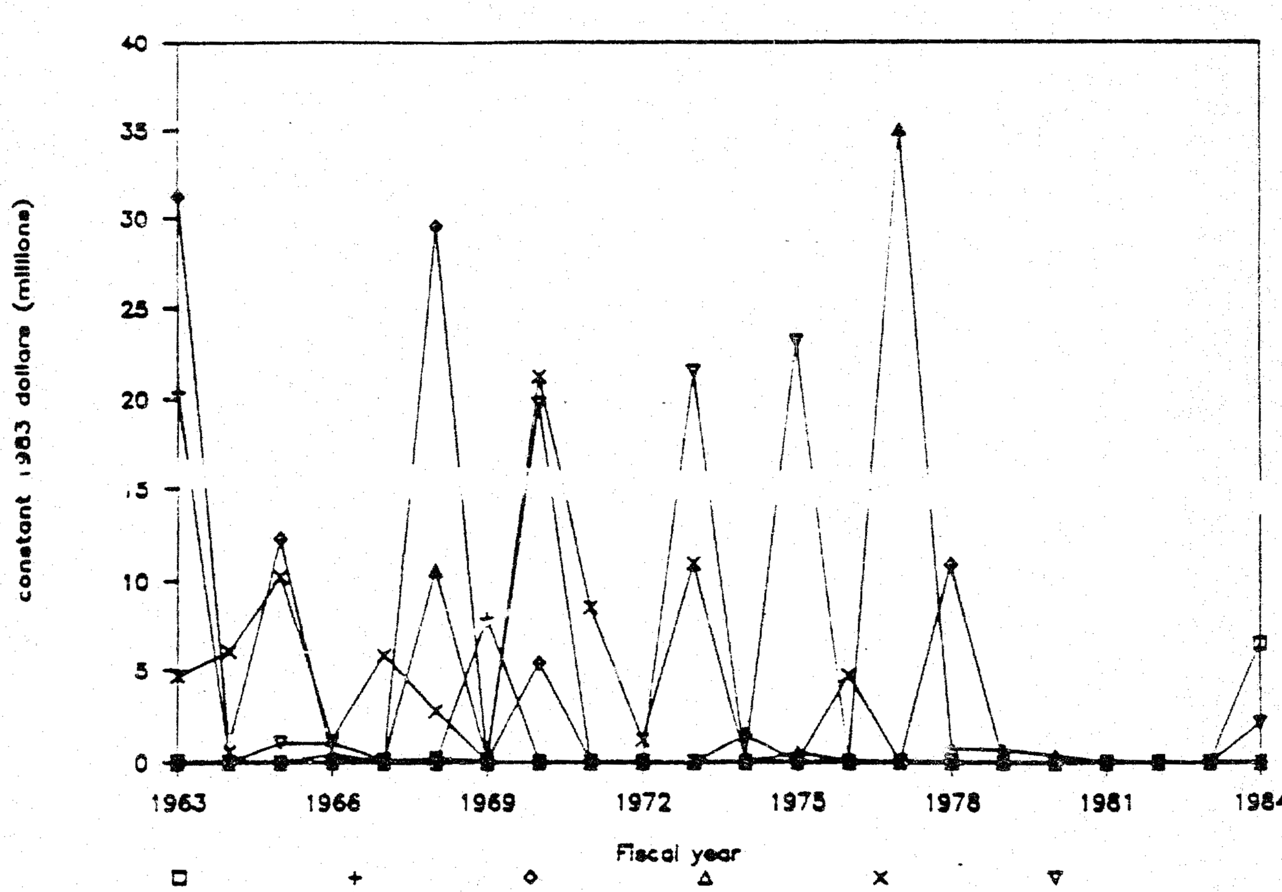



Figure 12
AID Assistance to Rural Infrastructure in the Six MADIA Countries, 1963-84, in Constant 1983 Dollars



been an important part of regional and centrally-funded programs for Africa (as discussed below).

Significant programs for developing livestock were undertaken in Nigeria and Kenya in the 1960s (Figure 10). The Kenya livestock program was continued and expanded in the 1970s, while new programs were introduced in Senegal and Tanzania. Input supply (which includes both production level input support as well as commodity import programs) did not receive much attention from AID until the early 1970s when Kenya and Tanzania received large amounts in this subsector. In the case of Tanzania this was mainly for seed multiplication activities, while in the case of Kenya the funds were for fertilizer import programs (Figure 11).

Investments in rural infrastructure (Figure 12) represent an important part of AID's assistance programs in four of the six countries (Senegal and Nigeria being the exceptions). Development loans and grants for highways, rural roads, and a railroad in Cameroon, were important components of many of AID's country programs in the 1960s and early 1970s. Subsequently, very little has been done in this area, due to the Africa Bureau's avoidance of this kind of aid.

In the 1980s, non-project assistance tied to policy reform issues has become an important part of the AID program in Kenya, Malawi, and Senegal. These have most often taken the form of commodity import programs.

## II. Review of Policies and Constraints on AID

AID is unique among major donors in the extent to which it has assigned its staff to overseas missions and given them broad programming responsibilities. It is generally believed that this arrangement gives the Agency a comparative advantage in working collaboratively with host country counterparts, in developing strategies well suited to local needs, and in implementing projects. As there is currently pressure to reduce the size of missions for fiscal and security reasons, we have tried to assess the strengths and weaknesses of the system.

Documenting the strengths of AID's mission presence is difficult because many of its achievements are the result of informal contacts, friendship, and patient persuasion that are not featured in official reporting documents. Yet there is clear evidence from our country studies that this informal process, reinforced by seminars, conferences, and visits to the United States or to selected developing nations, has significantly altered host country officials' attitudes towards higher agricultural education, research, health, and population.

AID's mission system also allows its field staff a considerable degree of flexibility in marshalling or re-deploying resources in response to changing circumstances, unforseen difficulties, or unexpected opportunities. Indeed it is not in the mission's interest to reveal the degree of its flexibility to a distant and often hostile Congress, or a worried Washington bureaucracy.

Our review also leads us to conclude that the effectiveness of AID's African missions in translating general policies and available resources into a development assistance program addressed to the host country's needs and capacities has been constrained by many pressures. Foremost among these is the pressure to obligate appropriated funds in a timely manner. Other significant constraints give rise to pressures to select and package its activities in accordance with the current policy climate in Washington; to comply with ever-increasing, complex, and time-consuming documentation, contracting, and procurement requirements; to fend off or accommodate numerous claims for support from domestic special interest groups; to accommodate the State Department's political and strategic concerns; and to support the political and developmental agenda of host country leaders. In each of the countries, there are clear examples where these pressures led missions to compromise long-term development goals in order to respond to such pressures. The New Directions policy bias, for example, led to the elimination of support for agricultural higher education in Tanzania during the 1970s and delayed it several years in Cameroon. For similar reasons, major efforts in agricultural research were delayed in Cameroon and Kenya. Combined pressure to obligate funds and to target projects on rural and low income people contributed to poor project design and performance in livestock projects in Kenya, Cameroon, and

Senegal and in other production oriented projects in Senegal (and other Sahelian states). The largest AID project in Senegal, which was based on a number or questionable assumptions and performed poorly, was undertaken to affect rural people directly, and due to State Department pressure to help the host government cope with a separatist movement in the Casamance region.

Mission management is also constrained by the size and skills of its workforce complement. Given the complex time-consuming, and time-driven nature of AID's programming procedures, it is simply not practical to engage in extensive analysis or in exploring alternative projects in more than cursory fashion. The mission is under more pressure to put together a plausible program and to obligate available funds than to consider the opportunity costs of potential options.

In Africa, AID missions' ability to develop and maintain effective program strategies has also been constrained by the need to "plan without facts" and by a loss of mission "memory," exacerbated by mission instability. AID's heavy emphasis on projectizing its assistance, and contracting out all but bureaucratic tasks during the 1970's, severely limited the staff time and skills that could be devoted to analytical tasks. This change over the past 20 years appears also to have led to a situation making it very difficult for AID to recruit highly qualified, technically skilled individuals because it is widely recognized that AID staff must devote nearly all their time to administrative tasks.

In addition, in Africa, AID employees form part of an expatriate community with limited local contacts outside of bureaucratic and technocratic urban middle class groups that are often unaware of the perspectives of the farm population.

These competing and at times conflicting pressures have affected mission strategies in many ways. While there has been a high degree of stability of AID goals and a continuing emphasis on agriculture, food crops, and smallholders throughout the period under review, there has been instability of strategies to achieve these goals and marked discontinuity in project level support for specific institutions and activities.

Whether AID programs and projects are continued or terminated often seems to be related more closely to pressures from Washington than to project performance or changes in host country conditions. This, strikes us as a central difficulty in AID's country strategies. The Washington orientation of the country missions frequently leads them to give inadequate attention to host country institutional capacities and political priorities.

Pressures from Washington also have the effect of discouraging missions from coordinating their activities with other donors. Because of the multiplicity of donors operating in African countries the need for coordination among donors is especially acute--and difficult. In principle, AID's country missions have a comparative advantage in working collaboratively with host country counterparts and in assisting local governments in developing policies and programs well suited to local needs. The constraints summarized above, and some of the factors affecting AID's programming system examined in the next section, have the effect of impairing the ability of AID missions to work collaboratively and constructively with host governments.

Pressures from Washington or the embassy at times vitiate the mutual learning that occurs through discussion with governemnt officials at the operational level. When this happens high level host government leaders may be urged to agree to programs that are not clearly understood or desired by planners and technicians in the implementing ministries. This problem is exacerbated by policy change, fluctuation in funding levels, and windows of opportunity created by the unexpected availablility of funds in particular functional accounts late in the obligation period.

We stress these problems because we believe the AID country missions have the potential to play a very important and constructive role. The fact that the problems are surmountable seems to be demonstrated by the way in which health and population officers in the country missions have been able to work patiently and persistently with host governments and other donors, notably in helping to bring about changes in attitudes hostile to family planning and in collaboratively developing health and population strategies. By focusing on relatively simple measures such as immunization and oral rehydration to improve child survival prospects, the health activities appear to be manageable and complementary to efforts to bring fertility levels into a more manageable balance with drastically reduced mortality levels. In

Malawi and especially in Kenya there also appears to have been significant progress in working collaboratively with the local government and with the World Bank and other donors in developing plans for strengthening agricultural research, including mechanisms for promoting greater involvement in research on the part of agricultural scientists in university faculties of agriculture.

Effectiveness of AID's programming system. AID's experience in Sub-Saharan Africa indicates that effective assistance for agricultural and rural development must be based on technical and analytical skills, familiarity with what has worked in the host country, a comparative perspective, and a patient, persistent, flexible, and error-embracing approach. That latter is important because it requires a good deal of experimenting, groping, and mutual learning to adapt Western technology and organizational forms to Africa's unfamiliar, distinctive, and diverse conditions.

Over the past quarter century AID has contributed greatly to the available pool of appropriate skills by broadening the disciplinary and technical breadth of its work force, and by providing long-term support for relevant sectoral and topical investigation and training at universities and other research centers in the United States and Africa. AID has also developed an evaluation system that has produced valuable long-term assessments of AID's experience and impact as well as providing managers with useful information during project implementation. In addition, the Agency has made substantive progress in developing approaches better suited to African social, economic, and agronomic contexts.

By contrast, changes within AID have made it more difficult for the Agency to adopt a flexible, error-embracing approach and fully capitalize on these favorable developments in implementing its programs.

Ironically, AID's organizational structure, procedures, personnel system, and incentives were, in some respects, better suited to its task in the early years than at present. The Agency was more decentralized with greater delegation of authority to the missions. Contracting and procurement procedures were less restrictive. Programming technical assistance was less time consuming and more flexible as it required little documentation and was reviewed in Washington by a small, technically oriented staff.

Most personnel were employed under a special authority that enabled AID to hire professionals with special skills on a temporary basis. The lines between AID and contract employees were not clear and many AID employees worked closely with host country counterparts. In any case their shorter time horizon encouraged them to innovate, take risks, and to identify with their profession to a degree not characteristic of professional career services.

AID's organization has become far more complex and the demands on country missions impose an orientation toward Washington rather than a host country and its problems. New structures have been created to show compliance with new objectives, regulations, and directives and oversight from the Congress as well as from AID/Washington from the Congress.

Its programming, project design, contracting, and procurement requirements have become vastly more detailed, standardized, and time consuming. More time has to be spent preparing forward looking advocacy documents to obtain funding. Less time can be devoted to project implementation and evaluation. Resource allocation decisions are still shaped by the entrepreneurial efforts of AID's employees, but increasingly these have been focused on coping with AID's burdensome bureaucratic requirements rather than host country needs.

AID's defensive posture also creates incentives to select or ignore information in project evaluation, and to be wary of bringing independent country or technical experts into decision making processes unless they are known to "understand" AID's needs.

The Agency's personnel system has become more bureaucratic, though it remains less hierarchical than that of many other large organizations. Promotions are largely linked to general bureaucratic skills and performance rather than technical skill or ability to work effectively with host country counterparts. The only clear career ladder is in management. Together, AID's internal work incentives and career pattern tend to frustrate its most able and committed employees, and make it difficult for them to maintain their professional skills.

We have drawn attention to these institutional problems because we find that they help to account for many of AID's well recognized problems with project design and implementation, program continuity, and maintaining a balanced focus on the host country's problems and prospects rather than AID's.

## III. Assessing AID's Impact

The approach of this section is motivated by the conviction that efforts to increase effectiveness of AID's future activities wil require better understanding of the types of activities that merit priority as well as improved implementation of those activities that AID decides to support. In brief, there is a need to reach an agreed understanding of what should be done and of what can be done, given the severe financial and manpower constraints faced by local governments and the limited extent to which AID assistance can overcome those constraints.

It is therefore necessary to establish an understanding of the nature and process of development, in order to provide a framework within which AID's activities can be placed and judged. One of the most significant advances in economic understanding of the development process during the past 35 years has been the recognition that increases in conventional inputs of labor, land, and capital frequently account for less than half of increases in national output (Abramovitz, 1966; Kuznets, 1971, p. 73). In virtually all countries that have achieved impressive progress in agricultural development, technological change leading to increases in total factor productivity -- i.e. in output per unit of total inputs -- have been a major source of the growth of agricultural production (Hayami and Ruttan, 1985, chapter 8; Johnston and Kilby, 1975, chapters 5-6).

It is therefore appropriate to derive from this cumulative advance of understanding a set of general propositions to guide our analysis. Clearly, AID's effectiveness in furthering agricultural and rural development depends not only on how well its activities have achieved their specific goals, but also on whether the activities it chose to support constitute critical elements of a well-conceived strategy for agricultural development.

As a point of departure for identifying those crucial elements of the development process, we adopted the view of development as a "generalized process of capital accumulation" in which capital is defined broadly to include not only physical capital (plant and equipment, natural resources) but also, human capital (in the form of skills and professional competence), and social capital (in the form of economically useful knowledge, organizations, and organizational competence). This conceptual framework derived from H.G. Johnson (1969), is elaborated in greater detail in the MADIA report by Johnston et al. (1987). This view of development includes the establishment of efficient social and economic mechanisms for maintaining and increasing large per capita stocks of capital, including policies and institutions that permit and encourage efficient use of that capital. Thus H. Johnson (1969, p. 9) characterizes the process of economic growth

> as a generalized process of capital accumulation, that is, of investment in the acquisition of larger stocks of the various forms of capital; and the condition of being "developed" consists of having accumulated, and having established

efficient social and economic mechanisms for maintaining and increasing large stocks of capital per head in the various forms.

In order to achieve this, a reasonable balance must be achieved among activities that foster growth in these various types of capital, as well as strengthening the various mechanisms that permit efficient use of those forms of capital. AID's emphasis on "policy dialogue," and the current concern of donors and African governments alike with structural reform, are of great importance as preconditions for achieving development based on a balanced and generalized process of capital accumulation.

This view of development does not ignore the importance many give to judging development by welfare and equity criteria. Rather it incorporates the lessons learned from the "basic needs" approach popularized in the mid-1970s. Thus it emphasizes that public investments in education, health, and nutrition can contribute in important ways to increased human welfare and to economic growth (Johnston and Clark, 1982: Ch 4). It is, however, the growth in the economic base that makes it possible to finance those investments. Moreover, it is the type of development strategy, including importantly the pattern of agricultural development, that largely determines the extent to which a country's rural and urban populations participate in increases in productivity and income that enable them to more adequately satsify their basic needs for food and other essential goods and services. This view of the development process is now widely held among development specialists.[5]

This cumulative advance in understanding provides a basis for drawing some important policy conclusions and presenting guidelines about a number of critical elements of a coherent development strategy (See Johnston et al. 1987: chap. IV). With respect to the role and limits of government action, a wealth of experience in many countries has demonstrated the efficiency advantages of decentralized decisionmaking by independent farm units. Quite generally, reliance on markets and prices to allocate most types of goods and services leads to a more efficient outcome than hierarchical social processes. The problems that arise because of imbalances between public sector responsibilities and resources are especially serious in Sub-Saharan Africa where scarcity of the critical resources of administrative capacity, analytical skills, and government revenues is so severe. This underscores the need for the most efficient use of those scarce resources, institutional arrangements that minimize dependence on government involvement, and enlarging the stocks of key human resources. But clearly certain strategic public goods and services can play a crucially

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[5]Definitions of the essential elements of development put forth recently by Krueger (1986) and G.L. Johnson (1986) differ only slightly from the definition presented here. G.G. Johnoson refers to the four driving forces of rural development as "technical change, institutional improvements, human development, and growth in the biological and physical capital base" (p.1). Krueger stresses the importance of promoting "accumulation and efficient use of resources, the development of well-functioning markets, efficient governmental provision of infrastructural services, and institutional development in both the private and public sectors" (p.58) in order to achieve devlopment goals.

important catlytic role. Public support for agricultural research, education, and basic health services, including family planning is crucial. Because of their nature as public goods, private investment in such would be far below the level that is socially desirable. Public support for strategic investments in infrastructure is also essential, and the role of government in macroeconomic management is inescapable.

Much has been learned about the importance of complementarities and efficient timing and sequencing for many investments in physical, human, and social capital to accelerate the expansion of agricultural output. There is also increased awareness of the critical importance of prices of capital, foreign exchange, and farm products and inputs that reflect their scarcity value. These prices influence not only the decisions of farmers and firms, but also the allocative decisions of agricultural administrators and scientists and the rate and bias of technological change (Hayami and Ruttan 1985). Given the multiple growth paths faced by developing countries, the direction of both technical change and institutional change will be influenced by distortions in the economy, such as those that favor a subsector of large and capital-intensive farms.

On the basis of the cumulative progress that has been made in advancing understanding -- that is beginning to include a better understanding of the basic characteristics of African farming systems -- it seems possible to define some general priorities that would now be widely accepted among development specialists.

These propositions should not be taken as a list of what AID should do. As one of many donors, AID's activities will have to be further restricted by a recognition of its limited available resources, and its comparative advantage. The eight propositions are:

(1) Support efforts by host governments to define carefully their development priorities and to coordinate the activities of AID and other donors so that they fit national priorities and do not, in aggregate, exceed a country's financial and administrative capacity for effective implementation.

(2) Invest in human capital formation, including rural schooling and literacy programs, and build institutions of higher learning needed to support efforts to strengthen agricultural research systems, policy research and analysis, and the management of agricultural and rural development.

(3) Assist in the development of effective national agricultural research systems oriented toward the needs of smallholders. Farming Systems Research and other techniques for improving the two-way flow of information between farmers and research workers represent important supplements to formal research but they are clearly not substitutes for on-station and usually commodity-oriented research.

(4) Strengthen the capacity for policy analysis and policy research and establishing information systems that provide the most essential data needed to improve the quality of governmental decisionmaking.

(5) Improve the quality of policy dialogue to encourage policies favorable to effective and sustained agricultural and rural development; constructive dialogue requires better policy research and analysis by AID as well as by host country participants. It is obviously important for macroeconomic policies, and also appears to be important in encouraging and supporting initiatives in the rural nonfarm sector as well as in agriculture.

(6) Promote more accurate understanding of the respective strengths and weaknesses of public and private sector activities so that their roles are defined with a view toward maximizing the relative advantage of each.

(7) Make and facilitate investments to extend and improve a country's rural infrastructure of roads, communications, electric power, and water supplies for farm and household use.

(8) Provide encouragement and support for affordable rural health and family planning programs with emphasis on the interrelated objectives of improving child health and survival prospects and reducing fertility.

Clearly, AID's priorities should take account of activities of other donors as well as the programs of the host government. It is also necessary to determine priorities within as well as among categories. The crucial consideration in all instances is to maintain a sensible balance between objectives and resources so that projects and programs are sustainable. In some instances, that should probably include highly selective commitments by AID to provide assistance over a number of years for meeting recurrent costs in local currency and similarly selective allocations of foreign exchange. In the long run, however, external resources cannot substitute for local resources which once again underscores the importance of a generalized and balanced process of capital accumulation--of physical, human, and social.

AID's Impact

The evidence from the six country studies (Dijkerman 1987a, b, c; Jaeger 1987a, b, c) indicate that the success of AID's activities to promote agricultural and rural development has been mixed. In a number of cases successful implementation, combined with "intermediate indicators" of impact, support the conclusion that these activities have contributed to agricultural and rural development, as broadly defined. In other areas, and in specific cases, AID's efforts have been frustrated by a number of factors.

Various reasons account for the differing degrees of success among different types of activities and between countries. In agricultural education and training, and infrastructure development significant success can be found in the experiences in the six countries. Promising progress in agricultural research has been made, although AID's involvement has been small until relatively recently. As a result, and because of the long gestation period that is characteristic of research, it would be premature to draw conclusions about the success of these activities. Likewise, AID's involvement in non-project assistance -- such as commodity import programs -- to promote policy reform is relatively recent making it difficult to draw strong conclusions. In contrast to education and infrastructure, many of AID's activities in areas such as extension-based production projects, integrated rural development, seed multiplication, and livestock were much less successful. The degree of success, and the reason for it, differs between countries and between projects. A sample of cases from the six countries is sketched below to both provide detail about what AID did and to examine and distinguish between the reasons for differing degrees of success.

Agricultural Education and Training. The clearest examples of AID's success in this area are from Nigeria where institution building efforts were undertaken shortly after independence at three Nigerian universities. The most successful of these was at Ahmadu Bello University where AID contributed to the development of the Faculties of Agriculture and Veterinary Medicine, the Extension and Research Liaison Service, and provided some support for the long-established Institute for Agricultural Research. The critical importance of sustained support over a long period of time is made clear in this case. AID involvement at ABU lasted for seventeen years. Nevertheless, there seems to be a consensus that AID's support for ABU was terminated prematurely and too abruptly. These efforts were successful, too, because they occurred at a time when Nigeria's government and people were convinced of the essential importance of education. Thus, the timing of these particular investments was appropriate not only in terms of the sequencing of investments in a critical element of a well-conceived strategy for agricultural development, but in terms of having the support of the host government that was genuinely commited to these efforts.

Moreover, AID's mode of operation in this early period enabled qualified and enthusiastic experts to play a major role in planning as well as implementing activities and provided for more continuing and flexible support than has generally been the case in subsequent periods.

Judgments concerning the impact on agricultural development of those institution building endeavors is difficult. There is no doubt that an indigenous capacity to train agricultural scientists and administrators is a necessary requirement for satisfactory progress in agricultural and rural development. It seems equally clear that the AID-funded assistance by the U.S. land grant universities made significant contributions to the creation of Nigerian institutions with the capacity to provide that training.

AID has supported agricultural colleges in Kenya, Tanzania, and Malawi with some success, but the support has been quite sporadic. And major efforts to establish an agricultural university at Dschang in Cameroon are still in the early stages. The sporadic nature of the support in Kenya, Malawi, and especially in Tanzania was partly due to disruptive policy shifts For example, as a result of the New Directions legislation, the AID mission in Tanzania rejected a request by the government to support advanced degree training in agriculture, noting that Washington preferred projects that "benefit the poor directly in the shortest amount of time possible" (quoted in Dijkerman 1987c).

In addition to institution building, AID has supported agricultural education through long-term training. AID has funded training in the U.S. under many projects related to livestock, seed multiplication, fisheries, statistics, health, and population. A number of centrally funded activities have also been important. Since the early 1960s university training has been funded by AID through programs like the African Graduate Fellowship Program (AFGRAD), the African Scholarship Program for American Universities (ASPAU), and InterAfrican Fellowship Program (INTERAF). Between 1956 and 1984 an estimated 1,681 Tanzanians completed degree and non-degree training and 1,839 participants from Kenya received training in the U.S.. In Cameroon, 575 participants were trained in the U.S. between 1961 and 1982.

Follow-up studies on trainees from AFGRAD and other programs indicate a high degree of success, with 87 percent of the alumni from these programs living and working in Africa. Educational and research institutions have employed about half of these graduates, one-fourth have worked in governmental and parastatal organizations. Roughly one-third of these participants have studied agriculture or agricultural economics. Most importantly the survey concludes that "over half of the older alumni now have major responsibility for policy formulation and decisionmaking in their respective places of employment" (AID 1984, p.22).

Through the International Agricultural Research Centers (IARCs), AID contributes to a wide range of agriculturally-related educational programs. IITA in Nigeria alone provided training for 2,860 participants from 42 African countries between 1970 and 1984.

Rural Infrastructure. AID's support for rural infrastructure development in Africa has been primarily in transportation. During the 1960s AID participated in a multi-donor project for major extensions of the TransCameroon railway, as well as Farm to Market Roads and Highway Development projects in that country. In Tanzania AID also funded major portions of the TANZAM highway connecting Zambia with the port of Dar es Salaam. In Malawi AID's Support for road construction accounted for 47 percent of all AID projects and program assistance to Malawi between 1963 and 1984.

It can reasonably be asserted that AID's investments in improving transportation networks have had a significant long-term impact improving market access, reducing costs, and enhancing and facilitating the integration of rural economies. These activities from the 1960s appear to have been implemented with relatively few difficulties, whereas more recent infrastructure projects such as construction related to the agricultural university in Cameroon have been much more problematic, especially due to increasingly complex requirements in the contract bidding and awarding procedures withing AID. Provided that maintainence has been supplied -- and in many of these cases it has -- these investments appear to have had a lasting impact, in part because they are durable investments unaffected by changes in governments, policies, or international prices, and also because they are relatively straightforward to implement, not requiring extensive and prolonged supervision and management. Furthermore, they are clearly investments in Africa's physical capital, and a prerequisite to growth of market-oriented agricultural economies.

There is no reason to believe, however, tnat the U.S. has a comparative advantage any longer in providing assistance for rural infrastructure projects. It is worth noting, however, that investments in road construction are likely to be reasonably effective uses of AID funding on occasions when it becomes politically attractive to act quickly to provide increased assistance to a country, as appears to have been the case with Tanzania at the time that the U.S. provided substantial assistance for the TANZAM road project.

Agricultural Research. AID has supported agricultural research in Africa, but the share of assistance devoted to it has been small (2.3 percent in cur six countries), and many of these have been short-term, fargmented efforts that could not be expected to make a significant contribution to the necessarily long-term task of building a national capability for research.

In Kenya, AID helped to establish a comprehensive breeding improvement program at Kitale. However, a lack of continuity in support for maize research and a number of shifts in priorities have reduced the impact of AID's assistance for maize research in Kenya. In Tanzania similar problems have limited the impact of AID's efforts in the 1970s. In addition, there were design and staffing problems and an unrealistic time-frame for achieving project goals.

Two factors appear to be most important in accounting for AID's relative neglect of research. First has been the persistent tendency toward "technological optimism" that has accounted for an "extension bias" in Africa and other regions as well. Second, the New Directions emphasis on trying to find ways of directly satisfying the basic needs of the poor diverted attention away from longer term institution building efforts. The contribution of research was regarded as too slow, and there was a stubborn tendency to assume that technical solutions were available and could be readily transferred.

The reasons for lack of success in research programs are also numerous. The difficult and diverse physical environment for agriculture is one obvious factor. A number of assumptions implicit in American and Asian models of food crop research were misleading. The relative abundance of land in sub-Saharan Africa led to a common view that a direct shift from hand-hoes to tractors would make a major contribution to increasing agricultural productivity and output, ignoring the cash income/purchasing power constraint and other factors that usually make it uneconomic to shift directly to tractor-based technologies (Johnston et al. 1987:chapter 4). Following the success of the green revolution in Asia, there was a tendency to focus too exclusively on improved seed-fertilizer combinations and other yield-increasing innovations, overlooking the fact that such innovations are not attractive to farmers when land still has little scarcity value. More generally, there was little understanding of the complex farming systems evolved by African farmers. As a result, many of the innovations recommended by research scientists and extension staff were neither feasible nor profitable given the labor and cash income constraints that farmers faced.

In spite of the formidable difficulties, the current situation is rather encouraging and indicaties that AID has learned much from experience. In recent years AID/Washington has shown increased interest in supporting agricultural research in Sub-Saharan Africa. This interest is reflected in projects in Malawi and Cameroon where careful design, and learning from earlier experiences, have resulted in current projects that are being effectively implemented, have longer-term, realistic goals, and show considerable promise. These have been operating only in the past few years making discussions of their success premature. AID's Africa Bureau has produced a new strategy paper for agricultural research that is in many ways exemplary (AID 1985). It incorporates lessons from earlier failures, is well attuned to the nneds and capacities of various nations, and provides a coherent "blue print" for action.

Extension-based Production Acitivities. Over the past twenty-five years AID has allocated a substantial portion of its funds in Africa for activities intended to affect agricultural production directly. These projects have often been based on "technology transfers" or "innovation aid," and have generally relied on extension workers to transmit information to farmers about specific farming methods or use of inputs that were believed to result in increased productivity and, as a result, higher incomes. During the mid- to late 1970s, more attention was placed on these kinds of activities as a result of the New Directions legislation directing AID to focus its attention on the rural poor, and in response to the Sahel drought these kinds of activities were believed to offer a solution to the food shortages of semi-arid Africa.

This rubric includes crop-specific production project, components of integrated rural development projects, livestock project (discussed separately below), irrigation projects, and rural training activities. The outcome of these efforts from the six countries studied provides a convincingly consistent pattern of projects that were based on presumed or exaggerated assumptions about the benefits and appropriateness of the technological solution, and nearly all of these efforts failed to achieve their objectives.

Examples include two Cereals projects in Senegal which set out to increase millet yields 50 percent by promoting fertilizer use, early planting, and other agronomic techniques. In Cameroon, the Small Farm Family Training Centers project was designed with the belief that a year of training in the use of agronomic techniques and animal traction would permit farmers to return to their villages and increase their income by 50 percent. In Nigeria, the Maize and Rice Production project epitomized "techonological optimism. The project set out first to devise "improved packages" and to promote their adoption by farmers, with almost no specific information on what was available or what might be apprograte. In Tanzania, a project was undertaken that would use the MATIs (Ministry of Agriculture Training Institutes) and establish rural training centers for farmers with the belief that by offering short courses to a sample of farmers, those farmers could apply the knowledge directly and increase production and incomes, but also that their would be an important demonstration effect for their neighbors which would reduce the need for large extension staffs.

The consistent outcomes of these kinds of activities lead to several conclusions. First, that determining the appropriateness of technologies ex ante for the African context is virtually impossible; the direct transfer of technologies to Africa is unlikely to succeed for several reasons. Among them is that agricultural research in much of the world is focused on increasing yields because land is the scarce factor of production. In much of Africa, however, labor, not land, is still the scarch factor of production and farmers will be unwilling to adopt technologies which consume additional labor in order to raise production per unit of land area.

Second, these types of activities, which are prone to exaggerated assumptions and technological optimism, persist because of one of AID's weaknesses, that is, the inabilitv to enforce realism and objectivity in the analyses of the project papers and evaluations that determine whether such activities are approved or continued.

Livestock. This discussion of AID experience with livestock projects is directed at identifying why the Agency's programs in pastoral livestock development have performed so poorly. The differing objectives of African governments, AID, and pastoralist have been one major source of difficulty. Governments tend to view pastoral nomads as a nuisance and would generally prefer that they settle and take up cultivation. Weak government commitment to livestock projects has been manifested in a lack of support for recurrent costs, diversion of equipment, and strained relations between host country officials and AID contractors.

AID's livestock planners have viewed pastoralist as backward and inefficient. With the exception of projects in Niger and Senegal, AID-funded livestock projects have all been based on the direct application of a range management model derived from successful American experience in regulating the use of open range by competitive, commercially oriented livestock producers. This range management model was given theoretical backing by the untested belief that African pastoralist caused serious degradation through overgrazing because their herding practices exemplified "the tragedy of the commons."

This uncritical acceptance of the American range management model in the design of pastoral projects led to almost total neglect of collecting site specific data on trends in range condition, their relationship to climate cycles and stocking levels, and on current livestock and range management practices. It was simply assumed that degradation was occurring everywhere and that it would be possible to increase off-take by improving herder practices, altering herd composition, and establishing and enforcing an appropriate carrying capacity for the range.

Input Supply. This sub-sector ranks next to agricultural education and training in AID expenditures, accounting for 6.9% of project and program outlays in the six countries. The largest expenditures in this category have been for commodity import programs for fertilizer that are better discussed later in conjunction with non-project aid, policy reform, and policy dialogue. Other than commodity import programs for fertilizer, the principal expenditures have been for seed multiplication projects in Tanzania and Cameroon.

Seed multiplication and distribution is a highly specialized activity, and our conclusions are tentative because of our lack of expertise in this area. However, it seems that seed specialists have a tendency to assume that a seed multiplication program is an essential component of an agricultural development strategy with little attention to the economic returns from investing in that activity as compared to other activities that might merit a higher priority. It therefore seems to us that the AID outlays for seed multiplication in Tanzania and Cameroon were out of proportion to other more fundamental elements of their agricultural development strategies. In particular, those outlays appear to have been large relative to the modest level of investment in agricultural research. This is also another example of the "technological optimism" mentioned earlier because a high social rate of return is dependent on the availability of varieties to be multiplied that have a substantial yield advantage over local varieties, and we have not found convincing evidence that such varieties are available. Cotton and maize may be exceptions to our conclusion, and a new sorghum variety in northern Cameroon seems promising. But we are inclined to believe that in both countries investments in seed multiplication were premature.

Planning, Management, and Statistics. This rather mixed category ranked fifth in total outlays for agricultural assistance, being only a little less important than agricultural extension. All of the study countries except Malawi had significant projects under this rubric, but there were large differences in the nature and timing of the projects.

In Tanzania there was considerable support for agricultural analysis and planning activities in the second half of the 1960s and again in the early 1980s (Dijkerman 1986c:85-92). During the earlier period an Agricultural Production Surveys Project led to the commissioning of studies on agricultural marketing, seed multiplication and distribution, livestock and range management, land consolidation, smallholder tea development, and agricultural education and credit. During the early 1980s AID's Tanzania Mission again initiated some valuable analysis and planning activities. A special policy unit known as the Office for Policy Analysis was established, but the idea that the government's policies were partially to blame for the country's agricultural problems was controversial, and because of the sensitive nature of these issues the mission's approach was to undertake analyses, commission studies by consultants, and support the efforts of Tanzanian scholars and organizations.

An alternative approach to strengthening the agricultural management and planning capacity of an African government was taken up by the Kenya Rural Planning project implemented by the Harvard Institute for International Development (HIID). In addition to the advisory role of the technical assistanc team, HIID appears to have contributed to the ability of the Ministry to carry out its budget management responsibilities efficiently due to the introduction of microcomputers.

In Cameroon, a major responsibility of the Agricultural Management and Planning project has been to assist the Agriculture and Planning ministries in carrying out an agricultural census for the entire country. The census was carried out in 1984 with excellent support from national, regional, and local governments, and a number of useful studies have been carried out, and good progress has been made in institutionalizing a capacity for economic analysis and for collection, processing, and analysis of statistical data (Jaeger 1987).

While AID's success in this area has been mixed, probably the most glaring deficiency in most African countries is the lack of reasonably accurate statistics on crop areas, yields, and production. Local governments and donors alike are bedeviled by the lack of factual information about agricultural economies of Sub-Saharan Africa. The value of these kinds of projects is difficult to measure but undeniable. Strengthening the ability of African governments to plan and monitor their own agricultural development is essential and it can be a costly error to base agricultural planning on inaccurate data or poor analysis.

Integrated rural development and area development projects. AID-funded projects of this nature have been relatively unimportant in the MADIA countries, except for Senegal and Tanzania. They have, however, been of major importance in the assistance programs of the World Bank and several other donors. A $24 million Casamance Regional Development Project in Senegal and a $15 million Arusha Regional Planning and Village Development Project in Tanzania were the two main projects of this nature reviewed in our country studies. The Tanzania project had some special design features that gave rise to considerable friction between the AID mission and the contractor. Moreover, the general economic decline in Tanzania makes it especially difficult to assess the project's potential contribution to regional development.

In the case of the Casamance project in Senegal there is now general agreement, resulting from a learning process within the mission as well as from evaluations and audits, that the project was based on overly optimistic assumptions, that it ignored existing services, and failed to take account of structural weaknesses and inappropriate functions of the parastatal organizations it sought to strengthen. There is much to be said for an integrated perspective on agricultural and rural development, but the Casamance project seems to provide an additional piece of evidence that the effort to administratively integrate a variety of rural development activities in a single project exceeds the administrative capacity of the host country. It also seems clear that AID does not have the institutional capacity to implement effectively projects of that nature.

Nonproject Assistance, Policy Reform, and Policy Dialogue. In many countries of Sub-Saharan Africa structural reforms to improve the policy environment appear to be virtually a precondition for the success of programs or projects to increase productivity by investments in physical, human, or social capital. The conceptual framework outlined above includes the important notions of "induced innovation" and "induced institutional change." Arbitrary and discretionary interventions, especially those that led to underpricing of capital and foreign exchange and administrative rationing of those scarce resources to a favored subsector of atypically large and capital-intensive farm units, tend to induce a dualistic pattern of agricultural development. Furthermore, price distortions and poor macroeconomic management, parastatal controls of marketing systems, and overstaffed government agencies result in ineffecient use of some of Africa's scarcest resources and inhibit private initiative.

Policy dialogue and structural reform programs have become the focal point of AID's programs in a number of African countries in the 1980s -- including four of the six examined here -- as attention has shifted away from the basic human needs mandate of the 1970s. In Kenya, owing to strong political interst related to

Kenya's permitting U.S. naval vessels to use the port of Mombassa, economic assistance to Kenya has grown considerably, including a $117 million Structural Adjustment Program in 1983 with a $30 million Economic Support Fund grant for the first year of a three year program. The conditionality of this program was aimed at overcoming structural weaknesses in the Kenyan economy: economic stabilization, reduction of trade barriers, institutional reforms related to budgeting and parastatals, population policy and liberalization of fertilizer distribution and grain marketing. The initial $30 million grant appears to have contributed to Kenya's macroeconomic stabilization, in the area of agricultural policy, however, little was achieved in promoting liberalization of fertilizer distributionand marketing of maize and other staple food (Berg et al. 1985).

Liberalization of fertilizer pricing and distribution has been a common theme of AID policy reform initiatives; they have been initiated to varying degrees in Malawi, Senegal, and Cameroon as well. In Malawi and Cameroon this has included a proposed shift to high analysis fertilizer in addition to reduction of fertilizer subsidies. The change poses a difficult challenge for extension staff, however, because of the need to train farmers in the more demanding techniques of applying high analysis fertilizers.

In Senegal, a severe financial and economic crisis left the government little choice but to accept the aid and conditions of the IMF, World Bank, France, and AID. Since the early 1980s these efforts have resulted in progress toward liberalizing agricultural marketing and pricing, credit restructuring, and reducing government debt.

From our review of AID's involvement in nonproject assistance for policy reform, we draw two conclusions. First, there is a need to modify AID's approach to policy dialogue. There has been too much emphasis on efforts to use leverage that is really lecturing to government officials with a view to ensuring tha the right decisions are made. There is a need for greater emphasis on a policy dialogue <u>process</u> that enhances a country's capacity for good policy research and policy analysis to improve decisionmaking by a country's own policymakers.

Second, it also needs to be emphasized that policy reform represents a transitional strategy. Once price distortions and other major policy problems are resolved, the gains to be realized from further reforms will be limited, as will the willingness of African countries to adhere to donor's conditionality when major policy problems are resolved and their need for additional balance of payments support are less severely felt. It will be a pity if the present enthusiasm for policy dialogue and policy reform diverts attention from the continuing need for development as "a generalized process of capital accumulation" (Johnston et al. 1987).

## IV. CONCLUSIONS AND RECOMMENDATIONS

The impact of AID's assistance programs examined in this study has been severely limited by distinctive conditions in Africa, by the Agency's lack of a domestic constituency, and by certain organizational and procedural constraints.

All of the countries have extensive areas characterized by harsh physical conditions, and the agro-climatic environments are exceptionally diverse. Their agro-economic systems are locally variable, complex, grounded in unfamiliar social institutions, and often oriented to risk aversion more than to optimizing returns. Moreover, the overwhelming importance of rainfed agriculture and the high cost of investments to expand the irrigated area mean that agricultural research programs face special difficulties in generating innovations adapted to diverse and changing environments. In many areas rainfall is inadequate and unreliable whereas in other areas it is so heavy that it leads to rapid leaching of soil nutrients. Progressive degradation of soils resulting from shortening of fallow periods and destruction of trees and shrubs is generally associated with a transition from abundance to scarcity of agricultural land, a common phenomenon that adds to the challenge confronting agricultural research systems.

At independence, which had barely been anticipated when Ghana was granted independence in 1957, transport systems were poorly developed; education and social services rudimentary; trained manpower scarce; region-specific research, data collection, analysis, and planning capacity virtually non-existent; manufacturing very limited; and (with two or three exceptions) their economies were narrowly dependent on the export of primary agricultural products. Few Africans had experience in central government institutions. Attitudes towards professionalism and accountability were weakly institutionalized. Leaders were confronted with arbitrary boundaries, a number of ethnic constituencies, and no precedent for legitimate political activity within the newly created nation-states.

Encouraged by the promise of rapid development, the optimism of foreign development experts, and the unbounded expectations of their constituents, all in greater or lesser degree, succumbed to the attractions of centralized economic planning and control, accepted development assistance uncritically, rapidly expanded governmental organizations, parastatals, project authorities, and government payrolls, and established a troublesome pattern of ethnic patronage in order to maintain political balance.[6]

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[6]. Political instability, which is often cited as an impediment to economic development in Africa, has not characterized the countries in this study, except in the case of Nigeria. It is worth recalling that the growth of government payrolls posed an especially serious problem because, in the name of non-discrimination, the principle was adopted at the end of the colonial period that African civil servants should receive the same salaries as their European predecessors. The real value of those salaries has now been reduced substantially by inflation that has not been matched by salary increases, but that legacy contributed significantly to the exceptionally large gap between incomes in the "modern sector" and the incomes earned by rural households. And as noted in Ch. IV, in the 1960s and 1970s donors encouraged the proliferation of parastatals and project authorities.

Another constraint on the effectiveness of AID programs in all African nations is the fact that Africa has had lower priority in United States foreign policy than any other region. This has been reflected in low absolute levels of assistance, a lack of continuity in country focus, program size, and shifts in emphasis between bilateral and regional assistance.

The absence of a clear political constituency for long-term foreign assistance has left AID vulnerable to faddish policy shifts, to pressures from an increasing variety of special interest groups advocating their objectives or seeking contracts, to micro-management by individual Congressmen, and to constant, not necessarily well-informed criticism. While these problems have affected AID programs in other regions as well, it appears that they have been less constraining because programs in Asia and Latin America began earlier and because host governments, with longer traditions of education and greater administrative capacity, were better able to draw upon AID assistance selectively and hence incorporate it into their plans. Furthermore, coordinating U.S. aid with assistance from other donors was less difficult because of the dominant role of the U.S. alone or together with the World Bank.

AID's effectiveness in Africa has also been limited by a lack of consensus on the critical elements of strategies for agricultural development, persistent over-optimism concerning the appropriateness of the technologies and institutions being transferred, and factors that hampered learning from experience.

The Agency's organization and procedures and weaknesses in institutional incentives have exacerbated these problems.

Effectiveness of AID Procedures

The evidence from AID's activities in six African countries reinforces the importance of focusing on those "critical elements of a well-conceived agricultural development strategy" that will result in a balanced increase in the per capital availability of material and human capital. It is more than coincidence that those activities which were successful and appear to have contributed to agricultural development are also activities that fit our analytical framework and constitute critical elements of a well-conceived development strategy. These include agricultural education and training, rural infrastructure, the creation of economically useful knowledge through agricultural management and planning activities including collection of agricultural statistics. Not only are these all examples of necessary elements of the development process, but they represent investments where Africa clearly lags behind when compared to developing countries in Asia or Latin America, and therefore, where the returns to those investments are likely to be high. Although many of AID's activities in Africa have not been successful, it should be pointed out that AID has provided the largest shares of its agricultural assistance assistance (13 percent each) to agricultural education and to infrastructure development, the two subsectors which not only essential elements of agricultural development but they are ones in which AID has shown significant success.

Agricultural research represents an important element of agricultural development -- as has been clearly demonstrated in other parts of the world -- but because of the long gestation period before results can be expected, and because AID and other donors have neglected agricultural research in Africa until recently, no clear evidence of the impact of these investments is yet apparent.

The success of AID's efforts in Africa are limited by its own institutional procedures and the external constraints which are brought to bear by Congress and specific interest groups. AID is an agency without a strong supportive constituency, and as a result it has tried to secure support by responding to the desires of a large number of small interest groups, and through its reactions to changes in Congressional views.

These pressures are transmitted from Washington to the country missions. Whether AID programs and projects are continued or terminated seems to be related more closely to pressures from Washington than to project performance or changes in host country conditions. This, rather than AID's inability to sustain an effort over time, strikes us as a central difficulty in AID's country strategies. The Washington orientation of the country missions frequently leads them to give inadequate attention to host country institutional capacities and political priorities.

Recommendations

Our study of AID's activities in the six countries and their degrees of success has enabled us to draw conclusions just summarized about what went well and to suggest the reasons and circumstances for those successes. Likewise, our evidence permits us to generalize about activities that did not succeed and to identify those circumstances and characteristics beleived to be responsible for the disappointing results.

We are reluctant, however, to make specific recommendations about what should be done. Due to Africa's diversity, it is impossible to generalize about specific activities that should be promoted in a particular country without intimate knowledge of its policy environment, the strengths of existing institutions, and the nature of its current problems and opportunities. We can, however, underscore the importance of shifting the locus of the missions' attention toward host country meeds, working with host country counterparts, and seeding better coordination with other donors. Although some of these modifications are possible now, simplification of AID programming procedures would facilitate these kinds of changes, as would linking further funding to a review of what has been accomplished with obligated funds rather than to unrealistic promises of what will be done if funds are obtained.

The set of eight priority activities listed above are facilitationg, rather that direct impact activities. They are directed at generalized human, social, and physical capital formation. They seek to strengthen the capacity of institutions to address their countries' distinctive needs. They place the locus of planning, coordination, and resource allocation firmly within host country institutions, rather than in AID. They require patient, long-term, flexible support, experimentation, risk taking, and an error-embracing process of learning.

AID's current programming system, implementation procedures, and incentives structures are not well suited to carrying out these activities. But even without organizational or procedural changes, AID's performance in Africa could be improved by avoiding projects that:

- assume it will be possible to transfer directly existing American technologies and forms of organization to rural African populations.
- depend on extensive logistic support, the timely procurement of commodities or American-made equipment that cannot be serviced by existing facilities.
- entail complex management, create new administrative units, or assume it will be easy to alter existing institutional patterns, including those established during the colonial period.
- require American contractors to live in remote rural areas and work more or less directly with local people.[7]
- depend for their functioning on outputs of other planned projects, rely on inputs to be provided by ministries not responsible for the project's implementation, or require substantially better inter-ministerial coordination than already exists.

While these general guidelines also apply to support for rural infrastructure, they can be relaxed, if necessary, because AID's past efforts in this have been comparatively successful and because

[7]. Activities implemented by the Peace Corps and PVOs constitute a partial exception.

of its catalytic, facilitating role. Moreover, rural infrastructure can usefully absorb unanticipated "windfall" funding. For these reasons, it is advisable for AID to have shelf projects in this sector.

Although AID's institution building and participant training have achieved a good deal, their impact could be increased. More support should also be given to the development of institutions after initial infusions of technical assistance, training, and construction have been completed. This can be done by providing additional and continuing support for:

- research by Africans on many aspects of agricultural and rural development including: population, health, natural resource tenure, energy, and environment.
- the maintenance of American equipment for which spare parts and service are not locally available.
- workshops, publication, travel, networking, and mid-career and in-service training to enable Africans to maintain their professional competence and morale.
- policy-relevant, applied research and the interchange of information between political leaders, administrators, and African technical experts to inform government decisions and institutionalize the process of technically informed dissent.

Enabling faculties of agriculture to make a greater contribution to national research programs should be a principal objective of such support. Non-project assistance should continue to be used to expand successful host country initiatives, and to reduce the costs and risk associated with changing government policies, procedures, organization, and responsibilities.

These recommendations entail a shift in the mission's work, procedures, and needed staffing pattern. Less effort would have to be devoted to designing and managing new and complex projects and to the inevitable problems associated with contracting and procurement. More effort would have to be spent analyzing country needs and working with host country counterparts to understand the best ways to help existing institutions to meet these needs. Shifting the locus of mission attention to supporting existing institutions would encourage better coordination with other donors. The increased effort to make institutions more effective, a need already recognized by AID management, would also help to check the tendency of donor assistance to foster project proliferation and the expansion of government.

Although some of these modifications are possible even now, they would be facilitated by greatly simplifying AID programming procedures, and, with Congressional approval, by linking further funding to a review of what has been accomplished with obligated funds rather than to unrealistic promises of what will be done if funds are obtained. Such changes would increase incentives for carrying out better monitoring and evaluation. Adopting a less defensive, more flexible, error-embracing approach would also encourage AID to welcome more participation by non-AID African and American experts and expert bodies such as the National Academy of Science.

Greater reliance on this approach, along with the need to engage in effective, informed, and patient policy dialogue and to program non-project assistance, would require greater analytical skills and country knowledge in the mission but a smaller total personnel complement. The approach would also provide incentives needed for mission staff to update their skills and broaden their understanding of the host country and region. AID would have the incentive to help them do so through short- and long-term training and through the establishment of coherent career ladders.

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