

Country Development Strategy Statement

FY 1984



MALAWI

January 1982

Agency for International Development
Washington, D.C. 20523

BEST AVAILABLE

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EMBASSY OF THE
UNITED STATES OF AMERICA

February 12, 1982

The Honorable Frank S. Ruddy
Assistant Administrator
Africa Bureau
Agency For International Development
Washington, D. C. 20523

Dear Mr. Ruddy:

We are pleased to present this comprehensive development strategy for United States economic assistance to Malawi. I believe the analysis contained herein and that of the previous two years, support the proposed assistance strategy.

Malawi deserves our assistance, for it has proven, without doubt, its ability to help itself. Malawi presents an economic development model that we should groom. The opportunity to learn how their relative success was accomplished with so little apparent comparative advantage in such a short time may help the United States in delivering assistance to other countries. I think you will find this document useful not only as an instrument of justification for increased economic assistance to Malawi, but also as a sound, composite statement that will guide fruitfully, our course of work here in the field.

May I take this opportunity to thank you and the Agency for permitting Mr. James Mudge and Mr. Donald Brown both of your A.I.D. Washington staff, to come to Malawi to help in preparing this document. I have been told that their assistance was indispensable.

Sincerely yours,

A handwritten signature in black ink that reads "John A. Burroughs, Jr." in a cursive style.

John A. Burroughs, Jr.
Ambassador

MALAWI
COUNTRY DEVELOPMENT STRATEGY STATEMENT

Table of Contents

	Page
I. INTRODUCTION	1
A. OVERVIEW	1
B. CDSS METHODOLOGY	2
II. ANALYSIS	3
A. STRUCTURE AND ECONOMIC PERFORMANCE	3
Economic Structure	3
Recent Economic Developments and Outlook	6
Summary of the 1981-1986 Development Plan	10
Economic Policy and the Malawian Private Sector	12
B. AGRICULTURE	15
Overview	15
Smallholder Agriculture	15
Estate Agriculture	18
Increasing Scarcity of Arable Land and Government Policy	19
Agricultural Institutions	25
Research	25
Extension	27
Credit	31
Manpower	32
Energy and Environment	34
Family Health and Spacing	35
Development Assistance by Other Donors	37

	Page
III. STRATEGY	40
A. BACKGROUND	40
B. AID ASSISTANCE STRATEGY: FY 84-89	41
C. AGRICULTURE SECTOR	42
Extension	45
ADD Development	45
Policy Planning	46
Agricultural Program Sector Grant	47
Small-Scale Seasonal Credit	48
Agricultural Research	48
Evaluation of Agriculture Activities	49
D. PRIVATE SECTOR	50
Indigenous Enterprises	50
American Private Investment	51
E. MANPOWER	52
F. FAMILY HEALTH AND SPACING	53
G. ENERGY AND ENVIRONMENT	54
IV. IMPLEMENTATION OF STRATEGY	55
A. INTEGRATION OF ASSISTANCE INSTRUMENTS	56
B. PROPOSED FUNDING LEVELS	56

I. INTRODUCTION

A. OVERVIEW

Malawi is classified as a least developed economy. Its per capita GDP in 1981 is estimated to be \$253.¹ Exports and imports must be transported through Mozambique to transit the nearest seaport. The country is small with a total land area of 36,477 square miles. With an estimated average 177 persons per square mile in 1982, Malawi is among the most densely populated countries in Africa. Malawi has been consistently and strongly pro-Western since its independence in 1964 both in international relations and in its basic economic policy structure.

Over the last two years Malawi has become increasingly active in Southern Africa regional affairs. In 1981 President Banda visited Salisbury, Zimbabwe to sign the Southern Africa Development Coordination Committee (SADCC) accords. Malawi has been an active participant in SADCC affairs.

The economy of Malawi is predominantly agrarian. The principal natural resource endowment consists of moderately fertile soils, substantial water resources and a climate which permits the cultivation of a variety of crops. Malawi has an industrious and economically responsive population. The government has consistently pursued a resource-based, outward-looking and market-oriented approach to development.

The country is recognized for having achieved one of the best overall economic performance records in Africa. During the 1970s real GDP grew at an annual compound rate of 6.6%. In spite of Malawi's high degree of integration into the international economy and high inflation rates worldwide, Malawi has been able to keep inflation down to a 10.7% annual rate through the 1970s.² Although Malawi's commitment to international trade is one

¹ Based on an estimated 1981 population of 6.3 million and GDP at current factor costs of K1381.2 million, converted at \$1.15/K. GDP from Government of Malawi, Economic Report, 1981, p. 84.

² Ibid., p. 80.

of its major strengths the economy is also highly vulnerable to adverse changes in international prices. For example, growth in Gross Domestic Income dropped from a respectable average annual rate of 6.5% during the mid-1970s to a negative 1.5% in 1980.¹

Malawi was well into a high-investment, rapid-growth phase in the late 1970s when the economy was subjected to a series of severe setbacks including two consecutive droughts, abrupt and large increases in import prices and weakening export prices. The resulting economic strains served to highlight several weaknesses within the Malawian economy itself. It is significant that the Malawian response was not to attempt to seal up its economy by discouraging trade and introducing wholesale price distortions. Instead the government has started to introduce a major series of policy changes designed to make the economy more competitive and increase its ability to make continuous adjustments to international market conditions.

B. CDSS METHODOLOGY

This CDSS document takes the two preceding CDSSs as departure points. The FY/83 CDSS, in response to guidance papers, documented the evidence pertaining to several basic and important areas. It established that Malawi has a strong commitment to development as evidenced by its high savings and investment rates; Malawi's record on providing basic human needs--food, health, education, water--is above par relative to other African countries and in terms of ability to sustain delivery of BHN goods and

¹ Gross Domestic Income is GDP at constant factor cost adjusted by changes in the international terms of trade. Government of Malawi, Economic Report, 1981, Table 12.11.

services, Malawi ranks above most African countries; Malawi has demonstrated an institutional ability to plan and implement development programs; and, that the reason the poor are poor is because of one primary, organic cause, i.e., Malawi's rudimentary economic state of development, and the fact that even faster growth has been impeded by the country's landlocked position and adverse changes in international prices.

The FY 84 CDSS assumes the preceding points are established. There is no evidence to suggest that there have been any fundamental changes over the last year which would tend to vitiate these points (indeed the share of development expenditure will more than double through the first half of the 1980s). Therefore, this paper will commence with an overview of the country's economic structure and recent economic performance. The analysis section will concentrate on those areas which are considered to be most relevant for strategy formulation. The strategy section will be as specific as the availability of information and time permits.

II. ANALYSIS

A. STRUCTURE AND ECONOMIC PERFORMANCE

Economic Structure

This section describes the structure of the Malawian economy and its general economic performance using national accounts data. Table 1 contains GDP data by industrial origin. The data in Table 1 indicate the relative importance of Malawian industries and provide some indications of structural change over the last six years. In 1980, primary industries were the largest portion of GDP at 43%, followed by manufacturing at a distant second with a 13% share of GDP. Building and construction constituted 5% of GDP in 1980 while services, including banking and government, totalled 8% of GDP.

The data indicate little change among the primary, secondary and tertiary sectors over the period, however, there were some shifts within the service sector, most notably a doubling of the combined shares of education, health and services from 3 to 7% between 1975 and 1980. There was a three percentage point shift from the non-monetary sector to the monetary sector.

From independence in 1964 until 1979/80, real GDP has consistently grown at a rate in excess of population growth. The average annual rate for the 1967-79 period was 6.7%. Adjusted for population growth, the real per capita growth has averaged about 4% annually. Real growth in 1978 declined to 5.4%, recovering slightly to 6.2% in 1979. GDP increased by only 0.6% between 1979 and 1980 and non-monetary GDP declined by 0.7%. Over the 1975-80 period GDP grew at an average annual compound rate of 4%.

In the primary sector (see Table 1) smallholder GDP declined by 2.4% between 1979-1980 with the largest drop being recorded in monetary smallholder GDP at negative 6.3%. Education, health and services demonstrated the highest expansion rate averaging 19% annually.

The Malawi Public Investment Program expanded by over 21% in 1980 (current prices) as the government continued to stress increases in agricultural productivity and improvements in infrastructure. With respect to the balance of payments, in 1980 Malawi's merchandise exports rose to over 15% and their unit value increased by 3.4%. Total merchandise export receipts increased by 26% to K239.1 million (\$295.1 million). Import volume fell but this decline was offset by an increase in cif import prices, yielding a 9% increase in the import bill to K355 million (\$436.7 million). The 1980 trade deficit narrowed to K122.2 million (\$150.3 million) from a K159.8 million level in 1979.

Table 1: GROSS DOMESTIC PRODUCTION BY INDUSTRIAL ORIGIN 1975-1980 AT 1973 FACTOR COSTS
(K MILLION)

	1975	1979	1980	% Share in 1975	% Share in 1980	% Growth ^a 1975-80	% Growth 1979-80
Agriculture, Forestry and Fishing	186.8	229.9	227.8	42.0	42.6	4.0	-0.9
Smallholder:	166.0	196.1	191.4	(88.9)	(84.0) ^b	2.9	-2.4
Monetary	33.9	50.6	47.4	(18.2)	(20.8)	7.0	-6.3
Non-Monetary	132.1	145.5	144.0	(70.7)	(63.2)	1.8	-1.0
Estate	20.8	33.8	36.4	(11.1)	(16.0)	12.0	7.7
Manufacturing	53.8	66.5	69.1	12.0	12.9	5.1	2.7
Monetary	45.8	57.7	60.2	(85.1)	(87.1)		4.3
Non-Monetary	8.0	8.8	8.9	(14.9)	(12.9)		1.1
Building & Construction	20.9	29.4	27.5	6.0	5.0	5.6	-6.5
Monetary	16.9	25.0	23.0	(80.9)	(83.6)		-8.0
Non-Monetary	4.0	4.4	4.5	(19.1)	(16.4)		2.3
Elec. Water & Sanitation	6.0	7.6	8.4	1.0	5.4		10.5
Distribution	51.4	68.1	68.9	16.0	12.9		1.2
Transport, Comm & Storage	24.4	28.4	29.1	7.0	5.4		2.5
Banking, Finance and Real Estate	28.2	38.4	40.1	6.0	2.7		4.4
Community Services, Government & Defence	20.8	39.7	45.4	5.0	8.0		14.4
Education		13.2	15.1				14.4
Health	15.4	5.4	6.4	3.0	7.0	19.0	18.5
Other Services)		14.7	15.2				3.4
GDP at Cost Factor		532.0	535.0	100	100	3.9	0.6
Cost	442.0						
Monetary	294.2	367.9	372.3	67	70.0	4.8	1.2
Non-Monetary	149.0	164.1	163.0	33	30.0	1.8	-0.7

Source: Government of Malawi, Economic Report 1981.

a Average annual compound growth rate

b Percentages in brackets are share of industry

The 1979-80 decline in agriculture output was caused by drought conditions in the southern region of Malawi and low tobacco prices. Growth in manufacturing was slowed because there were shortages of some agricultural commodities for processing. The decline in agriculture incomes also tended to depress demand for goods and services from other sectors.

A high degree of integration into the international economy and high savings and investment rates are key characteristics of the Malawian economy which provide strong evidence of Malawi's overall development strategy. During the 1980s the value of average annual exports was equivalent to about 25% of Malawian GDP. The annual value of imports averaged over one-third of GDP. Their average annual compound growth rates were 15.7 and 16.8% respectively. Malawi has maintained unusually high savings and investment rates. Gross domestic saving expressed as a proportion of GDP was 12% and 23% for investment. Investment grew at an average annual rate of 18.5% per annum during the 1970s. Public investment expanded at 17.6% and private investment grew at a 19.2% average annual rate.

Since June 1975 the Malawi Kwacha has been pegged to the Special Drawing Right at the rate of K1.0541=SDR 1. On June 30, 1981 the average of the buying and selling rate against the U.S. Dollar was K.9153=\$1. The Kwacha depreciated against the U.S. Dollar approximately 10% between 1981 and early 1982.

Recent Economic Developments and Outlook

During the 1970s Malawi successfully pursued a policy of rapid economic expansion and structural change, but since 1979 the economy has been beset by two droughts and declining terms of trade. These events have caused a deterioration in the balance of payments and caused the government to seek assistance from the IMF and the World Bank. The pressure exerted on the

economy by these adverse developments has also revealed some structural weaknesses which the government is now addressing.

Between 1977 and 1980 Malawi's international terms of trade fell 35%. Export prices fell 8% because of declines in tobacco prices and the prices of imports increased about 41%. In addition the fuel import bill more than doubled between 1977 and 1980. Reflecting Malawi's landlocked position, the non-factor services account deficit doubled mainly due to higher transportation costs. In 1978-80 the non-factor services deficit was larger than the trade deficit. Transportation services were approximately 28% of the fob value of imports. The worsening of the trade situation is summed up by the fact that between 1978 and 1980 the average current account deficit share of GDP doubled from a relatively stable 7-8% (since 1964) to an average of 14% during the 1979-81 period.

The jump in annual trade deficits was instrumental in causing the Malawian Government to increase its use of IMF facilities and to borrow proportionately more on commercial terms. Before 1978 capital inflows were predominantly on grant terms, however, between 1978 and 1980, 35% of capital inflows were acquired on commercial terms. Foreign exchange reserves were also used, causing a decline from \$96 million to \$74 million in 1979 or from four months to one and one-half months of imports before increasing in 1980 by approximately \$8.3 million.

In 1979 the government arranged a 2½ year standby agreement with the IMF. The standby was amended in 1981 to allow a \$65 million standby credit thereby increasing IMF holdings of the Malawi Kwacha to the quota limit of 600%. The World bank and Malawi negotiated a structural adjustment loan of \$45 million in 1981 to be provided in two tranches. Because of difficulty in keeping growth of government expenditure within agreed limits, problems

with management of the external commercial debt and other factors, the World Bank did not release the second \$20 million tranche on schedule in late 1981.

Nevertheless, Malawi has moved forcefully to resolve its economic difficulties and the multilateral financing institutions acknowledge having strong confidence in Malawi's intentions and ability to institute reforms. In cooperation with the IMF, the government imposed a series of short-term demand management measures including new surtaxes on imports, import deposit requirements, higher excise taxes on cigarettes, liquor and beer and higher fuel taxes. Lending and borrowing rates have been increased and now stand at 11.5 to 16.5% for agriculture and 13.5 to 18.5% for all other sectors. Deposit rates are between 8.75 and 11.75%. The discount rate for banks has been increased to 10% and the bank liquidity ratio has been increased to 30%. The rate of increase in bank credit to government was limited to 15% and a ceiling on commercial external borrowing was established. Ceilings were also placed on ministerial budgets.

An authoritative document concisely summarizes the structural weaknesses as:

the slow growth of smallholder exports and the narrowness of the export base; the modern sector's dependence on imported oil, and the progressive depletion of domestic fuelwood resources; the deteriorating financial position of the public enterprise sector; growing budgetary deficits owing to a rapid expansion of expenditures combined with a relatively slow growth of revenues; a growing imbalance between government recurrent and capital expenditures; and increasing economic adjustment difficulties caused by the rigidities in the system of administered prices and wages.

Those factors relating to agriculture will be discussed in the agriculture analysis section.

The economic outlook is for continued balance of payments problems over the next five years. Malawi's 1985 terms of trade are projected to be 4.5% higher than the 1979 terms of trade. Overland transport costs will remain high. The debt service payments as a percent of exports have risen to a high of 20% in 1980 from an average 8.7% level in the later 1970s. The debt service ratio is projected to peak in 1982 at 29%. If external borrowing, credit expansion and other expenditure management measures can be satisfactorily implemented the restrictions on imports can be expected to be relaxed over time before the restrictions start to restrain growth excessively. This point is particularly crucial given the fact that the volume of Malawi's imports have been declining in recent years.

Malawi still faces some major challenges to bring order to its short-term financial management situation. It is stressed, however, that the situation, though serious, was never a case of chronic economic mismanagement nor did it ever reach a stage characterized by major economic distortions. Inflation rates were not allowed to reach excessive levels nor was the value of the Kwacha ever seriously out of line with other major currencies. Reordering and recovery of the economy can be achieved without causing major economic or social shocks to the system.

Malawi now faces the challenge of making some significant structural shifts: placing additional emphasis on the smallholder sector as a major growth source by adjusting pricing and investment policies; diversifying the estate sector; slowing the rate of capital formation; and directing investment more specifically toward directly productive activities. The government is aware of the need to restructure and it is a willing participant in the process. Given the government's performance record for

formulation and successful implementation of policy during the 1970s, it is reasonable to expect Malawi will move into the 1980s with a revised economic structure which can produce the necessary economic growth and which will possess sufficient economic resilience to enable the economy to make substantial progress toward self-sustaining growth.

Summary of the 1981-1986 Development Plan

A brief review of Malawi's development plan for 1981-86 indicates there will be some significant adjustments of important policies but the basic character of Malawian development strategy has not been changed. Past policies which were designed to retard increases in producer prices will be eased to allow domestic prices to be linked more closely to international prices and to give greater incentives to producers. Wages and salaries will be restrained in order to continue Malawi's labor-intensive, high-employment growth policy. The government candidly admits that its price-wage policy "must eventually result in a fall in real wages and salaries relative to productivity."¹ In addition the government intends to remove protective tariffs which do not have "genuine" infant industry justification and the entire tariff structure will be examined to detect and adjust tariffs so as to remove any cases of effective protection.

The exchange rate of the Kwacha against the SDR will be reviewed periodically (it has been constant since 1975); interest rates will be kept consistent with the opportunity cost of capital; government will concentrate its own investment program on infrastructure; tax and other government revenues will be increased while recurrent expenditure implications of government investment and "those [recurrent costs] implied by expenditure under the

¹ Government of Malawi, Economic Report, 1981, p. 77.

Development Program will be quantified, and will be budgeted for; and the government will no longer borrow in domestic markets.¹

The sectoral allocation of development expenditure (summarized in Table 2 below) will also undergo significant changes.

TABLE 2: SECTORAL SHARES OF DEVELOPMENT EXPENDITURE (%)

	Average 1974-79	Average 1981-86	% Change
Agriculture	19.4	21.1	9
Social Services	6.3	13.3	111
Transport & Communications	50.0	37.4	-25
Government Buildings	9.4	5.3	-44
Water	2.4	7.3	204
Power	5.5	2.7	-51
Finance, Commerce & Industry	1.1	3.2	191

Source: Government of Malawi, Economic Report, 1981, p. 79.

Agriculture, social services, water, finance, commerce and industry will each increase their shares. Although smaller, transport will continue to receive the largest proportion of development expenditure reflecting the government's conviction

that development in Malawi can only proceed as fast as the country is opened up to communications. For instance the incentives of world prices for commodities can only be felt by smallholders

¹ Government of Malawi, Economic Report, 1981, p. 78.

who are able to sell to those markets. The whole market-based development strategy relies on the provision of adequate infrastructure.¹

Economic Policy and the Malawian Private Sector

Malawi can be characterized as a market-oriented economy with strong government intervention through monetary and fiscal policies, price and trade controls, regulatory activities and direct participation of public statutory enterprises. Private enterprise and foreign investment are welcomed and afforded government support and incentives.

Government policy has been one of fiscal and monetary restraint, a deliberately slow process of replacing expatriates with Malawians, investment to favor growth, avoidance of capital-intensive and heavy industrial projects, and provision of incentives for private and economic activity.

Industrial policy is designed to promote the processing of local raw materials by labor-intensive techniques. Firms are required to pay export-parity prices for their primary inputs. Capital-intensive industry has no priority unless it fulfills an essential function and there is no choice of a feasible technique using more labor. There has been limited creation of import substitution industries (e.g., portland cement, textiles, and metal fabrication). Import substitute industries are subject to competitive market pricing, satisfactory utilization rate and profitability criteria.

Price controls exist for about 50 items including certain basic food products and beverages, some household goods and some industrial inputs. No controls are placed on increases in the prices of imported goods although retail

¹ Government of Malawi, Economic Report, 1981, p. 79.

mark-up must be approved by the government. In agro-industry a large portion of the firms have linkages to Malawi's major parastatals: Malawi Development Corporation, Press (Holdings) Ltd., Import and Export Company of Malawi, Agricultural Development and Marketing Corporation, and Industrial Development Bank.

With respect to foreign investment policies, industrial licensing is required. The government will grant an exclusive license for a given period. Imported inputs are either duty free or are charged a low rate. Foreign investors may receive a series of tax incentives such as a 10% investment allowance for new plant and equipment, a 10% initial depreciation allowance and annual depreciation allowances ranging from 5 to 33% of plant and equipment. Malawi has three industrial sites which are equipped with basic services and transport access. There are no restrictions on the number of expatriates hired nor on profit and dividend repatriation.¹

The predominant feature of the Malawian private sector is Press Holdings Ltd. and the Press Group of Companies which are estimated to constitute about 40% of the Malawian private sector. Press Holdings Ltd. was established in 1969, based on the acquisitions of Malawi Press which started to invest in various businesses in 1964. Net Group turnover was \$37 million in 1977. In 1981 the Press Group consisted of approximately 18 subsidiaries and at least 30 associate companies. Eleven of the subsidiaries are wholly owned by Press. President Dr. H. Kamuzu Banda is the Chairman of Press Holdings Ltd. and the Press Group. Because of the size and importance of Press in the Malawian economy and because of its close association with the government it is difficult to view Press as an ordinary private sector entity. Aside from its government association, Press has monopoly or near monopoly positions in several industries and its banking

¹ National Bank of Malawi, Business Information On Malawi, 1981, p. 25.

and financial operations give it additional extraordinary market power in the Malawian economy. Press Holdings Ltd. is the only Malawian firm serving as a partner in joint enterprise.¹

The competitive situation in the private sector is further complicated by the fact that there is a well established South Asian community engaged in business and corporate professional activities. British business interests are also well established in Malawi. For example, of the three largest law firms in Blantyre (Malawi's commercial center), two are South Asian and one is British.

Nevertheless, there is an active indigenous entrepreneur class. Casual evidence indicates that Malawian entrepreneurs are eager to play a greater part in Malawi's economic growth but they are impeded by extreme scarcity of operating and investment capital. They also appear to be constrained by a shortage of workers with journeyman-level skills and by limited access to professional skills such as those of accountants and lawyers. The African Businessmens' Association is the main Malawian group for Malawian enterprises.

¹ To lend some perspective on the importance of Press in the Malawian economy a partial list of the company's activities is noted. Press is the largest flue-cured tobacco grower in the world with 9,200 acres under tobacco (1977/78) and its sales of Burley tobacco accounted for one-third of national production in 1977/78. Press is in ranching (64,000 acres in the Liwonde District); Press supplies 85% of the national bread market; Press (engineering) Ltd. engages in structural steel work, manufactures baling boxes and presses for the tobacco industry, water tanks, bowsers and maize-mill parts; and Press (Fashions) and Press (Clothing) manufacture wearing apparel. Press also acts as a wholesaler or retailer for hardware and appliances, tires, trucks and trailers, supermarket goods and petroleum products. Press provides freight clearing and forwarding services and commercial and private real estate services. Press has five associate agro-industry companies: cattle feed lot; sugar (2); grain and milling; and oilseed. Press associate companies constitute the only national brewing and distilling operations. In general manufacturing Press associates make agricultural tools and implements, brick and tiles, cloth, plastic containers, electronics and batteries, wire and corrugated sheeting products. Twelve Press associates provide services ranging from construction to import-export. Press associates include the National Bank of Malawi, the Commercial Bank of Malawi and two insurance companies. Press associates are also engaged in coffee, timber and hotel operations.

B. AGRICULTURE

Overview

Agriculture is the core of the Malawian economy. The remarkable growth of the Malawian economy since independence in 1964 has come from the vigor of its agricultural sector. Agriculture consists of two main sub-sectors, smallholder and estate.

The agriculture sector employs about 85% of the Malawian population and provides approximately 90% of exports and 42% of GDP in 1981. Between 1970 and 1979 the real annual growth rate was equivalent to a compound rate of 4.9% per annum. In addition to providing agriculture commodity exports the sector provides the basis for most manufacturing activity.

Smallholder Agriculture

The smallholder sub-sector accounts for over 85% of all agricultural production and, except for drought-induced shortfalls in 1970, 1976 and 1980 when maize had to be imported, the smallholder sector has provided adequate supplies to make the country self-sufficient. In addition to maize, smallholders grow pulses, groundnuts, sorghum, millet, potatoes, cassava, rice and most of the meat and poultry. Smallholders grow raw materials--cotton, fire-cured tobacco and tea--for domestic and export industries. About 30% of total agriculture sector exports originate in the smallholder sector. During the last half of the 1970s the compound average annual real growth rate in smallholder output was estimated to be 2.9%. Smallholder monetary and non-monetary output declined between 1979 and 1980 by about 1%. No appreciable gain is expected to be registered over 1980-81.

The smallholder sub-sector consists of Malawian farmers who farm their own holdings of customary land on either a part or full-time basis. Smallholder

income sources are subsistence agriculture, food crops grown for cash (maize, groundnuts, vegetables), cash crops (tobacco, cotton), wages from working on estates or on other smallholdings and from handicrafts. Frequently smallholders who cultivate maize for sale will grow the local flintier type for household consumption and a hybrid variety for market. With respect to the distribution of holdings by area, about 29% of holdings are under two acres, 52% are between two and six acres, 17% are six to twelve acres and 2% of holdings are larger than twelve acres.¹

A review of a 1977 household survey provides a number of characteristics useful in the formulation of a strategy to accelerate development in the smallholder sub-sector. In 1977, 1,206,900 households, 77% of total households in Malawi, were farmers of customary land. Of the total, 44.3% (698,400 households) were headed by male and female adults who allocated 50 to 100% of their labor time to farming their own holding. In 2.5% of households (39,200), the male head of the household worked on his own holding less than 50% of the time and worked as wage labor (low paid, unskilled) on other holdings or on estates. The female adult was the predominant agricultural worker of the family holdings in this category. In two-adult households the woman and children perform most of the work on food crop production while the man tends to concentrate his time on farm labor on cash crop cultivation.

In addition to the 47% male and female-headed households, 30% (469,300) of the total household population were headed by females. Within this latter category, five-sixths (25% of the total population) of the women worked on their own holdings more than 50% of the time and one-sixth (5% of the total population) worked on their own holdings less than 50% of the time.

¹ See Malawi Country Development Strategy Statement FY 82, p. 6, for a description of smallholder land distribution by region.

Assuming that women provide 50% of the farm labor in two-adult households and 100% of the farming work in female only households, women farmers' labor time accounts for approximately 70% of all smallholder labor on customary holdings. The distribution of female headed households varies by region. In the North about 16% of households are female headed; in the Central Region the proportion is about 30%; and in the Southern Region the proportion is approximately 40%.

The large majority of the preceding groups are relatively low-income. The highest income group in 1977 was predominantly male-female headed households in which 100% of household labor was allocated to own holdings and with net incomes from cash cropping greater than K25 (\$30) per year. This group made up 11% of all households in 1977 and 14% of the smallholder subsector. Within this higher income group, households allocated a disproportionately large amount of labor time to tobacco cultivation. According to a 1980 report by the World Bank, tobacco production is the smallholders' largest source of income.

The lowest income subgroup has a female head of household not receiving income transfers from a male. This subgroup constituted 11% of the total smallholder population and 29% of the female head of household group. It is noted that the highest income subgroup has a disproportionately large share of female heads of households.

A study of two farm management surveys of the Lilongwe Rural Development Project provides evidence of some interesting trends within the smallholder subsector. The farm surveys were conducted in 1969/70 and 1978/79. Some of the preliminary results were:

1. there has been an increase from 35% to 45% of average total household agricultural work allocated to local maize, but there is no evidence of an increased proportion of income from maize sales;

2. the average annual allocation of household work allocated to tobacco increased from 13% to 24%;
3. nominal income has increased at the same rate as inflation therefore smallholder income has remained constant;
4. there has been a large increase in non-agricultural wage and non-farm business income from an average K1.93 per annum to K21.14 per annum;
5. the proportion of female headed households has increased from 11.4% to 24.5%.

These results from the Lilongwe Project do not necessarily represent the entire smallholder sub-sector; however, they provide some interesting information in light of the fact that the Lilongwe area has received a substantial proportion of development investment and the area has a relatively favorable natural resource endowment for agriculture.

Estate Agriculture¹

The estate subsector is reported to cultivate about 17% of total arable land. Estates are the principal growers of tea, flue-cured tobacco, burley tobacco and sugar. Cultivation of sugar is restricted to estates. As of March 1979, the number of estates totaled 1,108. Of these, 524 raised flue-cured tobacco, 556 burley tobacco, 26 tea and two were sugar estates. Estates together contributed 15% of agricultural production and some 70% of agricultural exports in 1981. The value of estate exports increased from \$15.5 million in 1967 to \$115.5 million in 1978. Estate output expanded

¹ In Malawi a farm is defined as an agricultural estate if its cultivation takes place on freehold or leasehold land and the grower markets his crops directly on the auction floor or through private contract. With the exception of expatriate-owned tea estates which date back to colonial days and which are established on freeholds, all agricultural estates cultivate their crops on land alienated from customary tenure through leases.

in real terms at an annual compound growth rate of 17% between 1968 and 1977. While smallholder output fell by 2.4% between 1979 and 1980, estate output increased by 7.7%.

In recent years the number of tobacco estates is reported to have increased markedly although no data are available. The formation of new tobacco estates was facilitated by ample supplies of credit from the banking system and the fact that new estates could be established on unused customary land. Land can be leased from the government at a fixed rate of one kwacha per acre.

Tobacco prices were relatively high in 1981, however, many of the tobacco estates were so deeply in debt that the additional revenues went to pay debt service. In 1980 and 1981 many of the new tobacco estates were closed. Although poor tobacco prices aggravated the situation in 1980, some Malawian authorities believe that the key elements in the demise of rapid tobacco estate expansion were poor financial and technical management combined with siting of new estates in areas with inappropriate soils. Beginning in 1981 estates have been diversifying production by growing more groundnuts and maize.

Increasing Scarcity of Arable Land and Government Policy

The fact that Malawian agriculture is rapidly approaching the extensive limit of cultivation is a powerful factor underlying Malawi's general development strategy. The problem is present and pressing. Relatively conservative projections indicate that by 1985 Malawi will reach its statistical limit of arable land. Because of appreciable differences among regional population densities this will not be literally correct; however, by 2000 - at the present annual population growth rate of 2.9%

and with present agricultural techniques - the total national requirement for cultivatable land will reach 4 to 4.7 million hectares which is 50% in excess of all but the most optimistic estimates of available arable land. Without rapid changes in technology it is inevitable that:

1. farms will tend to grow smaller;
2. land more distant from roads and services, more subject to erosion, and more limited by poor soils and/or low rainfall, will be brought into production;
3. reduction in land in short-term fallow will occur which will lower yields;
4. foreign exchange earning capacity will decline.

To feed the larger population from the same amount of arable land it will be necessary to devote an increasing proportion of land to food production at the expense of export crop production thereby choking off Malawi's ability to import fertilizers and other yield-increasing inputs and making Malawi increasingly dependent on foreign aid.

This worst-case scenario is not likely to happen if the government follows the plan it has mapped out for 1981-86 and applies the same logic in the years thereafter. During the 1970s a dualistic policy was practiced. Growth in estate production primarily relied on expansion of the area cultivated whereas there was an attempt to increase output from the small-holder subsector by increasing yields. The estate strategy was effective through most of the 70s with burgeoning numbers of estates and estate production turning in a dynamic performance. Estates' foreign exchange earnings grew rapidly and they absorbed large amounts of unskilled labor.

Starting in 1979 the Malawian economy was subjected to severe strains and faults began to appear in the estate strategy. The outlook for con-

tinued, rapid expansion became increasingly poor. Estates were heavily concentrated in tobacco and with tobacco exports the predominant foreign exchange earner, the economy was exposed to major disruptions from changes in international tobacco prices. By 1980 further tobacco estate expansion was attenuated by shortages of suitable new land and an insufficient supply of qualified estate managers. The outlook for further expansion has also been dimmed by an expected stagnation in world demand for tobacco.

Until 1977, the major effort to increase smallholder production concentrated on four large integrated rural development projects. The four projects covered about one million people, nearly one-fifth of Malawi's rural population in the mid 1970s. The projects brought about substantial social and economic benefits as a result of the introduction of new roads, health services, markets, water supplies and training, but the production effects were disappointing. Aggregate output levels were increased for certain agricultural products but crop yields, particularly maize yields, did not change, appreciably.

Major importance was attached to these programs. The government devoted its best talent and invested millions of kwacha to carry out the projects. These were model projects. The World Bank's evaluation of the Lilongwe Land Development Project concluded that it was well managed and well received by farmers. Most project activities were carried out more or less on schedule and within their budgets. Nonetheless, they failed to affect yields substantially, achieve their fertilizer use targets, influence ADMARC's price policies, or anticipate and effectively deal with potential disease problems.

Several general conclusions have been drawn from evaluation of the four integrated rural development projects.

1. The projects had more impact on yields in areas where new land could be brought into production than in areas where unused land was scarce. This was due in part to the greater fertility of the new land brought into production.
2. There was a severe shortage of qualified staff, particularly at the farm extension level.
3. A good deal of emphasis was placed on the use of fertilizers to increase yields but the ratio of fertilizer prices to output prices during the later years of the projects provided little incentive to use fertilizer even if it could be obtained at the right time.
4. There is little evidence that the extension agents had much to offer in the way of appropriate new varieties and agronomic practices.
5. Farmers probably were more responsive to changes in relative prices than project planners had anticipated. Thus, ADMARC's price policies were a significant factor in affecting the extent to which production targets for various crops were achieved.

Malawi's experience with large scale integrated rural development projects led the government to conclude that extending this approach to the remainder of the country would be too costly and too slow. The government, therefore, decided in 1977, to undertake the National Rural Development Program (NRDP) which would cover the entire country. The NRDP is a 20-year program which aims to:

1. increase the general level of Malawian smallholder production, in particular the production of cash crops for export and for feeding the growing urban population;
2. provide the inputs and services required to increase yields; and,
3. preserve natural resources by encouraging soil conservation, conserving key watershed areas, and developing forestry resources.

Under the NRDP cultivation of new lands is discouraged. Instead emphasis is placed on increasing the production of land already under cultivation. To achieve these objectives, the government is concentrating its efforts on increasing efficiency and expanding delivery systems with particular emphasis on agricultural services such as extension, input supply, marketing and credit. To this end, the Ministry of Agriculture

(MOA) has been restructured. The country has been divided into eight Agricultural Development Divisions (A.D.D.) and a management unit has been assigned to administer the activities in each of these units. The NRDP has not terminated the four integrated rural development programs, rather it has absorbed them into the national program and has changed their intensity and investment priorities. In general, the NRDP strategy is to give priority to investments expected to have an immediate impact on agriculture. Other investments which are either relatively more costly or have a less direct impact on production are given lower priority. The NRDP is to be implemented over a 20-year period through some 40 development project areas.

The NRDP continues to focus government agricultural development activities on smallholders. Its main emphasis is directed toward smallholder crops such as maize, groundnuts, tobacco, cotton and rice. Emphasis is to be placed on extension services and on short and medium term credit to promote the use of new seed varieties, fertilizer and increased farm power by financing the purchase of oxen and ox-drawn equipment.

The formation of the NRDP with its emphasis on increasing smallholder productivity was a major clarification in government agriculture development policy but one major policy element was still missing. A decision made in 1981 provided the missing element.

Until 1981 the Agricultural Development and Marketing Corporation (ADMARC) set producer prices in consultation with the government. ADMARC is a statutory enterprise within the Ministry of Agriculture which imports and markets inputs to the smallholder sector and purchases smallholder cotton, rice and tobacco. ADMARC is also the residual purchaser of maize,

groundnuts and tobacco. Over the years ADMARC has set relatively high producer prices for maize and rice, relatively low prices for cotton and groundnuts and, while smallholder tobacco prices have varied, they have tended to be well below the auction-floor prices received by estates.

The effects of ADMARC pricing have been to provide subsidies to both maize producers and consumers, to levy taxes on smallholder cotton, groundnut and tobacco growers and to generate annual average profits (\$36 million in 1978) equivalent to 38% of the value of ADMARC average net assets. About 40% of ADMARC profits have been turned over to the government development budget. ADMARC, which is a major shareholder in two major banks in Malawi (the Commercial Bank of Malawi and the National Bank of Malawi) has been in a position to make large annual deposits to the banking system for several years.

The missing policy element to accelerate smallholder growth was provided in the most recent five-year development program 1981/82- 1985/86. It was proposed that "for export crops, an annual review of ADMARC prices is envisaged, to keep them in line with changing export parity prices."¹ This move is significant because it means smallholders will tend to receive appreciably higher prices for their cash crops, thereby greatly increasing their ability and their incentive to make productivity-increasing investments in their own holdings. During the 1970s smallholders' abilities to invest were extremely restricted and there was small incentive to invest. Some pricing policy issues remain unresolved, such as panterritorial pricing of smallholder agricultural inputs and outputs, subsidies for maize producers and consumers and input subsidies particularly for fertilizer,

¹ Malawi Government, Economic Report 1981, p 77.

but a fundamental change has taken place. The prices for smallholders' outputs are no longer being determined by a profit maximizing monopsonist. Price policies will be governed by broader national interests.

Some Malawian officials have suggested that while using export parity prices as guides for smallholder crops is an improvement, this technique is not completely adequate. They note that in order to take into account supply cross-elasticities and other key relationships in multiple crop production it will be necessary to calculate input and output prices using a larger number of variables and particularly to take into account farmer returns per person day per crop. These officials suggest that techniques such as multiple regression and multivariate analysis will be required. There is a substantial body of professional opinion and evidence to support this view.

Agricultural Institutions

Research: Agricultural research is carried out by the Agricultural Research Department of MOA, the Faculty of Agriculture of the University of Malawi, and the Tea Research Foundation (an independent organization for tea research). The University of Malawi at Bunda College of Agriculture carries out its own research or does so on behalf of the MOA. The Agricultural Research Department is a full-time research operation with national responsibilities covering all crops and livestock. Administratively, agricultural research is organized on the basis of research stations which, in turn, are subdivided into substations and district sites. Functionally, research is organized under projects based on crops or disciplines.

A recent World Bank report (Key Issues in Agricultural Development, 1980) gives high marks to agricultural research in Malawi, noting that:

A considerable amount of research information has been accumulated over the years, particularly on maize, groundnuts and tobacco. This information has been used in formulating recommendations for improved crop production, and these recommendations have been tried and adopted by farmers. The present research set up in the country appears adequate for supporting crop production under NRDP projects for the immediate future.

The Bank report adds, "however, there are some aspects of the research program that need to be intensified." The main aspect is that the "chief constraint to increased productivity at this time is the lack of high yielding varieties that are acceptable to the population. Maize is a case in point." Given the fact that maize is the staple food grain and that "a considerable amount of research information has been accumulated ..., particularly on maize..." it is a revealing comment on research that generally acceptable maize varieties have not yet been developed. This suggests that the link between research and the farmer is weak.

An inquiry into the apparent paradox, which extends to other crops as well, indicates that while extensive research is being conducted the research tends to be concentrated on increasing yields and repetitive field trials. Although there is extensive work being done on the scientific-physical side, much of the agricultural research in Malawi is analytically deficient in that farming systems analysis and farm-level production economics are not systematically applied to give specific direction and purpose to research activities. Thus, it is understandable that substantial maize research has taken place but generally acceptable maize varieties have not yet been developed.

This finding is conditioned, however, first because efforts and some progress have been made in finding higher-yielding local varieties and second by the fact that the AID-sponsored Agricultural Research Project is introducing, inter alia, farming systems and production economics elements.

Because research in maize and other crops tends to be concentrated on developing technical packages based on hybrid or composite varieties, there are several opportunities to look at specific operations--plant spacing, ridging, weeding, intercropping techniques-- and develop improvements which the farmer can apply short of adopting a complete and new set of practices and inputs. So far, research efforts have tended not to develop specific measures which are partial and therefore produce less than optimum yields, but which are also likely to be more readily adopted and retained by farmers. Thus substantial scope remains to improve research in ways which will enable it to exploit specific technical opportunities and to incorporate models of farmers' decision-making processes.

Extension: With the initiatives of the NRDP in 1977 the extension service was reorganized, decreasing agent farmer ratios in project areas to allow coverage of the entire country. The MOA defined 180 Ecological Planning Areas which are the most immediate extension management units. There are four levels of extension staff in MOA: Professional Officer (PO); Technical Officer (TO); Technical Assistant (TA); and Development Assistant (DA). POs function at the supervisory and research level while TOs, TAs and DAs work in the field as extension agents. The present extension agent to farmer ratio is between 1 to 1400 and 1 to 2400 in non-project areas and about 1 to 500 in project areas. TAs comprise the core of extension service field agents. At present Malawi has 1600 to 1700 TAs and about 300 TOs. TAs receive two years of training at Colby College and TOs are trained for three years at Bunda College. About 165 to 200 new TAs are graduated each year including 20 to 50 women graduates who receive one year of training in home economics and agriculture at Thuchila Farm Institute.

The Malawian extension method relies heavily on a group approach whereby farmers are encouraged to form village-level groups and arrangements are made for agent visits. Farmers are encouraged to adopt a certain technical package and if receptive they are permitted to apply for credit with the assistance of the extension agents. Credit is not provided to farmers who do not adopt the recommended technical package.¹

In its overall assessment of the Malawi extension service in 1979 the World Bank noted that:

The officials of MANR [MOA] have generally expressed a high degree of satisfaction with the training provided to both officers and technical assistants in Malawi. The mission was also impressed with the high quality of the training programs and the caliber of the field staff. The problem lies not in the quality but in limited numbers of trained people available relative to the demands for agricultural work force which will continue to grow in the next several years. The expansion of facilities of Bunda and Colby will possibly satisfy the long range demands, but [for] the in-years immediately ahead, the shortages will persist.²

In 1982, Malawian officials at the MOA at Colby College and resident foreign advisors consistently expressed the view that the number of extension agents was adequate or soon would be. Their views essentially validate the Bank report's projections made in 1979 that the extension agent gap would rapidly diminish around 1982, but discussions with officials and preliminary examinations of new survey results reveal a complex of qualitative problems.

Starting with training of the two-year TA students, it was noted that there was a weakness in teaching basic courses such as math and biology. Similarly, officials in the MOA mentioned weaknesses at supervisory levels because agriculturalists who were designated as specialists in fact did

¹ See World Bank, Key Issues in Agricultural Development, 1980 for a detailed description of the extension service.

² ibid., p. 34.

not have the specific technical training needed to supervise activities within their specialities.

The major problem, however, concerned the quality of the extension service field staff. The general observation was made that many extension agents were trained several years ago and they have not been kept up to date. As a result many agents are dispensing the wrong or obsolete technical information. Agents are especially weak in their ability to provide technical advice on single variables, e.g. optimum weeding practices for a specific crop or how to recognize and treat a specific plant disease. The entire approach to extension service is deficient because agents lack training in farming systems analysis and production economics. Agents do not have adequate technical training or sufficiently current knowledge to understand and teach to farmers techniques which have been developed by researchers.

The research-extension link was identified as being particularly poor. There are no systematic institutionalized procedures linking extension and research. Some extension agents are brought into research centers for in-service training on new techniques but only a small portion of the total cadre have this opportunity and, as noted above, because the agents tend to have poor technical backgrounds and because research concentrates on maximizing yields by means of technical packages, the value of the research visits is limited. Furthermore there is no means for systematic transmission of information or problems from farmers and/or extension agents to the research level.

The question of women extension agents was also singled out. Women are trained in agriculture at all levels, however, the majority of women are trained at the TA level (one year of training) or below. There are two serious deficiencies affecting the effectiveness of the extension

system. One fault is that the training of women extension agents as agricultural technicians who give advice to farmers is inadequate and that in-service programs are extremely deficient in providing supplementary training in agriculture to women agents. The second serious fault in the extension system is that women perform roughly 70% of all smallholder farming including virtually all of the cultivation of foodcrops but women extension agents make up only 10 to 20% of the field extension cadre. Malawian officials consistently indicated that it is extremely difficult and awkward for men extension agents to speak to women farmers singly or in groups. Thus we have a serious mismatch in which those agents who are potentially the most effective conveyors of information to the large majority of farmers are a relatively small minority in the field extension cadre and they are not trained up to the same level as men extension agents.

To illustrate briefly, differences found for in-service training in three courses ranging from 6 months to two weeks, men extension agents received 3.5 times more training in agriculture than women in one course and in two short courses men received seven times as much training as women extension agents. Preliminary findings from a sample survey indicate that women extension agents felt confident only to give instructions in vegetable growing.

One problem is being partially corrected. Presently, women TAs receive one year of training (compared to two years for men) consisting primarily of home economics subjects with secondary attention given to agricultural topics. This deficiency will be eased in 1983 with the opening of the Natural Resources College (NRC) which will absorb Colby College and Thuchila Farm Institute and place all TAs in a two-year program. A new curriculum is being prepared with the assistance of CIDA

which is financing the NRC project. About 70 students out of each 240-student class will be women. They will be required to follow a curriculum with a much larger proportion of agricultural subjects but which will still retain a major emphasis on home economics. Men will continue to take basic courses and agricultural courses. While the doubling of training and time and curriculum reforms are an improvement, there will continue to be a mismatch between the male-female ratios of new extension agents to the ratios of farmers and new women extension agents will still receive less training in technical agriculture subjects than their male counterparts. Over the next two to three years Malawians with advanced degrees from U.S. universities will join the agricultural research staff. This will further contribute to an imbalance in technical capabilities between the research and extension staffs. At the present time no donor has any major involvement in extension service planning or in-service upgrading, nor are there any indications of firm plans by other donors to play a major role in agriculture extension improvement.

Credit: At present, there is no single agricultural credit institution in Malawi that serves the entire agricultural sector. Credit facilities for the smallholder subsector are provided by: (a) the ongoing agricultural projects; (b) the settlement credit schemes run by the technical services department of the Ministry of Agriculture; (c) the Crop Development Authorities (Smallholder Tea, Smallholder Coffee, and Kasungu Flue-cured Tobacco Authorities); and (d) the Government Loan Board. In the past, project area (with about 25 percent of farm families) farmers have had access to seasonal and medium term credit. The credit entities administer seasonal loans through farmers' groups to minimize the administrative costs. The administration of smallholder credit has been characterized by strict

supervision and discipline, and by its close working relationship with extension staff and ADMARC which is the input distribution agency. The estate subsector gets financing from the two commercial banks.

Seasonal loans can be taken out only by farmers who will use them for technical packages (e.g. hybrid maize). Extension agents play an integral part in the entire credit, technical-package, credit-collection process. The World Bank has taken a dim view of the close link between extension agents and credit operations because it tends to concentrate the agents' efforts on promoting specific technical packages-cum-credit at the expense of providing a broader range of services. By acting as collection agents the farmer-agent relationship is impaired.

The Malawi Union of Savings and Credit Cooperatives (MUSCCO) has recently been created to provide low-cost, short-term credit to farmers and small businesses through local credit unions located around the country. Although still small, 54 percent of MUSCCO loans, averaging K43 have gone to agriculture; 19 percent, averaging K93, to small businesses and 7 percent have been education loans. MUSCCO total assets in 1980 were about 400,000 kwacha. MUSCCO expects to grow 30 percent each year. AID is providing management training and funds to MUSCCO, however, the credit union's main source of funds is the savings deposits of Malawian citizens.

Manpower

The shortage of skilled manpower in Malawi is widely viewed as one of the six major factors impeding acceleration of economic development.¹

¹ The other five factors (or symptoms) are: slow growth of smallholder output and exports; relatively poorer prospects of traditional estate exports; declining or static terms of trade; continued rapid growth of population and labor force (and the rapid decline of unutilized cultivatable land; deterioration in budgetary and public enterprise performance; and continued shortage of skilled manpower. World Bank, Malawi: The Development of Human Capital, 1981.

In 1979 a manpower survey was carried out which concentrated on determining the demand for skills. In 1979 there were estimated to be 21,400 vacancies of which 72% were in the private sector. It was found that the most difficult posts to fill were in the professional, technical and managerial categories.¹ A companion piece to the 1979 manpower survey was completed in 1981 which attempted to identify policies and priorities for the further development of human capital.²

Malawi ranks above income-predicted enrollment ratios for African countries in basic education and in adult literacy but below the income predicted enrollment ratio for secondary education. Enrollment in primary education increased at an average annual compound rate of 4.5% between 1962 and 1978 (332,000 to 675,000 students) and 10.6% (3,000 to 15,000) for secondary enrollment.

The higher education system is the University of Malawi which consists of Chancellor College, Bunda College of Agriculture, Kamuzu College of Nursing and the Polytechnic. Chancellor is a liberal arts and sciences, four-year degree institution. Bunda College is a three-year diploma institution which produces graduates who serve in supervisory, research and teaching capacities. Bunda has an enrollment of approximately 360 students. The Polytechnic offers three-year diploma programs in business, engineering and math and science. The Natural Resources College which is not part of the University of Malawi system will train technicians in natural resource areas when it opens in 1982.

¹ Government of Malawi, Economic Report, 1981, p. 53.

² World Bank, Malawi: The Development of Human Capital, 1981.

AID has been supporting institution building in the University of Malawi system for several years. The university system will continue to receive attention and support over the long term as a means to provide the government with the skills it will need to increase smallholder productivity and to provide skills for growth and development in the private sector.

Energy and Environment

In 1979 firewood provided approximately 94% of Malawi's energy requirements. Petroleum products, all of which are imported, provided 4%. Consumers prices for neither petroleum products nor electricity are subsidized. Like many African countries Malawi is confronted with dwindling forest reserves. The Malawi Department of Forestry has estimated that at present relative rates of growth and consumption forest supplies will be totally exhausted by approximately 2005.¹ The adverse implications (e.g. soil degradation, erosion) for agriculture and for efforts to increase agricultural productivity have been recognized by the government for several years.

In 1980/81 the government prepared a scope of work for a national energy survey. The survey was carried out in the fall of 1981 by a joint team from the government, the World Bank and AID. The resulting report will be distributed in March 1982.

Concerted Action for Development has included forestry and fuelwood among its priority concerns in Africa, and selected Malawi as a country where a forestry activity might be initiated. The U.K. High Commissioner is the CDA representative and the AID representative is the CDA deputy representative on forestry.

¹ See "CADA Forestry and Fuelwood Production Initiatives in Selected African Countries," 9/81 by Gulick and Mullally for an excellent description of the subject.

Family Health and Spacing

Malawi's population growth rate ranks among the highest in the world and its population density (176 persons per square mile in 1982) is among the highest in Africa. The fertility rate in Malawi averages seven births per woman. Between 25 and 35% of Malawian children die before reaching their fifth birthday. Mortality has been declining. Average life expectancy rose from 33 years in 1950-55 to 45 years in 1975 while the death rate per 1,000 population fell from 30 to 21. The population growth rate which has been estimated to be 2.9% or slightly more will increase as mortality rates decline.

Statistically, Malawi will no longer have unused, arable land by 1985. The present population is approximately 6.4 million and if fertility stays high the population will reach 12.4 million people by 2000. Even if the fertility rate were to suddenly drop to the replacement level total population would continue to grow for the next 40 years.

The FY 83 CDSS for Malawi stated that if the rate of population expansion "is not addressed it is virtually a mathematical certainty that Malawi's long-term economic goals will not be realized." Over the last year there have been some positive moves toward addressing the problem.

At the invitation of the government, an expert from the Futures Group visited Malawi in May and June of 1981. The expert presented a computer-based simulation study, "The Effects of Population Factors on Social and Economic Development," to officials in the Office of President and Cabinet (OPC). Under OPC and Ministry of Health sponsorship the study was presented to 215 Malawian officials including the Minister of Education, and the Minister of Forestry and Natural Resources.¹

¹ See the Malawi FY/83 Annual Budget Submission, pp. 8, 9 for a more detailed description of Malawian audience.

The Futures presentation was an unprecedented event. Previous overtures by UNFPA and WHO had been declined by the government. After the Futures expert's visit, AID gave the government the equipment necessary to present the study (an Apple II computer and visual aid equipment) and the government has made subsequent presentations.

As a direct result of the presentation USAID/Malawi and Malawian officials have drafted a paper for review by President Banda. The paper requests the President to approve a policy which will allow the extension of U.S. assistance to help formulate and implement a policy which addresses the problem of balancing population with other natural resources.

In addition to policy work USAID/Malawi is adding to the supply of family health and spacing devices already being imported by the government. These devices are made available to persons whose health would be otherwise endangered.

There has been substantial movement toward official acceptance of a family health and spacing policy but the outcome is still pending. Within the coming months USAID expects to hold discussions with the government on increasing the quantity of U.S.-supplied family health and spacing devices. In addition it is anticipated that AID will provide technical experts to assist the government in formulating a general plan to address the population growth issue. This will be a general plan in which all interested donors will be invited to participate. USAID will continue to play an active and constructive part in this fundamental development policy issue.

Development Assistance by Other Donors

In 1980 Malawi received approximately \$90 million in grant technical and capital assistance.¹ This comes to a per capita figure of about \$15. Of this \$90 million amount about \$30 million was for technical assistance and \$60 million in capital grants. The United Kingdom is the major donor of technical assistance. The education sector receives the largest share of technical assistance (26.6%) followed by agriculture (20.4%) and health (11.3%).

Summary of major donor activities in 1980:

United Kingdom

\$14 million in technical assistance and \$15 million capital grant. U.K. technical assistance consists mostly of paying salaries and/or topping off salaries for over 450 expatriates (including 24 VSO volunteers). Education is the main sectoral interest including a major capital grant to the University of Malawi, Polytechnical Institute. U.K. assistance also goes to agriculture, health and transportation.

Canada

\$3 million technical assistance and \$5 million capital grant. Canadian technical assistance goes mainly to the Malawi railroad as well as \$1.4 million in capital grants. Major programs are also underway in water storage, dairy and construction of the National Resource College. Canada has made a \$2.5 million capital grant to NRDP. The International Development Research Center is undertaking a small program in fuel wood research in Malawi.

West Germany

\$2 million technical assistance and \$3 million soft loans and capital grants. German technical assistance is primarily directed toward rural growth centers. It also offers scholarships and assists the Malawi Broadcasting Corporation. The bulk (\$18 million) of capital assistance is for road construction. Germany also is building storage facilities for a strategic food reserve, a district hospital and a sewer system in Blantyre.

¹ Data from UNDP, Office of the Resident Representative, Development Assistance to Malawi, Annual Report for 1980, Lilongwe, 1981.

Japan

\$2.5 million technical assistance and \$1.5 million soft loans. Japanese technical assistance takes the form of approximately 100 Japanese Overseas Cooperation Volunteers. These volunteers work mainly as nurses, teachers, construction supervisors and agriculturalists. Japan also has made a soft loan for Kamuzu International Airport at Lilongwe.

Denmark

\$2 million technical assistance and \$4 million soft loan. Denmark's technical assistance includes salaries for 20 expatriates. Other funds are used for rural water supply, East Coast swine fever control and building of health centers.

France

\$600,000 technical assistance. French technical assistance is directed toward scholarships, and teaching of French and medical subjects.

Among the multilateral donors the U.N. and its sister agencies and the European Development Fund (EDF) are the most important.

United Nations Agencies

\$12 million technical assistance. The United Nations agencies have programs in a wide range of activities. In the area most relevant to USAID/Malawi, U.N. agencies have programs in water resource development, rural water supply, fisheries, milk production and support of faculty at Bunda College. Of special note are UNFPA programs in census analysis and MCH support. WFP also has a large-scale feeding and food for work program.

European Community

\$8 million in technical assistance and \$7.5 million in capital assistance. The EEC through the EDF provides technical experts and scholarships as technical assistance. These contributions support the NRDP in the Lakeshore region. In capital assistance, EEC funds go mostly toward two district hospitals and medical staff training, fisheries, dairy, the Polytechnic Institute, and the development of industrial areas.

Besides technical and capital assistance Malawi also received \$90 million in external loans and credit in 1980. Among the major lenders were the African Development Fund, African Development Bank, Danish Government, IDA, French Government, Japan and India. The bulk

of these loans were used for road construction, regional agricultural development projects and educational facilities.

West Germany was the largest source of Malawi's capital assistance funding in 1980 (21%) followed by the World Bank's International Development Association (14.6%). USAID and the British Government each supplied 10%. Much of this assistance was for agriculture and rural development.

Table 3 below provides a summary of technical assistance to Malawi.

Table 3 : Externally Financed Technical Assistance by Sector, 1980

Sector	\$000	Share of total (%)
General development issues, policy and planning	4,386	10.0
Natural Resources	2,461	5.6
Agriculture, forestry & fisheries	8,986	20.4
Industry	2,026	4.6
Transport & Communications	3,756	8.5
International trade & development finance	670	1.5
Population	135	0.3
Human settlement	3,162	7.2
Health	4,978	11.3
Education	11,707	26.6
Employment	367	0.8
Humanitarian aid and relief	712	1.6
Social conditions & equity	164	0.4
Culture	440	1.0
Science & technology	91	0.2
TOTAL	44,041	100.0

There does not appear to be much likelihood for overlap between USAID's and World Bank's proposed development strategy and projects in Malawi. The World Bank is considering funding the following agriculture projects over the next few years.

Fiscal 1980

-initiated NRDP-II, a five-year national forestry program developing wood energy, budgeted at \$11-12 million per year.

- Fiscal 1982 -NRDP-III, will most likely focus on the Karonga area development project.
- Fiscal 1983 -NRDP-IV, will most likely focus on Dedza Hills and Lilongwe N.E. area development projects.
- Fiscal 1984 -NRDP-V, will most likely focus on consolidation of Shire Valley projects and involve some irrigation.

The greatest likelihood of overlap between USAID and World Bank projects would be in the manpower development area. The World Bank is considering training NRDP middle management in a future education project which is not too dissimilar to what is in the USAID/Malawi draft Manpower Development project identification document.

III. STRATEGY

A. BACKGROUND

The AID FY 84-89 strategy is set within the context of the concerted efforts by the Government of Malawi and other donors to pursue a program of equitable economic growth and development. The following AID plan is formulated with the knowledge that rapid expansion in Malawi's foreign exchange earning capacity (either by foreign exchange saving or generating activities) is vital if the economy is to maintain its rapid pace of development. This means that agriculture, the predominant foreign exchange earning sector, must grow; and, for the sake of increasing stability in foreign exchange earnings, agriculture must be increasingly diversified.

The FY 84-89 strategy is also guided by the broad agreement which exists

among the government, donors and analysts of the Malawian economy that the most effective way to go about achievement of major, long-term gains in agriculture production is to concentrate on increasing agricultural productivity. By definition, productivity increases will free up resources. These resources can be allocated to production of more food for the growing population (thereby saving foreign exchange on foregone food imports) and allocated to production of a greater variety of commodities. The smallholder subsector of agriculture because of its size had the greatest latent potential for major gains in productivity rates. Furthermore assistance to the smallholder subsector affords the best opportunity to ensure that U.S. assistance contributes to equitable growth.

It is obvious that AID by itself cannot accomplish the task. The undertaking will depend on a consistent effort by the Malawian Government and private sector supported by the entire donor community. The FY 84-89 AID strategy assumes a continuing firm commitment to development by the government, it assumes the continued presence of other donors and it assumes that the multilateral financial institutions will continue to play a major part in assisting Malawi at the macro-economic policy level. The FY 84-89 strategy concentrates on the sector level and particularly on agriculture. It is believed, however, that a sound AID development effort, consistently pursued, can make a substantial contribution to Malawian economic development.

B. AID ASSISTANCE STRATEGY: FY 84-89

The following material outlines a five-year plan for AID assistance activities in Malawi. The plan is based on the premise that AID will maintain an active role in assisting Malawi's economic development for at least the next 20 years. The strategy is consistent with AID guidance papers. It essentially builds on the policy points presented by President Reagan in speeches on U.S. development interests delivered at Philadelphia and Cancun in 1981.

The strategy has a hierarchy of objectives and outputs. The target groups vary with the particular strategy element but the largest group of primary beneficiaries will be Malawian smallholders. This group is discussed in the strategy agriculture section. The major target group in the private sector element is small to medium-size Malawian entrepreneurs.

The core element of AID development strategy in Malawi will be concerned with smallholder agriculture. Manpower and family health and spacing will be subordinate to agriculture. Private sector activities will not be exclusively restricted to agriculture. The major portion of AID budget and staff resources will be concentrated on agriculture with the maximum feasible emphasis on smallholders. This emphasis will be consistently pursued and developed over the next several years. The means by which the strategy will be implemented will be weighted toward project assistance for institution building and manpower development, supplemented by program sector assistance.

The objectives of this AID strategy are to increase the ability of the government and the private sector to identify and react to development opportunities at the sector level; to increase Malawi's ability to use agriculture resources more efficiently; and to reinforce the agriculture sector's ability to sustain changes and the resultant higher output levels. Specific objectives, results and verification of results are discussed in the following strategy element sections.

C. AGRICULTURE SECTOR

The main objective of AID assistance to agriculture is to accelerate the rate of increase in smallholder productivity and to do it in such a way that productivity gains will be sustainable into the future. AID strategy in agriculture will be composed of five interrelated activities to be refined

and initiated over the next five years.¹ The activities are: (1) improvement in the ability of the agricultural extension service to assimilate and transmit information to smallholders which will increase the productivity of their land and labor; (2) improvement in Agricultural Development Divisions' (ADD) capabilities to manage and promote increases in smallholder productivity; (3) provision of analysis and improvement in the government's ability to analyze large amounts of data for the purpose of policy planning; (4) gradual expansion of credit primarily for use by smallholders and secondarily by small-scale entrepreneurs; and (5) provision of an annual program sector grant for agriculture.

The main target group of AID assistance to the agriculture sector is holders of customary land who work their own holdings or about 77% of all rural households in Malawi. This group includes those who work their own holdings less than one-half time (30% of total rural households).

In terms of results or changes in output, greater results per household might be expected from those smallholders who allocate more labor time to their farms, but in terms of delivery of information and most services there is no appreciable additional trouble or expense in including part-time farmers. Furthermore part-time farmers tend to be in the lower income ranks therefore intentionally excluding them from receiving information would constitute explicit discrimination against lower-income farmers. Finally

¹ The suggested activities noted throughout the strategy section are not intended to be mini-project proposals per se. The activities are assembled as they are because they appear to be logical collections for expositional purposes. They are areas which warrant exploration and further objective investigation. The ultimate composition of an actual project will depend on subsequent exploration and may, conceivably, consist of any one of several combinations of the items described in the sector strategy.

it would be practically impossible to exclude part-time farmers from, for example, farmer group meetings with extension agents.

The ultimate determination of the effective target group--i.e., those who implement changes to the greatest degree and who benefit the most from, for example, improved extension services--is a function of variables relating to the nature of the activity itself: e.g., crop; farmers who for various reasons take most advantage of improved techniques; the distribution of land and capital; ability to hire labor; nature of the technology being transmitted, i.e., labor-saving, land saving, capital saving. The effective target group cannot be precisely identified prior to the specific activity and because detailed activities will be shifting over time, the exact effective target group will also be changing. It is anticipated that for the next few years growers of maize who can and are able to adopt improvements will be the largest beneficiaries but many kinds of information can be expected to be of potential benefit to a broad range of farmers.

To the degree that AID-assisted activities are region-specific, and not all activities will be, emphasis will be given to the non-project areas. If ensuing agricultural project activities are developed which have region-specific-characteristics they will be directed to non-project areas in the Central Region unless there are concrete technical reasons to do otherwise. Non-project areas are preferred because other donors tend to be more active in existing project areas and because it is a basic aim of the NRDP to spread development efforts into non-project areas. The Central Region is specified because it has greater potential for productivity gains than the South and because it has a better communications infrastructure than the North. Geographical targeting of activities can be extended out from the Central Region over the life of the NRDP.

Extension

The objective is to upgrade the quality of the extension field cadre in a manner which will enable it: to improve transmission of accurate, current crop production information; to transmit information on specific plant husbandry subjects; to absorb research results; and to relate more effectively to the majority of Malawian farmers. Specific aspects which will be explored for assistance are:

- a. initiation of a comprehensive in-service training program in crop production, farming systems and production economics for extension field officers. The in-service program will teach refresher courses in basics and introduce new techniques.
- b. training of teachers to serve as specialists in basic topics for the extension service training faculty at the NRC.
- c. provision of qualified trainers for the extension agent in-service training program.
- d. creation of a system to link, to transmit information both ways between the research and extension services.
- e. provision of necessary material support such as training aids, teaching equipment and incentive awards for agent students.

ADD Development

The objective is to increase the technical abilities and physical capacities of ADDs to manage and supervise promotion of technical changes for smallholders in their divisions. Consideration will be given to provision of special technical training in crop production subjects to ADD personnel, provision of housing, office facilities and basic equipment. In addition consideration will be given to formation of multidisciplinary teams, including professionals in farming systems analysis and crop production economics to visit ADDs to conduct on-site, in-service training and to act as technical troubleshooters if requested by the ADD.

Policy Planning

The objective is to enhance government economic policy and planning capabilities and to increase Malawian planners' abilities to make well-informed decisions. This activity will consist of analysis and creation of the institutional ability to conduct systematic economic analysis of the extraordinarily large and detailed amount of data on smallholder agriculture. Some of the most detailed agricultural data have been collected over the last 12 years by the National Sample Survey of Agriculture; by systematic sample surveys of smallholders conducted by the Division of Planning and Evaluation in MOA; and by the Agriculture Economic Survey which is the most recent survey effort. These major surveys in combination with Malawi's high quality national accounts system provide an extremely solid input base for policy analysis work. To date there has been negligible in-depth, long-term analysis conducted using the agriculture data. As noted in the analysis section, Malawian officials expressed interest in having access to a more sophisticated model of agriculture input-output and price relationships and they are interested in examining the effects of and ways to go about reduction of subsidies in agriculture.

Therefore, AID will seek to provide a small, high-quality team of analysts and computer experts to furnish Malawian planners with empirically-based analysis to assist them in their efforts to improve the efficiency of the agriculture production and marketing system. The team could be affiliated with the National Statistics Office, an office in the MOA such as the Division of Planning and Evaluation or with the Office of the President and Cabinet. In addition to provision of resident analysts the activity will provide necessary equipment such as micro-computers and counterpart training.

Most significantly the team will formulate and test analytic techniques and programs with the objective of establishing an institutional capability to formulate and execute analyses of policy issues.

The World Bank is providing assistance in this area in the form of advanced training and resident experts but it is understood that the Bank's scope of work does not include long-term policy analysis of the smallholder economy. There is no specific target group in a meaningful sense for this activity. Activity beneficiaries will be most of the population--producers and consumers--who will benefit as incremental improvements are made in the system.

Agricultural Program Sector Grant

A program sector grant in agriculture will serve several purposes. First, it will offset any incremental recurrent costs which might occur as a result of new AID projects. Second, a program sector grant will contribute to the creation of a positive atmosphere for any AID policy-related work in agriculture. Third, because the five-year outlook is for continued severe pressure on the balance of payments, a program sector grant will add an extra degree of stability to the Malawian international financial position. Fourth, if the sector grant is provided in the form of agriculture inputs, it will enhance the government's ability to do agricultural planning because the grant will add to the level of assured, imported inputs for agriculture.

The program support level will be maintained at a relatively constant level and it is not necessary that it be tied to specific sector policy issues. There will be an analysis to determine if and how the grant can be used to reinforce competitive Malawian entrepreneurs, e.g. distribution of grant fertilizer through private dealers. To further concentrate the effect of the sector grant, there will also be an examination to see how local currency generated by the program can be directed to agricultural activities within the AID strategy. Again the target group for this activity cannot, at this point, realistically be pinpointed. And if the

fungibility concept is fully taken into account it would be difficult to make a rigorous target group claim even after the details of the program are settled. Nevertheless the immediate effect will be influenced by providing the grant in commodity form--probably fertilizer--and by directing expenditure of local currencies to smallholder-related activities and to support small-scale Malawian enterprise.

Small-Scale Seasonal Credit

The objective of this activity is to facilitate adoption of new crop production technologies, and to expand the accessibility to new techniques for some smallholders who would not otherwise be able to gain access. Increased availability of small-scale credit is a natural complement to the process of accelerating technical change. Obviously detailed investigation is required, but consideration will be given to providing agriculture production credit which is not tied to adoption of a specific technique. The expansion of the credit program will not necessarily be tied to the growth rate in delivery of extension services although it will be coordinated geographically so rural credit programs will not be initiated in areas where agents have not yet received substantial amounts of in-service training.

The target group for this activity is approximately the same group as that of the extension improvement activity except that with the addition of credit, the size of the target group will expand to include those farmers who could not adopt new techniques without credit.

Agriculture Research

AID/Malawi has a strong multidisciplinary agriculture research project underway. The project is aimed at smallholder agriculture. Support for research on smallholder agriculture is expected to be continued well beyond the FY 1984-89 planning period. The composition and emphasis of agriculture research activities will be adjusted to future conditions.

In the preceding discussions social science disciplines have been explicitly mentioned for inclusion in extension improvement activities. However, it is categorically stated that it is the combination of physical science disciplines working in concert with social science disciplines which is seen as the sine-qua-non of any effort to improve Malawi's agriculture extension or agriculture research capabilities. Thus, while the social sciences have been emphasized, such emphasis is not intended to be at the expense of physical science areas. Social sciences have been explicitly noted because they are particularly crucial for establishing a program which can effectively relay information to a large and complex population of small farmers.

There is much work to be done in the physical science area including establishing closer links with international agricultural research centers such as CIMMYT, ICRISAT, IITA and WARDA. The MOA already has working relationships with some of these centers, however, there is substantial untapped potential. The accumulated knowledge and expertise of these organizations can be used to help Malawi skip or shorten some research phases and speed the introduction of new plants to farmer's fields.

Evaluation of Agriculture Activities

Verification of progress toward activity objectives will be carried out by analysis of data collected in periodic smallholder surveys conducted by the government. Objectives not covered in the existing sample survey system such as degree of technical upgrading achieved can readily be obtained by questionnaire surveys of extension agents. It is noted now that rapid increases in the aggregate production of one crop, e.g. maize, is not an acceptable progress criterion because on the margin farmers can choose to

reallocate their resources away from, say maize cultivation, as their productivity increases and toward other crops. Changes in aggregate levels will depend on relative return ratios. Thus, productivity measures will be the single most important set of evaluation criteria. Increases in small-holder real income will be the ultimate progress indicator for the policy level activity, but there are several other intermediate evaluation criteria, the development of which will be subject to specific activity design, e.g. reduction of input subsidies or determining prices using several relevant variables or termination of certain price setting practices.

D. PRIVATE SECTOR

The objectives of AID strategy with respect to the private sector will be to: (1) accelerate expansion and development of small to medium-scale, indigenous, Malawian enterprises; (2) increase the number of new Malawian entrepreneurs who are entering the market; and (3) increase the rate of American private investment in the Malawian private sector. The AID five-year plan for private sector promotion is more tentative relative to the plans for agriculture because private sector support is a relatively uncharted area. Nevertheless, USAID/Malawi sees excellent potential in private sector development because the general business climate and policy environment are favorable and because there is thought to be a large segment of industrious and competent entrepreneurs in Malawi.

Indigenous Enterprises

At this stage of planning, the means for assisting indigenous entrepreneurs are: (1) provision of short-term (1-3 years) loan capital; (2) increase the availability of mid-skill level workers (ranging from bookkeepers to welders and mechanics); and (3) increase the access of small and medium Malawian businesses to professional skills such as those of lawyers, accountants

and technical specialists. The primary target group is small to medium-scale, indigenous entrepreneurs.

It is anticipated that competitive interest rates will be charged for loans and that the program will be administered by a private Malawian institution or group. Conceivably a private Malawian bank will be involved.

The availability of mid-skill level workers will be addressed by supporting vocational training programs such as those at the Polytechnic. In addition USAID/Malawi will explore means whereby Malawian businessmen themselves can initiate a cooperative training scheme or on the job training programs.

USAID/Malawi will examine ways to increase entrepreneurs' access to professional services by means of an institution building process in which a professional skill pool will be established under a cooperative arrangement. The skill pool conceivably could be incorporated into an existing organization such as the African Businessmens' Association or it could be established as a separate entity.

American Private Investment

USAID/Malawi sees its role as one of providing assistance in facilitating the entry of U.S. private enterprises into the Malawian market. USAID recognizes that several other U.S. agencies are also concerned with promoting U.S. investment overseas. Therefore, the following statements are made with the basic assumption that any AID activities will be carried out with appropriate collaboration with other U.S. agencies.

The objective is to increase the flow of U.S. capital and technology into Malawi on sound economic and viable financial bases. Agro-industry is seen as a particularly promising area because of its backward and forward

linkage characteristics; however, AID will be as supportive as possible of any investments which increase foreign exchange earning or saving activities; generate employment; achieve technology and skill transfers and achieve economic diversification.

During the early phase of the planning period USAID will seek to gather and relay relevant information on investment possibilities. USAID will rely on the Private Enterprise Bureau or other appropriate organizations to conduct surveys and similar activities. In the longer term USAID/Malawi will be willing, in principle, to make loan funds available for key investments which are necessary complements to highly developmental U.S. private investment-- such as provision of specific manpower training or provision of small-scale infrastructure investment.

E. MANPOWER

The objective of AID's program in this area is to increase Malawian capacity to provide skilled manpower in the quantity and quality necessary for the prosecution of Malawian agriculture development programs and to allow private enterprise to increase its ability to expand and handle more complex technical tasks. There are two primary target groups: government entities which use skilled manpower in agriculture and private enterprise including small enterprises which tend to require low to mid-level skilled manpower.

The general means to pursue the objective will be to continue to support the University of Malawi system. The present project with Bunda College will run its course in April 1982. Because Bunda is the agricultural

college of Malawi and because increasing agricultural productivity is the centerpiece of AID assistance strategy, the Bunda College of Agriculture is a vital component in the scheme. Whether or not AID will consider providing support for Bunda in the future is solely dependent on the formulation of a long-term plan for that institution and on the formation of a concensus among the donors to coordinate on issues relating to Bunda.

AID has a project with the Polytechnic's Department of Engineering which will run to 1985. This program is highly responsive to the demand pattern for types of skills and it is producing graduates at the skill level (middle) which is most needed. AID's plan for support of the Polytechnic after 1985 has not yet taken shape. A strategy will be made upon the receipt of a 20-year plan which is presently in the final stages of completion. It is considered crucial that the Polytechnic be able to continue to upgrade its educational programs to be able to be responsive to future manpower needs.

Although no AID intervention is planned for Chancellor College in the near term, USAID intends to examine the cost effectiveness of establishing a Master Degree program in policy-related disciplines such as economics, finance and demography at Chancellor College. To date Malawians have had to go abroad for post graduate degrees. USAID will continue participating in centrally funded manpower development programs such as AFGRAD and AMDAP for external education in order to respond to special manpower requirements outside the main thrust of the strategy.

F. FAMILY HEALTH AND SPACING

The overriding objective of AID strategy in this area is to reduce the population growth rate over time in such a way as to enhance the chances for accelerating economic growth and development. Several means will be employed

to achieve this objective. First, AID will continue to act as the donor prime mover in helping the government to develop a family health and spacing policy. If the draft paper noted in the analysis section is accepted by President Banda, AID will assist the government in planning and in implementing a family health policy. Second, AID plans to play an active role in keeping donors interested in supporting the government's policy decision when a plan has been completed. AID will select a discrete activity to support. The activity will be formulated as a health activity in which child spacing will be a major component. It is anticipated that this activity will also contain education and maternal child health components. Third, for the near term, USAID hopes to increase the import level of contraceptive devices.

The target group is households who are willing to adopt family spacing. This group will obviously be drawn from the total population. At this point not enough is known about the possibilities of concentrating on specific socio-economic population strata but this will be investigated in the project design phase.

Evaluation of the family health and spacing strategy will be based on three main areas: government adoption and implementation of a FH&S program; government permission to AID to increase the supply of contraceptive devices; and family acceptance rates of child spacing.

G. ENERGY AND ENVIRONMENT

It would be premature to outline an energy strategy before the national energy survey has been reviewed. However, the importance of forestry and firewood in the national energy scheme and the close link between forests and agriculture make energy a subject of major concern. The National Energy Survey, to

be distributed in March, will be used to help USAID/Malawi form a specific plan. To fit AID's overall plan the choice of activity will be governed by the principle that it be as closely linked to smallholder agriculture as is feasible.

IV. IMPLEMENTATION OF STRATEGY

A. INTEGRATION OF ASSISTANCE INSTRUMENTS

USAID/Malawi will seek to integrate all available assistance instruments, including potential central funding sources, in a manner which will most effectively support the preceding plan. The primary instrument shall remain development assistance in project form supplemented by a program sector grant. USAID is interested in securing ESF if possible. If ESF resources were to be used there is ample opportunity to maximize their development impact. USAID is also interested in exploring the possibility of increasing the use of central funds so long as the activities can be closely coordinated with the plan's priority activities.

USAID intends to explore ways to facilitate access to funds available from regional sources such as SADCC and multinational organizations such as CDA. USAID will continue to use the African Manpower Development Program and the African Graduate Program as part of the overall manpower effort.

B. PROPOSED FUNDING LEVELS

The major categories of the proposed strategy are agriculture, manpower and population, under which supportive functions such as energy, credit and training are subsumed. The proposed funding levels are assigned only to major categories.

TABLE : FISCAL YEARS
(millions of dollars)

Sector	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
Agriculture	9.0	12.4	13.1	18.0	18.0
Manpower	3.0	3.0	5.9	3.0	3.0
Population	2.0	2.6	3.0	3.0	3.0
Total	14.0	18.0	22.0	24.0	24.0

Obligations of the magnitude proposed above depend upon acquiring appropriate USAID staff to plan, monitor and help implement the discrete activities subsumed under the major components, and the availability of funds. The absence of escalation in the dollar value assigned to population is deliberate. It is believed that other donors will make significant contributions once the policy issues in this area are resolved.

Due to the uncertainty of the sources of financial and technical resources to undertake activities in the indigeneous private sector, proposed funding levels for this component of the AID assistance program to Malawi were deliberately omitted. USAID has submitted materials to AID Washington which may help to identify some possibilities for AID assistance.