

IMF WORKING PAPER

© 1991 International Monetary Fund

This is a working paper and the author would welcome any comments on the present text. Citations should refer to an unpublished manuscript, mentioning the author and the date of issuance by the International Monetary Fund. The views expressed are those of the author and do not necessarily represent those of the Fund.

WP/91/101

INTERNATIONAL MONETARY FUND

African Department

Mozambique: Economic Rehabilitation and the Poor

Prepared by Paulo S. Lopes and Emilio Sacerdoti 1/

Approved by Richard C. Williams

September 1991

Abstract

Poverty has remained widespread in Mozambique, mostly on account of the prevalent war situation. This paper provides a profile of the lowest income groups in Mozambique and examines how they were affected by the economic recovery program of 1986-90. The results, indicate that despite large price adjustments, in real terms minimum and low wages improved over the 1986-90 period. Agricultural production increased in response to better incentives, and small farmers in safe areas improved their relative income position. However, in the presence of a large refugee population and war-related destruction, there continues to be a pressing need for extended emergency aid.

JEL Classification Numbers:

E64, I32, I38, O15

1/ The authors are grateful to Ke-Young Chu for his useful suggestions in the preparation of this paper. An earlier version was presented at the IMF's in-house seminar on "Economic Reform and the Poor," held in December 1990. The views expressed are the authors' and do not necessarily reflect those of the International Monetary Fund.

Table of Contents

	<u>Page</u>
Summary	iii
I. Introduction	1
II. Characteristics of the Poor	1
1. Classification	1
2. Composition of household income and expenditure	2
III. The Economic Rehabilitation Program and Consequences	6
1. Policy measures	6
2. Consequences of policy measures	7
a. Pricing measures	10
b. Fiscal policy measures	16
3. Food security and the urban rationing system	18
4. New directions of the poverty relief strategy	20
a. Public expenditure priorities	20
b. Safety net for rural and urban households	21
IV. Concluding Remarks	22
Text Tables	
1. Absolute Poverty Incidence by Population Group, 1988	3
2. Social and Demographic Indicators, 1973-89	4
3. Main Economic Measures Under the 1986-91 Program	8
4. Selected Economic and Financial Indicators, 1985-90	9
5. Price Indices, 1986-90	11
6. Prices of Rationed Goods, 1986-89	12
7. Wage Group Indices, 1986-90	13
8. Official Producer Prices and Price Indices, 1986-90	15
9. Commercialized Crop Production, 1986-89	17
10. Food Aid, 1987-91	19
References	23

I. Introduction

By any income standard or measure of living conditions, Mozambique is one of the poorest countries in the world. Despite its rich resources, inadequate production planning and acute social conflicts since the mid-1970s have led this country into an alarming situation where the survival of the majority of the population depends on foreign aid. Starting in 1987, economic reforms were launched that have contributed to arresting the contractionary trends that had hindered the economy since the early 1980s.

This paper seeks to provide an overview of the impact on the poor of the policy measures included in the 1986-90 economic recovery program. The scope of the analysis, which focuses on the changes in relative prices and wages, is restricted by the limited data available. The results indicate that between 1987 and 1990, despite large increases in official prices, minimum and low wage earners improved their purchasing power, provided their income accompanied minimum wage trends. There was, however, an initial period in 1987 during which real wages were subject to considerable erosion. In areas with adequate security, food production increased substantially, improving the situation of small farmers. Those populations displaced or severely affected by the war had to continue to rely on emergency food aid, but agricultural production increased significantly. Despite these developments, poverty remains widespread among both urban and rural households, and food security is inadequate. To improve food security for urban households, an income supplement scheme was introduced in 1990.

II. Characteristics of the Poor

1. Classification

Defining a poverty benchmark for Mozambique's population is a difficult task. The great majority of the population has very low living and consumption standards. Even nutrition criteria fail to provide an adequate reference, since hunger and malnutrition are widespread and recurrent. In these circumstances, the focus turns to the poorest segments of the population. Green (1989) employed a poverty selection criterion, similar to that of the United Nations, that has also been used in IMF/Bank work. Green refers to the "absolute poor" in Mozambique as those belonging to a household with (i) monthly income per person so low (less than Mt. 4,000 per month or US\$8 in 1988) that at least half is absorbed by the cost of the basic monthly food ration; and/or (ii) "growth faltering in children" can be expected. According to Green, at least 60 percent of the population meets one or both of those criteria--mostly the malnutrition criterion, as income survey data are only available for an estimated 10 percent of the poor (in urban areas) earning wages in the formal sector.

In Mozambique's context of generalized food scarcity, access to additional food sources may be crucial. Food ration allotments, if fully available, account for no more than 60 percent of standard caloric needs.

Although those who have access to a productive machamba (small farm plot) may escape more serious situations of malnutrition, the rural areas are not better off than the urban areas. In the rural areas, the lack of inputs and incentives that already hinders surplus agricultural production is aggravated by the lack of security, which makes even subsistence farming extremely difficult in certain areas. In addition, the distribution of aid and other imported food staples (which account for over 80 percent of the domestic food supply) is less regular in the countryside. As a result, the incidence of absolute poverty is, according to Green's estimates, 68 percent in the rural areas (including displaced farmers), while in the urban areas it is between 32 percent and 52 percent.

Table 1 provides a detailed breakdown of the regional distribution and of the socioeconomic profiles of the absolute poor that can be encompassed in a few broad categories: (i) low-income urban and suburban dwellers (720,000-1,200,000 individuals in 1988); (ii) peri-urban residents without much land access or earnings potential (480,000-700,000); (iii) small landowner or state farm peasants (7.7 million) and rural refugees (1.2 million) without means of production and often victimized by war or by weather conditions.

In the presence of a national poverty rate of over 60 percent, the poor can hardly be addressed as a subset of the population for which specific relief measures and development policies can be devised. If, however, the "poorest of the poor" are to be designated, they might well be the displaced or war-affected rural dwellers who are more often victims of starvation and of war-related injuries than the urban poor.

The few social indicators available confirm the degree of misery that such high rates of poverty would imply (Table 2). For 1986, Green estimated infant mortality rates of 2 percent for infants under one year old, and of 3.5 percent for children under five. Other indicators quoted from UNICEF and FAO sources are equally negative. Child mortality was around 22 percent and life expectancy at birth was estimated at no more than 47 years. Pre-birth assistance to pregnant women is low (46 percent) and there are only 40 physicians per thousand Mozambicans. In 1984, the average caloric intake (1,617 calories per day) was only 70 percent of the daily needs. In 1988, the illiteracy rate was estimated at about 62 percent for adults, and secondary school enrollment was 7 percent. In 1985, the pupil-teacher ratio in primary schools was 65.

2. Composition of household income and expenditure

There is little source of income diversity in Mozambique, as 85 percent of the work force is employed in the traditional agricultural sector, with few employment opportunities existing elsewhere. State farms and cooperatives absorb (seasonally or permanently) some 20 percent of the agricultural workers. However, production discontinuities and lack of incentives cause farmers to prefer to work on their own state-assigned land if viable. Thus, as much as 90 percent of the cultivated area is exploited

Table 1. Mozambique: Absolute Poverty Incidence
by Population Group, 1988

	Population	Absolute Poor	Percent of Population Group	Percent of Poor
<u>(In millions)</u>				
Category				
Urban/peri-urban	3.8	1.2-2.0	32-52	15.1
Urban	2.1	0.5-1.0	25-45	7.2
Suburban	0.5	0.2-0.3	40-60	2.2
Peri-urban	1.2	0.5-0.7	40-60	5.7
Rural	11.4	7.7	68	73.5
Of which:				
Displaced	(1.7)	(1.7)	(100)	(16.2)
Severely affected	(2.9)	(2.6)	(90)	(24.7)
Resident population	15.2	8.9-9.6	59-64	88.5
Refugees	1.2	1.2	100	11.5
Total Mozambicans	16.4	10.1-10.8	62-66	100.0

Source: Green, R., "Estudo SDA: Social Dimensions of Adjustment" (the "Green Report"), February 1989.

Table 2. Mozambique: Social and Demographic Indicators, 1973-89

	1973	1986	1987	1988	1989	Reference low-income group
GNP per capita (U.S. dollars) <u>1/</u>	...	210	150	100	80	330
Area (thousand sq. km.)	801.6	801.6	801.6	801.6	801.6	n.a.
Percentage agricultural	58.7	58.7	58.7	58.7	58.7	36.1
Population						
Total (millions)	10.1	14.1	14.7	15.0	15.4	n.a.
Rate of growth (percent)	2.3	2.6	2.6	2.6	2.6	2.0
Urban (percent of total)	7.0	19.0	20.0	23.1	25.6	30.0
Population density (per sq. km.)	12.6	17.5	18.4	18.7	19.2	79.6
Vital statistics						
Life expectancy at birth (years)	41.0	47.0	48.0	48.1	48.6	61.9
Infant mortality (percent)	16.7	12.3	15.0	14.1	13.8	6.9
Child (aged 1-4) death rate (percent)	28.0	22.0	22.0	21.0	19.7	16.1
Health and nutrition						
Population per physician (thousands)	62.1	39.7	...	37.9	38.0	1.5
Population per hospital bed (thousand)	1.0	0.9	0.9	...	...	0.8
Daily calorie supply per capita	1,981	1,617	1,617	1,595	1,632	2,342
Daily protein supply per capita (grams)	37	28	28	28	28	56
Access to safe water						
Overall (percent of total population)	10	9	9	14	14	...
Urban (percent of urban population)	62	82	82	38	38	73.4
Rural (percent of rural population)	2	2	2	9	9	...
Education						
Illiteracy rate (percent age 15+)	93	70	...	62	62	43
Primary school enrollment rate (percent)	87	83	84	82	...	104
Secondary school enrollment rate (percent)	3	6	7	7	...	37

Source: World Bank, Social Indicators of Development, several issues.

1/ Data only partially adjusted for exchange rate disequilibria and changes.

by the family sector. Crop diversity is reduced, given farm size, seed availability, and technical know-how, making producers very dependent on the prices of a few crops. In addition, the lack of security has rendered farming extremely risky and many peasants have been forced to abandon their lands.

The remaining 15 percent of Mozambique's employed labor force is distributed evenly between the industry and services sectors, where, on average, standards of living are slightly higher and absolute poverty is less prevalent. Income from informal sector activities often complements official income but the earnings potential is limited (typically up to 30 percent of the minimum wage).

As a whole, the external sector has played an important role in the poverty issue. In terms of personal income, emigrant workers' remittances in foreign currency and in merchandise are important sources of revenue for some families. During 1988-90, remittances from abroad recorded in the balance of payments averaged about US\$71 million a year. Unrecorded remittances were probably also very significant. In comparison, total commodity exports averaged no more than US\$108 million a year during the same period. Prawn and cashew nuts accounted for about two thirds of that amount. Cashew nut picking, in particular, provides seasonal employment opportunities for poor unqualified workers (children included).

The regional incidence of poverty has different implications in terms of household revenue and expenditure patterns. In urban areas, wage earners dwell along with small merchants, providers of services, and unqualified laborers who operate for the most part in the informal sector. In rural areas, farmers and traders' earnings and levels of self-provisioning depend to a great extent on crop volumes and prices. Even the wage-earning agricultural workers employed in private and state farms and in cooperatives manage to produce for their own household consumption or for market exchange. In peri-urban and suburban areas intermediate income situations apply. However, in the determination of income and expenditure profiles for the absolute poor, only the two extreme rural (self-provisioning) and urban (salaried) cases will be considered. As will be shown later, each group has been affected differently by the economic rehabilitation program.

The distribution of income sources for self-employed rural households in 1980 was, according to some hypotheses formulated by Green, the following: self-provisioning, 70-75 percent; agricultural sales, 10-15 percent; remittances, 10 percent; and other, 5 percent. Given the economic deterioration that has since occurred, it is likely that relief aid has replaced a considerable part of self-provisioning. In addition, the totals for agricultural sales and for remittances have declined, although they might still account for an equal or greater share of rural household income (which in 1988 in real terms was 25-35 percent below the 1980 level). Income from informal sector activities may also now account for a higher share. According to the World Bank's agricultural survey, "purchased inputs, such as fertilizers" are not used in family-run farms.

Some income and expenditure patterns for urban households are available in Maputo area 1988 survey data (Green, 1989). However, sources of income for urban wage earner households living in absolute poverty are not easily identifiable. Green estimated that if two members of a household (typically eight people) had minimum wage jobs, then such a household would be above the absolute poverty level. If only one minimum or low wage was earned (and in 90 percent of the absolutely poor households it was not), it would account for no more than 50-70 percent of an absolute poverty cutoff household income of Mt. 32,000 per month (US\$62). Under these circumstances, income from informal sector activities and direct access to farm products from small family farm plots become very important. Estimates for the implicit income equivalent of that access or for informal sector income are not available.

On the expenditure side, the pattern obtained by the Maputo household survey was the following: food, 63 percent (ration allotment alone, 40 percent); fuels, 17 percent (fuelwood alone, 12 percent); health, education, and utilities, 12 percent; other, 8 percent.

III. The Economic Rehabilitation Program and Consequences

1. Policy measures

Mozambique's economic performance from independence (1975) to the present has undergone four distinct stages: (i) in the 1974-76 decolonization period, the turmoil and loss of resources (especially qualified labor) led to a contraction of GDP of about 10 percent a year; (ii) between 1977 and 1981 economic growth resumed (2 percent a year), despite the continued centralization of the economy and the stifling of market incentives; (iii) 1982-86 was a period of economic collapse (minus 7 percent a year), which was due in great part to the intensification of armed insurgency and to natural causes (droughts and floods), and also to a policy of centralization, which aggravated structural economic imbalances; (iv) growth has resumed (4-5 percent a year) since the launching in 1987 of the Economic Rehabilitation Program (ERP), supported by the IMF's structural adjustment loans and World Bank rehabilitation loans.

The principal objectives of the ERP were (i) to restore a minimum level of income and consumption, particularly in the rural areas, (ii) to curtail domestic financial imbalances and strengthen the external payments position, and (iii) to establish the conditions for sustainable economic growth once security conditions permit. The growth target for the period 1987-89 was set at 4 percent on average. Central to the program were major adjustments to the exchange rate, together with a full pass-through to domestic prices, price liberalization, and strengthening of the government budget through a limitation of current expenditure to a level below that of revenue growth. Price subsidies were to be reduced through increases in the consumer prices of the staple commodities, which were subject to a rationing system. A summary of the main economic measures under the program is presented in

Table 3. Table 4 shows the evolution of selected economic and financial indicators since 1985.

Specifically, the metical was devalued from Mt. 38.7 per U.S. dollar at end-1986 to Mt. 626.2 per U.S. dollar at end-1988, and Mt. 819.7 at end-1989. At end-1990 the exchange rate had moved to Mt. 1,038.2 per U.S. dollar. The devaluations were effected stepwise in 1987 and 1988, and on a monthly basis starting in 1989. Following the stepwise devaluations in 1987 and 1988, fixed prices were increased sharply, including prices of subsidized commodities. In 1986, the latter included maize, maize flour, rice, sugar, edible oils, and soap. By end-1989, limited subsidies were maintained only on maize, as the prices of the other commodities were brought to the import parity level or, for domestically produced commodities, to the domestic cost level. The consumer price index, constructed on the basis of giving a 75 percent weight for official prices, and 25 percent for parallel market prices, rose by 163 percent in 1987, 50 percent in 1988, 42 percent in 1989, and 49 percent in 1990.

Concurrently, the cost of these subsidies to the budget decreased from the equivalent of US\$17 million in 1986 to US\$5 million in 1989. In meticais, the subsidy increased from Mt. 500 million in 1986 (1 percent of current expenditure) to Mt. 5.1 billion in 1987 in light of the very large depreciation of the exchange rate, but declined to Mt. 3.5 billion in 1988 and 1989 (1.5 percent of current expenditure). The budgetary targets for consumer subsidies in 1988 and 1989 were observed. Other fiscal measures of the program included a comprehensive tax reform, which widened the coverage of the turnover tax and increased the consumption tax rate, streamlined personal income taxation, and accelerated corporate tax payments. School and hospital fees were also increased. In addition, in 1987 a sharp cut in the civil service staff was effected, with the layoff of 10 percent of the civil servants. In 1987 and 1988, the program objectives regarding budgetary revenue and expenditure were met. In 1989, an overrun in expenditure on wages and defense was offset by higher revenues, so that the deficit target was met. Credit policy became tighter under the program, and the financing of public enterprise losses was terminated. Interest rates were increased, but time deposit rates were still negative in real terms at end-1989.

While continuing to adhere to the objectives of the ERP, the Government recognizes the need to improve the allocation of resources to reduce poverty. The increased concern about poverty led the Government in 1989 to widen the scope of the rehabilitation program and to redefine it as an economic and social rehabilitation program.

2. Consequences of policy measures

The rehabilitation program affected poverty through the official price increases, which in 1987 exceeded the rise in the minimum wage; the reduction in the size of the civil service; and the increase in indirect taxes and in user fees. These aspects will be addressed in turn, but

Table 3. Mozambique: Main Economic Measures Under the 1986-91 Program

I. <u>External policies</u>	Introduction of a system of flexible exchange rate management with a substantial initial devaluation in 1986; further adjustments to the exchange rate in 1987-91 to reduce the gap between official and parallel market rates; introduction in 1990 of a secondary market for foreign exchange, with the rate determined by supply and demand on the basis of transactions negotiated through the banking system; implementation in 1989 of a system of nonadministrative allocations of foreign exchange for key imported inputs.
II. <u>Fiscal policy</u>	
<u>Revenue measures</u>	Major revenue gains during 1987-89 through an increase in the turnover tax, increases in specific consumption and import taxes, broadening of the corporate and personal income tax bases, and advanced collections of the corporate profit tax; a reform of the tariff policy in 1988-89, with the simplification of the rate structure, elimination of tariff exemptions, and the conversion of specific rates to ad valorem basis.
<u>Expenditure measures</u>	Reduction by 10 percent of the civil service work force in 1987, and containment of employment thereafter; reduction in budgetary subsidies to public enterprises and to basic consumer goods.
III. <u>Monetary and credit policy</u>	Simplification of the structure of interest rates in 1988-90; real interest rates brought to positive levels in 1989 with the exception of agricultural lending rates; limitation of bank credit to the Government.
IV. <u>Pricing policy</u>	Reduction of the number of agricultural products subject to fixed producer prices; introduction of minimum producer prices for a number of agricultural products in 1988-89, including cotton, cashew nuts, sunflower seeds, copra, and extension to rice and maize in 1990; elimination of subsidies on rationed consumer goods in 1988-89.

Table 4. Mozambique: Selected Economic and Financial Indicators, 1985-90

	1985	1986	1987	1988	1989	1990 Prov.
(Annual percentage changes, unless otherwise specified)						
Production and prices						
GDP real growth	-8.6	1.8	4.6	5.6	5.3	1.5
GDP deflator	49.3	12.8	142.4	47.2	39.5	36.5
Consumer prices (annual average)	29.2	38.7	163.3	50.1	42.1	49.2
Consumer prices (end of period) <u>1/</u>	...	...	...	49.4	35.0	47.0
Foreign trade (US\$ basis)						
Exports, f.o.b. (value)	-19.9	3.2	22.6	6.2	1.8	20.6
Imports, f.o.b. (value)	-21.5	28.1	18.3	14.6	9.8	7.0
Exports, f.o.b. (volume)	-18.2	-4.0	14.2	9.6	4.4	18.3
Imports, f.o.b. (volume)	-15.7	34.5	6.9	4.5	7.5	1.5
Terms of trade	5.2	13.0	-3.0	-11.7	-4.6	-3.3
Exchange rate (depreciation, -)						
Annual average (US\$/Mt)	-1.7	6.8	-86.0	-45.2	-29.2	-26.2
Nominal effective (end of period)	3.1	-7.2	-91.4	-27.8	-20.6	-24.8
Real effective (end of period)	26.4	22.2	-77.3	1.9	-6.1	0.9
Government budget (cash basis)						
Total revenue	-14.2	15.5	210.0	90.5	73.3	31.6
Tax revenue	-17.7	17.4	271.6	89.5	81.5	33.3
Total expenditure <u>2/</u>	-11.6 <u>3/</u>	30.5 <u>3/</u>	207.3	87.4	59.2	46.6 <u>4/</u>
Current expenditure	17.5 <u>3/</u>	28.7 <u>3/</u>	113.9	64.2	65.3	39.2
Money and credit						
Domestic credit <u>5/</u>	16.0	17.2	28.8	43.9	42.1	32.1
Government (net)	21.1	21.9	43.8	22.4	-14.8	6.9
Economy (all sources) <u>5/</u>	14.9	16.0	25.1	49.3	54.4	34.5
Money and quasi-money (M2) <u>6/</u>	15.4	15.4	47.3	50.3	45.7	31.9
Velocity of money (GDP/average M2)	1.6	1.6	3.0	3.2	3.1	3.0
Interest rate <u>6/</u>	3.0	3.0	16.0	16.0	18.0	31.0
(In percent of GDP) <u>7/</u>						
National accounts						
Domestic savings <u>8/</u>	-3.1	-1.1	-11.7	-16.4	-16.6	-11.8
Gross investment <u>9/</u>	6.9	9.7	24.0	33.4	35.5	37.1
Government budget						
Total revenue	13.1	13.3	16.0	19.9	23.4	22.3
External grant receipts	2.0	2.3	9.3	14.0	16.5	16.9 <u>4/</u>
Total expenditure <u>2/</u>	27.0 <u>3/</u>	30.9 <u>3/</u>	37.2	45.2	49.0	51.8 <u>4/</u>
Current balance <u>8/</u>	-9.4	-12.1	-5.1	-2.7	-2.0	-3.3
Overall balance						
Before grants	-13.9	-17.7	-21.1	-25.3	-25.5	-29.5
After grants	-11.9	-15.3	-11.8	-11.4	-9.0	-12.6
Domestic bank financing	9.4 <u>2/</u>	12.0 <u>2/</u>	4.2	1.5	-1.1	0.2
(In units stated)						
Balance of payments (US\$ millions)						
Current balance (after grants)	-301.1	-409.3	-388.8	-280.5	-375.2	-335.4
Overall balance	-353.4	-488.0	-425.5	-373.1	-421.5	-421.0
External current balance/earnings <u>10/</u>	...	...	...	-253.2	-280.9	-261.4
After official transfers <u>10/</u>	...	...	...	-108.0	-138.2	-111.9
Gross foreign reserves (months of imports, c.i.f.) <u>11/</u>	1.3	1.6	2.6	3.2	3.3	3.4
External debt (US\$ millions)	2,794	3,157	3,998	4,200	4,401	4,941
Debt service ratio						
Before debt relief <u>10/</u>	215.5	247.4	227.5	190.6	178.4	169.9
After debt relief <u>10/</u>	110.4	247.4	20.9	37.2	24.2	28.4
Memorandum items:						
GDP (Mt billions)	146.6	166.9	423.3	657.4	966.2	1,338.3
Exchange rate (average, Mt/US\$)	43.2	40.4	292.1	528.7	744.9	929.1

Sources: Data provided by the Mozambican authorities; the World Bank; and staff estimates.

- 1/ Based on latest available quarterly or monthly indices.
2/ Including assumption of public enterprise pre-1987 debt to banking system, beginning with 1988.
3/ Includes estimates of enterprise losses covered by banks before 1987, when subsidization was shifted to the budget. Interest as paid.
4/ Reflects substantial increase in coverage of expenditure (mainly investment) and external grants and loans (equivalent in total to 11.3 percent of GDP in program data but not yet quantified for provisional outturn).
5/ Includes credit supported by counterpart deposits generated by IDA and related import support, which is excluded from program benchmarks.
6/ Interest rate on time deposits (181-365 days), end of period.
7/ Trends in most ratios to GDP are biased and potentially misleading under conditions of substantial devaluation and price liberalization. Numerators reflect external and/or previously suppressed official prices, which rise sharply. GDP partly reflects parallel market prices (initially high but rising little) through private consumption and is reduced by exchange rate effects on excess of net imports over investment. This latter effect is doubled in the savings ratio as numerator is also affected.
8/ GDP less total consumption, without adjustment for current transfers received.
9/ Reflects inclusion of substantial aid-financed recurrent expenditure in budgetary (and national accounts) investment data.
10/ As percent of exports of goods and services (including workers' remittances).
11/ Includes the special account held at the Bank of France.

greater attention will be placed on price and wage movements, as the impact of the latter two factors is more difficult to quantify. The overall food security situation will also be analyzed.

a. Pricing measures

In early 1987 official prices almost tripled, while prices in the parallel market remained broadly stable. During the following years official prices were again adjusted several times. To estimate the effect of the price changes on household expenditure, several alternative price indices have been compiled.

As shown in Table 5, the consumer price index (CPI), which reflects official and parallel market prices (Line A), increased by 462 percent during the 1986-89 period, with the increase in 1987 being larger than in 1988. A selected commodity index derived exclusively from the staples in the ration allotment basket (Line C) rose almost 16-fold, and had a considerably different time pattern from the CPI, as the rationed goods prices were increased much more sharply in 1988 than in 1987 (Table 6). Fuelwood (Line E), the single most important nonfood item in the budgets of poor households, and prices in parallel markets (Line F), have increased relatively little since the inception of the ERP.

The relative stability of parallel market prices up to 1989 indicates that those prices already reflected the much-depreciated parallel market exchange rate and that scarcity premiums did not increase following the ERP. As an alternative to the CPI, a weighted index approximating the urban expenditure pattern has been estimated. As previously noted, the major expenditure component is the ration allotment basket, which accounts for almost two thirds of food expenses and 40 percent of total expenditures. The additional 23 percent of food expenditures are weighted by the parallel market index. Then, fuelwood is specifically weighted for its 12 percent share in the budget of the absolute poor. The remaining 25 percent is weighted by the nonfood price index. The values obtained for the expenditure-weighted index are provided in Table 5, Line B. The 1986-89 inflation rate as measured by that index (755 percent) is significantly greater than the one provided by the official consumer price index. This is due essentially to the sharp increases in the prices of the goods in the ration allotment during 1988.

On the earnings side, minimum wages were raised by an amount designed to protect the purchasing power of a worker with a typical family. Even though only 10 percent of the poor are estimated to be salaried workers in the formal sector, the official minimum wage remains an important variable as it provides a reference for informal sector wages.

On the basis of the official CPI, real wages appear to have declined by as much as 15 percent during 1987. However, average real income levels for wage earners also appear to have been restored in the two subsequent years (Table 7), while the supply of consumer goods increased. The urban

Table 5. Mozambique: Price Indices, 1986-90

	1986	1987	1988	1989	1990
	<u>(Annual averages)</u>				
A. CPI <u>1/</u>	100	263	395	562	838
B. Expenditure-weighted (.4C+.25D+.12E+.23F)	100	217	627	855	...
C. Ration-weighted	100	287	1,193	1,667	...
D. Nonfood prices	100	270	444	586	...
E. Fuelwood <u>2/</u>	100	100	120	120	...
F. Parallel market	100	100	104	117	...
G. Producer prices	100	433	789	1,289	1,339
<u>Memorandum item:</u>					
Exchange rate					
Metical/U.S. dollar	40.4	292.1	528.7	744.9	929.1
Index	100	723	1,309	1,844	2,300

Sources: Data provided by the Mozambican authorities; staff estimates; and World Bank, "Mozambique: Restoring Rural Production and Trade," October 1990, and "Mozambique: Food Security Study," October 1989.

1/ The composition and the weighting of the official CPI basket changed at least once during the period of analysis. Parallel market prices have accounted for about 25 percent of the weighting and official prices for the rest.

2/ Fuelwood prices were never controlled.

Table 6. Mozambique: Prices of Rationed Goods, 1986-89

	1986	1987	1988	1989
	(Yearly averages)			
Unit prices	(In meticaïs per kilogram or liter)			
Rice	13.5	31.3	213.3	318.5
Maize	9.0	21.0	91.1	121.9
Maize flour	9.5	28.9	118.1	158.8
Sugar	18.0	94.5	251.3	376.5
Cooking oil	58.5	210.0	495.0	632.8
Beans	27.0	181.0	243.8	294.0
Soap	48.5	96.9	358.0	511.8
Salt	6.0	17.3	52.2	84.8
Index	<u>100.0</u>	<u>287</u>	<u>1,193</u>	<u>1,667</u>
CPI	100	263	395	562
Nonagricultural workers' wage index	100	224	480	781
Total price subsidies in the budget (billions of meticaïs)	0.5	5.9	3.5	3.5

Source (for prices): World Bank, "Mozambique: Country Economic Memorandum," Report No. 8370-MOZ, October 1990, p. 31.

Table 7. Mozambique: Wage Group Indices, 1986-90

	1986	1987	1988	1989	1990
<u>(Annual averages)</u>					
Agricultural workers					
Monthly wages	1,626	3,635	9,000	15,750	19,720
Index	100	224	554	969	1,213
Deflated by:					
CPI	100	85	140	172	145
Expenditure-weighted	100	103	88	113	...
Nonagricultural workers					
Monthly wages	2,704	6,059	12,967	21,125	26,100
Index	100	224	480	781	965
Deflated by:					
CPI	100	85	121	139	115
Expenditure-weighted	100	103	77	91	...
Technical/administrative personnel					
Monthly wages	2,100	5,425	12,083	20,125	24,940
Index	100	258	575	958	1,188
Deflated by:					
CPI	100	98	146	171	142
Expenditure-weighted	100	119	92	112	...

Memorandum item: Evolution of CPI-deflated real wages, 1986-91

		Minimum Wage Civil Service	CPI	Real Wage Index
1986	December	3,500	100.0	100.0
1987	March	4,500	166.7	77.1
	June	4,500	251.2	51.2
	September	6,750	269.5	71.6
	December	6,750	289.2	66.7
1988	March	12,875	341.3	107.8
	June	12,875	371.0	99.2
	September	12,875	356.5	103.2
	December	16,875	432.1	111.6
1989	March	16,875	477.8	100.9
	June	22,500	556.5	115.5
	December	22,500	583.3	110.2
1990	January	26,122	702.9	106.2
	June	26,122	760.1	98.2
1991	January	31,745	888.5	102.1

Source: Ministry of Labor of Mozambique (wages) and Ministry of Planning (monthly CPI).

population with no wages and only informal income might have been more seriously affected than the wage earners.

At the bottom of Table 7, the quarterly CPI deflated indexes (which use December 1986 as a base) show that real wages had declined sharply by about 50 percent by June 1987, but that a recovery started in September 1987 with a 50 percent rise in nominal wages. With two additional increases in nominal wages in March and October 1988, by end-1988 real wages based on the CPI had returned to the end-1986 level and by 1989 exceeded it somewhat. In 1990, as the CPI increase (49 percent on an end-of-period basis) exceeded the wage increases of 16-23 percent, real wages declined even after correcting for the exceptional thirteenth monthly wage paid to civil servants and many other employees in December.

The expenditure-weighted index provides a less favorable picture, in that real wages in 1989 are only 12-13 percent above average 1986 levels for agricultural workers and for technicians and administrative personnel. The relative income position of nonagricultural workers seems to have been the most affected, since the growth in their nominal wages was less than that of the other categories and, in 1989, their real wage was still 9 percent below the 1986 level. According to the expenditure index, the fall in real wages did not take place until 1988. This was due to the sharp increase in the prices of the basic food staples that constituted the bulk of the ration allotment basket.

The ERP-induced depreciation of the metical had an ambiguous impact on family income from remittances (mainly from miners in South Africa). A part (60 percent) of the miners' paychecks is remitted directly at the official rate through the central bank of Mozambique. The miners can dispose freely of the remaining part or remit it to be exchanged at the more favorable parallel market rate. In 1987, the parallel market foreign exchange premium fell from Mt. 1,600 per U.S. dollar to Mt. 1,200 per U.S. dollar. The extent of that fall was such that the gains from the higher official rate might have been completely offset. However, on the plus side, there has been a rise in recorded remittances since 1987 that may be related to the depreciation. Moreover, if the remittances were being used all along to buy products priced in foreign currencies (in special stores or black markets), it is probable that the parallel market appreciation of the metical did not greatly affect remittance-receiving households. In 1988 and 1989, the parallel market exchange rate again depreciated significantly, augmenting the purchasing power of remittances.

Rural producers have probably fared better than the urban households. Family sector commercialized crop production expanded considerably in 1987-90 and producer prices were increased in 1987 by an amount larger than the increase in the CPI.

To estimate the real income of the agricultural producer, an attempt has been made to develop a basic producer price index from a list of 13 commodities. In Table 8, the individual commodity price indexes show that

Table 8. Mozambique: Official Producer Prices and Price Indices, 1986-90

	1986	1987	1988	1989	1990
<u>Official Producer Prices</u>					
<u>(In meticaís per kilogram)</u>					
<u>Commodities</u>					
Cotton (grade 1)	16.0	65.0	104.0	175.0	175.0
Cotton (grade 2)	6.5	25.0	40.0	67.5	67.5
Groundnuts	20.0	100.0	150.0	255.0	255.0
Rice	16.0	48.0	75.0	145.0	167.0
Cashew nuts	10.0	60.0	105.0	165.0	200.0
Copra	5.5	5.5	60.0	100.0	...
Beans (type I)	23.5	100.0	150.0	230.0	264.0
Beans (type II)	15.0	64.0	105.0	160.0	184.0
Sunflower	15.0	50.0	75.0	130.0	150.0
Mafurra	12.0	30.0	40.0	70.0	70.0
Manioc	12.0	35.0	50.0	95.0	...
Maize	13.0	40.0	65.0	110.0	126.0
<u>Official Producer Price Indices</u>					
<u>Commodities</u>					
Cotton (grade 1)	100.0	406.3	650.0	1,093.8	1,093.8
Cotton (grade 2)	100.0	384.6	615.4	1,038.5	1,038.5
Groundnuts	100.0	500.0	750.0	1,275.0	1,275.0
Rice	100.0	300.0	468.8	906.3	1,043.8
Cashew nuts	100.0	600.0	1,050.0	1,650.0	2,000.0
Copra	100.0	100.0	1,090.9	1,818.2	...
Beans (type I)	100.0	425.5	638.3	978.7	1,123.4
Beans (type II)	100.0	426.7	700.0	1,066.7	1,226.7
Sunflower	100.0	333.3	500.0	866.7	1,000.0
Mafurra	100.0	250.0	333.3	583.3	583.3
Manioc	100.0	291.7	416.7	791.7	...
Maize	100.0	307.7	500.0	846.2	969.2
Weighted average	100.0	433.2	788.9	1,288.9	1,339.0

Sources: Data provided by the Mozambican authorities; and staff estimates.

the prices of most agricultural products rose 8- to 12-fold during the 1986-89 period. A weighted average of the individual commodity producer prices has also been computed. The weights were determined according to the relative market value of the commercialized family sector production of each commodity during 1986 (see Table 9). During 1986-89, the index shows that the rise in producer prices was more than 11-fold, compared with a 8-fold increase in the CPI. Since marketed production expanded, it would appear that the agricultural producers who were marketing a part of their production gained. An important element of overall welfare is also the availability of consumer goods in the countryside, which appears to have improved in 1988 and 1989. A general increase in commercialized farm output (Table 3) since 1987 indicates that producers have responded positively to the newly introduced market incentives. This expansion trend is confirmed by preliminary figures for the 1990 agricultural campaign. Thus, on balance, the rural family sector seems to have benefited under the ERP in terms of its real income position.

b. Fiscal policy measures

The increases in indirect taxes and consumption taxes under the program had a very modest price impact in comparison with the administered changes in official prices, and thus they can probably be neglected. User fees for hospital consultations, and for school enrollment were raised significantly in 1987 and 1988. School fees and charges have been estimated at 5 percent of the minimum wage (Green, 1989).

In 1987, to reduce the fiscal imbalance, 21,000 civil servants were laid off--approximately 10 percent of the total. The subsequent increase in urban unemployment was exacerbated by the repatriation of mine workers from South Africa (up to 350,000) and by the influx of displaced persons from the areas most affected by insecurity. Some of these laid-off workers must have been absorbed through the expansion in economic activity and the resumption of economic growth following the implementation of the ERP. In 1988, the Government conducted a rapid status survey of households in two major urban areas, Maputo and Tete, and has since taken steps to complement the existing food rationing system by allocating land for cultivation and basic inputs in strategic, safe areas, as well as by expanding pilot programs that provide meals in primary schools and factories.

Under the ERP, the basic social programs regarding health and education continued to be expanded, mainly through foreign aid. Continued war-related damages have limited the impact of this effort. Existing social programs were maintained, in favor of orphans, old age pensioners, disabled persons, and feeding programs for primary school children. Income supplementation schemes were introduced in 1990 to limit urban poverty, namely among large urban families with no more than one minimum wage, and became fully effective in 1991.

Table 9. Mozambique: Commercialized Crop Production, 1986-89

(Family sector)

	1986	1987	1988	1989
<u>(In thousands of tons)</u>				
Commodities				
Cotton	5.5	20.2	8.9	13.2
Groundnuts	0.9	2.0	2.1	...
Rice	5.9	9.0	9.6	10.2
Cashew nuts	41.2	37.5	45.0	50.2
Copra	12.8	13.2	16.2	14.0
Beans (type I)	1.9	8.7	6.1	13.9
Sunflower	0.8	0.9	0.6	...
Mafurra	2.2	9.3	1.8	...
Manioc	5.9	7.1	20.4	...
Maize	11.7	16.3	32.0	63.7

Memorandum item: (for determination of producer price index):

Crop production commercialized by the family sector in 1986

	<u>Market Value</u> (In millions of Mt.)	<u>Relative Share</u> (In percent)
Cotton	87.6	(9.2)
Groundnuts	19.4	(2.0)
Rice	103.0	(10.8)
Cashew nuts	401.7	(42.1)
Copra	64.0	(6.7)
Beans (type I)	50.1	(5.3)
Sunflower	13.7	(1.4)
Mafurra	17.8	(1.9)
Manioc	26.4	(2.8)
Maize	169.2	(17.8)

Sources: DNE, Mozambique, Informação Estatística, 1988; and Fund staff estimates.

3. Food security and the urban rationing system

The food security situation differs in rural and urban areas. In rural areas, as a result of the war and of recurrent droughts, more than 4 million people had been displaced or severely affected by the mid-1980s. Under these circumstances the Government had to turn to international assistance to avert widespread starvation. The first international appeal for emergency assistance to Mozambique was launched in April 1987 (Table 10). The food aid received was used to help meet the populations' nutritional needs--through free distribution in rural areas to the more seriously destitute, displaced, and severely affected families; and through subsidization of basic food staples for urban dwellers and rural wage earners.

In the following years, the emergency appeal widened its focus to cover inputs needed for rehabilitation in the areas of agriculture, water supply, health, and education. In 1990, the scope of the ERP was expanded to encompass all structural rehabilitation activities within a strategy for reconstruction and poverty alleviation. The emergency appeal concentrated on the alleviation of basic human needs caused by the war situation, especially in rural areas where the emergency programs have focused on the provision of food and other essential inputs to the populations displaced or severely affected by the war. Regrettably, the lack of security has also been a main constraint affecting the emergency program. Not all districts have been accessible to relief operations and some have been accessible only by air. A limited truck fleet, poor road conditions, and management problems have restricted the number of beneficiaries that can be assisted. For example, the 1990-91 program included as targeted beneficiaries only 72 percent of the needy refugees. Such logistic constraints exacerbate a situation already hampered by the insufficiency of food aid pledged relative to estimated requirements. As a result, in many areas, food rations cannot often be distributed or are well below the levels required.

Relief aid is distributed at the local level by a special government relief department, DPCCN (Departamento de Prevenção e Combate das Calamidades Naturais), while the actual distribution to households is handled by community leaders. Because of the deteriorating security situation, the number of households and communities requiring emergency assistance increased substantially in the period 1984-89, and DPCCN has had to expand its operations. Food distributed amounted to 180,000 tons in 1988, compared with 57,000 tons in 1985; distribution in 1989 is estimated at about 170,000 tons.

In the two main cities of Maputo and Beira, food aid is marketed to a significant extent through the urban rationing system (Novo Sistema de Abastecimento, NSA). This system was initially designed to provide registered households the means to purchase at subsidized prices a fixed ration of food staples and some other necessities, which would cover approximately 60 percent of the daily caloric requirement. The staples distributed originate for the most part from external aid. Available data

Table 10. Mozambique: Food Aid, 1987-91

(Thousands of tons)

	<u>1987/88</u>		<u>1988/89</u>		<u>1989/90</u>		<u>1990/91</u>
	Require- ments	Arrivals	Require- ments	Arrivals	Require- ments	Arrivals	Require- ments
Food aid	(April-March)						
Free distribution <u>1/</u>	410	181	259	185	224	167	249
Cereal	410	...	230	...	195	143	218
Noncereal	--	...	29	...	29	24	31
Marketed distribution <u>2/</u>	480	467	619	374	669	298	711
Cereal	480	...	510	...	560	280	620
Noncereal	--	...	109	...	109	18	91

Source: Government of Mozambique and United Nations, "The Emergency Situation in Mozambique: Priority Requirements for the Period 1990-91," April 1990.

1/ Rural areas.

2/ Urban areas.

indicate that in the last two years the amounts distributed through the rationing system also fell substantially short of estimated requirements. However, the amount of food staples commercialized in urban parallel markets has increased since the inception of the ERP, with prices remaining relatively stable up to 1989. In addition, many urban residents manage to obtain food directly from farms in the suburban countryside. In Maputo, food is also imported from neighboring Swaziland. Overall, it is estimated that the overall food security situation in urban areas is substantially better than in the countryside.

In line with the objectives of the ERP, subsidies on consumer goods included in the rationing system were reduced starting in 1987, and by 1990 only the subsidy on yellow maize remained. The prices of the other products were raised to levels equivalent to import parity. Almost all long-term residents are registered to receive the rationed goods. However, in order to slow down the migration into the cities, registration of the more recent residents entails a very long process. The ration is generally composed of a monthly per capita allocation of 4-5 kilograms of cereals (rice, maize, and maize meal); 1 kilogram of sugar, 1 liter of oil, and salt. Initially beans were included in the rationed basket, but since 1989 sales of beans have been decontrolled. However, these amounts can vary according to overall availability, and are sometimes affected by shortages. The rationed commodities are purchased in retail shops that are generally privately owned. The Government intends to improve the urban rationing system, by increasing the ration allowance for maize; providing flexibility to households in the choice of cereal, so that poor families can take greater advantage of the subsidy on yellow maize; simplifying the procedure for registration of new households; and extending the system to other cities.

4. New directions of the poverty relief strategy

Within the framework of the 1990-92 economic and social rehabilitation program, the Government has decided to strengthen the poverty reduction effort through better focusing of major public expenditure programs, and improvement of the safety nets to protect vulnerable households. In addition, measures to generate employment opportunities for the poor will be given special attention, including revisions of the investment program to promote labor-intensive projects, projects with basic training components, and promotion of small enterprises in the private sector and of informal sector activities.

a. Public expenditure priorities

To alleviate poverty and stimulate growth, the expenditure programs will include three priority areas: the promotion of smallholder agricultural production, the improvement of health and education services, and the strengthening of basic infrastructure.

Measures to assist small family farms represent a recent shift in policy, as investment in agriculture was formerly concentrated in the state

sector and large irrigation projects. The new policy recognizes that the key to reducing poverty in the rural sector is the increase in agricultural production through adequate assistance to small farmers. To that effect, in 1990 the authorities formulated the Priority District Programs, which aim at revitalizing production and improving standards of living in the regions with relatively more favorable security conditions, through the provision of extension services, adequate food and inputs, along with improved road and water supplies.

The provision of health and education services has been severely hurt by the war, which has resulted in the destruction of a large part of the rural health network, and of local schools. In addition, the economic crisis led to a reduction in health expenditure as a share of the Government's recurrent budget in the period 1981-85. Despite an increase during the 1987-89 period, by 1989 the share still remained below the 1981 peak. In the health care area, the Government intends to rebuild or rehabilitate health infrastructure, and strengthen prevention services throughout the country. In education, it is estimated that between 1983 and 1989 approximately 50 percent of all rural primary schools were destroyed or closed because of the war. As a result, very limited educational services are provided outside the major cities and provincial capitals, while schools in the main cities are overcrowded. Against this background, priority in the 1990-92 investment program has been assigned to the provision of education in rural areas, together with an improvement in the quality of teaching.

b. Safety net for rural and urban households

The emergency program continues to be the main vehicle of assistance to the rural poor affected by the war. In the future, to the extent that the improved security situation permits refugees to return to their homes and farms, support will be needed in the form of key inputs for returnees to start economic activities in the agricultural sector.

The safety net for the urban households has recently been expanded through a food security subsidy introduced in Maputo and other provincial capitals. Eligibility is limited to (i) households with no more than one salary earner and with over five members; (ii) households with no salary or other substantial source of income; and (iii) persons over 50 living alone and with no significant source of income. To limit coverage to urban households, a residency test is required. For the first category the monthly subsidy amounts to Mt. 3,000 per member of the household exceeding five people. For the second and third categories the subsidy would amount to Mt. 7,500 for a single person, up to a maximum of Mt. 15,000 for a household comprising three or more members. It has been estimated by the authorities that at least 120,000 households would be covered, corresponding to 25 percent of urban Mozambican households. The cost of the program is estimated at Mt. 18 billion a year. The entry into effect of the program has been slowed by the need to introduce appropriate mechanisms to control eligibility. The scheme is expected to be fully operational during 1991.

IV. Concluding Remarks

Poverty is widespread in Mozambique, affecting a large portion of both the rural and urban populations. Its main cause is the war, which has directly affected a large part of the rural population, and prevented a full recovery of production. After a period of a sharp decline in production in 1981-86, the economic rehabilitation program introduced in 1987 aimed at reviving economic activity and reducing financial imbalances through containment of current budgetary expenditure, significant adjustment of the exchange rate, tax reforms, and major price reforms designed to restore incentives.

During a period of major price adjustments, the purchasing power of the lower income groups was, overall, protected through wage increases, but at certain times, such as during 1987 and 1988, significant erosions occurred in the purchasing power of wages. Poverty, which remained widespread in the countryside because of the war, was alleviated by a wide-ranging emergency program of distribution of food and other necessities. Nevertheless, this program could not reach all the population severely affected by the war, because of the lack of security and of transportation equipment; insufficient amounts of food aid also kept the rations distributed below the amounts required. In addition to the poverty relief measures, the Government endeavored to stimulate rural production through provision of inputs, improved access to markets, and better price incentives. The effect of these policies has been favorable, with significant increases in agricultural production during the 1987-90 period.

In the urban areas, a rationing system has been the main instrument for ensuring food security; it aims at providing food corresponding to approximately two thirds of the caloric requirements. Price subsidies were eliminated in 1987-89, with subsidies remaining only on yellow maize, an inferior commodity. This scheme is however inadequate to provide security to large families or households without significant income. For this reason, a scheme of income supplementation for urban households was developed in 1990 and implemented in 1991.

The evidence available--based on the purchasing power of minimum wage levels, on producer prices, and on the actual availability of goods-- suggests that the recovery program, by stimulating food production in areas where adequate security exists, improved prospects for the poor. Purchasing power gains were attained by urban wage earners and rural producers. In addition, GDP per capita grew during the 1987-90 period. Nevertheless, poverty is still widespread, and available social indicators indicate that little progress was registered in these areas in the period 1986-89. Significant improvements for the majority of the population will require the restoration of adequate security throughout the countryside. In the meantime, the Government is continuing to pursue the integration of its expenditure program within the framework of the policies directed at combatting poverty.

References

- Government of Mozambique and United Nations, "The Emergency Situation in Mozambique: Priority Requirements for the Period 1990-91," April 1990.
- Green, R., "Estudo SDA: Social Dimensions of Adjustment" (the "Green Report"), February 1989.
- International Monetary Fund, EBD/91/253 (Policy Framework Paper for 1991-93), August 1991.
- _____, various internal documents, 1986-91.
- World Bank, "Mozambique: Restoring Rural Production and Trade," Report No. 8370-MOZ, October 1990.
- _____, "Mozambique: Poverty Reduction Framework Paper," October 1990.
- _____, "Mozambique: Food Security Study," Report No. 7693-MOZ, October 1989.
- _____, "Agricultural Sector Survey," Report No. 7094-MOZ, 1988.
- _____, "Social Indicators of Development," several issues.