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**Reversing the Decline of
Output and Productive
Employment in Rural
Sub-Saharan Africa**

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Preface

The present paper is the second in a series prepared under the “Jobs for Africa” programme.¹ This paper has been financed, and carried out by the ILO in collaboration with UNDP. Jobs for Africa represents a contribution to the United Nations System-Wide Special Initiative on Africa as well as to the follow-up to the Social Summit. The objective of “Jobs for Africa” is to identify a set of mutually enforcing policies for job creation and poverty reduction. This will be done through: (a) developing a conceptual framework for comprehensive and sectoral policies on employment creation for poverty reduction; (b) identifying policy tools and operational systems to implement employment creation for poverty reduction; and (c) designing a comprehensive regional programme to support country level employment promotion programmes.

Among the developing regions of the World, Sub-Saharan Africa (SSA) ranks second after South Asia in terms of the proportion of population resident in rural areas; but the development of the rural economy is more critical a determinant of overall growth of output and employment in SSA than in any other developing region. The rate of expansion of the rural population has been far more rapid in SSA than in any other developing region and, by the mid 1990s, it appears to have overtaken all other developing regions in terms of the proportion of the labour force engaged in agriculture. Of all the developing regions, SSA is the only one that has experienced a steady decline in labour productivity in agriculture during the last decade and a half. This is of special significance in view of the fact that agriculture is more important a source of livelihood in SSA than in the rural economies of other developing regions.

This study begins by documenting the principal features of the decline of the rural economy: a decline in productive employment in agriculture and a reduction in the importance of the non-farm sectors of the rural economy as a source of employment. It then analyses the factors behind the decline of the rural SSA economy, focusing specifically on the international factors, domestic policies and institutions. It then discusses the inadequacy of the reform programmes under structural adjustment in reversing the economic decline of rural SSA and makes a brief exploratory analysis of the likely effect of the increasing globalization of the world economy on rural SSA.

The final section of the study identifies the policies for the reversal of the decline of rural SSA by promoting employment-intensive growth within the framework of increasing integration with the global economy and macroeconomic stability that this warrants. In the identification of these policies special attention is given to the experience within SSA and elsewhere in the developing world.

It is hoped that the present paper will provide a contribution to the debate on the prospects for resuming growth in Africa in the coming century.

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¹ Keith Griffin, “Macroeconomic Reform and Employment: An Investment-Led Strategy of Structural Adjustment in Sub-Saharan Africa”, *Issues in Development, Discussion Paper No. 16*, International Labour Office, Geneva, 1996 .

REVERSING THE DECLINE OF OUTPUT AND PRODUCTIVE EMPLOYMENT IN RURAL SUB-SAHARAN AFRICA

1. Introduction

Sub-Saharan Africa is not the most rural of all developing regions. That distinction belongs to South Asia by the standard of the proportion of the population residing in rural areas. And yet rural employment and growth are more critical issues for the solution of the problem of poverty and unemployment in sub-Saharan Africa (SSA) than in any other developing region or in any other group of less developed countries (LDCs). Table 1 provides justification for this claim.

Although Africa ranks second among the five developing regions in terms of the proportion of the population resident in rural areas, it has been experiencing by far the most rapid expansion of the rural population which has been growing at an annual average rate of almost 2.3 per cent since 1980. By 1990 Africa was a very close second to East and South-East Asia (ESEA) in terms of the proportion of the labour force in agriculture. By the mid 1990s it must have overtaken the ESEA region in this regard because of the sharp fall in agriculture's share of the labour force in China, the overwhelmingly dominant country in the ESEA region in terms of employment. The rate of growth of the agricultural labour force has been faster in SSA (2.2 per cent per year during 1980-90) than in the other regions (e.g., 1.7 per cent in ESEA, 1.3 per cent in South Asia, -0.18 per cent in Latin America and the Caribbean and 0.56 per cent in the Middle East and North Africa. Direct estimates of the rural labour force (i.e., agricultural and non-agricultural labour located in the rural economy¹) are not available; but it is clear that the growth of the rural labour force has been faster in SSA than in any other developing region.

Table 1. Comparative Indicators of the Status and Trends for the Rural Economy

	SSA	ESEA	SA	LAC	MENA
Rural population as % of total population (1994)	69	68	74	26	44
Agricultural labour as % of total labour force (1990)	68	69	64	26	37
Annual growth rate of rural population (1980-94)	2.26	0.56	1.79	-0.18	1.84
Annual growth rate of agricultural labour productivity (1980-90)	-0.4	1.9	2.7	1.8	3.9
Per cent of rural population in poverty (circa 1988)	60	31		61	26

Note: SSA = Sub-Saharan Africa, ESEA = East and South-East Asia, SA = South Africa, LAC = Latin America and the Caribbean, MENA = Middle East and North Africa. Rows 1, 2 are from World Bank, 1996 and rows 3 and 4 are based on the data shown in World Bank, 1996. Row 5 is from IFAD, 1992.

The other aspects of the trends in the rural economy shown in Table 1 are particularly dismal for SSA. Of all the developing regions, SSA is the only one that has experienced a steady decline in labour productivity in agriculture. This assumes special significance in the context of the fact, to be discussed later, that agriculture is more important a source of livelihood in rural SSA than in the rural economies of the rest of the developing world. The incidence of absolute poverty is much higher in rural SSA than it is on average in the rest of the rural developing world. It is true that the incidence of poverty was a shade higher in Latin America and the Caribbean (LAC) for the year for which data are reported. But as a proportion of all the poor in the society the rural poor were far more numerous in SSA than in LAC. Moreover, the incidence of rural poverty has since become aggravated in SSA while it has been significantly alleviated in LAC which began to recover in the early 1990s.² Clearly the reversal of trends in production and labour productivity in the rural economy is a precondition for poverty-reducing growth of SSA.

2. Stagnation and Decline of the Rural Economy

Analyses of economic trends in SSA have to be carried out within a severe data constraint. Our quantitative knowledge about many aspects of the rural economy of SSA is particularly limited. This is a qualification that must be kept in mind in interpreting the following analysis. This also suggests that the institution of a comprehensive system of statistical information must be an integral part of a programme for overcoming the stagnation in rural SSA.

Rural Non-farm Employment

Since much of the detailed data below refer to output and employment in agriculture, it is important to begin with a clear idea of the importance of the remainder, i.e., employment in the non-farm rural economy. The earliest data available to us, based on surveys of small areas in Nigeria and Uganda in the mid 1960s and broader surveys in Kenya and Sierra Leone respectively in 1970 and 1976, suggest that the proportion of the rural labour force with primary employment in non-farm activities in these African countries was not much different from what it was elsewhere in the developing world: it ranged between 19 per cent in Sierra Leone and 28 per cent in Kenya.³

Next we have the estimates of rural non-farm employment as a proportion of rural employment made by Saith on the basis of FAO data for six West African and eight East African countries. For the 14 countries the average proportion of the rural labour force in non-farm activities rises from 13.1 per cent in 1970 to 15.9 per cent in 1975 and 17.9 per cent in 1980.⁴ The latter is comparable to the figure for South Asia though lower than the figures for South-East Asia (22.0 per cent) and China (19.7 per cent) as estimated by Saith for the same year.⁵

What we have next are indirect but arguably more comprehensive estimates of the indicators of the importance of the non-farm economy: the estimated ratios of the agricultural population to the rural population for 1965 and 1988 as shown in Table 2. The agricultural population refers to all persons engaged in agricultural work including the members of their households. Unfortunately, it includes those engaged in agricultural activities in urban areas which explains why the ratio exceeds 100 per cent in some cases. It is however unlikely that urban agriculture has been growing relative to rural agriculture. Thus a rise (fall) in the ratio must indicate a fall (rise) in the proportion of workers engaged in non-farm rural activities.

Table 2. Ratios of Agricultural Population to Rural Population

Country	1965	1988
Côte d'Ivoire	106	104
Ethiopia	93	86
Ghana	83	76
Kenya	94	100
Madagascar	97	102
Nigeria	87	98
Tanzania	96	103
Uganda	97	91
Sub-Saharan Africa	95	99
Asia	91	83
Middle East and North Africa	94	73
Latin America and Caribbean	96	98

Source: IFAD, 1992.

In SSA the ratio has increased significantly, indicating a fall in the proportion of the rural labour force engaged in non-farm activities. In the whole of Asia and in the Middle East and North Africa the ratio fell significantly, indicating a rise in the proportion of the rural labour force engaged in non-farm employment. In Latin America the ratio has increased a little; but, as noted earlier, Latin America is largely urbanized and it looks like it's rural economy has become even more specialized in farming while non-farm activities are becoming increasingly concentrated in the urban economy. This is a situation that is not quite comparable with the other LDCs with an overwhelming concentration of the labour force in the rural economy.

The data in Table 2 are not necessarily inconsistent with the other evidence cited for 1980 and before. For example, the first set of estimates cited above claims that in 1966 19 per cent of the rural labour force in Nigeria was engaged in non-farm activities (Chuta and Liedholm, 1979). This is quite consistent with the ratio of the agricultural population to the total rural population of 87 per cent in 1965 if one allows for about 7 per cent of agricultural employment to be located in urban areas, which seems to be about right.⁶ It is however our hypothesis, based on the experience of working on employment issues in Kenya, Nigeria and Uganda, that the figures claimed by the first source cited above are rather high. As World Bank, 1988 shows, the ratio of the rural labour force employed in non-farm activities in 1985 was only 9 per cent for Kenya. For Uganda the ratio for 1991, based on census data, was about 12.6 per cent which appears consistent with the estimates in Table 2.⁷

The tentative conclusions that the available evidence suggests seem to be as follows: (a) whatever it might have been several decades ago, the proportion of the rural labour force engaged in non-farm activities is much lower in SSA today than it is elsewhere in the developing world; and (b) this proportion has declined for most countries in SSA over time, rather sharply in many cases.

Employment and Productivity in Agriculture

We now turn to agriculture, the principal source of rural employment and income in the rural economy. Table 3 shows trends in production, employment and productivity for 23 of the 27 largest countries, each with a population of 5 million or more. For the remaining four large countries - Angola, Somalia, Sudan and Zaire - the relevant information is not available. Column 3 of the table shows the annual rate of change in labour productivity in agriculture during the decade 1980-90. The last column shows the annual change in labour productivity in agriculture during 1990-94 on the assumption that the annual change in the labour force in agriculture was the same as in the preceding decade. This is because we do not have information on the rate of change of the agricultural labour force during this period.

For SSA as a whole there was an annual decline in labour productivity in agriculture of 0.4 per cent during the decade 1980-90. In the four years since 1990 the rate of decline accelerated greatly, to 1.5 per cent per year. Indeed real agricultural value added in this period increased at an annual average rate of only 0.7 per cent. We do not know the rate at which the agricultural labour force increased; but it seems quite probable that this rate was at least as high as in the preceding decade. This is because industries appear to have absorbed little labour (due to the decline in industrial output at an average annual rate of 0.2 per cent) and services appear not to have done much better (due to the very slow growth in output at 0.9 per cent per year).

The 23 countries shown in Table 3 account for 78 per cent of the population of sub-Saharan Africa. Once the four large countries for which information is not available are excluded from the total, these 23 countries account for 89 per cent of the population of the remaining countries in SSA. For one of these countries - Guinea - we do not have the information needed to make all the relevant estimates. Of the remaining 22 countries, agricultural labour productivity fell in 13 countries over the entire period 1980-94. In another two, growth in the 1980s was followed by decline in the 1990s. In one country a decline in the 1980s led to a low positive growth in the 1990s. In the remaining six countries - Benin, Burkina Faso, Chad, Mozambique, Nigeria and Tanzania - labour productivity grew in both periods.

It is worth noting that of these last six countries, in two - Chad and Nigeria - agricultural output fell absolutely during 1970-80, leading to a precipitous decline in labour productivity. In another three - Benin, Burkina Faso and Tanzania - labour productivity in agriculture declined during the 1970s. For the sixth country in this group - Mozambique - we do not have information about the course of labour productivity during the 1970s. Thus the countries which succeeded in achieving a positive growth rate in labour productivity during 1980-1994 were actually going through a phase of recovery following an earlier period of secular decline lasting for a decade or longer. Another interesting point to note is that of these six countries which managed to achieve positive growth rates in agricultural labour productivity during both the sub-periods under review, only Tanzania achieved positive, albeit very low, rates of growth in per capita GDP in both sub-periods. Nigeria experienced a decline in per capita GDP throughout the period. Positive growth rates in per capita GDP in Burkina Faso and Chad during the 1980s turned to negative growth in the 1990s. Benin and Mozambique experienced a fall in per capita GDP over the decade of the 1980s; it was only in the early 1990s that growth rates in per capita GDP turned positive in these countries. We shall return to this subject later to attempt an explanation of the factors determining the recovery of the rural economy.

Table 3. Labour Productivity in Agriculture and Rural Poverty
(Annual Percent Changes except the last column)

Country	1980 - 1990			1990-94 Productivity	% Rural Pop. in Poverty in 1988
	Production	Employment	Productivity		
Benin	5.1	2.3	2.7	2.5	65
Burkina Faso	3.1	2.0	1.1	2.5	90
Burundi	3.1	2.8	0.3	-5.7	85
Cameroon	1.2	2.2	-1.0	-3.3	40
Chad	2.7	1.8	0.9	5.0	56
Côte d'Ivoire	-0.5	2.2	-2.6	-3.0	26
Ethiopia	1.1	2.4	-1.3	-	<u>43</u>
Ghana	1.0	3.0	-1.9	-1.2	54*
Guinea	-	2.0	-	2.3	70
Kenya	3.3	3.3	0.0	-4.6	55*
Madagascar	2.5	2.9	-0.4	-1.4	50
Malawi	2.0	3.9	-1.8	-4.3	90*
Mali	4.3	2.5	1.8	-0.8	60*
Mozambique	1.6	0.8	0.8	1.6	65
Niger	1.8	2.5	-0.7	-5.9	35
Nigeria	3.3	0.3	3.0	1.9	51
Rwanda	0.7	2.0	-1.3	-15.5	90
Senegal	2.9	2.3	0.6	-7.0	70
South Africa	3.0	0.7	2.3	-3.0	-
Tanzania	4.9	2.7	2.1	3.0	<u>60</u>
Uganda	2.3	2.4	-0.1	0.9	80
Zambia	3.6	3.4	0.2	-1.3	80*
Zimbabwe	2.4	2.8	-0.4	-1.2	60
SSA	1.8	2.2	-0.4	-1.5	

Note: The fourth column shows the estimate of annual growth rate in labour productivity for the period 1990-94 on the assumption that labour force in agriculture grew during this period at the same rate as during the previous decade. Growth rate in labour force for this period, for which we have no independent estimate, is not shown separately. Growth rate in output for this period can be found by adding the growth rate in productivity and the growth rate in labour force (which is assumed to be the same as in column 2). Agricultural output refers to real value added. The last column, from IFAD 1992, shows the proportion of rural population below some subsistence poverty threshold. The underlined figures represent decreases since the mid 1960s, the figures with asterisks represent increases since the mid 1960s and in all other cases nothing is known about the change since the mid 1960s. Sources of all other data are shown in Annex Table.

Trends in Rural Poverty

The evidence on trends in employment and productivity in agriculture and in employment in non-farm activities suggests that the growth of output in rural SSA was far short of what was necessary to provide employment to the growing rural labour force at either constant productivity or at constant income. As shown in Table 3, the incidence of rural poverty was high during the late 1980s. Little reliable information is available about trends in rural poverty, especially over longer time periods. As the Table shows, only Ethiopia and Tanzania are estimated to have experienced a decline in the incidence of poverty between the mid 1960s and the late 1980s.⁸ In the case of five countries - shown in the Table by asterisks - the incidence of rural poverty increased between the mid 1960s and the late 1980s. No estimates of trends in poverty are available in other cases although it is certain that it increased in most countries over various periods. As has been shown, even countries which experienced growth in labour productivity over 1980-94 were recovering from long periods of decline prior to 1980.

This does not rule out improvements in some cases over shorter time periods. A recent World Bank study cites more recent evidence to show that the incidence of poverty declined in Tanzania during the 1980s, in Ethiopia between 1989 and 1994, in Ghana between 1988 and 1992 and in Nigeria between 1985/6 and 1992; while it rose in Cote d'Ivoire between 1985 and 1988 and in Kenya between 1982 and 1992.⁹

3. An Explanation of Stagnation and Decline

The decline of SSA has persisted, in spite of numerous initiatives mounted by the international donor community led by the multilateral development agencies, to such an extent that one must surmise that its causes are insufficiently understood by the major actors. We therefore approach the subject with due appreciation of the daunting nature of the task. We shall discuss the factors behind the decline of rural SSA under three distinct headings: (a) international factors adversely affecting the rural economy of SSA; (b) factors related to the overall economic stagnation of SSA; and (c) problems concerning institutions, resources and policies related to the rural economy of SSA. Our discussion of the first two sets of factors - the factors that are "external" to the rural economy of SSA - will be brief partly because they have been discussed in some depth in a companion study.¹⁰ The purpose of identifying the factors responsible for the stagnation and decline of rural SSA is to develop ideas about the programme of action to reverse these trends.

International Factors

Many countries of SSA have a disproportionate dependence on the export of agricultural goods. Most of these exports are directed to OECD markets. The decline in OECD growth since the 1973 oil shock led to a sharp fall in the price of these exports with a direct negative impact on agricultural production in SSA.

Table 4 contains data for a selection of non-oil exporting countries. These countries - and indeed an overwhelming proportion of those not shown in the Table, including oil-exporting countries like Nigeria and Cameroon - experienced sharp reductions in their terms of trade over prolonged periods, although the period varied from one country to another.

The decline in export prices was sharpest for the agricultural staples exported by SSA. To give some examples: from their peaks in 1977 the price of Ghanaian cocoa beans fell by 88 per cent by the year 1991 and the average price of coffee from Angola, Cote d'Ivoire and Uganda fell by 89 per cent at 1980 constant dollars (World Bank, 1993a). There was some recovery in the prices of these and other commodities in 1994 and 1995 but this appears to have been a very short-term recovery which was over by the end of 1995 according to the World Bank which projects "the overall non-oil price index to fall by more than 15 per cent in real terms over 1996-97, returning about two-thirds of the price gains seen in 1994-95, and to remain broadly flat in the medium term..." (World Bank, 1996a, pp. 14-15).

Table 4. Index of Terms of Trade (1987= 100)

Country	Major Export as % of Total Export 1985-87	Index of Terms of Trade					
		1973	1975	1980	1985	1990	1992
Burundi	Coffee 84%	139.5	91.7	132.9	132.8	62.1	52.2
Côte d'Ivoire	Coffee 91%	85.5	96.7	128.2	109.3	82.2	79.3
Ethiopia	Coffee 67%	180.0	149.9	144.8	119.0	76.2	66.6
Ghana	Cocoa 49%	102.3	125.0	155.6	92.6	71.7	65.5
Kenya	Coffee 32%	110.7	115.7	136.2	124.3	89.6	81.2
Madagascar	Coffee 37%	114.7	112.6	121.4	124.1	75.9	68.2
Malawi	Tobacco 54%	120.8	126.1	96.2	99.4	106.7	85.9
Mali	Cotton 42%	211.6	118.1	116.0	95.1	95.8	85.5
Tanzania	Coffee 44%	145.7	142.0	142.0	126.1	92.6	84.7
Uganda	Coffee 96%	123.6	108.3	157.4	148.7	66.0	48.8

Source: World Bank, 1993a and 1995a.

The effect of the sharp fall in the real prices of agricultural exports was to reduce the incentive for their production. This also adversely affected the farm sector's capacity to invest in agricultural production generally and to provide a market for rural non-farm activities.

International factors may have had adverse effects on the rural economy in a variety of other ways. It is true that a part of the overall effects of the adverse terms of trade was mitigated by the larger inflow of net transfers from abroad - mostly official development assistance - that SSA countries received as compared to other low-income countries.¹¹ The aggregate effects of the external circumstances were nevertheless highly negative for SSA, leading to a very high degree of external indebtedness for these countries. According to the World Bank's classification in early 1996, 36 low-income countries were "severely indebted". Twenty nine of them were in SSA!¹² Heavy external debt has reduced the amount of external resources available for purposes of investment and development. Agriculture's share of external resources in SSA is generally low: the unweighted average of the percentage of total external assistance (net disbursement) going to agriculture in 44 sub-Saharan African countries during 1985 and 1986 was 13.7 per cent according to IFAD, 1992. While we have no information on how this ratio changed when the supply of external resources became tighter, it seems that agriculture has faced increasing difficulty in meeting its requirement for imported inputs.

Stagnation of the Domestic Economy

A second set of factors, external to rural SSA, that affected the performance of the rural economy relate to the performance of the urban economy. While there was significant mutual interdependence between the rural and the urban economies, it is by no means true that the performance of the rural economy was the sole determinant of the performance of the urban economy. Urban economic performance was determined by factors which were substantially autonomous of the performance of the rural economy, especially in so far as economic policies were overwhelmingly determined by governments which were not only located in the urban areas but were also primarily focused on the urban societies.

While it is not possible to estimate the division of Africa's GDP between rural and urban sectors, it is clear that the urban sector's share of output was far greater than its share of population. In 1994 industries (manufacturing, mining, construction and utilities) accounted for 30 per cent of GDP while services accounted for 48 per cent. It is impossible to know what proportions of industries and services were located in the rural economy; but clearly the major proportions of these activities were carried out in the urban areas. The share of GDP accruing to the urban residents may be close to two-thirds.¹³

Had the large urban economy succeeded in achieving high rates of growth in employment and output the benefits of their growth would have had favourable effects on the rural economy. The latter would have been relieved of the burden of finding employment for a disproportionately high share of the labour force. It would also have benefited from growing domestic demand for its products.

Many of the issues of overall economic stagnation in SSA have been dealt with in the companion study (Griffin, 1996). Numerous other studies are also available on the overall economic performance of SSA (e.g., World Bank, 1994 and 1995). These issues are outside the scope of the present study which merely wants to highlight the fact that the overall development performance of SSA failed to generate sufficient growth in output, savings and investment in the non-rural economy. As a result the rural economy had to cope with a disproportionate burden of the rapid increase in the labour force and was deprived of a growing market for its output and a source of supply for its input needs.

Institutions, Policies and Resources in the Rural Economy

Sub-Saharan Africa's rural economy has faced wide-ranging problems of inadequate resources, inappropriate institutions and harmful policies. Often they have reinforced the adverse effects of one another. The combination of problems varies among regions and countries and their enumeration is limited by the severe inadequacy of information. This section focuses on the aspects that deserve high priority in formulating a programme of action for the reversal of the decline of the rural economy.

Population and labour. The rate of population growth in SSA has consistently been higher than in other low-income countries by one full percentage point per year over the last two decades. This means that it has had to cope with a correspondingly faster growth in the labour force. Much of the annual increments in population and labour force swell the ranks of those who live in the rural society and seek employment in the rural economy. A very high proportion of the meagre resources of the society have to be used merely to provide the increased population with the existing per capita social services, leaving little to equip the increased labour force for employment and to invest for improvement in productivity of employment.

Access to land. For those rural households - over four-fifths of all rural households according to the rudimentary evidence cited - who earn their living by working in agriculture, the most important determinant of productivity and income is access to land. Table 5 shows that arable land per agricultural worker in SSA is more than twice as much as in land-scarce Asia but less than a quarter as much as in land-abundant Latin America. Once the higher cropping intensity due to irrigation and the better land quality in Asia is taken into account, the relative advantage of SSA over Asia in terms of land/worker ratio becomes much narrower. Indeed, once these differences are taken into account, SSA should perhaps be considered just as land scarce as India.

This overall measure of land endowment hides a great deal of difference among individual countries of SSA. In many countries land scarcity is worse than the Asian average and in some it is as

bad as in quintessentially land-scarce China. Access to land is not however limited by the low land/labour ratio. It is also limited by institutional constraints, (e.g., inequality in land distribution and the informality of land rights), infrastructural constraints (e.g., low cropping intensity due to the lack of irrigation) and the inadequacy of capital (e.g., the shortage of machines and equipments for the leveling and improvement of land). In Kenya the very low land/labour ratio is immensely exacerbated by the extraordinarily high inequality in the distribution of land so that the lack of access to land is a major obstacle in the way of overcoming poverty for a high proportion of poor households (See World Bank, 1988). In Uganda widespread access to land translates into very low effective size of holding for a very high proportion of farmers because of the low average quality of land due to the absence of equipments for land improvement. It is estimated that the amount of land per worker in Uganda could be increased more than three fold if resources were available to bring land under cultivation (see World Bank, 1993).

Table 5. Access to Land

	Land per Agricultural Worker (ha)	% of Agricultural Land Irrigated	Gini Ratio of Land Distribution
Nigeria	1.88	3.0	0.37
Ethiopia	0.78	1.0	0.25
Tanzania	0.47	2.0	-
Kenya	0.27	3.0	0.72
Uganda	0.87	0.5	-
Ghana	0.68	1.0	0.44
Mozambique	0.48	3.0	-
Côte d'Ivoire	1.53	2.0	0.36
Madagascar	0.65	27.0	-
Senegal	1.74	3.0	-
Zambia	1.94	negligible	-
Sub-Saharan Africa	0.96	4.6	-
Asia	0.43	38.4	-
China	0.20	45.0	0.51
India	0.73	25.0	0.55
Latin America	3.93	10.3	-

Note: Column 1 is based on the data for arable land shown in IFAD, 1992 and agricultural labour force calculated on the basis of the data shown in World Bank, 1996. Arable land refers to the year 1988 while labour force refers to 1990. The ratio should be regarded as representative for 1990 since significant variation in arable land over a two year period is unlikely. Proportion of land irrigated and the Gini ratios are from IFAD, 1992 except that the Gini ratio for China is from McKinley, 1993.

Environmental degradation. Degradation of the environment has been an important factor limiting the sustainability of agriculture in many SSA countries. Often environmental degradation is induced by poverty and in turn further aggravates poverty. An example is the spread of the weaker members of the rural society into environmentally fragile areas in East Africa, the rangelands of Angola, Somalia, Sudan and the region of the Southern African Development Coordination Conference (SADCC). These farmers reduce the length of fallow period and plough land that was previously used for grazing. These desperate measures on the part of the poor have reduced yield, led to the degradation of land quality and reduced the supply of drought animals. Elsewhere - e.g., in Botswana - degradation of land has resulted from short-term benefit maximization by rich farmers by the adoption of intensive cultivation and inappropriate techniques. Rapid expansion of export crops - e.g., cocoa in Ghana and groundnut in Senegal - led to deforestation and land degradation.

Resources for infrastructure, capital and technology. Information is extremely rudimentary on infrastructure, capital and technology in rural SSA. It is widely known that rural SSA is poorly endowed with infrastructural resources and in many cases these resources have deteriorated in quality and volume. The very low prevalence of irrigation has been documented in Table 5. Road transport is the dominant mode of transportation in SSA and is often the only method of access to rural areas. It accounts for 80 to 90 per cent of the region's passenger and freight movement. There was a surge of construction in the 1960s and the 1970s and by the 1980s there were 2 million kilometers of roads. During the 1980s and the early 1990s maintenance was so neglected that the road network has become badly damaged. This has sharply added to the cost of transportation by causing vehicle damage and raising vehicle operating costs.¹⁴

Agriculture in SSA countries generally lacks capital and technology. The situation is acute in many countries and the following description of Ugandan agriculture in World Bank, 1993 (pp.100-101) is representative of much of SSA:

At present Ugandan agriculture operates under almost primeval conditions: the limited spread of tractors and ox ploughs that took place in the past has been wiped out, fertilizer use has dropped to virtually nothing, there is an acute absence of basic implements, and the knowledge of farming system and crop husbandry practice is rudimentary. Basic equipments supply (weeder, planter, thresher for grain crop areas, harvesting tools, and a reintroduction of ox ploughs and selective access to tractor service where essential) needs improvement.

Table 6 shows that, compared to the low-income LDCs, the level of fertilizer consumption in SSA is pitifully low. While fertilizer use has expanded rapidly in the low-income LDCs in the last decade and a half, the increase in SSA has been almost imperceptible, 0.6 per cent per year.

Table 6. Fertilizer Consumption (hundred grams per ha)

	1979/80	1992/93
Sub-Saharan Africa	138	149
Low-income LDCs	528	1 028
Low-income LDCs except China and India	196	352

Source: World Bank, 1995b.

Infrastructural poverty is not limited to physical economic overheads but also extends to finance, training, extension and other institutional and organizational spheres. Access to credit is extremely

limited. Facilities for the acquisition of skills are scarce. These deficiencies not only act as constraints on agricultural growth, but also serve as obstacles to the development of non-farm activities.

Public policy and incentives. Public policy in SSA countries has often been highly detrimental to the development of the rural economy. Discrimination against the rural economy in SSA countries has many dimensions. We shall focus on four: (a) low producers' price for farm products; (b) imposition of inappropriate institutions on the rural population; (c) low share of public resources for the rural economy; and (d) a distortion of incentives which reduces the relative profitability of activities that provide income to the poor and generate greater employment. Needless to say that these policies do not prevail uniformly in all African countries. They have however been widely practiced in SSA with adverse consequences for employment and output in the rural economy. We shall illustrate the use of these policies selectively.

Countries of SSA have a long tradition of subjecting agricultural products, especially exports, to low producers' prices. The method has varied from one country to another and has included instruments like the overvaluation of the exchange rate and the manipulation of the foreign trade regime; state purchase at unfavourable prices; and compulsory procurement. Table 7 shows the ratios of producers' prices to export prices for major agricultural exports. Of the countries shown in the Table, Kenya is the only one that did not have a large implicit tax on agricultural exports. (Sudan exempted cotton but not other

Table 7. Average Ratios of Producers' Prices to Export Prices

	1971-80	1981-88
<i>Cotton</i>		
Niger	0.457	0.874
Sudan	1.043	1.285
Zimbabwe	0.383	0.353
<i>Coffee</i>		
Côte d'Ivoire	0.454	0.434
Ghana	0.340	0.865
Kenya	1.163	1.053
Tanzania	0.392	0.475
Uganda	0.250	-
<i>Cocoa</i>		
Côte d'Ivoire	0.495	0.578
<i>Groundnut</i>		
Senegal	0.303	0.496
<i>Tea</i>		
Kenya	0.923	0.862
<i>Tobacco</i>		
Tanzania	0.430	0.327
<i>Sorghum</i>		
Sudan	0.193	0.564
Source:	IFAD, 1992.	

exports.) All other countries had a heavy tax, implicit or explicit, on agricultural export goods, resulting in a strong disincentive for production.

Disincentives to agriculture also took the form of inappropriate organizations and institutions. An extreme example is the forced villagization and collectivization imposed in Ethiopia which, combined with low procurement prices and an absence of infrastructure and technology, wreaked havoc with agricultural production incentives. The less extreme villagization in Tanzania is also alleged to have "depleted resources around the villages while leaving distant lands uncultivated" (IFAD, 1992, p.83). Informal access to land, not secured by titling, has prevented smallholder investment in many SSA countries (see World Bank, 1993 for the analysis of the problem in Uganda). Elsewhere the failure to tax large landholdings has encouraged their owners to leave huge tracts of land unused while the masses of rural population suffered from a lack of access to land (World Bank, 1988 cites Kenya as a prime example).

Table 8 shows the proportions of government expenditure allocated to the rural areas during the 1970s and the 1980s for nine SSA countries for which data are reported in IFAD, 1992 for both periods. It is very hard to devise a standard by which one could judge if the absolute levels of these ratios are low, adequate or high. International comparison is not particularly useful in so far as countries differ in the importance of the rural society relative to the society as a whole. It is however worth noting that in seven of these nine countries the proportion of public expenditure directed to the rural economy and society declined between the 1970s and the 1980s, a period over which the international development community was suggesting that SSA needs to change its past anti-rural bias.

Table 8. Percentage of Public Expenditure in Rural Areas

	1970s	1980s
Ghana	20.5	18.7
Kenya	23.5	22.8
Malawi	22.4	22.7
Mali	15.0	8.2
Nigeria	14.1	19.5
Senegal	16.2	15.8
Sudan	15.7	15.3
Tanzania	27.7	24.7
Zambia	20.9	19.4

Source: IFAD, 1992.

Public policy has also favoured employment-hostile techniques and activities in many countries. Table 9 provides an illustration. In Kenya the system of incentives in the late 1980s favoured the use of tractors and heavy machines and discriminated against the use of less mechanized techniques, e.g., ox-drawn ploughs and hand tools.¹⁵ This is due to the far more preferential and liberal terms under which tractors and combine harvesters were imported as compared to ploughs and hand tools. Large machines are exempted from import duty and sales tax and are allowed in under the least or less restrictive import categories for which licenses are easy to obtain. Ploughs are subject to heavy import duty and are in the most restrictive import category. Hand tools are subject to even higher a rate of import duty and are in a relatively restrictive import category. The result is the promotion of labour-replacing technology in

larger farms and a disincentive for smaller farms which in Kenya are more productive and labour intensive than larger farms (see World Bank, 1988).

Table 9. Import Schedules and Duties on Farm Machinery in Kenya

Category of Import	Import Schedule	Import Duty
Combine harvesters, threshers and parts	1A	nil
Wheeled tractors	1B	nil
Other machinery and parts	1A-1B	nil
Ploughs	2B	35%
Hand tools	1B	45%

Source: Ministry of Planning, Kenya, quoted in World Bank, 1988.

Note: Import schedule 1A is least restrictive and 2B is most restrictive.

Human capital. Sub-Saharan Africa suffers from an acute shortage of human capital. We do not have separate estimates of the indicators of human capital endowment for rural SSA; but it is certain that if anything the human capital endowment of the rural economy is less favourable than it is for the entire economy. Table 10 illustrates the severity of the situation. Educational endowments of SSA are not only far worse than they are for the low-income LDCs, they have been getting worse still relative to the other LDCs over time. Incredibly, primary school enrolment in SSA declined for both male and female children between 1980 and 1993 while the rest of the LDCs have increased the enrollment rate to cover pretty much all children in the relevant age groups. Rural SSA is undoubtedly facing the problem of an absolute decline in the ability of the work force to benefit from extension services and in the basic skills necessary for the adoption of improved production techniques.

Table 10. Primary School Enrollment and Adult Illiteracy

	SSA		Low-income LDCs	
	1980	1993	1980	1993
<i>Primary school enrollment (% of age group)</i>				
Female	69	64	80	98
Male	91	77	103	112
<i>Adult illiteracy rate (%)</i>				
	1995		1995	
Female	54		45	
Male	35		24	

Source: World Bank, 1996.

Civil strife and war. Numerous African countries have experienced civil wars and/or wars with neighbours which have devastated their economies, including their rural economies. About a third of the

larger countries listed in Table 3 have experienced major conflicts in recent decades. Quite apart from reducing the resources for development, these conflicts often destroyed rural infrastructures and disabled rural economies for prolonged periods.

Natural disaster. Agriculture in many SSA countries has suffered from natural disaster in the form of prolonged droughts to a much greater extent than average LDCs. Although little can be done to prevent these natural disasters, their existence needs to be recognized in order to design policies to protect the rural population from their consequences.

4. Effects of Structural Adjustment and Liberalization

Structural Adjustment and the Performance of the Rural Economy

During the decade of the 1980s many countries in SSA adopted adjustment programmes under the auspices of the World Bank's structural adjustment loans. How these adjustment policies have affected the growth of employment and output in rural SSA is an issue that has important implications for future policies. The subject is inherently difficult. It is hard to quantify the extent to which a country has adopted a particular kind of adjustment programme. There is also the additional problem of deciding when the programme became effective and how long the time lag is before it produces results.

The World Bank's recent report on the evaluation of the adjustment experience in Africa (World Bank, 1994) argues that policies have improved under structural adjustment programmes, that adjustment has paid off in terms of higher growth, that the greatest gain has been made by the strongest adjusters and that continued adjustment is the best guarantee of higher growth with equity in the future. Others have argued that the preoccupation of structural adjustment with the efficiency of resource use diverts attention from other preconditions of growth and that the deflationary effect of the large stabilization programme, incorporated in the adjustment programme pushed by the World Bank, has harmed growth in Africa.¹⁶

Our concern is somewhat narrower: to evaluate the effect of adjustment on the performance of the rural economy. Let us begin by citing some simple facts. Of the six countries that the World Bank identified as strong adjusters, only three - Burkina Faso, Nigeria and Tanzania - satisfy our criterion of having achieved positive growth in labour productivity in agriculture during the period 1980-94.¹⁷ Of the other three large SSA countries which achieved positive growth in labour productivity, two - Benin and Mozambique - have been classified by the World Bank as poor adjusters, both earning negative scores for overall improvement in macroeconomic policies, and the third - Chad - has not been included in any of the three categories (strong adjusters, weak adjusters and poor or non-adjusters).

A more recent World Bank study (World Bank, 1995) takes a much more differentiated view in explaining the agricultural performance of SSA. It does not consider overall policy reforms at all. Instead it focuses on the following indicators as determinants of agricultural performance:

- Policy: a rise in real producer price of agriculture and/or a reduction in the rate of taxation of agriculture between 1981/83 and 1989/91 is considered good policy.
- Fertilizer: More than 3 per cent annual increase in fertilizer use between 1986 and 1991 is considered good performance on fertilizer use.
- Extension: Good performance is judged on the basis of World Bank supervision reports.
- Infrastructure: Good road maintenance is taken as the proxy for good infrastructure.

The identification of these determinants marks a significant shift away from considering macroeconomic policies as the sole determinants of performance and recognizes the importance of price incentives, technology, extension and infrastructure as determinants of performance in agriculture. Let us see the extent to which good performance according to the above indicators explains success according to our criteria.¹⁸ Malawi is the only country that performed well on all four indicators according to World Bank, 1995. It however achieved negative growth in labour productivity in agriculture during 1980-94. Of the seven countries that performed well on policy and on at least two of the other three indicators, four

- Togo, Tanzania, Nigeria and Botswana - achieved positive growth in labour productivity while a fifth country - Guinea - achieved positive growth for the period for which information is available (1990-94). Other countries achieving positive growth in labour productivity in agriculture performed well in one or more indicators (e.g., Chad had improved fertilizer use; Benin and Burkina Faso had improved policy and an improvement in one other indicator; and Mozambique had improved policies).¹⁹

What we tentatively conclude is that good performance in agriculture requires improved price policies and investment (to acquire technology, provide extension and improve infrastructure, among other things). Structural adjustment programmes so far have emphasized the first element without focusing attention on how to increase investment. It is therefore not surprising that for Africa as a whole a decade of adjustment has not restored growth in agriculture and in the rural economy.

Globalization and the Economy of Rural SSA

During the last decade of increasing globalization, the SSA countries have lost their share of the world market. As shown earlier in this study, the main brunt was borne by agricultural exports. They faced a drastic reduction in terms of trade. The principal benefit of globalization - increased access to the world market - did not prove beneficial because these agricultural exports were primarily directed to OECD markets where the problem was a lack of demand, not access to their markets.

Available projections show that SSA is the only region that will end up with negative short-term and long-term benefits as a result of the implementation of the Uruguay round of reforms.²⁰ In the short-run the annual loss is estimated to be \$0.3 billion in 1992 dollars (approximately 0.2 per cent of GDP) and in the long-run it is estimated to be \$0.7 billion (0.4 per cent of GDP). A good part of the loss will be due to the higher cost of food imports due to agricultural reform in the exporting countries. Higher food prices will adversely affect the large proportion of the rural population who are net buyers of food. Whether this will raise the price of domestically produced food and/or whether increased price of food imports can be turned into a benefit by promoting greater import substitution of food are questions that can not be answered at the present level of statistical information available to us.

5. Policies for Employment-Intensive Growth of Rural Africa

The above analysis - especially the analysis of the factors behind the stagnation and decline of rural SSA in section 3 - provide the basis for the identification of policies for employment-intensive growth of rural SSA. A high output elasticity of employment will largely guarantee that growth is egalitarian. We shall demonstrate that to ensure a high output elasticity of employment it will be necessary to adopt several measures which will provide additional impetus to equity. An important point that will hopefully emerge is that the total package of policies will have a far greater effect on output and employment than the sum of the effects of individual policies in isolation. This is because the package includes clusters within which policies are mutually reinforcing, rendering these clusters into virtuous circles.

Two overall parameters defining the limits of development policy should be clearly spelled out. First, growth must be pursued in a globalizing world economy in which the past policy of protection is not an option. By now contractual obligations to the World Trade Organization (WTO) make protection of past variety impermissible. Promotion of economic activities must be designed according to the new rules that integration with a globalizing world economy imposes. Secondly, growth must be pursued in a framework of macroeconomic stability, avoiding serious external imbalance and domestic price instability. Trends towards globalization put severe limits on the tolerance of macroeconomic instability for the promotion of growth or the protection of employment. Moreover, the world community has come to strongly disapprove of macroeconomic imbalance as an instrument of growth after the experience of the external shocks of the 1970s and early 1980s. Unsustainable macroeconomic imbalances following those external shocks forced nations to a kind of stabilization that proved disastrous for the growth of employment and output. Quite apart from the consideration that serious macroeconomic imbalance is an inefficient strategy for growth, it is unlikely that SSA, so heavily dependent on external assistance, will get any donor support for a strategy that rejects macroeconomic stability.

International Policies

The World Bank projection of a 15 per cent decline in commodity prices during 1996/97 and flat prices thereafter for the medium term outlines the prospect that SSA's agricultural exports have in the foreseeable future. Indeed the prospects would be even less optimistic if SSA were to continue to lose its market share in these exports, notably to countries in South-East Asia. A faster rate of OECD growth than the 2.7 per cent per year for the next decade, which is assumed in the World Bank projections, might lead to a better outcome. Given the current OECD paranoia about inflation one should not consider that a serious alternative. The upshot of this is that the SSA countries should diversify their agricultural exports in the direction of goods for which demand is more income elastic. Examples of such goods are cut flowers and fruits and vegetables. This is a matter of domestic policies which are discussed below.

The SSA countries will however continue to require a substantial inflow of external resources. Since the prices of their exports are unlikely to return to the levels prevailing in the 1970s and the early 1980s in real terms, these countries will need to be "compensated" until they are able to develop new exports. Official assistance is already quite high in SSA: in 1994 it received 32 per cent of all official assistance to the LDCs, more than five times what South Asia, the other LDC region with a concentration of low-income countries, received on a per capita basis. The problem is that SSA received only 3 per cent of all private flows to the LDCs. It is highly unlikely that private flows into SSA will rise much in the near future. This must await the reversal of the recent trends in economic performance in SSA although it would be desirable for the donor community to do what is possible to bolster the confidence of the sources of private flows. The upshot is that official flows into SSA should be maintained at their current levels if not increased further.

A final international measure that would help the SSA countries is the reduction of the external debt of the 29 severely-indebted, low-income SSA countries. Currently debt service accounts for about four per cent of GDP for the SSA countries. This could perhaps be cut in half or to a lower level by taking the recent G-7 initiative on this subject a good deal further.

Resumption of Overall Growth of SSA

Rural economies of the SSA countries can not have healthy growth unless the rest of the SSA economies achieve robust growth. Indeed the non-rural sectors should by and large be in the role of an engine of growth; it is a safe generalization, based on historical evidence, that the growth of the rural sector is inevitably slower than the growth of the rest of the economy. Policies for employment-intensive growth of the rural economy must be designed as an integral part of the strategy of growth for the overall economy. This strategy has been spelled out in the companion paper to this study (see Griffin, 1996) which stresses increased investment as the leading element and the direction of investment to socially profitable activities, with due allowance for externalities and due recognition of the limitations in the operation of the market. Successful implementation of the strategy will ensure that the rural economy will be able to transfer a part of the natural increase of its labour force to the rest of the economy; and have a domestic market that will create demand for its products at a rapid rate and a domestic source which will supply an increasing proportion of its growing demand for production inputs and consumer goods.

Resources, Institutions and Policies in the Rural Economy

Population and labour. One of the major elements of the development of the rural economy is a rise in labour productivity in agriculture. This is brought about by a faster rise in agricultural output than in agricultural labour force. Given the rate of increase in agricultural production, the lower the rate of increase in the labour force the higher the rate of productivity growth. The rate of growth of the labour force in SSA agriculture has been much too rapid in the past and this needs to be brought down. There are three ways of achieving this. The first, a rising rate of labour absorption in the non-rural economy, has already been mentioned and is outside the scope of this study. The second, a rise in the proportion of the labour force employed in rural non-farm activities, is discussed later in this section. The third is a reduction in the rate of growth of the labour force through a reduction in the rate of population growth.

It is true that a reduction in population growth translates itself into a reduction in the labour force with a time lag of up to 15 years. But this is well within the planning horizon of all but the most reckless of planners. Moreover a reduction in population growth helps economic growth in ways other than reducing the rate of growth of the labour force. It reduces the commitment of resources for the provision of basic services to the population and releases resources for directly productive investment.

Beyond improving the supply of contraceptive services, which should of course be a priority, the principal determinants of fertility are complex and somewhat elusive. It is however increasingly being recognized that to shorten the process of demographic transition one should emphasize those changes that have a more direct influence on households' preference for children. One important factor is the probability of survival of children which can be increased by investing in basic health services. Another important factor is the education of women. Yet another factor is the reduction of poverty and the provision of basic social security in a way that households' need for children as a source of subsistence and security declines. On all these fronts the SSA countries have performed poorly, their outstanding failure being their inability to prevent a fall in the primary school enrollment rate for women. As we discuss below, these trends need to be reversed.

An important demographic issue for SSA is the spread of the AIDS epidemic. It has imposed a disproportionately high cost on many rural African economies. Apart from the cost of care, it strikes people in their prime, increases the dependency ratio, and aggravates poverty due to its concentration in poor households. While detailed data are not available, there are plenty of reports of economic activity coming to a halt in many villages in East Africa because AIDS had struck down a very high proportion of the labour force. Control of AIDS must be an integral element of the strategy for employment-intensive growth of rural SSA.

Access to land. Improved access to productive resources is the key to the enhancement of productive employment. Land is the primary resource in rural SSA. We have seen in section III that access to land is limited by a variety of obstacles. Policies for improved access to land in a given country must be based on the actual circumstances which are far from uniform. Thus in a number of countries (exemplified by Kenya) there is a clear role for redistributive land reform. A great deal of land is concentrated in the hands of a few large owners who make very poor use of land, much of which is left unused and held for speculative purposes (see World Bank, 1988). It is also well documented that smallholders absorb more labour per hectare and are more productive. A redistribution of land in favour of smallholders will improve employment and output. In many other countries (notably Nigeria, Uganda, Zaire and Zambia) peasant commitment to land improvement could be enhanced greatly by replacing the informal access to land by proper land titling (see World Bank, 1993 for the Uganda experience and Platteau, 1988 for a broader overview). Where redistributive land reform is not feasible, progressive land tax and other measures should be implemented to discourage large landowners from keeping land unused for speculative purposes and to encourage them to use it for productive purposes.

Access to technology. In much of rural SSA agricultural technology is extremely rudimentary. It is necessary to provide a package of balanced, feasible and efficient technology. This calls for a blend of enhanced peasant capacity to acquire inputs and an improvement in the public provision of services in which economies of scale are important. Peasants must have improved access to basic implements, improved seed and fertilizer. The supply of these inputs must be increased substantially and their absorption must be facilitated by peasants' access to credit, a topic that is discussed separately.

Increased access to basic inputs must be complemented by the provision of extension services. In many cases extension services are needed to provide farmers with the knowledge of farming system and crop husbandry practice which are not adequate. Within Africa examples of well-run extension services exist and there is plenty of evidence that the return to these services is well over 100 per cent (see World Bank, 1995. p. 100 for data on substantial increase in farm productivity due to extension services in Burkina Faso and Kenya). Well-managed national agricultural research systems, focused on the most important crops and linked with the international agricultural research institutes on the one hand and the suppliers of inputs on the other, are another public sector priority.

The other important link in the accessibility of technology and its benefits is the improvement in infrastructure with emphasis on roads and irrigation. The maintenance of existing roads and rural links with road systems must be improved. There should be an expansion in irrigation facilities with a clear focus on an improvement of the amount of cropped land in land-scarce areas and on complementing improved technological packages.

Access to credit. Credit has a critical role in enabling access of peasants and non-farm entrepreneurs to inputs and technology. In rural SSA programmes to enhance access to credit must be designed with due consideration for the widespread absence of collateral exacerbated by the limited spread of land titling. Innovative micro credit programmes which avoid the need for individual collateral and combine credit with the promotion of saving habit and the dissemination of better production practices - e.g., the Grameen Bank in Bangladesh and Village Development Fund in Mali - deserve examination for possible replication.²¹ Several points deserve strong emphasis. First, it is wrong to underprice credit. Rural economic activities are so profitable that there is a high return to credit and the small borrowers in Bangladesh have found it easy to pay interest which is close to 20 per cent. Secondly, even at this high cost to the recipients, the programme needs to be subsidized. Carefully designed credit, accompanied by complementary technical advice and extension service, is expensive to distribute especially when the recipients are each very small.

Incentives. The system of incentives needs a number of basic changes. The rural economy must receive adequate reward for its effort. The first major requirement is to abandon the age-old system of imposing unfavourable producers' price on the farmers. As Table 7 shows, this habit has persisted in the adjustment period although World Bank, 1995 reports a number of cases of improvements in recent years. Abandoning this practice will have a negative effect on public revenue in many countries and this must be made up by alternative sources of revenue. In the long run, growth in the rural economy will provide opportunities for increased public revenue.

A second area in which incentives need adjustment is the discriminatory taxes, tariffs and controls that harm smallholders and obviate the adoption of labour-intensive techniques of production. The example of high tariff and more restrictive import quotas on small-farm implements, relative to large tractors and combines, in Kenya has been cited in section III.

Attention must also be given to the avoidance of those organizational and regulative measures that have serious negative effects on peasant incentives. The villagization and collectivization in Ethiopia, imposed on a peasantry that had a reasonably egalitarian access to land after land reforms, is a prime example of the kind of institutional innovations that must be avoided.

Diversification of the rural economy. The economy of rural SSA has suffered because of its undiversified production structure. The predominance of traditional agricultural exports is a principal manifestation of this phenomenon. Another is the relatively small and possibly declining role - as we surmised on the basis of the limited evidence in section II - of rural non-farm activities. A change in these trends must be the defining characteristic of the future strategy of development for rural SSA.

The development of new, export-oriented, farm products and the promotion of rural non-farm activities, the products of which may also find their way to export markets, may be treated simultaneously because they need similar incentives and resources. The identification of products is the beginning. This must be based on the identification of locally available skills for the production of goods that are compatible with demand in the export and domestic markets. This task is clearly beyond the ability of individual farmers and small-scale rural entrepreneurs. Agricultural research systems and comparable agencies dealing with non-agricultural products must take the lead, in association with public or private trading agencies, in identifying these products and in promoting prospective entrepreneurs with assistance in design and marketing services. This must be synchronized with the provision of credit which has been discussed above. An improvement of the infrastructure will help the process of production and transportation while the spread of basic education will help the absorption of technology and product innovation. Actual identification of products is a task for the experts. Cut flowers, vegetables (especially

the ones for which a rapidly growing market in the oil-rich gulf countries already exists) and traditional handicrafts are some of the obvious export products to explore.

Much of the rural non-farm activities - processing of agricultural goods, trading, rural transport, and construction - are closely linked with agriculture and the rest of the economy. Many of these activities are "Keynesian" in the sense that they require very little resources and are driven by demand.

Human capital. Repeated references have been made above to basic education and basic health service as preconditions of development in other areas. Scarcity of resources makes it important to define priorities clearly. Top priority lies with the reversal of the trend in primary school enrollment and the provision of basic preventive health care.

Women in rural employment. Table 11 summarizes some comparative facts about women in employment in SSA. Women represent a higher proportion of the labour force in SSA than in the LDCs as a whole; their concentration in agriculture is overwhelmingly greater in SSA than elsewhere; and women in agriculture receive a lower wage in SSA than elsewhere relative to men. The proportion of female-headed households is far greater in rural SSA than in rural LDCs as a whole. Women in SSA are exclusively responsible for the daily subsistence needs of their families. They are responsible for food production while men concentrate on the production of cash crops. Customary systems of land allocation result in male control of land although they concede the principle of women's access to land as family helpers and in the role of independent producers as wives of the male heads of households. These limited customary land rights have been increasingly threatened by agrarian reform programmes which have tended to distribute land titles primarily to men. Available data suggest that women have less access to credit than men.²²

Table 11. Women in Employment

	SSA	All LDCs
1. Women as per cent of labour force	38	35
2. Per cent of female labour force in agriculture	81	67
3. Female wage as % of male wage in agriculture	51	68
4. Per cent of rural households headed by women	31	12

Source: IFAD, 1992.

Note: Reference year for 1 and 3 is 1988, for 2, 1980 and for 4 the mid-1980s.

Some of the measures recommended above will further exacerbate the disadvantage that women suffer relative to men. Thus the benefits of higher producers' price for farm products will mainly accrue to men, the producers of cash crops. Land titling and land redistribution, if carried out according to past tradition, will benefit men at the expense of women. There must be compensatory policies to alleviate the disadvantage suffered by female workers.

Three policies deserve special emphasis. The first concerns primary school enrollment for women and primary health care for women and children. Resources should be directed to increase these facilities. Besides improving the productivity of women as members of the labour force, these measures will provide important externalities such as reduced fertility. The second element is a special female focus of rural credit programmes. The Grameen Bank in Bangladesh is an example of such a credit programme, heavily tilted in favour of women as the target group. Finally, all land reform measures and land titling programmes should be required to give equal rights of access and ownership to women and men.

Environment and rural development. Sustainable rural development must be based on the avoidance of land degradation, protection of forestry and the protection of other relevant elements of the environment. In the past much of the deforestation and land degradation was due to increased poverty. Reduction of poverty, coupled with a regulation of land use, should help control this trend. Once alternative entitlement is created for the poor, it should be possible to limit the degradation of land and forests without causing hardship for them. Land degradation caused by short-term profit maximizing behaviour of large farmers and speculative behaviour of landlords should be dealt with by appropriate changes in incentives supplemented by regulations.

Control of civil strife and protection from natural disaster. African development suffers a major impediment in the form of civil wars and international conflicts engulfing a fair proportion of the countries at any particular time. The roots of these conflicts are often very deep and the damages caused by them are massive as a proportion of resources. A serious continental effort to have a permanent and effective mechanism to prevent and deal with these conflicts is long overdue. Similar effort needs to be organized for the forecasting and monitoring of natural disasters and for emergency public action to offset the sudden short-term loss of entitlement to food and work on the part of the rural population hit by such events.

Financing. What are the financial implications of the programme outlined above and how will it be financed? Many elements of the programme - those relating to institutional reforms and policy changes - will not require significant additional resources. Some - e.g., the dismantling of the organization that implements unfavourable producers' prices - will actually save resources. It is however clear that much of the programme - especially those related to the improvement of the infrastructure and human capital and the enhancement of technology - will require substantial additional resources. It is not possible to arrive at a numerical estimate. Let us assume that an additional 3 per cent of GDP (say approximately an additional 8 per cent of rural GDP, i.e., a bit more than half as much as the existing rate of rural investment²³) would go a long way to implement a rural programme of a critical minimum size. How will such a programme be financed?

This is an issue that should be discussed in the context of the overall development of SSA and is, strictly speaking, outside the scope of the present study. The following comments nevertheless point to the elements of a feasible strategy of financing the programme.

Gross investment in SSA as a proportion of GDP averaged 24.5 per cent during 1975-80.²⁴ It fell to 16.5 per cent in the early 1990s. If SSA could regain a little more than a third of the reduction that it has experienced in the rate of investment, it could finance the rural programme outlined above. But of course there will be a demand for resources for the acceleration of growth in the non-rural economy. This could be met by a combination of regaining something like another two to three per cent of the lost rate of investment (i.e., raising the rate of investment to about 22 per cent of GDP) and an increase in the efficiency of investment. SSA investment in the past was highly inefficient. Reforms in policies suggested above should substantially increase investment productivity and release resources for new programmes. This could add a substantial amount of additional resources. For example a 20 per cent increase in the efficiency of investment over the dismal benchmark would release an additional 4.4 per cent of GDP and raise the rate of investment in "efficiency units" to 26.4 per cent of GDP.

The reduction in the rate of investment was accompanied by a corresponding reduction in the saving rate, from 23.3 per cent of GDP during 1975-80 to 16 per cent in the early 1990s. The acceleration of the investment rate outlined above assumes that the saving rate can be raised by another 5 percentage points (less the augmentation in the rate of "foreign savings").

Official development assistance is already quite high - 12.4 per cent of GDP in 1994 - and no more than a modest increase in private capital inflow can be foreseen in the near future. There can however be some relief - equivalent to about 2 per cent of GDP - if the recent initiative in reducing the burden of external debt can be taken far enough.

The rest of the gap, of the order of a three percentage point rise in the rate of savings, must be achieved domestically. This is certainly not beyond reach, especially when the saving potential in the rural sector is fully tapped. A lot of saving can be accomplished by activating unused rural labour by removing the constraint of the lack of access to productive assets. An example is the underutilized labour in Kenya which, if combined with land by the redistribution of large underutilized holdings, would simultaneously increase output and investment. If the government and the civil society in SSA face the challenge of the necessary institutional reform, it should not be difficult to attain the implied domestic saving target.

Notes

1. It should be noted that a small part of agriculture is located in urban areas. Thus, strictly speaking, rural labour force consists of agricultural labour force less the agricultural labourers working outside the rural areas plus the non-agricultural workers located in rural areas. As we shall see later, in some African countries with small numbers of non-agricultural workers in the rural economy, the agricultural labour force in recent years exceeds the rural labour force. It is however not too inaccurate an assumption that movements in agricultural labour force by and large represents movements in rural agricultural labour force.
2. This is based on the information that is available about per capita income trends and the piecemeal estimates of poverty in individual countries in Latin America since 1988. Absolute poverty estimates show the proportion of population below some poverty threshold which presumably refers to a level of income that enables a person to satisfy basic nutritional requirements and other basic needs. IFAD, 92, which is the source of the poverty estimates reported in Table 1, does not explain the extent to which poverty thresholds are comparable across countries and regions.
3. These data are from Chuta and Lindholm, 1979. These have been reported and discussed in Chuta and Sethuraman, 1984.
4. Ashwani Saith, 1992. Saith also has estimates for 1950 and 1960 which show an increasing trend in the proportion of rural employment in non-farm activities between 1950 and 1970.
5. Saith's estimates are much lower for Latin America. But comparison with Latin America does not seem appropriate because its labour force is largely urbanized and non-farm activities in Latin America are largely located in urban areas, leaving the rural economy to specialize in farming.
6. This comment is based on the writer's rudimentary estimates of the composition of employment in Nigeria for the mid 1980s. Also World Bank, 1988 estimates agricultural employment located in urban areas in another African country, Kenya, in 1985 to be 6.8 per cent. Note however that the claim that in 1970 28 per cent of Kenya's rural employment was in non-farm activities is much higher than 9 per cent estimated for the year 1985 by World Bank, 1988. This either suggests that there was a sharp decline in the proportion of rural labour force in non-farm activities between 1970 and 1985 or that one of the two estimates is wrong. The 1985 estimate is based on the Labour Force Survey. We do not know how the 1970 estimate was made.
7. See World Bank, 1993, Chapter 6 for this estimate.
8. It is doubtful if these estimates can be interpreted as indicators of steady reduction of poverty over the long period. The Ethiopian estimates may indicate the one-time distributional effect of land reforms in the 1970s. It is quite likely that the incidence of rural poverty increased later, though still remaining lower than in the period before land reforms. The statistical basis of the poverty estimates in SSA must be considered poor.
9. See Demery, Sen and Vishwanath, 1995 and World Bank, 1995. The estimates cited cover the entire country, presumably encompassing the rural population.
10. See Griffin, 1996.
11. World Bank, 1994 shows that net transfer as a percentage of GDP was 3.6 during 1981-86 and 4.7 during 1987-91. Corresponding figures for 27 low-income non-SSA countries were 1.7 and 1.1.
12. See World Bank, 1996a.
13. The following crude arithmetic suggests that the proportion of output produced outside the rural economy may be more. In 1994 68 per cent of the labour force working in agriculture produced 20 per cent of the GDP in SSA (World Bank, 1996). Assume that 60 per cent of the labour force was

located in rural agriculture (the remaining 8 per cent working in agriculture located in non-rural areas) producing 18 per cent of GDP. Assume further that non-agricultural rural labour force was 10 per cent of the total labour force producing 15 per cent of GDP. Thus 70 per cent of the labour force would be located in the rural areas producing a third of GDP. The implied ratio of urban labour productivity to rural labour productivity would be 4.75, far less than the ratio of productivity of non-agricultural labour to agricultural labour according to the World Bank, 1996 data.

14. See Pennant-Rea and Heggie, 1995 for some estimates of increased transport cost due to poor road maintenance.
15. It is not known to the author of this study if this system of incentives continues to exist today.
16. For a view that takes this kind of position see Weeks, 1994. Griffin, 1996 also takes a critical view of structural adjustment under the auspices of the World Bank.
17. The other three strong adjusters, according to the World Bank, were Ghana, Gambia and Zimbabwe. Ghana and Zimbabwe had negative growth in labour productivity in both periods. For Gambia we do not have reliable estimate of growth in the labour force; but agricultural value added grew at 0.4 per cent per year during the 1980s and at -0.5 per cent per year during the early 1990s.
18. It should be noted that the implicit model raises numerous questions: why should improvement in fertilizer use during the late 1980s improve performance over the 1980s? How good is road maintenance as a proxy for infrastructure? How did the World Bank arrive at the quantification of the extension variable? and so on.
19. World Bank, 1995's own classification of countries according to growth performance is different and, in our view, less transparent. It uses criteria and reference periods that are different from ours.
20. The projections reported here are based on Harrison, Rutherford and Tarr, 1995. They use a 24-region, 22 commodity model which is more detailed than other available models that make similar projections.
21. See Hossain, 1984 for an analysis of the Grameen Bank and IFAD, 1992, p. 207 for an analysis of the Village Development Fund Project in Mali.
22. For more details see, IFAD, 1992, chapter 9.
23. We do not know the rate of investment in rural SSA. It is reasonable to assume that this rate is lower than the overall rate of investment. The indicated increase will therefore mean a more than 50 per cent increase in the rate of investment in the rural economy.
24. Data quoted in this para are from World Bank, 1995a and 1996.

	Annex Table. Some				Background Data			Growth Rate in Agric. Lab. Force Per Cent Per Year 1980-90
	Population 1994, Mill.	Per Capita GNP, 1994 U.S. \$	Per cent of Labour Force in Agriculture 1980	1990	Growth Rate of Agricultural Value Added Per Cent Per Year			
					1970-80	1980-90	1990-94	
Benin	5.3	370	67	63	1.8	5.1	4.9	2.3
Botswana	1.4	2800	63	46	8.3	2.2	0.6	negative
Burkina Faso	10.1	300	92	92	1.0	3.1	4.6	2.0
Burundi	6.2	160	93	92	3.2	3.1	-3.1	2.8
Cameroon	13.0	680	73	70	4.0	1.2	-1.2	2.2
CAR	3.2	370	85	80	1.9	2.7	1.5	-
Chad	6.3	180	88	83	-0.4	2.7	6.9	1.8
Congo	2.6	620	58	49	2.5	3.4	-2.8	-
Cote d'Ivoire	13.8	610	65	60	2.7	-0.5	-0.9	2.2
Ethiopia	54.9	100	89	86	0.7	1.1	-	2.4
Gabon	1.3	3880	65	51	-	1.7	-0.3	-
Gambia	1.1	330	84	82	-	0.4	-0.5	-
Ghana	16.6	410	62	59	-0.3	1.0	1.8	3.0
Guinea	6.4	520	91	87	-	-	4.3	2.0
Guinea-Bissau	1.0	240	87	85	-1.2	6.7	4.7	-
Kenya	26.0	250	82	80	4.8	3.3	-1.5	3.3
Lesotho	1.9	720	41	40	0.2	2.6	-2.3	-
Madagascar	13.1	200	82	78	0.4	2.5	1.5	2.9
Malawi	9.5	170	87	87	4.4	2.0	-0.6	3.9
Mali	9.5	250	89	86	4.2	4.3	1.7	2.5
Mauritania	2.2	480	72	55	-1.0	1.7	5.3	negative
Mauritius	1.1	3150	27	17	-3.3	2.6	-2.1	negative
Mozambique	15.5	90	84	83	-	1.6	2.4	0.8
Namibia	1.5	1970	56	49	-	1.8	6.8	-
Niger	8.7	230	91	90	-3.7	1.8	-3.5	2.5
Nigeria	108.0	280	54	43	-0.1	3.3	2.2	0.3
Rwanda	7.8	80	93	92	-	0.7	-13.8	2.0
Senegal	8.3	600	81	77	1.3	2.9	-4.9	2.3
Sierra Leone	4.4	160	70	68	6.0	2.9	0.6	1.8
South Africa	40.5	3040	17	14	3.2	3.0	-2.3	0.7
Tanzania	28.8	140	86	84	0.7	4.9	5.8	2.7
Togo	4.0	320	69	66	1.9	5.6	3.3	-
Uganda	18.6	190	87	85	-	2.3	3.3	2.4
Zambia	9.2	350	76	75	2.1	3.6	2.1	3.4
Zimbabwe	10.8	500	72	68	0.6	2.4	1.6	2.8

Note: Growth rate in agricultural labour force is estimated from labour force data derived by estimating agricultural labour force for 1980 and 1990 by applying the shares of agriculture in labour force to labour force data, both shown in World Bank, 1996. For small countries there may be significant error because World Bank, 1996 rounds labour force to nearest million. All other data

have been taken from World Bank, 1996 or World Development Reports of prior years. GNP per capita is in current US\$ according to World Bank's "Atlas Method". All but a few of the 17 countries not shown in the Table are very small. The are not shown because for them either data are not available or the rounding error is obviously too large.

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