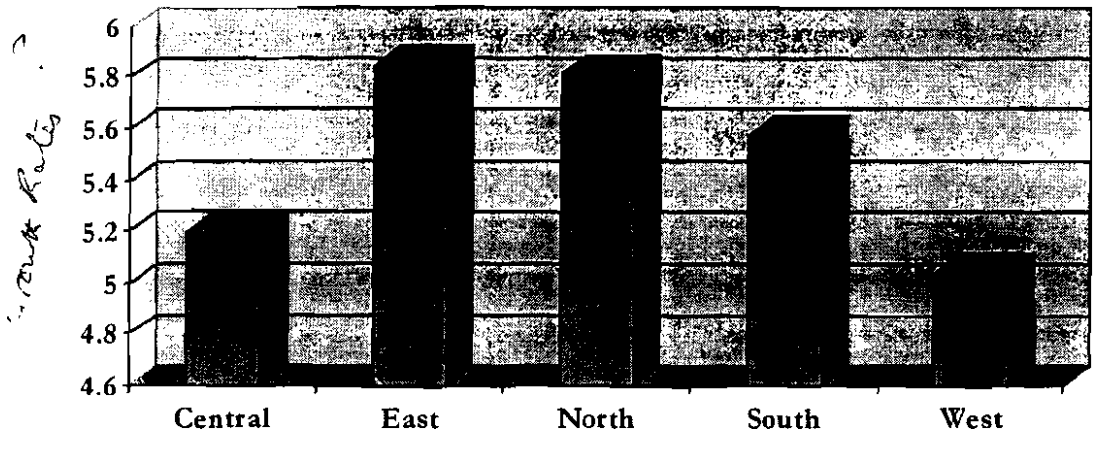
Economic Commission for Africa

# Economic Report on Africa

## 2000



# CHAPTER ONE

# The State of the African Economies in 1999

The African economy maintained its previous year's performance, growing at an estimated rate of 3.2 per cent in 1999. Growth was depressed during the first half of the year mainly because of the low commodity prices that prevailed in the world market and mixed weather out-turn across the region. The second half of the year proved more auspicious with the turn around in commodity prices although performance in the agricultural sector remained very lethargic.

Africa's overall performance mirrored that of the global economy, which was sluggish during the first half, grew more exuberant during the second half and finished the year in positive growth territory.

## 1.1 World Economy

Global economy improved its performance in 1999 compared to 1998, growing by 2.9 per cent compared to 2.5 per cent respectively. The recovery was driven by revival of performances in the emerging markets economies from the financial-instability-induced downturn of the previous two years. Exceptions to the generally positive global trend were the Latin American economies, which have yet to recover from the negative effects of the financial instability that incapacitated their economies.

Table 1.1: World Economic Performance (GDP Growth rates in percentages)

| | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| World | 4.2 | 4.1 | 2.5 | 2.9 |
| Developed Countries | 3.0 | 3.2 | 2.2 | 2.9 |
| G-7 Countries | 2.8 | 3.0 | 2.2 | 2.5 |
| Other Developed | 3.8 | 4.2 | 2.1 | 3.0 |
| Developing Countries | 6.6 | 5.7 | 3.3 | 3.7 |
| Africa | 4.0 | 3.1 | 3.1 | 3.2 |
| Asia | 8.2 | 6.6 | 3.8 | 5.4 |
| Latin America | 3.5 | 5.2 | 2.3 | 1.0 |

***Source:*** ECA Secretariat and IMF World Economic Outlook, October 1999.

Growth in developed countries increased from 2.2 per cent in 1998 to 2.9 per cent in 1999. The G-7 economies posted a rate of growth of 2.5 per cent up from the 2.2 per cent of 1998 mainly on account of improved performances in Japan and Canada while the remaining five countries experienced slowdowns of varying magnitude. The European Union, and more so the Euro region, continue to be mired in the low growth trap mainly because of the poor performance in Germany, which has yet to transit from the lower than average performance of recent years. There was also the policy-induced deceleration in the US economy where inflation is considered the more important threat from over-heating.

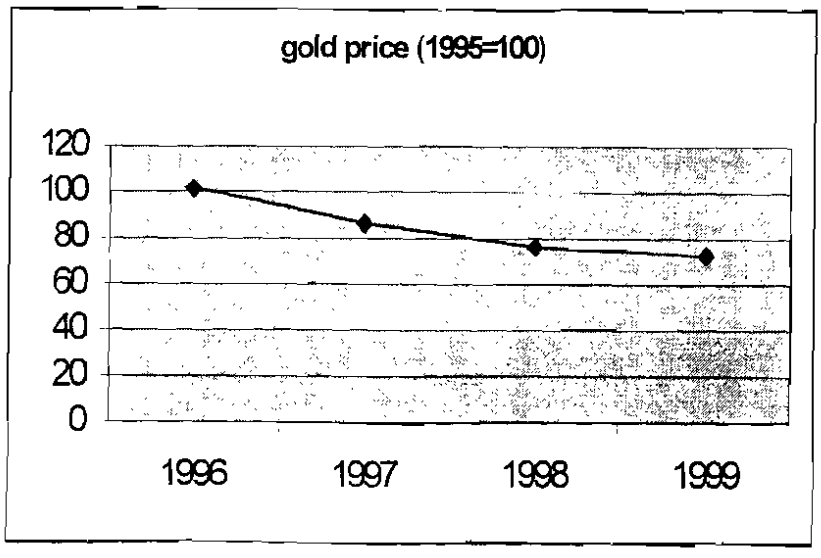
Growth in the other developed economies registered significant revival, increasing from 2 per cent of the previous year to 3 per cent in 1999. Positive performance in this group was due to the restoration of vigorous growth in the emerging East/South –East Asian economies.

Performance in the developing countries was more sanguine, growth averaged 3.7 per cent compared to 3.3 per cent in 1998. The higher growth was due to the generally positive trend in all the developing countries with the exception of the Latin American economies.

In Asia, the revival of the financially battered economies of South-East Asian countries, and the continued strong performance in the People's Republic of China and India helped to reverse the declining trend in the region. Despite the strong resumption of growth in Asia, recovery remains incomplete since they have yet to relocate themselves on the robust growth path of the previous decades.

Performances in Latin America were overwhelmed by the below average out-turn in the major economies of the region. The Brazilian economy, by far the largest in the region, continued to feel the aftermath of the financial instability as was that of Argentina, albeit at diminished intensity. Other countries of the region such as Chile, Venezuela, and Colombia suffered the consequences of the defensive measure put in place by the authorities to protect and safe guard their economies from the financial contagion that devastated their neighbors.

Figure1.1: World Economic Growth 1996-99. (Percentage change over previous year)



The overall performance of the global economy ended the decade on a positive trend following the sharp and vigorous growth of the second half of the year which more than made up for the sluggishness in the first half. Among the factors that contributed to the up-turn was the rise in demand in all economies. Aggregate demand increased by nearly 7 per cent in the industrial countries, while in the Newly Industrialized Asian economies the increase was in the order of 15 per cent.

## 1.2 The African Economy

Africa's economic performance during the last year of the century and the millennium was one of marginal improvement compared to 1998. UNECA's preliminary estimates show that real GDP grew by 3.2 per cent in 1999 compared to the 3.1 per cent in 1998. The median growth rate was 4.0 per cent in 1999, the same as in 1998; while the dispersion in the rate of growth among African economies, as measured by the standard deviation, declined from 2.5 to 2.3. The decline in the standard deviation is indicative of growth convergence among the countries of the region.

The positive regional performance was due to a strong recovery in the second half of the year. Economic growth slumped during the first half of the year due to the unfavorable out-turns in the fundamental determinants of economic activity in Africa. While the weather condition exacerbated the agricultural sector in many parts of the region, deteriorating primary commodity prices, declining external resource flows and external debt servicing imposed additional downward pressure on economic activity. Although the weather condition did not turn for the better, the strong recovery in commodity prices helped to reverse the trend and pushed growth into positive territory during the second half.

The 1999 out-turn and the factors behind it once again demonstrate the fragile nature of the African economies. The lack of high and sustained growth in the region's economy nearly two decades into the reform era, is a graphic reminder of the underlying structural weakness and extreme vulnerability of the region's economies to exogenous determinants over which African policy makers have no influence. In the final analysis, capricious and unpredictable weather and unstable world commodity prices define the tone and pace of economic activity in Africa.

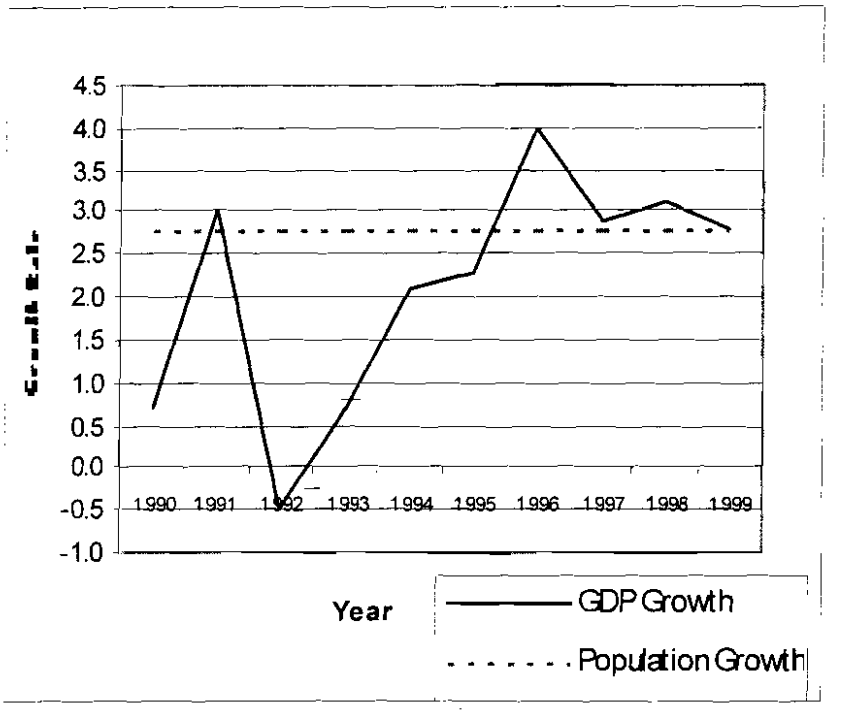
Despite the higher than average performance of the region's economy during the second half of the decade, the record for the whole decade is one of continued decline in per capita income.

The rate of growth for the 1990-99 decade averaged 2.1 per cent per annum. This performance was less than the corresponding yearly increase in population estimated at 2.8 per cent, and considerably less than the rate of growth required to reduce poverty by the internationally agreed magnitude and target period.

In consequence the quality of life continued to erode during the decade of the 1990s, as it did during the previous decade. If African countries and their development partners are to realize the objective of reducing poverty during the foreseeable future, the rate of growth needs to be increased and sustained at a higher level. As was shown in the Economic Report on Africa 1999 (UNECA 1999), the annual rate of growth that would reduce poverty by half by 2015 is estimated at 7 per cent. If present trends continue into the future,

Africa risks the danger of growing poorer at home and being further marginalized abroad.

Figure 1.2: GDP and Population Growth 1990-1999




## Performance at Country Level

Further to sustaining the positive growth trend at the regional level, encouraging results were also recorded at the country level. In clear departure from past experience, no country had negative GDP growth in 1999 and only one country posted a growth rate of less than one per cent compared to 4 in the previous year. Fifty-two of the fifty-three countries managed to garner growth rates exceeding one per cent. The highest growth was recorded for Mozambique and Equatorial Guinea at 10 percent each.

For 19 countries the growth rates ranged between 1 and 2.9 per cent while another 17 countries clustered in the 3 to 4.9 per cent range and 12 had growth rate between 5 and 6.9 per cent. At the other extreme, the number of countries with growth rates at or in excess of the 7 per cent per annum required for the reduction of poverty by half by the year 2015 (see UNECA, 1999) increased from 2 of the previous years to 5 in 1999.

Table 1.2: Frequency Distribution of African Countries according to real Growth Rate of GDP 1995-1999.

| Growth Rate | Year/Number of Countries | | | | |
|---|---|---|---|---|---|
| | 1995 | 1996 | 1997 | 1998 | 1999 |
| Negative | 6 | 2 | 4 | 2 | 0 |
| 0-2.9 | 11 | 12 | 12 | 13 | 19 |
| 3-4.9 | 23 | 28 | 25 | 28 | 17 |
| 5-6.9 | 6 | 9 | 10 | 8 | 12 |
| 7 and above | 7 | 2 | 2 | 2 | 5 |
| Total | 53 | 53 | 53 | 53 | 53 |

***Source:*** ECA Secretariat.

## Sub-Regional Growth

Eastern and Southern Africa which together account for 46 per cent and 37 per cent of the region's population and GDP respectively enjoyed higher growth in 1999 relative to 1998. The three remaining sub-regions accounting for 54 per cent of the population and 63 per cent of GDP experienced lower rates of growth.

The median growth declined in 3 of the sub-regions (North, Central and South) while maintaining the same level in the remaining two. The dispersion in the rate of growth among sub-regions increased in three (West, Eastern and Southern) while declining in the other two.

Table 1.3: Economic Growth in Africa by Sub-Region

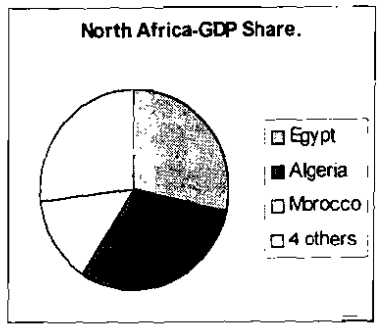
| Region | 1998 | | | 1999 | | |
|---|---|---|---|---|---|---|
| | Mean | SD | Median | Mean | SD | Median |
| Africa | 3.1 | 2.5 | 4.0 | 3.2 | 2.3 | 4.0 |
| North | 4.4 | 2.1 | 4.5 | 3.5 | 1.8 | 2.6 |
| West | 3.6 | 1.4 | 4.5 | 3.2 | 1.8 | 4.5 |
| Central | 4.9 | 4.2 | 5.5 | 4.4 | 2.7 | 4.8 |
| Eastern | 2.5 | 2.2 | 3.0 | 4.0 | 2.4 | 3.0 |
| Southern | 1.7 | 2.4 | 4.5 | 2.2 | 3.0 | 4.0 |

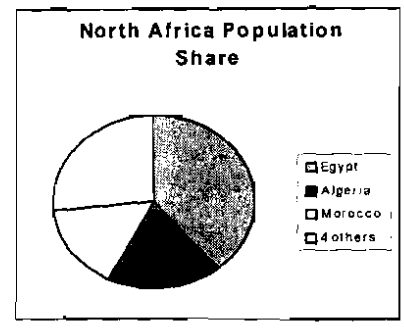
***Source:*** ECA Secretariat

**North Africa:** Of the 7 countries that make up the sub-region, four posted positive growth rate, while in the remaining three growth decelerated. As a result, the average growth for the region declined from 4.4 per cent in 1998 to 3.5 per cent in 1999. The median growth drastically fell from 4.5 per cent to 2.6 per cent, suggesting a generalized compression in performance in the sub-region. This is confirmed by the decline in the variation in growth among countries as measured by the standard deviation which decreased from 2.1 to 1.8.

Performance in this part of the continent is highly contingent upon the oil industry and agriculture, and out-turns in the three largest economies of Algeria, Egypt and Morocco which together account for 73 per cent of GDP and population of the sub-region.

Figure 1.3: North African GDP and Population Shares 1999

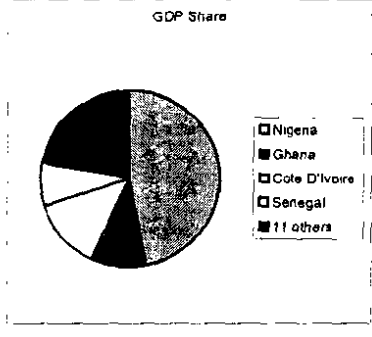


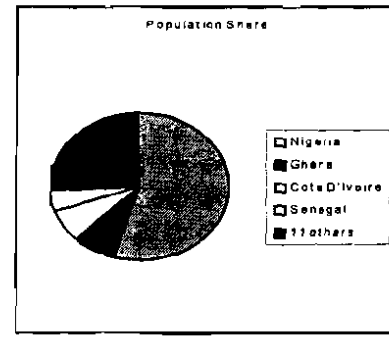




While growth in Egypt declined from 5.5 to 4.8 per cent, there was a serious down turn in Morocco where growth fell from 6.5 per cent in 1998 to 1.0 per cent in 1999. The draught in Morocco was instrumental for the very poor performance of agriculture, which in turn depressed the agriculture-based and driven industrial sector. In Algeria growth increased from 3.8 per cent in 1998 to 4.6 per cent in 1999.

**West Africa:** In the 15 West African countries growth declined from 3.7 per cent in the previous year to 3.2 per cent in 1999. The main factors behind the slight increase was the higher than average performance in agriculture.

Figure 1.4: West African GDP and Population Shares 1999




Measures of aggregate economic performance in the West Africa sub-region are dominated by Nigeria, which accounts for 47 per cent of GDP and 54 per cent of the population. Côte d'Ivoire, Ghana and Senegal are distant runner-ups with 13, 10 and 8 per cent of GDP and 8, 7 and 5 per cents of the population of the Sub-region. Of the 15 countries in this sub-region, 7 had higher growth relative to 1998, another 6 saw their growth shrink while the remaining 2 maintained their previous year's growth. Guinea Bissau, Senegal and Gambia

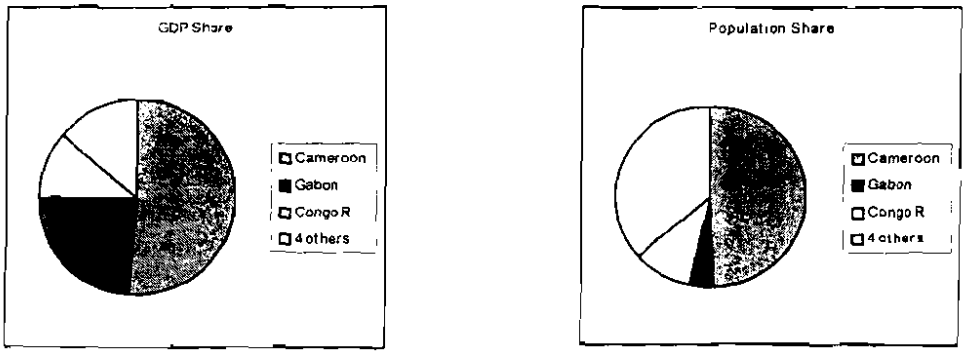
were the star performers registering growth rates of 7 and 6.5 per cent each respectively, while Sierra Leone comes at the tail end with growth of 1.0 per cent.

The performance of the Nigerian economy in 1999 was constrained by oil prices during the first half of the year, coupled with disruptions in production due to civil unrest in the oil producing delta region. Heavy rains that caused extensive flooding displaced population and depressed agricultural production in some parts of the country. In consequence, growth declined from 2.5 per cent in 1998 to 1.5 per cent in 1999, pulling down the sub-regional average.

**Central Africa:** In the Central African sub-region, economic activity slowed down in all the countries with the exception of Gabon and Sao Tome and Principe where growth increased from 2.1 per cent to 3.8 per cent, and 2.6 per cent of the previous year to 2.8 in the current year respectively. In Cameroon, the largest economy in the sub-region accounting for 51 per cent of the GDP and 49 per cent of the population, economic growth declined from 5.2 per cent in 1998 to 4.8 per cent in 1999 while it declined by more than 80 per cent in Chad. Although the rate of growth declined from 15 per cent in 1998 to 10 per cent in 1999, Equatorial Guinea continuous to lead the growth league both at the sub-regional and regional levels.

The factors behind the decline in the rate of growth in these group of countries were the lower price of oil, the most important export item for many of the countries in the sub-region. The weather and defoliating caterpillars reduced agricultural output.

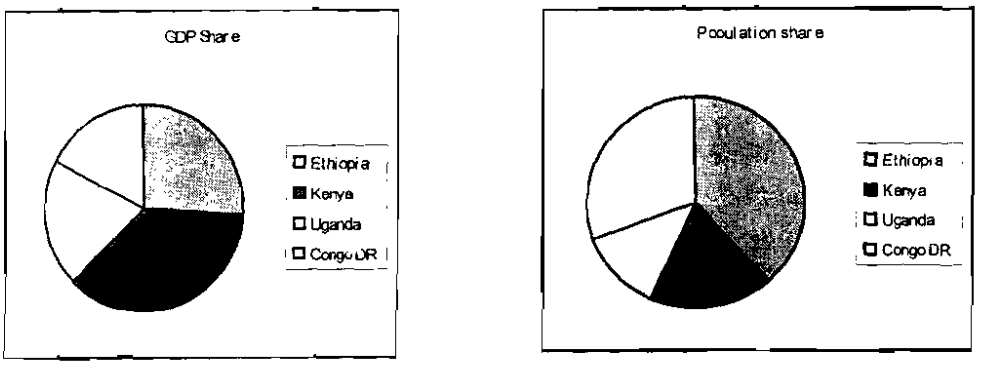
Figure 1.5 Central African GDP and Population Shares 1999




**Eastern Africa:** In Eastern Africa, positive growth was recorded for 7 of the 13 countries making up the sub-region. This pushed up the aggregate growth rate from the 2.5 per cent of 1998 to 4.0 per cent in 1999.

Performance in the four largest economies of Kenya, Ethiopia, Uganda and Congo DR, which together account for 69 per cent of the GDP and 68 per cent of the population were mixed. Kenya, the largest economy in the sub-region with 25 per cent of the GDP, posted a growth rate of 1.7 per cent compared to the 2.7 of the previous year.

Figure 1.6: Eastern Africa GDP and Population Shares 1999




Performance was further aggravated by war and civil unrest. In consequence the sub-region is once again exposed to serious food deficit (See Box 1.1).

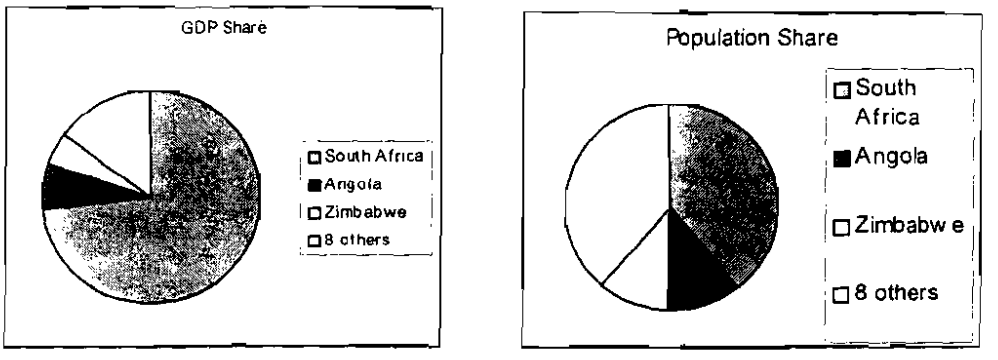
On the other hand Ethiopia, the second largest economy in the sub-region accounting for 18 per cent of the GDP and 26 per cent of the population, posted an impressive growth of 6.7 per cent compared to the 0.5 per cent of the previous year.

The Eastern African sub-region countries are manifestly dependent on their agricultural sector and the performance of their economies is therefore determined by the vagaries of the weather. While the weather condition was more auspicious than it was in the previous year, it was nevertheless less than optimal.

**Southern Africa:** Economic performance in the Southern African sub-region is influenced by that of the Republic of South Africa, the largest economy in the region, accounting for 22 per cent of the African and 73 per cent of the sub-region's GDP.

Of the 11 economies making up the sub-region, six posted higher growth rates while the remaining 5 had to contend with lower rates. Although not impressive, the most influential performance for the region was that of South Africa, whose growth inched up from less than 1 per cent in 1998 to 1.5 per cent in 1999.

Figure 1.7: Southern Africa GDP and Population Shares 1999



Mozambique continues to enjoy an accelerated growth and was the best performer in the sub-region, as well as in the region, with 10 per cent in 1999.

The overall performance in Mozambique since the early 90s is salutary and underlines the benefits and the absolute necessity of peace and stability for national wellbeing and economic growth. It is to be remembered that this country, despite its natural resources and huge potential, was the sick-man of the region during its long civil war period. It has now turned into a powerhouse and would hopefully continue on the high growth trajectory on which it is currently located.

### Performance by Economic Groupings

The performance of the African economies on the basis of different economic groupings divulges an interesting pattern. The groupings are made up of the five largest (G-5) economies, oil exporting countries, island economies, the least developed and land locked countries. It should be noted that these groupings are not mutually exclusive and the same countries could fall into the different categories. Some of the characteristics of these countries are detailed in Table 1.4 below.

Table 1.4: Some Characteristics of Countries in Economic Groupings

| Economic Groupings | Number of Countries | % of African Population | % of African GDP | Per Capita Income US$ |
|---|---|---|---|---|
| G-5 | 5 | 37.3 | 58.7 | 1090 |
| Oil exporters | 11 | 40.9 | 46.5 | 787 |
| Island economies | 6 | 2.4 | 1.6 | 461 |
| Least developed | 33 | 47.0 | 16.9 | 248 |
| Landlocked | 15 | 23.0 | 9.8 | 300 |

***Source:*** ECA Secretariat.

The least developed have the largest share of the population but the lowest per capita income while the G-5 economies have the third highest share of the population and the highest level of per capita income. The 11 oil exporting countries have the second highest share of population after the least developed and the second highest per capita income after the G-5 economies. The 15 landlocked economies account for 23 per cent of the population, nearly 10 per cent of the regional GDP and the fourth highest per capita income. The 6 island economies have the smallest population and GDP share but the third highest per capita income.

The performance of the African economy from the perspective of different economic groupings is shown in Table 1.5 below. Growth in the G-5 economies in 1999 was some 10 per cent lower than what it was in the previous year. This group comprises of the five largest economies of South Africa, Algeria, Egypt, Nigeria and Morocco which together account for nearly 60 per cent of GDP of the region and 37 per cent of the population. Performances marginally increased in South Africa (accounting for 22 per cent of the regional GDP) and Algeria (which contributes 12 per cent to the regional GDP). They declined in Egypt (11 per cent of the regional GDP), in Nigeria (8 per cent of Regional GDP), and most importantly in Morocco (representing 6 of the regional GDP) depressing the overall growth rate of this group.

Table 1.5: Growth Rates of Countries in Economic Groupings

| | 1998 | | | 1999 | | |
|---|---|---|---|---|---|---|
| | Mean | SD | Median | Mean | SD | Median |
| G-5 Countries | 3.1 | 2.3 | 3.8 | 2.8 | 1.9 | 1.5 |
| Oil Exporters | 3.6 | 4.1 | 3.8 | 3.8 | 2.5 | 4.0 |
| Island Economies | 4.6 | 2.4 | 3.0 | 4.1 | 1.2 | 2.9 |
| Least Developed | 4.6 | 2.7 | 4.5 | 4.6 | 2.4 | 4.5 |
| Land Locked | 4.2 | 2.0 | 5.0 | 4.9 | 2.6 | 5.0 |

***Source:*** ECA Secretariat

The 11 oil exporting African countries account for 47 per cent of the region's GDP and 41 per cent of the population. Their aggregate growth marginally increased from 3.6 per cent in 1998 to 3.8 per cent in 1999. This group was negatively affected by the drastic decline in oil price mainly during the first half of the year and civil and political instability as well.

The six island economies are small, contributing less than 2 per cent to the region's GDP and account for a little over 2 per cent of the population. Their composite growth declined from 4.6 per cent in 1998 to 4.1 per cent in 1999. Growth in the island countries was affected by Mauritius which accounts for 45 per cent of the groups GDP and whose growth rate declined from 6.4 per cent in 1998 to 4.2 per cent in 1999.

The Least Developed African Countries account for 17 per cent of the GDP and 47 per cent of the population. They have been very dynamic in recent years, posting GDP growth rates well in excess of the continental average. In 1999 they managed to maintain their growth rate of the previous year at 4.6 per cent.

The 15 landlocked countries in Africa account for about 10 per cent of the regional GDP and 23 per cent of the population. This group of countries managed to increase their growth rate from 4.2 per cent in 1998 to 4.9 per cent in 1999.

An overall review of the performance of African countries shows that the fast growing economies are the three disadvantaged groups, namely the small island economies, the least developed and the landlocked. On the other hand the large African economies tended to be sluggish.

One factor explaining the high growth rate for the "disadvantaged economies" is the fact that they are moving from a low level where a small addition to GDP tends to be magnified.

## 1.3 Sectoral Performance

### Agriculture

The performance of agriculture has been extremely mixed. In North Africa, the high rate attained in 1998 was totally wiped out following the inauspicious weather. Agricultural output in this part of the continent is estimated to have averaged a one per cent growth only.

In much of West Africa an auspicious weather was instrumental in increasing agricultural output, although some countries in the sub-region suffered from too much rain which induced flooding and damaged crops.

Performance was subdued in Central Africa, due mainly to the civil unrest and political instability in the Great Lakes Region, as well as pest infestation in others.

In contrast output in much of Eastern and Southern Africa declined precipitously. The decline in output is a result of a combination of factors, including erratic and insufficient rainfall, war, and uncontrolled crop pests and diseases. The poor performance of agriculture and population displacement due to political instability has exposed nearly 20 million people to critical food shortage, requiring emergency food assistance (See Box 1.1)

### Industry

The industrial sector concluded the year with shrinking performance. In 1999 it posted a growth of 2.8 per cent. Such an out-turn should not come as a surprise, given the domestic and external environment in which it operates.

In many of the African countries, the industrial sector depends directly and indirectly on the agricultural sector. The direct dependence is in terms of the availability of agricultural raw material that is necessary for industrial processing. This is of critical importance in textile and food industries, the predominant line of industrial activity in Africa. These activities would be negatively impacted where and when agricultural performance is poor, as was the case in many of the agriculturally dependant African economies.

Table 1.6: Sectoral Growth Rates

| | 1997 | 1998 | 1999 |
|---|---|---|---|
| Agriculture | 1.7 | 3.5 | 2.1 |
| Industry | 3.8 | 3.2 | 2.8 |
| Services | 2.5 | 3.0 | 4.0 |

***Source:*** ECA Secretariat

**Box 1.1**
**Food Outlook in Sub-Saharan Africa**

In **Eastern Africa**, a decline in the 1999 aggregate cereal production is expected compared to last year, due to drought, civil strife or both. In Somalia, the 1999 main season cereal output, estimated at nearly 136 000 tonnes. In Tanzania, following drought in major producing areas during the "short rains" season earlier in the year and erratic and poorly distributed rains during the "long rains" season, the 1999 cereal crop is estimated at 3.8 million tonnes, about 9 percent below 1998. In Uganda, a prolonged drought has affected 1999 main season crops, with near total failure in some areas. In Kenya, significant cereal output reductions are forecast in main growing areas, due to drought and pest infestation. In Ethiopia, in addition to the near-total failure of the secondary "belg" season crops due to drought, erratic rains and recent flooding have reduced potential yields of the 1999 main "meher" season cereal crops. In Eritrea, despite the generally favourable outlook for the 1999 main season cereals, thousands of farmers displaced by the war with neighbouring Ethiopia were not able to grow crops. In Sudan, despite some flooding and localised drought, overall prospects for main season crops are favourable. In Rwanda and Burundi, in addition to the dry weather that affected food production in parts, the escalation of violence in rural areas of Burundi has resulted in large-scale population displacement and the suspension of all humanitarian assistance, leading to grim food supply prospects.

As a result of the anticipated decline in the sub-region's aggregate 1999 cereal production, imports in 1999/2000 are expected to increase substantially. In the four countries that have entered their new marketing year, Kenya, Somalia, Sudan and Tanzania, import requirements for 1999/2000 are estimated at 2.7 million tonnes, of which food aid requirements are estimated at 284 000 tonnes.

In **Southern Africa**, a reduced crop is in prospects reflecting another below-average crop in South Africa, the largest producer in the sub-region. By contrast, in Zimbabwe, production of wheat is forecast substantially above last year, at 320 000 tonnes. In Zambia, where harvesting is completed, preliminary estimates point to a bumper crop of 113 000 tonnes. In aggregate, the sub-regional wheat output is forecast at 2 million tonnes, 5 percent above the level of 1998 but well below the past five years average.

The sub-region's 1999 coarse grain production, harvested earlier in the year, was estimated at 15.3 million tonnes, an increase of 3 percent over 1998 but below average. Favourable rains at the beginning of the season encouraged increased plantings but yields were negatively affected by excessive rains in some areas and by prolonged dry spell in others. In South Africa, the largest producer of the sub-region, maize output declined 8 percent from the below-average level of last year to 7.5 million tonnes. Production of maize also decreased (by 15 percent) in Angola, in spite of favourable growing conditions, due to the on-going civil conflict. In Swaziland, maize output declined by 18 percent from last year but remained around average. Although outputs increased in Zimbabwe, Zambia, Lesotho Botswana and Namibia, they remained well below average. Record crops were obtained in Malawi and Mozambique, resulting in an exportable surplus in both countries.

With the exception of Angola, the overall food supply situation is stable, reflecting a relatively strong commercial import capacity of the countries of the sub-region. The aggregate cereal import requirement for marketing year 1999/2000 (May/April) is estimated at 5.3 million tonnes. With commercial imports expected to reach 5 million tonnes, food aid requirements amount to 300 000 tonnes.

In **Western Africa**, due to the generally satisfactory harvests, the food supply situation is expected to be stable during the 1999/2000 marketing year, with the exception of Guinea-Bissau, Liberia and Sierra Leone. In some localised areas of Burkina Faso, Chad, Mauritania, Niger and Senegal, populations may be at risk of food shortages, due to flooding, and may require some assistance. In other areas, two successive good harvests have enabled farmers to replenish their grain stocks. Replenishment of the national grain reserves will also be facilitated this year by relatively low cereal prices on local markets. Localised deficits in some areas can be covered by transfers from surplus areas. Exportable surpluses will also be available, notably in Mali and Niger. Imports of wheat and rice will remain necessary, but those of coarse grains will be limited. For ongoing food aid programmes, donors are urged to undertake local purchases (including through triangular transactions) of coarse grains to the extent possible. The aggregate cereal import requirement in the 1999/2000 marketing year (November/October) of the nine Sahelian countries is estimated at about 1.9 million tonnes.

For the coastal countries which have a January/December marketing year, the aggregate 1999 cereal import requirement is estimated at 4.1 million tonnes. Commercial imports are estimated at 3.9 million tonnes, while food aid needs were estimated at 200 000 tonnes. Food aid pledges as of late November 1999 amount to 260 000 tonnes.

In **Central Africa**, crop prospects are generally favourable in Central African Republic and Cameroon. Civil strife in both the Republic of Congo and the Democratic Republic of Congo has hampered agricultural and marketing activities. For the countries of the sub-region, all of which have a January/December marketing year, the 1999 cereal import requirement is estimated at almost 800 000 tonnes. Food aid pledges as of late November 1999 amount to about 20 000 tonnes against an estimated food aid requirement of 31 000 tonnes.

The table below summarises sub-Saharan Africa's cereal import and food aid requirements by sub-region. Food aid pledges and deliveries are shown in Tables 1 and 2.

**Sub-Saharan Africa: Cereal Import and Food Aid Requirements by Sub-Region (in thousand tonnes)**

| Sub-Region | 1998 Production | 1998/99 or 1999 | | |
|---|---|---|---|---|
| | | Cereal import requirements | Anticipated commercial imports | Food aid Requirements |
| Eastern Africa | 22 939 | 3 507 | 2 448 | 1 059 |
| Southern Africa | 18 633 | 5 554 | 5 107 | 447 |
| Western Africa | 37 215 | 6 203 | 5 775 | 428 |
| Central Africa | 3 104 | 796 | 765 | 31 |
| TOTAL | 81 891 | 16 060 | 14 095 | 1 965 |

***Source:*** FAO, Food Supply Situation and Crop Prospects in Sub-Saharan Africa, December 1999.

The performance of the agricultural sector is transmitted to the industrial sector indirectly in a number of ways, the more significant of which is through the availability of foreign exchange for the import of inputs as well as new investment. The second channel is through domestic demand. In the predominantly agriculture dependant countries, the poor performance of the sector means reduced revenue as a result of declining demand from the vast rural population.

In the mineral rich countries, the industrial sector was negatively affected by the decline in the commodity prices of their exports, which constrained the import of raw material, spare parts and new machinery for investment. The reduced income of the agricultural community, the entire economy's abridged domestic demand and the competition from cheap imports drastically reduced the revenue of the industrial sector. Although industrial development is considered the sole salvation to the renaissance and development of the African economies, both the external and domestic environment do not seem to favor such transformation.

### The Service Sector

The service sector continues to enjoy a dynamic growth momentum, posting a 4.0 per cent increase in 1999 relative to 3 per cent growth of 1998. Although all the different sub-sectors within it are increasing, financial and communications services seem to enjoy an unprecedented growth.

The growth of the financial sectors which are dominated by commercial banks, locate their drive to deposit mobilization and the financing of import trade, an activity that is fast increasing following trade liberalization.

## 1.4 The External Sector

### Commodity Prices

World commodity prices continued on their declining trend. The dollar index of non-fuel commodity prices has been falling steadily since the beginning of the decade. Relative to 1995, prices of these commodities declined by an annual average of 7 per cent. The 1999 prices were 8 per cent lower than their 1998 level and were 25 per cent lower than their 1995 value.

The dollar indexed prices of commodities of interest to low and middle income developing countries declined by 11 per cent in 1999 relative to 1998. Compared to prices in 1995, the 1999 prices of commodities exported by this group of countries fell by more than 27 per cent.

Table 1.7: World Commodity Prices 1996-1999. (Percentage change over previous year)

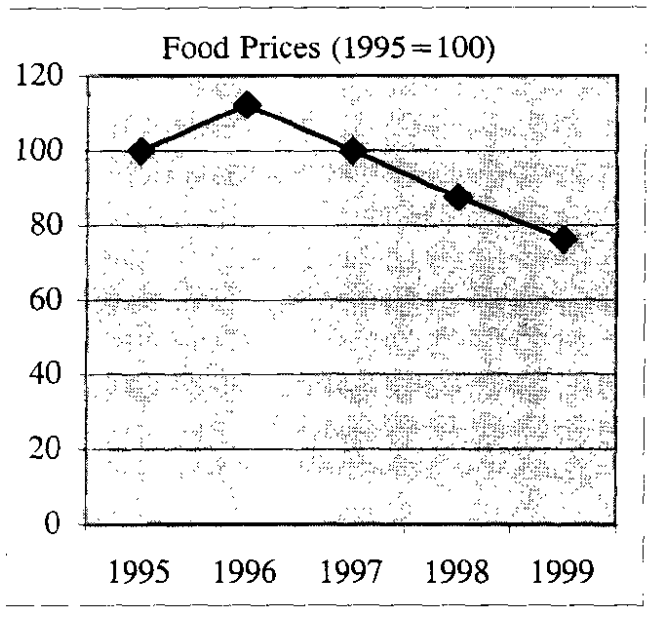
| | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| World non-fuel commodities | -1.2 | -3.2 | -14.8 | -7.5 |
| Food | -12.2 | -12.2 | -12.5 | -14.6 |
| Beverages | -17.4 | 32.6 | -15.2 | -21.9 |
| Agricultural raw materials | -2.7 | -6.8 | -16.3 | 0.5 |
| Metals | -11.9 | 3.0 | -16.3 | -3.9 |
| Gold | 1.0 | -14.7 | -11.1 | -4.7 |
| Petroleum (average crude price) | 18.4 | -5.4 | -32.1 | 24.4 |
| World Bank LMICs | -5.9 | 2.2 | -15.7 | -11.3 |

LMICs= The world Bank Price Index for Primary Commodities for the Low and Middle Income Countries (LMICs).
*Source*: IMF, International Financial Statistics (Various Issues).

The non-fuel commodity prices index is made up of composite goods which did not behave in the same way nor in the same magnitude.

Food prices, the bundle of which is made up mainly of cereals vegetable oils and meat, fell sharply during the second half of the decade. Their 1999 prices were more than a fifth lower than their 1995 level. In 1999 alone food prices declined by close to 15 per cent. While the price of rice stabilized at its 1995 level, a decline in the price of wheat and maize was observed during the period.

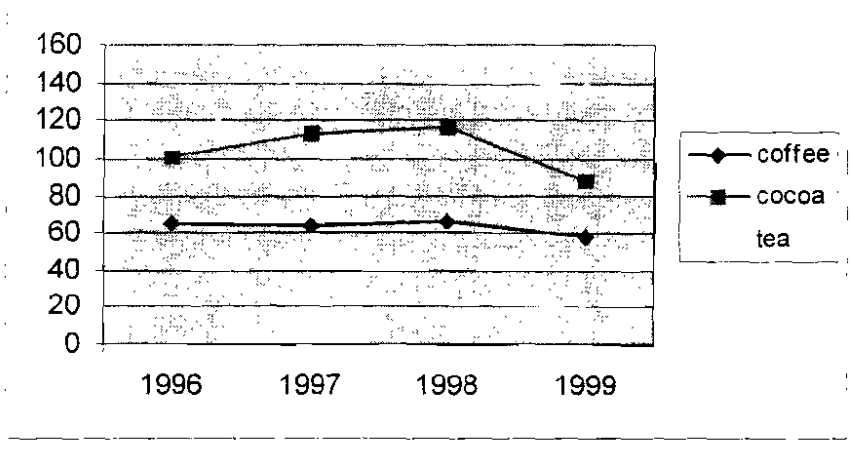
Figure 1.8: Food Prices 1995-99




Prices of vegetable oils also declined from their relatively higher levels of the past two years.

Beverage prices assumed declining trend on account of declining prices of cocoa beans and coffee. The price of tea remained higher than their 1995 level and was generally on an increasing trend, although there was a decline in 1999, amounting to 6 per cent. Cocoa prices increased from 1995 to 1998 but experienced drastic decline amounting to 22 per cent in 1999.

Figure 1.9: Prices of Agricultural Products 1996-99



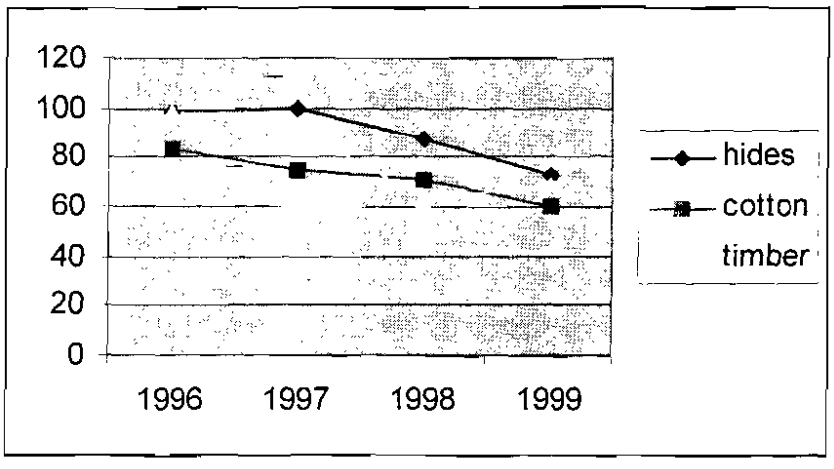

Coffee prices remained depressed through out the second half of the decade. The 1999 prices were 37 per cent lower than what they were in 1995. In 1999 alone, coffee prices declined by nearly a quarter.

Agricultural raw materials, the bundle of which include timber, cotton, wool, hides, and rubber, saw a slight increase in prices of about 0.5 per cent in 1999.

Prices of agricultural raw materials of interest to the region remained much below their bench mark prices of 1995. The 1999 price of cotton was 40 per cent below while those of timber and hides were 31 per cent and 22 per cent lower than their 1995 level respectively.

In 1999 the prices of cotton and hides declined by 15 per cent and 11 per cent respectively. On the other hand the price of hides increased by about 9 per cent during the year.

Figure 1.10: Prices of Agricultural Raw materials 1996-99

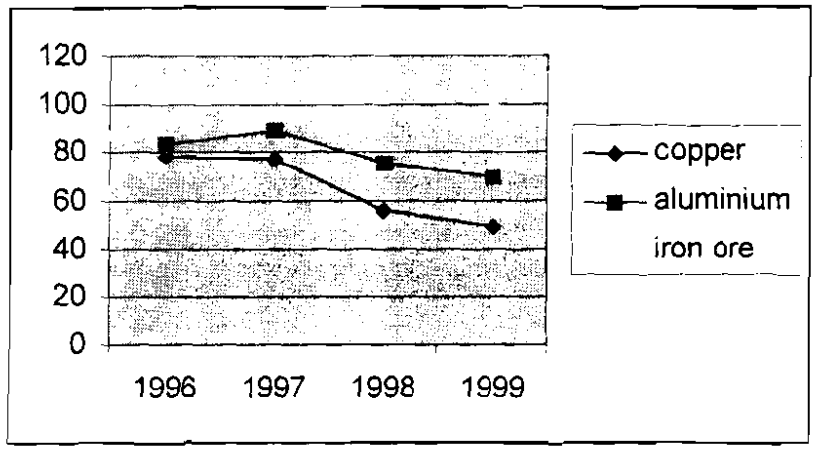



The metals group, composed of aluminum, copper, iron ore, lead, nickel, tin and zinc remained depressed. The 1999 composite prices index for this group declined by 4 per cent compared to its 1998 level, and was 30 per cent lower than its price in 1995.

Copper prices were the most depressed of the major metals, with the 1999 prices less than half of their 1995 level. In 1999 copper prices declined by 13 per cent compared to 1998.

Iron ore prices, on the other hand remained high relative to its 1995 bench mark, despite the 9 per cent fall in prices in 1999 relative to 1998.

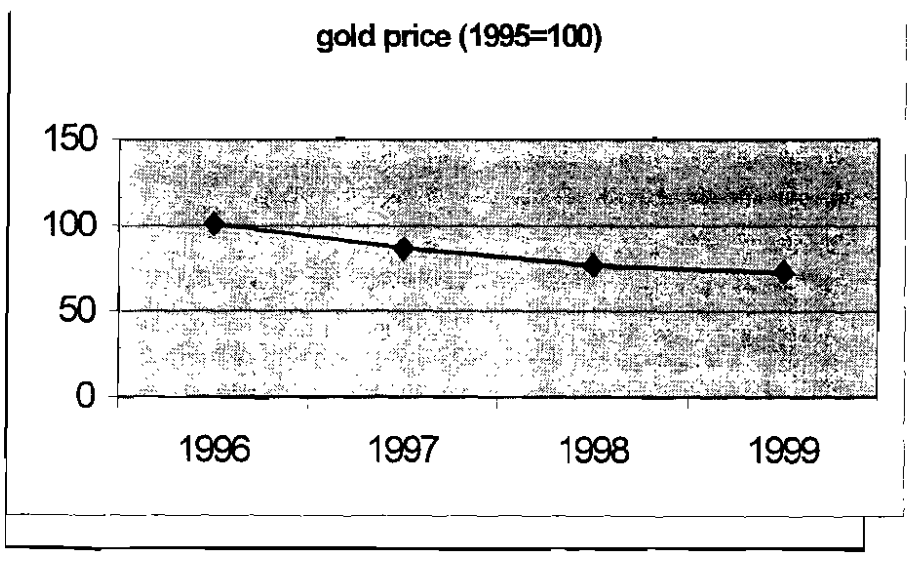
Figure 1.11: Prices of Metals 1996-99




The price of gold was very unstable through out the year and averaged US$ 282 per ounce, 4 per cent lower than the 1998 level.

Four main reasons account for the fall in price of gold. The first is the sudden increase in supply as well as expected supply when some countries and the IMF announced their intention to sale gold bullion they have had in store for sometime. Secondly the stability of the general price level in the developed economies reduced the demand for the metal as a hedge against inflation.

Figure 1.12: Gold Prices 1996-99



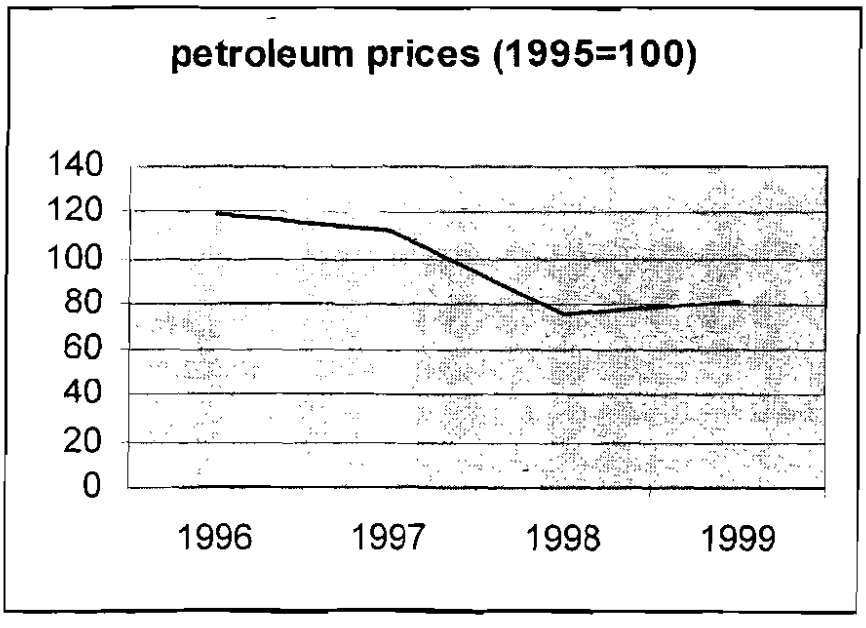

Thirdly, the vibrant securities market attracted financial resources to stocks and bonds, thus reducing the amount of wealth held in the form of gold and other alternatives. Fourthly, the decline in economic activity in the emerging market economies, and more so the south and south-eastern Asian countries,

also triggered the decline in the demand for gold. Combination of these factors were behind the fall in the price of gold over the previous four years and threatened the industries survival in the major producing countries in the region , including South Africa.

The average price of crude petroleum, the most important source of foreign exchange for the region, started recovering from its low level of 1998. In 1999 the price of this commodity increased by 24 per cent, and currently stands at US$ 21 per barrel.

The decline in the price of petroleum as well as its recovery during the second half is closely related to the dynamics obtaining in the developed and emerging market economies. The general cooling of the economy of these countries in 1998 exerted a downward pressure on prices. The gradual recovery of these economies in 1999 and the efforts of producers to reduce supply contributed to the increase in prices.

Figure 1.13: Petroleum Prices 1996-99




The overall tendencies of the decline in the prices of primary commodities are the results of the forces of supply and demand. On the demand side, most of these commodities are income inelastic. A one per cent increase in income does not increase demand by the same proportion. Furthermore, many of these products have artificial substitutes that reduce the demand for their natural counterparts.

On the supply side an inverse correlation is observed between prices and quantities supplied to the world market. As prices decline, primary commodity exporting countries are observed to increase their supply to make up for lost revenue. The cumulative effect of the attempt of individual countries to maintain and better still increase their foreign exchange earnings increases supply in the world market, further exerting downward pressure on prices.

The solution to this perennial problem lies in countries limiting supply to the world market, while their long term option has to focus on the vertical diversification of the primary commodities they export. Developing countries in general and those of Africa in particular should be aware of the fact that there is no future in the export of primary commodities.

### External Trade

World trade increased both in value and volume in 1999. In dollar terms the increase in the value of world trade was 3.5 per cent while growth in volume amounted to 3.8 per cent.

Africa's external trade followed the global trend. The value of exports (in US dollar terms) increased by 2.4 per cent. This growth in export earnings from goods was entirely due to higher volumes of goods exported which increased by nearly 6 per cent, which more than made up for the decrease in the unit price of exports by more than 3 per cent compared to 1998.

Table 1.8: Value, Volume, Unit value of Exports and Imports and Terms of Trade 1996-1999 (Percentage change over previous year)

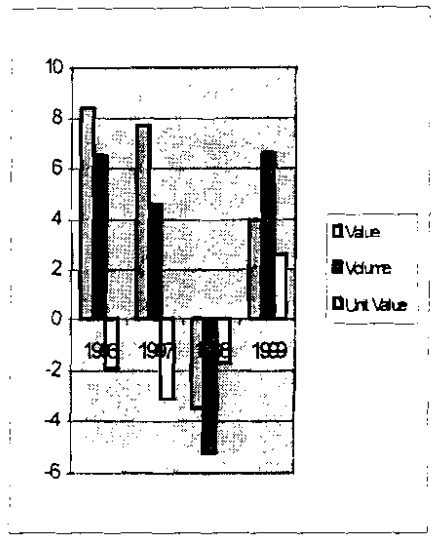
| | | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|---|
| Export | | | | | |
| | Value | 8.1 | 5.9 | -14.5 | 2.4 |
| | Volume | 5.2 | 10.1 | 3.3 | 5.6 |
| | Unit Value | 2.9 | -4.3 | -17.8 | -3.2 |
| | | | | | |
| Imports | | | | | |
| | Value | 8.4 | 7.7 | -3.5 | 4.0 |
| | Volume | 6.5 | 4.6 | -5.2 | 1.4 |
| | Unit Value | -1.9 | -3.1 | -1.7 | 2.6 |
| | Terms of Trade | 4.8 | -1.2 | -16.1 | -5.8 |

***Source:*** ECA Secretariat

Imports also increased both in value and volume. The increase in value was in the order of 4 per cent made up of higher volume of imports, which increased by 1.4 per cent and higher prices.

The increase in the volume of imports, although small, is, nevertheless, gratifying as it reversed the drastic fall of the previous year. The increase in volume contributed to the growth of domestic supply of goods directly through larger imports of consumer goods as well as enabling higher capacity utilization through the provision of inputs for the industrial sector.

Figure 1.14: Value, Volume and Unit Value of Imports 1996-99. (% change over previous Year)




The terms of trade continued to deteriorate following the adverse development in the prices of the region's exports and imports. In 1999, the terms of trade declined by nearly 6 per cent as a result of a fall in the unit value of its exports by more than 3 per cent and an increase in the unit price of its imports by more than 2 per cent.

### Balance of Payments

**Trade Balance:** Export earnings from goods and services increased from US$ 98 billion in 1998 to US$ 101 billion in 1999, an increase of 2.4 per cent. As pointed out above, this increase was made possible due to increase in volume in the face of declining commodity prices.

Table 1.9: Balance of payments 1996-99 (Billions of US $)

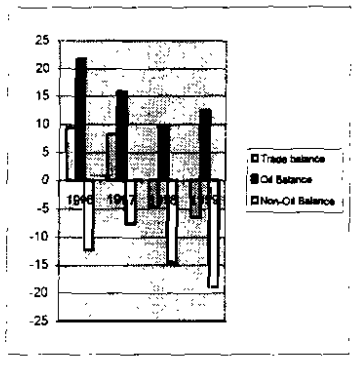
| Items | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| Exports | 108.6 | 115.1 | 98.4 | 100.8 |
| Imports | 99.2 | 106.8 | 103.1 | 107.2 |
| Trade Balance, of which | 9.4 | 8.3 | -4.7 | -6.4 |
| Oil Balance | 21.8 | 15.8 | 9.8 | 12.5 |
| Non-oil balance | -12.4 | -7.5 | -14.5 | -18.9 |
| Services (net) (excluding factor incomes) | -10.7 | -10.5 | -11.2 | -10.9 |
| Balance on Goods and services | -2.2 | -15.9 | -17.1 | |
| Current account balance | -6.6 | -4.9 | -18.1 | -20.5 |
| Total external financing | 14.9 | 11.5 | 15.9 | 21.6 |
| Non-debt creating flows | 7.0 | 11.3 | 10.1 | 13.2 |
| external borrowing | 7.9 | 0.2 | 5.8 | 8.4 |
| Official creditors | 10.4 | 1.6 | 6.9 | 6.7 |
| Private creditors | -2.5 | -1.2 | -1.1 | 1.7 |
| Changes in Reserve(- = increase) | -5.9 | -5.2 | 2.2 | -1.1 |

***Source:*** ECA Secretariat.

As in the past years, the balance of the Oil exporting countries has been in surplus, although the amount has declined significantly in recent years following the steep fall in prices. In 1999 the trade balance of the oil exporting African countries increased from US$ 10 billion to US$ 13 billion.

At the other end are the non-oil exporting countries whose trade balance has historically been in the negative. In 1999 the gap between the value of exports and imports of these countries widened to US$ 19 billion, up from the US$ 15 billion of the previous year.

Figure 1.15: Trade Balance by Nature of Export 1996-99.(Billions Of US$)




The value of imports also increased in tandem with that of exports, from US$103 billion to US$ 107 billion, an increase of 4 per cent. The increase in the value of imports was due to increases in both volume as well as prices.

**Box 1.2**
**Updating the HIPC Initiative**

Following concerted pressure form governments, NGOs and ad-hoc organisations such as the Jubilee 2000 to revise the existing debt relief arrangements of the Heavily Indebted Poor Countries (HIPC), the G-7 leaders agreed at their summit in Cologne, Germany to deepen, broaden and quicken the the process. The recommendations of the G-7 leaders was approved by the Development committee of the World Bank and the International Monetary Fund (IMF).

**Main Features of the New Arrangement**
The following constitutes the new debt relief arrangements.

**Who is the HIPC?**
A low income country with the following debt profile is a candidate to be considered as a HIPC

a) The Net Present Value (NPV) of debt-to-export ratio of 150 per cent (down from 200-250 per cent of the old arrangement).
b) NPV debt-to- government revenue target of 250 per cent (reduced from 280 per cent).
c) Export to GDP ratio of 30 per cent.
d) Revenue to GDP ratio of 15 per cent.

**Commitment and Timing**
No generalised shortening of the time when a country is due for benefits. A "floating completion points" is introduced. This ties the completion point to the fulfilment of a set of reform commitments instead of the one based on a three year track record. The debt relief is determined on the basis of actual figures rather than projected figures and is fixed at the decision point rather than completion point as the case used to be.

**What is Required of HIPC**
Countries are required to develop a "Comprehensive and Participatory Poverty Reduction Strategy". The strategy must be consistent with macroeconomic targets for stabilisation. The "Poverty Reducing Strategy Paper" (PRSP), would be prepared as a tripartite document and must be endorsed the government, the World Bank and the IMF.

The IMF's "Enhanced Structural Adjustment Facility" (ESAF) will hence be referred to as "Poverty Reduction and Growth Facility". The new arrangement is expected to enhance the relief measures.
Critiques point to inadequacy: the consistency of the traditional IMF macroeconomic stabilisation with poverty reduction and the linking of capacity to service debt to export revenue. These are legitimate concerns and would hopefully be addressed in the next round of review.

As a result of the combination of developments in commodity prices, volume of exports and imports, the trade balance widened to a deficit of US$ 6.4 billion compared to the US$ 4.7 billion short fall of last year.

The increase in the deficit of the non-oil exporting countries has been due to the rise in the prices of their imports including oil prices and the decline in the value of their export, which are mainly primary commodities.

**Current Account Balance**: The current account balance of the countries of the region deteriorated further increasing from US$ 18 billion in 1998 to US$ 21 billion in 1999. This 13 per cent increase in the current account deficit was due to the general decline in export earnings and increased import value.

While the deficit in the trade balance has been a tradition of long standing among the non-oil exporting countries, the regional balance was positive due to the surplus of the oil exporting countries. Since 1998 however the trade balance turned negative because of the decline in oil revenue following the drastic fall in oil prices in the world market.

However, the perennial cause behind the current account deficit has been the service sector, which has a long history of massive imbalance and reflects the countervailing weakness in the sector. The deficit arises from payments for and receipts from activities such as transport, banking and insurance.

### Resource Flows and External Debt

External resource flows increased from US$16 billion in 1998 to US$22 billion. This inflow was used to finance the current account deficit. The major proportion of this inflow were non-debt creating. Foreign direct investment amounted to about US$6 billion while US$7 billion came in as transfers.

**Box 1.3**
**Poverty Reduction, External Debt and Resource Requirement**

Two major issues confronting African countries are honoring their obligation on external debt and the poverty reduction. African countries are facing extreme difficulty to honor their external debt obligations and reduce poverty at the same time since the high and increasing debt service requirement debilitates and undermines their capacity to do so. This is particularly true for the 33 African countries that are designated as highly indebted and poor by the World Bank and the IMF.

Africa's development partners are aware of the dilemma the region is confronted with. They have expressed their determination to join hands with African governments to reduce and eventually eliminate absolute poverty in Africa in the various international fora. The latest of these efforts was the "Tokyo Declaration" which aims to realize the visions of the Social Summit held in Copenhagen. The Tokyo Declaration has set for itself the goal of reducing poverty by half by 2015.

The issue of the external debt burden of developing countries, and more so those of the highly indebted poor countries (HIPC) has also generated global concern. Various efforts are being made to reduce and possibly eliminate this burden and use resources to reduce poverty.

Assuming that the drive to cancel Africa's external debt succeeds, what does it mean in terms of assisting the closure of the financial gap to meet the challenges of reducing poverty in the region?

At the end of 1998, Africa's external debt was estimated at US$ 350 billion, of which US$ 230 billion was owed by the SSA countries. In the 1990s, the actual servicing of the debt absorbed an average of 20 per cent of export of goods and non-factor services.

Assuming that the share of exports in GDP would be maintained at the 1990-98 average of 25 per cent, and further assuming that debt servicing would remain constant at the 20 per cent average of the value of export of goods and services over the next 15 years, annual debt servicing would claim about 5 per cent of GDP.

This means that if the debt of the SSA countries are written off, savings amounting to 5 per cent of GDP per annum would be available. Again assuming that these extra saving are invested in sectors and activities that would assist in the reduction of poverty, it would reduce the financing gap from 14 per cent of GDP to 9 per cent.

Two conclusions emerge from this analysis. The first is the benefit of reducing the debt of African countries. In canceling the debt of SSA countries, and more so those of the HIP countries, creditor countries would have fulfilled the basic obligation of assisting them exit from the debt trap.

Having said this, however, one must hasten to add that the debt cancellation, while very much welcome, will not close the resource gap as shown above. This will still leave a gap of about 9 per cent of GDP.

If the region's development partners want to see the proportion of the population living in absolute poverty reduced by half, they would have to assist African governments meet the required investment by making additional resources available.

- The volume of resources mobilized through borrowing amounted to US$ 8.4 billion, an increase of nearly 45 per cent over the 1998. This additional credit increased the total volume of debt from US$351 billion of 1998 to US$359 billion in 1999.

Table 1.10: Debt and External Related Statistics 1996-99

| Category | 1997 | 1998 | 1999 |
|---|---|---|---|
| External Debt (Billions of US$) | 344 | 351 | 359 |
| As % of goods and services | 222.1 | 282.2 | 273.4 |
| As % of GDP | 66.4 | 65.7 | 65.2 |
| Debt Service (billions of US$) | 33.0 | 35.7 | 39.4 |
| As % of Exports of goods and services | 21.3 | 28.7 | 30.0 |

***Source:*** ECA Secretariat based on country data.

Although debt servicing increased from US$35.7 billion in 1998 to US$39.4 in 1999, the additional outlay did not manage to reduce the volume of debt but was limited to covering the annual requirements.

## 1.5 Medium Term Prospects

What is to happen to Africa's economy in the years ahead entirely depends on the out-turns in the weather and international economic environment, factors that are unpredictable and are beyond the control and influence of African policy makers. If these two determinants of economic activity in the region are favorable, growth would be very high and vice versa.

Africa has staked its growth and welfare on these two major determinants for too long a time. The weather condition has grown more and more unpredictable. The positive relationship between growth in the developed countries and Africa seems to have been reversed since the 1980s when the prices of commodities were delinked from the performances in the developed countries. Ever since prices of commodities have been on the decline despite the relatively strong performance in the developed countries.

While in the short and medium run the two major determinants remain exogenous and critically determine the outcome, African governments need to minimize their impact in the long run. The negative effect of insufficient rainfall could, for example, be mitigated by various water harvesting techniques, including the building of dams, waterhole boring etc. Similarly the effect of unstable and declining primary commodity prices could have been allayed through export of manufactures. In effect this requires the transformation of the structure of production.

# CHAPTER TWO

# Initial Condition for Africa's Development in the 21st Century

At the end of the 20th century, scientists in the developed countries were very much concerned with the issue of ensuring the survival of mankind four and half billion years from now when the sun will have exhausted its ability to support life on earth, and render it uninhabitable. Basic research is focused on efforts to discover an alternative destination, the development of technology for transcendence and the reprogramming of human genes to enable them survive and cope in the new environment (Tonn 1999).

By the end of the first quarter of the next century, scientists would have deciphered the 200,000 or so genes and be able to read the complete genetic code of humanity, following which personalized DNA codes would be defined (Kaku 1998), opening the way for the reconfiguration and reprogramming of genes to render them compatible in the new milieu.

Before the next century is out, Mars would have been colonized and astronomers and astrophysicist mapped out the universe. Engineers would have pioneered the machine that could withstand the vagaries and vicissitude of outer reaches of space for safe transcendence of man from earth to the new destination in the new solar system.

While such remarkable advances are being made in the more developed countries other regions are making tremendous progresses by learning from adapting the rapid and revolutionary changes in science and technology.

At the other extreme is Africa, totally bypassed and alienated from these awe-inspiring transformations. Most basic and common products and utilities that are taken for granted in other parts of the world remain unknown to the majority of the African population. For example, for every 1000 person in Sub-Saharan Africa, there are 172 radios, 44 television sets and, 16 telephones (World Bank 2000 Table 19:266).

At the end of the second millennium and the beginning of the third, the major concern and preoccupation of Africans also focus on their continued existence and the conditions under which they are to survive. However, and unlike those in the developed countries, the concern is likely to focus on day to day survival in the here and now rather than the far-fetched future.

As Africa enters the 21st century, it does so as the poorest and least developed, the most technologically backward, and the most indebted of the continents with a rather dim prospect about its future. On the basis of the most optimistic estimate, at least 52 per cent of the Region's and 56 per cent of

Sub-Saharan Africa's population remain on the margin of survival (Table AII. 1 and UNECA 1999), fraught with malnutrition, poor or inadequate housing, easily preventable diseases, and unemployment. The most frustrating about the continent is that unimaginable misery is visited upon the population in the midst of abundant natural resources. The situation is bound to grow from bad to worse unless drastic measures are taken by Africans primarily and with the support and assistance of their development partners.

During the last half century, three episodes of significance transpired in Africa in succession. The first was the transition from colonial rule to independence. The second was the relatively high incidence of socio-economic development during the first three decades. The third was the reversal of these gains and deterioration of the quality of life during the last two decades.

Up to the early 70s, the African environment was politically placid, economically vibrant and socially tranquil despite their geographic location and the multiethnic composition of the population. It would not be out of tune or out of touch to refer to this period as the "Golden Years" of African development.

Economic performance started to deteriorate with the first oil price shock of the early 1970s. The resulting disequilibria ushered in a process of "economic adjustment" and reforms. The first generation of reforms was structured around the idea of "getting prices right". The feed back from these early reform experiences and the vast research output it initiated led to "reforming" the reforms themselves, broadening their vista from the purely economic to include political and institutional clusters.

Nearly two decades on, these arrangements have yet to yield the anticipated results (for a recent comprehensive, evaluation from an African perspective of these reform measures see Mkandawire and Soludo (1999). While the recent "above average" performances discussed in the previous chapter are welcome break from past trends, they remain grossly insufficient to reduce poverty by the internationally agreed magnitude and time frame. The economies remain too fragile and susceptible to the risk of having recent gains reversed following unfavorable out-turns in the all-important exogenous factors such as the weather and the international economic environment. At the end of the millennium African policy makers have less influence on their economies compared to these major determinants of growth and well being.

Reforming the African economies to enable them to adjust with the changing economic and political environment is vital and long over due. But the emphasis on macroeconomic stability through deflationary measures failed to address the fundamental structural constraints. It is now widely acknowledged that whatever success the adjustment mechanism achieved was obtained by economically disenfranchising the vast majority of the population (Wolfensohn 1998, World Bank 1998).

The challenge for African policy makers, the private sector, and civil society as well as their development partners at the beginning of the millennium is to articulate what needs to be done to locate the countries of the continent on a dynamic, shock-resistant, poverty-reducing growth trajectory. A number of alternative approaches exist to enlighten the stakeholders on the nature of the challenge and the way to go about meeting it. All approaches, however, would

have to be based on a thorough understanding of the "initial conditions" facing the continent as it enters the 21st century. An obvious reason for this is that "initial conditions" are of crucial importance to the choice of appropriate policies and fundamentally determine their outcomes.

Given the vast and complex nature of what constitutes the "initial conditions", there is an obvious need to be selective. The criteria used for being selective is based on an African reading of the vast empirical literature on the determinants of economic performance of countries. This is a body of knowledge which is based on both theoretical advances, as in the case of the endogenous growth literature, as well as rigorous reading of long sweeps of history (as in Landes (1998)). To further appreciate the need for selectivity we review in the next section the most important results of this body of knowledge. On the basis of this review, the reader, it is hoped, will appreciate our emphasis on "initial income", "poverty and inequality", the "structure and structural transformation of the economies", "investment", "institutions of governance" and the "state of human capital" as constituting the most important constellation of "initial conditions".

## 2.1 Initial Conditions for Development

Economic growth in any country is predicated on the rate at which productive capacity and productivity increases. These, in turn, depend on the volume of investment and the efficiency with which the resulting capital stock are utilized. While these define a necessary set of determinants, they are not, in and by themselves, sufficient to ensure the attainment and sustainability of high and robust growth and development. Modern growth theory ( Roamer (1986), Lucas (1988), Barro (1991), Sachs and Warner (1997), Sala-i-Martin (1997)) has identified at least sixty two statistically significant explanatory variables influencing the growth performance of different economies. Of these sixty-two, three explanatory variables have consistently been reported as significant in all results. All three are initial conditions and include initial real per capita income (reflecting the stage of development of the country and capturing the idea of convergence over long periods of time), initial life expectancy at birth (reflecting the health dimension of the human capital of the country), and initial primary school enrolment ratio (reflecting the education dimension of human capital).

A recent rigorous robustness analysis conducted on the remaining 59 variables, and taking account of the above three initial conditions, found only 22 variables to be robustly significant in explaining differences in growth performance between countries (Sala-i-Marin (1997)). Sixteen of these are deemed relevant and can be grouped into seven broad categories of regional, political, market distortions, investment, production structure, and openness (trade policy) variables. Another variable that has come out as an important explanatory variable is colonial experience.

Regional variables include three variables, two of which are regional dummies for Latin America and Sub-Saharan Africa, and both of which are negatively related to growth. The third is an "absolute latitude" variable, which shows that the farther away from the equator a country is, the better is its growth performance.

The Political variables include six variables. The "rule of law", "political rights" and "civil liberties" are positively related to growth. The "number of revolutions", "military coups" and "war" are negatively related to growth.

Market distortions and economic organization include two market distortion variables, both of which are bad for growth. These are the "real exchange rate distortions" and "the standard deviation of the black market premium". The third variable is the "degree of capitalism" which is positively related to growth.

The investment variables include two variables, "equipment investment" and non-equipment investment", both of which are positively related to growth. It is reported, however, that the influence of non-equipment investment on growth is only about one-fourth that of equipment investment.

Production structure variables include two variables. The "fraction of primary products in total exports" is negatively related to growth while "the fraction of GDP in mining" is positively related to growth.

An openness variable reflects trade policy and includes one variable, "the number of years an economy has been open between 1950 and 1990", which is positively related to growth.

Given the established methodology of cross-country regressions of growth performance, it is perhaps important to note that out of these 17 robustly significant variables, the three variables of the "regional group" and colonial experience are exogenous variables. The remaining 7 are in the nature of initial conditions: the five variables of the "political group", and the two variables of the "production structure" group.

It is also important to note at this juncture that the above analysis has shown that a number of conventional variables perceived to be important did not survive the robustness test. These include such variables as "various measures of government spending", "various measures of financial sophistication", "the inflation rate or its variance" , "various measures of scale such as total area or total labor force", "outward orientation", "tariff restrictions", "the black –market premium" and "the ethno-linguistic fractionalization". As is obvious a large number of these are policy variables.

Consistent with the above analysis it has recently been argued that the fundamentals for long-run growth are investment in physical capital and human resources. "These are, in turn, made possible by physical infrastructure, macroeconomic stability, the rule of law and solid institutions. The role of trade policy in economic growth in Africa is largely auxiliary and of an enabling nature: extremes of export taxation and import restrictions can surely suffocate nascent economic activity, but an open trade regime on its own will not set an economy on a sustained growth path" (Rodrik (1999:105).

Further, a recent set of theoretical literature argues that greater initial inequality in the distribution of income and wealth is likely to be detrimental to long-run growth. One theoretical explanation for this is couched in terms of the consequences of imperfect capital markets on agents investment behavior resulting in lower productivity and efficiency losses. Under this theoretical construct the poor are seen as being credit constrained to pursue investment in education and hence in human capital formation. Similarly, political economy models have shown that initial inequality is likely to increase voter support for inefficient redistributive policies resulting in efficiency losses and lower growth. In this respect it is also important to note that from a long-run development and transformation perspective determining the initial inequality levels would depend on which side of the Kuznets curve an economy finds itself. The Kuznets curve is a long-run relationship between the level of development and inequality, which shows that at initial stages of development inequality will tend to rise before it declines. Despite a lot of controversy surrounding the existence of this relationship recent empirical work, using high quality data sets, has confirmed the existence of such a relationship (Ali and Elbadawi (1999) and Barro (1999)).

From the above, rather brief and selective, review of the recent advances in the literature on the fundamental determinants of long-run growth it is perhaps clear that there is a core set of initial conditions that is likely to determine the performance of Africa in the 21st century.

The significance of initial conditions in the choice of appropriate policies is very much recognized by institutions and researchers. Thus, for example, in its review of the performances of Countries in Transition, the World Bank noted that (World Bank 1996:143) "countries' characteristics-their unique advantages and disadvantages- influence what policies can be chosen" and that (p.9,11) "starting circumstances both economic and noneconomic [including] politics, history, culture and geography, greatly affect the range of reform policies and outcome open to it". Going over the same territory, Murrell (1996:42) observed that "policies might have become more homogeneous overtime but outcomes have become more varied, suggesting that initial conditions greatly determine the effectiveness of policies". Similarly, Mkandawire and Soludo (1999:1) noted the general agreement among economists on the critical importance of "path dependence" in the long-run growth process in the sense that "what eventually happens to an economy depends greatly on the point of departure. There is mounting evidence that large qualitative differences in outcomes can arise from small, and perhaps accidental, differences in initial conditions and events".

Initial conditions assume critical importance in the choice of policies, since they determine their outcomes. Policies that are not derived from, and anchored on, initial conditions as defined by the broad range of factors identified above will not be optimal and may in fact generate results that are contrary to those originally intended. They characterize the environment in which the selected policies are operationalized and fundamentally define the degree of their effectiveness. They govern and direct the nature of policies that are appropriate to the specific circumstance in which they are to operate, the speed at which they are to be implemented (i.e. whether gradual or big bang) and their sequencing i.e. which policies should precede what. Consequently, the initial conditions cannot be assumed away nor ignored in the policy formulation process.

It is recognized that the initial conditions in Africa vary widely among countries cautioning against making sweeping generalizations about such a geographically expansive, culturally rich and politically diverse region. Thus, for example, the North African countries along with South Africa and some of the island economies including Mauritius and Seychelles are more developed with relatively high per capita incomes, well diversified economies and relatively advanced markets that are sensitive to changes in relative prices. Sub-Saharan African countries, on the other hand, are generally underdeveloped and poor, have weak markets and very fragile institutions. These observations lend some support to the results reported by Bloom and Sachs (1998 ) and the historical insights of Landes (1998) on the importance of geographical location in determining economic fortunes. These are however taken as indicators of the diversity of the continent.

Given the wide multiplicity of what constitutes initial conditions and the diversity of the region, the chapter singles out initial income and income distribution, economic structure, investment, institutions of governance, and human capital as the most critical for the Africa's development in the 21st century.

## 2.2 Initial Income

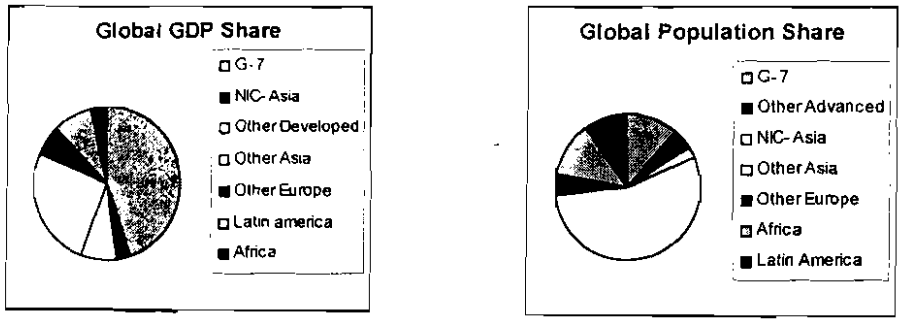
Initial income refers to the level of income, however measured, that obtains at some reference point in time. Since the discussion in the chapter pertains to the level of income at the end of the 20th century, the 1998 GDP and features that are related to it including per capita income are taken as the initial income as Africa enters the 21st century. The choice of 1998 GDP is dictated by the fact that it is the latest year for which firm region-wide data are available.

The point of departure here is that high income along with equitable income distribution are essential for robust and dynamic growth and development. The income at the beginning of the millenium essentially defines the quality of life of the people as well as the volume of savings that can be generated and mobilized to finance the volume of investment to attain and sustain the rate of growth required to reduce poverty.

### Initial Income-Absolute and Relative

Africa starts the new millenium as the poorest, the most technologically backward, the most debt distressed and the most marginalized in the world. It accounts for 12.5 per cent of the world's population but produces only 3.7 of the global GDP.

Figure 2.1: Global GDP and Population Shares 1999




Africa's income at the end of the century both at the regional level and relative to selected comparator countries outside the region are shown in Table 2.1 below. Even though it exports no less than a fifth of its GDP annually, it accounts for no more than 1.5 per cent of the global trade in goods and services

Table 2.1: Income and Population at the End of the 20th Century

| Region/Country | Number of countries | Population (millions) | GDP (Bil. US$ | Per capita (US$) | Density/sq.Km. | |
|---|---|---|---|---|---|---|
| | | | | | Population | GDP |
| Africa | 53 | 778 | 535 | 688 | 26 | 17639 |
| North Africa | 7 | 170 | 216 | 1266 | 18 | 23263 |
| Sub-Saharan Af.(SSA) | 46 | 607 | 319 | 526 | 29 | 15158 |
| SSA ex. South Africa | 45 | 566 | 203 | 358 | 28 | 10150 |
| G-5 Africa | 5 | 290 | 316 | 1090 | 49 | 52896 |
| Africa ex. G-5. | 48 | 488 | 219 | 449 | 20 | 8992 |
| Comparison Countries Million.US$ | | | | | | |
| Italy | 1 | 58 | 1171 | 20190 | 196 | 3.9 |
| Spain | 1 | 39 | 552 | 14151 | 79 | 1.1 |
| Sweden | 1 | 9.0 | 227 | 25222 | 22 | 5.0 |
| Korea | 1 | 46 | 298 | 6478 | 470 | 3.0 |

***Source:*** ECA Secretariat for Africa, and World Bank for other countries.

Consider first the income of the region. In 1998 Africa's 778 million people produced goods and services worth US$535 billion at current prices. This amounts to a per capita income of US$ 688 per annum or US$ 58 per month. This average hides significant variation among the sub-regions and countries (UNECA 1999:49-52; Tables A1.1 and A1.2). At the country level per capita GDP varies between a high of US$ 5972 (nearly US$500 per month) for Seychelles to a low of US100 (or about US$ 8 per month) for Mozambique. At the sub-regional level the highest GDP is recorded for North Africa at US$ 215.6 billion and a per capita income of US$ 1264 followed by that of Southern Africa at US$ 157.4 billion and per capita of US$1388. Central Africa has the lowest GDP at US$ 27.4 billion but per capita income of US$ 937. The lowest per capita income is recorded for Eastern Africa at US$ 177 and a GDP of US$ 42.2 billion.

Compared to a set of selected countries Table 2.1 above shows that Spain, with a population of 39 million, has a GDP exceeding that of the entire African countries, while Italy's 58 million people have a GDP more than twice that of the region. The 9 million Swedes produce more goods and services than North Africa's 170 million and the 488 million Africans excluding those in the G-5 countries. The 46 million South Koreans produce almost as much as the 5 largest African economies as well as the whole of the SSA. Both Sweden and Korea produce significantly more than SSA excluding South Africa.

Table 2.1 also provides information on population and GDP density per square Kilometer. Africa is sparsely populated with 26 persons per square kilometer. The African G-5 countries are the densest (with 49 persons per square kilometer) while North Africa is the least dense (with 18 persons per square kilometer). This contrasts with the density in the selected countries. With the exception of Sweden, whose density approximates that of the region, the other countries have considerably more population per square kilometer than that of Africa.

GDP density, i.e. goods and services produced per square kilometer, in Africa compared to that in the selected countries provides interesting insights. In Africa US$ 17639 worth of goods and services are produced per square kilometer while the corresponding figures are 265 times higher in Sweden, 221 times in Italy, 170 times in Korea and 62 times in Spain.

Seen from a different perspective, Africa's GDP at the end of the century contrasts very unflatteringly compared to the largest transnational corporations in the world. For example the four largest multinational in the world (ranked by sales) of General Motors, Ford Motor Company, Mitsui & Company, Royal Dutch/Shell, had total revenue of US$ 593 Billion against Africa's GDP of US$ 518 billion in 1997. The sixth ranked company (Itochu Corporation of Japan) had sales revenue (US$118 billion), greater than Africa's largest economy (South Africa at US$ 115 billion) in 1997.

### Past Performance and Trend

It is generally accepted that the postwar period up until 1973 was the golden era for economic growth. Africa shared in this growth where some of the countries experienced unprecedented rates of economic expansion. In historical perspective, the year 1973 marks the first oil price shock, which unleashed an era of massive dislocation on developing countries.

For a sample of 50 developing countries, for which data was available, it is shown that per capita incomes increased at annual rates in excess of 2.1%. The sample included 18 African countries, six of which were among the 20 fastest growing developing countries over the period 1960-1973 (see Rodrik (1999: 68-71). These included Swaziland (with a per capita income growth of 6.74% ranking as the fourth fastest growing developing country), Botswana (6.15%), Cote d'Ivoire (5.63%), Lesotho (4.94%), Gabon (4.72%) and Togo (4.17%). In addition, another 10 African countries enjoyed per capita growth in excess of 2.5% per annum, the rate required for income to double in 28 years or less. This sub-sample included Mauritius (with a per capita growth rate of 3.14% over the period 1960-1967; but see below), Burundi (2.95%), Malawi (2.85%), Mauritania (2.85%), Gambia (2.80%), Seychelles (2.67%), Egypt (2.67%), Tanzania (2.64%) and Zimbabwe (2.58%).

The above results are confirmed by a recent ECA compilation of growth rates. Using the 1973 periodization, it is shown that, for a sample of 46 African countries for which data is available over the period 1960-1999, 6 African countries experienced fast growth where per capita income increased by an average rate in excess of 5% per annum over the period 1960-1973. This sub-sample included Gabon (with per capita income growth rate of 6.91%), Botswana (6.71%), Swaziland (6.60%), Lesotho (6.13%), Nigeria (6.04%) and Namibia (5.77%). In addition, 15 countries recorded growth rates in excess of 2.5% but less than 5%. These included Comoros (2.60%), Congo Democratic Republic (then Zaire, 3.06%), Congo (3.61%), Cote d' Ivoire (3.54%), Egypt (3.05%), Gambia (3.10%), Morocco (4.37%), Mozambique (3.03%), Seychelles (3.10%), Sierra Leone (3.04%), South Africa (3.53%), Tanzania (3.19%) and Tunisia (3.99%). Only 6 countries recorded negative per capita growth: Burkina Faso (-1.36%), Burundi (-1.93%), Madagascar (-0.74%), Mali (-1.51), Mauritius (-0.44%) and Somalia (-2.27%). The overall growth rate of the continent averaged 2.33% with a standard deviation of 2.28 percentage points. Table 2.2 summarizes this evidence.

Table 2.2: Distribution of African Countries on the Basis of Real Per Capita Growth Rates (number of countries)

| Range of Real Per Capita Growth Rate (%) | 1960-1973 | 1973-1984 | 1984-1994 | 1994-1999 |
|---|---|---|---|---|
| Above 5.0 | 6 | 3 | 1 | 3 |
| 2.5 – 5.0 | 15 | 8 | 3 | 11 |
| 1.5 – 2.5 | 9 | 4 | 4 | 11 |
| 0.5 - 1.5 | 7 | 8 | 9 | 8 |
| 0.0 - 0.5 | 3 | 8 | 4 | 3 |
| Below 0.0 | 6 | 15 | 25 | 10 |
| Total Number of Countries | 46 | 46 | 46 | 46 |
| Average Growth Rate (%) | 2.33 | 0.75 | - 0.54 | 1.45 |
| Standard Deviation %age points | 2.28 | 2.71 | 2.44 | 2.70 |

***Source:*** ECA Secretariat.

Following 1973, however, the dismal growth performance decades started. Despite the various attempts at explaining this dismal performance, it is generally accepted that the turbulence that beset the world economy following 1973 was the major dislocating factor. The turbulence included the abandonment of the Bretton Woods system of flexible exchange rates, two major oil shocks, other commodity boom-and-bust cycles and the interest rate shock of the early 1980s. In the wake of these shocks, the period 1973-1984 saw only three African countries with per capita growth rate in excess of 5%. Of the six fastest growing African economies during the period prior to 1973, only 2 were able to maintain their performance over the period 1973-1984: Botswana (with a rate of per capita growth of 5.97%) and Lesotho (5.76%). The third fast grower over this period was Cape Verde (5.72%). Table (II.2) shows that the number of African countries that grew in excess of 2.5% but less than 5% declined from 15 to 8 and the number of those growing in excess of 1.5% but at less than 2.5% declined from 9 to 4. At the other extreme, the number of African countries that registered negative growth increased from 6 to 15.

The overall growth of the continent averaged only 0.75% with a standard deviation of 2.71 percentage points. The same pattern of declining growth continued for the period 1984-1994 where only one African country distinguished itself as a fast grower, Mauritius with an average growth rate of per capita income of 5.09% per annum. The number of countries growing at negative rates during the 1984-94 decade increased to 25. The overall growth of the continent was negative at –0.54% with a standard deviation of 2.44 percentage points.

As is now generally acknowledged the second half of the 1990s witnessed a rather hesitant economic recovery in the continent. Table (II.2) reflects this where it is shown that the number of countries recording negative growth declined from 25 in the previous period to 11 in the 1994-1999 period. Three

countries are now growing at more than 5% per annum; 11 countries are growing at rates in excess of 2.5% but less than 5% and 12 countries are growing in excess of 1.5% but less than 2.5%. Nine countries are now growing at positive rates but less than 1.5%. The overall growth of the continent rebounded to positive levels averaging 1.45% with a standard deviation of 2.7 percentage points.

The cumulative effect of all the above growth patterns is that at the end of 1999 there were 17 African countries, out of a sample of 45 countries, with real per capita incomes less than that of 1973. The per capita income deficit varies between countries. The ratio of 1999 per capita income to that of 1973 is less than 50% in the Congo Democratic Republic (25%), Angola (39%) and Sierra Leone (41%). A ratio greater than 50% but less than 90% is recorded for Central African Republic (84%), Chad (53%), Cote d'Ivoire (69%), Gambia (77%), Guinea Bissau (84%), Madagascar (53%), Mozambique (50%), Niger (64%), and Zambia (66%). The remaining countries have a ratio of 90% or more: Benin (94%), Burundi (92%), South Africa (92%), Togo (90%) and Zimbabwe (99%).

At the end of 1999 the average real per capita income in the continent (measured in PPP$) amounted to $1503 (with a standard deviation of $1554) compared to $1205 in 1973 (with a standard deviation of $862) thus recording a rate of growth of only 0.85% over the 26 year period.

An interesting question at this juncture is what would have happened to the level of income if the pre-1973 growth rate were maintained during the post 1973 period. If each country was able to maintain its 1960-1973 per capita growth rate over the past 26 years, the average per capita income of the continent would have been $3141. Countries, of course, would have performed differently given their initial growth rates, but averaging over countries it can be shown that the real cost to the continent of low growth over the period 1973-1994 amounts to $1.2 trillion at the end of 1999.

### Poverty

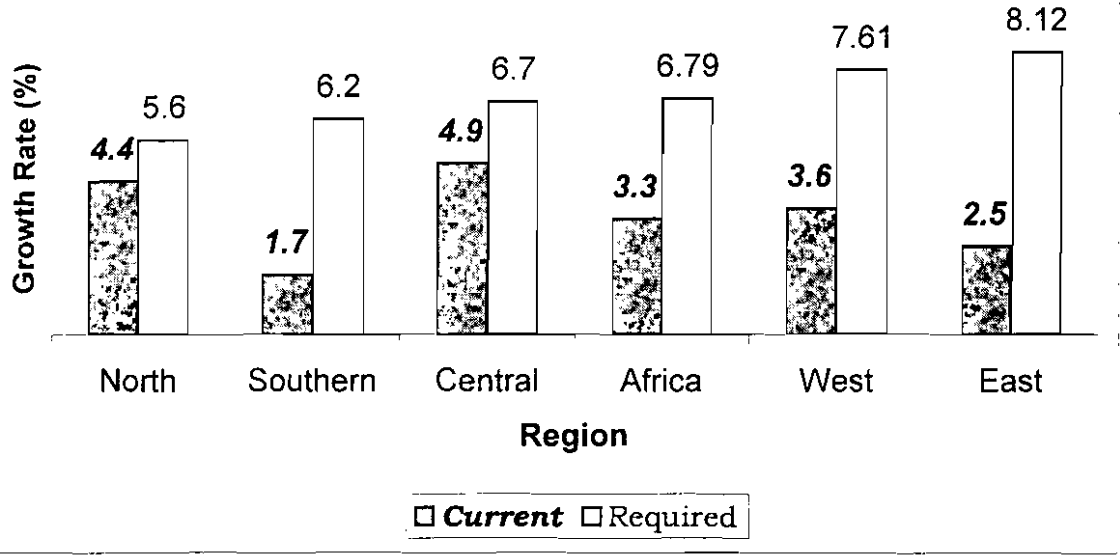
The above discussion on income levels provides sufficient indirect evidence on the poverty of Africa as it enters the 21st century. This is confirmed by more conventional money metric measures of poverty as was discussed in detail in last year's Report (UNECA 1999, Chapter 2:17-25). According to these results (UNECA 1999 Table 2.3:20), 43.5 per cent of the African population were living below a real poverty line, measured in terms of purchasing power parity prices (PPP), of $ 39 per person per month. That is almost half of the African people cannot afford to spend this amount of money to provide themselves with bare necessities. The average actual expenditure of those who fall below the real poverty line was $25 per person per month, 36 per cent lower than what is considered to be the essential minimum. Once again, the incidence of poverty is much more wide spread in the Sub-Saharan Africa region (with 51per cent falling below a real poverty line of $ 34) than in the North Africa region (with 22 per cent of the population falling below a real poverty line of $54).

Although poverty is endemic both in the rural and urban settings, it is more wide spread, deep and severe in the former compared to the latter. In SSA, (UNECA 1999 Table 2.4:21), nearly 59 per cent of the rural population live below a poverty line or $ 31.67 per person per month. The average income of

the rural poor is estimated at $14.22 per person per month or $ 0.47 per person per day, less than half of the internationally accepted minimum of $1 per person per day. Not only is rural poverty widely spread but it is also very deep as measured by the poverty gap ratio of 23 per cent and severe as reflected by the squared poverty gap ratio of 13 per cent.

Urban poverty is not very far removed from rural poverty. Nearly 43 per cent of the urban population live below the poverty line of $69 per person per month. Urban poverty is relatively shallow compared to the rural poverty with a 16 per cent poverty gap ratio and a squared poverty gap ratio of 8 per cent.

Figure 2.2: Growth Rate (%) Requirement to Reduce Poverty by Half by 2015




### Inequality

As noted in the UNECA (1999) report alluded to above, the most widely used measure of inequality in the distribution of income is the Gini coefficient. This measure ranges from unity for the case of complete inequality to zero for the case of perfect equality. Other measures of inequality are income shares where in the case of complete inequality population shares would earn equal income shares.

Using such measures and based on the most recent available statistics, comparison among world regions shows that at the end of the century Africa has the worst income distribution in the world. The statistics show that income inequality is lowest in South-East Asia with a Gini coefficient of 32 per cent. The richest 20 per cent of the population account for 40 per cent of the expenditure while the poorest 20 per cent of the population account for 9 per cent of total expenditure.

At the other extreme is Africa, with a Gini coefficient of 51 per cent. The richest 20 per cent of the African population receive 51 per cent of total expenditure while the poorest 20 per cent receive only 5 per cent. Expenditure distribution profiles for the rural and urban sectors in Sub-Saharan Africa are not much different from the relatively high inequality picture painted for the continent. A summary of the sectoral distribution of expenditure by quintile groups is presented below. The Gini coefficient is adjusted to reflect inequality in the income distribution.

Table 2.3: Income Distribution in Rural and Urban Africa in 1990s: A Summary (percentages)

| Sector | Share of Lowest 20% | Share of Second Lowest 20% | Share of Third Lowest 20% | Share of Fourth Lowest 20% | Share of Top 20% | Gini Coefficient |
|---|---|---|---|---|---|---|
| Rural | 5.95 | 10.43 | 14.75 | 21.19 | 47.68 | 47.90 |
| Urban | 5.56 | 9.75 | 14.10 | 20.75 | 49.84 | 50.19 |

***Source:*** Calculation based on World Bank African Development Indicators 1998-1999

The table paints a picture of a highly unequal distribution of expenditure in the rural sector of Africa. The mean share of the lowest 40% of the rural population is only 16% of total expenditure implying a shortfall of 24% of total income, while the mean share of the top 20% of the population is about 48% with 28% of total expenditure accruing to this group as a bonus. The share of the top 20% in total expenditure is 8 times that of the poorest 20% of the rural population. This state of inequality is summarised in an expenditure Gini coefficient of about 41.3%, which when adjusted to reflect inequality in the distribution of income increases to 48%.

Similarly, the mean share of the lowest 40% of the urban population is only 16% of total expenditure implying a shortfall of 24% of total income, while the mean share of the top 20% of the population is about 50% with 30% of total expenditure accruing to this group as a windfall. The share of the top 20% in total expenditure is 8 times that of the poorest 20% of the urban population. This state of inequality is summarised in an expenditure Gini coefficient of about 43.6%, which when adjusted to reflect inequality in the distribution of income increases to 50%.

The above high inequality levels are also changing over very short periods of time. Thus, despite recent results showing that, in general, income inequality does not display a time trend, a number of African countries have experienced rather significant changes in the distribution of income over fairly short periods of time. In this respect a "quantitatively small" time trend is defined as an annual change of less than 1% of the country's reference Gini coefficient. For a sample of seven African countries for which data is available shows quantitatively important changes in the Gini coefficient over relatively short periods of time (Table 2.4).

Four of the seven countries recorded a quantitatively important decline in expenditure inequality over a maximum period of five years. The largest decline of 4.3 percentage points in the Gini coefficient is recorded for Cote d'Ivoire over a period of only three years at a fairly high annual rate of decline of 3.6 %. The remaining three countries recorded a quantitatively important

increase in expenditure inequality over a relatively short periods of time. The highest increase of 7.8 percentage points, over a three-year period, is recorded for Uganda with an annual rate of increase of the Gini coefficient of 7.3%. Zambia also recorded quantitatively important increase in its Gini over a five-year period of 8.9 percentage points with an annual rate of increase of 3.8%.

Table 2. 4: Quantitatively Important Changes in the Distribution of Expenditure for a Sample of African Countries: (Gini coefficients in percentage points)

| Country | Gini (1st year) | Gini (2nd year) | Change in Gini (%age points) | Annual Rate of Change in Gini (%) |
|---|---|---|---|---|
| Cote d'Ivoire | 41.22 (1985) | 36.89 (1988) | -4.33 | -3.63 |
| Ghana | 35.90 (1988) | 33.91 (1992) | -1.99 | -1.42 |
| Mauritius | 39.63 (1986) | 36.69 (1991) | -2.94 | -1.53 |
| Nigeria | 37.02 (1986) | 41.55 (1992) | 4.53 | 1.94 |
| Tunisia | 43.00 (1985) | 40.24 (1990) | -2.76 | -1.32 |
| Uganda | 33.00 (1989) | 40.78 (1992) | 7.78 | 7.31 |
| Zambia | 43.51 (1991) | 52.00 (1996) | 8.89 | 3.79 |

***Source:*** Deininger and Squire data base

In view of the short periods of time over which the above changes in the distribution of expenditure have occurred, it is not exactly clear what might have caused such changes. This is specially puzzling given the fact that the underlying structural factors generally affecting inequality are not likely to have undergone drastic changes over such short periods.

In summary, initial income in Africa is not only low, the feature of income inequality exhibits extremely unequal distribution of income even in comparison with regions like Latin America and South Asia. Much more so, inequality in rural areas is more or less comparable with that of urban areas further complicating the challenge of poverty reduction in the long term. Similarly, unlike what is commonly observed elsewhere, inequality appears to shift in a matter of short time in Africa.

The level of initial income and the nature of income inequality have important implications for development policy and strategy. The first and most critical objective of development policy must target poverty reduction. If this endeavor to succeed, a strategy that targets the poor and is capable generating immediate payoff needs to be put in place.

## 2.3 Production Structure and Structural Transformation

Economic structure refers to the relative contribution of the different sectors in the economy in terms of production and factor use (Machlup 1991, Kuznets 1965, Chenery, Robinson and Syrquin 1986, Syrquin 1988, Killick 1990, 1993). The structure of an economy could be looked at from different perspectives such as the industrial origin of goods and services produced, the sources of income and the major occupational activities, the distribution of income among the different owners of factors of production, and the structure of demand, among others.

Structural transformation is the process by which the compositions of output and the contributions of the different sectors to GDP and employment change over time and the forces that generate such transformations. Studies in the patterns of economic and social development have revealed empirical regularities that are summarized as "stylized facts" of structural change over time. A recent summary of such "stylized facts" of structural change over long periods of time confirms that economies relying on the primary sectors (agriculture/minerals) in production and employment graduate to one where manufacturing and the service sectors dominate and that and that such transformations follow a non-linear pattern (Kongsamut, Rebelo and Xie(KRX) (1999)). Initially, the employment and GDP shares of agriculture and services decline, while those of manufacturing increases. During the intermediate stages, the shares of manufacturing and agriculture continue to increase and decrease, respectively. In contrast, the shares of the services sector reach their turning points and start to grow. These trends continue into later stages of development, within which the shares of manufacturing attain their turning points and stabilize.

It is also observed that decreases in output and employment shares do not result from an absolute decline in their output. On the contrary the output of the different sectors will continue to increase at an increasing rate and that the decline in their relative share in GDP is due to differences in their growth rates. During the early stages of development, the manufacturing industries grow at a much faster rate than agriculture and services as a result of which its share both in GDP and employment dominates. As the economy advances to higher stages, the growth rate of the service sector dominates over the other two.

Over the last four decades, there has been a significant structural shift in the African economies, broadly consistent with the historically observed development experience of declining share of agriculture. However, thenature and composition of structural transformation in the continent depict important departures from the general trend, with significant implication and repercussions on the development of the region.

The first and most significant deviation relates to the nature of the transformation observed in the African economies. The share of agriculture in GDP declined from 40 per cent of the decade of the 1960s to 21 per cent at the end of the century. However the decrease in the share of agriculture in GDP by

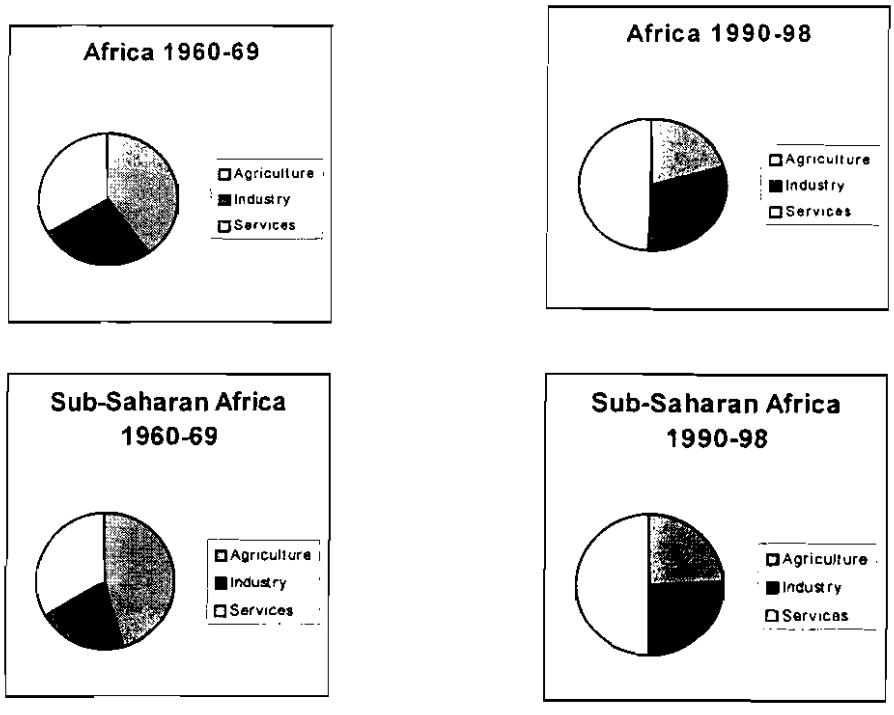
nearly 50 per cent was not due to significant growth of the industrial sector in general, and those of the manufacturing industries in particular. The share of industry increased marginally from 26 per cent to 30 per cent of GDP during the intervening decades, while the share of the manufacturing industries grew from 9 per cent in the 1960s to 15 per cent at the end of the century.

Table 2.5: Structure and Structural Transformation of the African Economies 1960-1998. (Per cent of GDP)

| Region | Agricultural value added | | Industry value added | | Service value added | |
|---|---|---|---|---|---|---|
| | 1960-69 | 1990-98 | 1960-69 | 1990-98 | 1960-69 | 1990-98 |
| Africa | 40.1 | 20.8 | 25.8 | 29.5 | 34.1 | 49.7 |
| North Africa | 39.8 | 18.9 | 23.9 | 29.3 | 36.3 | 51.8 |
| SSA | 45.2 | 23.9 | 21.2 | 25.1 | 33.6 | 49.1 |
| SSA, ex. South Africa | 51.4 | 24.5 | 20.7 | 24.8 | 27.9 | 50.7 |

***Sources:*** calculated from UNCTAD and World Bank Statistics

Figure 2.3: Africa and Sub-Saharan African Sectoral Shares 1960-1998




The major beneficiary of the decline in agriculture was the service sector whose share in GDP increased from 34 per cent to 50 per cent. The real size of this sector is much larger than what the official statistics acknowledges, since these do not include the informal sector that has emerged as perhaps the most dynamic activity and grows in proportion to the failure of the formal sector to generate employment.

This pattern of structural transformation is not consistent with the historically observed blueprint of moving from agriculture to industry and finally to services. The predominance of the service sector in the economies of African countries at this stage of their development is indicative of the defective

transformation. This structural disarticulation is further confirmed by the stagnation in sectoral employment.

Table 2.6: Employment by Sector 1980 and 1990. (per cent of total labor force)

| Region | Agriculture | | Industry | | Services | |
|---|---|---|---|---|---|---|
| | 1980 | 1990 | 1980 | 1990 | 1980 | 1990 |
| North Africa | 48.9 | 38.1 | 19.5 | 21.7 | 31.6 | 39.8 |
| West Africa | 68.6 | 65.3 | 12.3 | 11.3 | 19.1 | 23.5 |
| Central Africa | 74.6 | 68.0 | 7.4 | 8.7 | 18.0 | 23.3 |
| Eastern Africa | 74.3 | 69.9 | 8.1 | 8.3 | 17.7 | 21.9 |
| Southern Africa | 48.7 | 44.8 | 20.3 | 21.5 | 30.7 | 33.6 |
| Africa | 63.4 | 58.4 | 13.6 | 14.0 | 23.0 | 27.5 |

***Source***: Computed from country statistics in ILO (1999).

At the end of the century nearly 60 per cent of the region's labor force are engaged in agriculture while the agriculturally dependent population remains very high. The agricultural dependent labor force rises to nearly 70 per cent if the North and Southern Africa sub-regions are excluded (Table 2.6). The increase in the total labor force and their continued absorption in agriculture without significant increase in output and productivity are reflected in the growth of poverty of the rural population and acccelerating environmental degradation.

Services are, admittedly, important inputs in the production of commodities and their increase in quantity, quality and diversity facilitates resource use and efficiency. But the issue of its appropriate size at different level of development remains unsettled. Using data from the World Bank and the OECD, Easterly et al (1994) attempt to develop an international norm for the appropriate size of services at different levels of development. They suggest that (1994:5) service sector shares of 50 per cent and above in GDP are appropriate for countries in the middle and upper-income countries. This implies that for low-income developing countries the size of the service sector should be lower than this level. This general understanding is corroborated by the share of services (World Bank 1999:253, table 12), in the GDP of East Asia and Pacific countries' (41 per cent) and South Asia's (46 per cent).

Similarly, the regression results of KRX imply that the current employment and output shares of the services sector (28 percent and 50 percent, respectively) correspond to the per capita income levels of US$2441 and US$4024, respectively. Both are significantly higher than the continent's average per capita of US$1390 in 1999. Furthermore, the comparison of actual shares with shares predicted by the RMX estimates paints a broadly similar picture for the sub-regions of the continent (Table 2.7).[1] The actual shares of manufacturing in employment and GDP are consistently lower than the predicted ones.[2] In short, it is safe to conclude that the significant contribution of services to output, the relatively high employment share of agriculture, and the limited role of manufacturing in Africa are not consistent with the stage of development of the continent. Rather, they reflect to a large

[1] The predicted shares are obtained by evaluating the estimated equations of KRX at the average real per capita GDP of the sub-regions in 1999.

[2] The only exception is the GDP share of the sector in Southern Africa.

measure the distortion in the productive structure of African economies as they enter the 21st century.

Table 2.7: Actual and Predicted Sectoral Shares, by sub-region

| | Share of Employment (in percent) | | | | Share of GDP (in percent) | | | |
|---|---|---|---|---|---|---|---|---|
| | Agriculture | | Manufacturing | | Agriculture | | Manufacturing | |
| Region | Actual95-99 | Predicted | Actual 90-94 | Predicted | Actual95-99 | Predicted | Actual -95-99 | Predicted |
| Central Africa | 65 | 52 | 5 | 24 | 32 | 22 | 10 | 16 |
| *Eastern Africa* | 80 | 71 | 4 | 10 | 33 | 30 | 9 | 13 |
| *Northern Africa* | 35 | 39 | 12 | 30 | 17 | 16 | 16 | 18 |
| *Southern Africa* | 50 | 51 | 9 | 24 | 16 | 21 | 21 | 16 |
| *Western Africa* | 68 | 77 | 4 | 5 | 35 | 33 | 11 | 12 |

Finally, it is also instructive to examine the potential speed of productive structural change in Africa on the basis of the results of KRX and alternative and actual and growth rates. The estimated parameters of KRX locate the turning point for the employment share of manufacturing at the real per capita GDP of US$5224. This level of income can thus be used as criterion to determine whether an economy has achieved a relatively mature productive structure. How quickly will Africa achieve this status? Table 2.8 and Table AII.2 report the relevant results using the level of per capita GDP of 1999 and the average growth rates for 1996-99 and 1961-99. It rather disappointing to see that, the target income level can be achieved in Africa only after five and a half decades of growth at the rate of 2.28 percent per annum – the rate at which real per capita GDP grew in the 1996-99 period. The outcome is even worse if the growth rate is lowered to the average growth rate that prevailed during the 1961-99 period. The same dismal picture emerges in relation to the performance at the sub-regional and country levels. However, the fact that Mauritius has achieved the required level of income in 1988 and that Seychelles will do so shortly show that with some systematic effort African countries could transform themselves into mature industrial economies.

Table 2.8: Actual Growth Performance and Required Number of Years, by region

| Region | *y*(99) | *g*(96-99) | Years (96- | *g*(61-99) | Years (61- |
|---|---|---|---|---|---|
| Central Africa | 1715 | 2.72 | 43.00 | 0.96 | 116.00 |
| East Africa | 1002 | 2.34 | 71.00 | 0.62 | 267.00 |
| North Africa | 2371 | 1.55 | 51.00 | 2.22 | 36.00 |
| South Africa | 2379 | 2.94 | 27.00 | 1.72 | 46.00 |
| West Africa | 843 | 1.88 | 97.00 | 0.78 | 234.00 |
| All Africa | 1503 | 2.28 | 54.00 | 1.15 | 108.00 |

***Notes***: ***y*(99)** = Real per capita GDP in 1999; ***g*(96-99)** and ***g*(61-99)** = average annual growth rates of real per capita GDP during 1996-99 and 1961-99, respectively; **Years (96-99)** and **Years (61-99)** = number of years required to achieve the target level of real per capita GDP of US$5224 with ***g*(96-99)** and ***g*(61-99)**, respectively.

The clear message derived from the above is that if African countries are to achieve a modern and diversified productive structure, they have to strive much harder and more effectively. The extent of the task can be gauged via the same procedure used to obtain the length of time required to achieve the target level of real per capita GDP.

Two scenarios are built in this manner (Table 2.9 and Table AII.3). The first envisages the attainment of the target income level within twenty-five years and determines the growth rates required doing so. The African economy has to grow by 5 percent annually to realize that objective. The four sub-regions should also grow at about that rate, the only exception being Northern Africa with a required growth rate of 3 percent. At the country level, the required growth rates are much more varied and range from 0.1 percent for Seychelles to 14 percent for Democratic Republic of Congo.

The second scenario uses the 4.2 percent growth rate of per capita real GDP required to reduce poverty by half by 2015 (ERA, 1999). If all African countries manage to grow at that rate the continent will reach the target income level in thirty years. Again sub-regional and country performances are varied.

Table 2.9: Growth Scenarios and Required Number of Years, by region

| Region | $g(T = 25)$ | $g$ (target) | Years(target) |
|---|---|---|---|
| Central Africa Average | 0.06 | 0.042 | 26 |
| Eastern Africa Average | 0.08 | 0.042 | 39 |
| Northern Africa Average | 0.03 | 0.042 | 19 |
| Southern Africa Average | 0.03 | 0.042 | 19 |
| Western Africa Average | 0.08 | 0.042 | 43 |
| All Africa | 0.05 | 0.042 | 30 |

***Notes***: $g(T = 25)$ = the average annual growth rates of real per capita GDP required to achieve the target level of real per capita GDP of US$5224 within twenty-five years; **Years (target)** = number of years required to achieve the target level of real per capita GDP of US$5224 with annual growth rates $g$**(target)** of 7 percent.

Obviously the circumstances of African countries are unlikely to remain unchanged. In fact, these countries experienced significant changes in their recent past. Some of these changes, including political and economic reforms, have been in part initiated by the countries themselves and are for the better. Others resulted from the dynamics of the international economy. Particularly important, in this respect, are deepening globalisation and the information revolution. It is likely that some of these changes have impacted on the sectoral shares of recent years. In the light of this, the projections reported above should be viewed as indicative of the magnitude of the effort required towards significant structural change in Africa. More systematic and comprehensive analyses of the determinants of structural change are a high priority.

## 2.4 Investment

These structures of the African economies have had important repercussions and implications on the macroeconomic stability of the region. The predominance of the primary sectors and their growth rates have impacted significantly on the rate of inflation, current account deficit as well as on the fiscal balance but most importantly on the rate at which productive investment both in physical and human capital has been expanding.

One of the fundamental determinants of long run growth is investment. In recent years a number of observations have been made regarding the current state of under-capitalization of the continent, given its long run growth requirements, and specially its poverty reduction growth requirements. Despite this, however, number of African countries are known to have engineered an investment transition prior to the early 1980s. An investment transition is defined as a sustained increase in the investment rate (investment/GDP ratio) of five percentage points or more. To capture the concept of sustained increase "a country is said to undergo an investment transition in year T if the three-year moving average of its investment rate over an eight year period starting at T+1 exceeds the five-year average of its investment rate prior to T by five percentage points or more"(Rodrik (1999: 58)).

Applying the above definition for a sample of developing countries, excluding major oil exporting countries as well as cases in which the post-transition investment rate remains below 10 percent, yielded 47 episodes of investment transitions. More than 50% of these transition episodes are for African countries. Table AII.4 reports the relevant results for the 25 African countries involved. It should be noted that 15 of these transitions occurred during the pre 1973 period and only one in the 1980s.

Investment transitions are shown to be associated with significant increases in economic growth. In particular it was shown that countries that experience an investment transition go from a growth rate which is 0.8 percentage points less than world average to one that is 1.4 percentage points more than the average. The growth difference is a significant 2.2 percentage points. As is well known only a few African countries were able to preserve these growth gains in the wake of the external shocks of the early 1970s and that in most African countries the gains were eventually reversed while the investment rate remained high. Lower growth rates and high investment rates translate into relatively high incremental capital output ratios (or lower rates of return to capital) indicating inefficient use of capital. One possible explanation of the inability of African countries to preserve the growth gains contingent upon experiencing an investment transition is the absence of social institutions to resolve conflicts arising from external shocks. However, it is also a well documented, and a robust result, in the literature evaluating first generation economic reforms that these policy packages have lead to a decline in investment rates in Africa (see, for example, Elbadawi (1992)).

To further probe the issue of the under-capitalization of the continent as it enters the 21st century, and the behaviour of the investment rate following the

external shocks of the early 1970s, we compiled the available information on investment rates over the period 1974-1996. As Table 2.10 shows for all sub-regions the investment rate has declined over the period. In what follows we shall take the average investment rate for the period 1991-1996 as representing the initial conditions of the continent.

Table 2.10: Investment Rates in Africa: 1974-1996 (percentages)

| Africa Region | 1974-1980 | 1981-1990 | 1991-1996 |
|---|---|---|---|
| North Africa | 36.4 | 30.1 | 24.2 |
| West Africa | 22.2 | 14.8 | 17.6 |
| Central Africa | 31.9 | 26.0 | 20.0 |
| East Africa | 14.9 | 14.7 | 14.6 |
| Southern Africa | 27.1 | 22.7 | 17.6 |
| Africa Average | 28.5 | 23.9 | 20.2 |
| Sub-Saharan Africa | 24.4 | 19.8 | 17.4 |

***Source:*** ECA's calculations, based on World Development Indicators 1998, CD-ROM.

The behaviour of the investment rate varied between countries. While almost all of the countries in the sample recorded a decline between the first period and the end period, some recorded an increase in the second period before recording a decline. Six out of the 35 countries in the sample recorded an increase in the investment rate. These included Gambia for which the average investment rate increased from 18.2% of GDP for the period 1974-1980 to 20.5% for the period 1991-1996; Ghana (from 9.0% to 16.1%); Mali (from 15.9% to 24.2%); Sao Tome and Principe (from 24.9% to 51.6%); Uganda (from 7.6% to 15.6%); and, Lesotho (from 28.7% to 87.9%). Thus, these regional and country trends in the investment rate can be taken as behind the observed decapitalization of the continent.

Having noted the above, it is important to recall that ECA (1999) reported the required investment rates to achieve the international development goal of reducing poverty by half by the year 2015. Table 2.11 reports the required investment rates and compares them with the initial investment rates as the continent enters the 21st century.

Figure 2.4: Investment Rate (%) Requirement to Reduce Poverty by Half by 2015

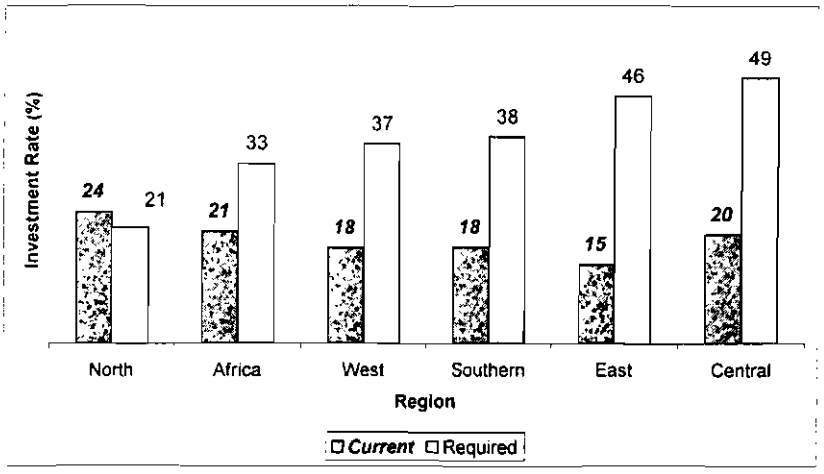


Table 2.11: Required Investment Rates to Reduce Poverty and Initial Investment Conditions

| Africa Region | Required GDP Growth Rate (%) | ICOR | Required Investment Rate (%) | Initial Investment Rate (%)* |
|---|---|---|---|---|
| North | 5.60 | 3.8 | 21.3 | 24.2 |
| West | 7.61 | 4.8 | 36.5 | 17.6 |
| Central | 6.70 | 7.3 | 48.9 | 20.0 |
| East | 8.12 | 5.6 | 45.5 | 14.6 |
| South | 6.20 | 6.1 | 37.8 | 17.6 |
| Africa Average | 6.79 | 5.0 | 33.0 | 20.5 |
| Sub-Saharan Africa | 7.16 | 5.8 | 40.0 | 17.4 |

***Source:*** ECA (1999) * Average of the period 1991-1996.

According to these results the required investment to enable a GDP growth rate of 7 percent per annum for the whole continent would be about 33 per cent of GDP. This needs to be compared with the reported initial investment rate of 20.5 % of GDP as the continent enters the 21st century. Further, the initial investment rate for Sub-Saharan Africa of 17.4% of GDP needs to be compared with the required investment rate for Sub-Saharan Africa of 40% of GDP.

Different sub-regions have different investment requirements. North Africa is in the fortunate position of having an initial investment rate in excess of that required to achieve a GDP growth rate of 5.6 per cent. Its initial average investment rate is 24.2% and as such it seems that this sub-region is well poised to enter the 21st with an ability to generate the required growth. All other regions have initial investment rates that fall short of the investment rates required to reduce poverty by half by the year 2015.

## 2.5 Institutions of Governance

It is generally acceptable that "development" is brought about in the context of developmentally oriented societies. A recent consensus seems to have emerged on the major features of an ideal growth and development society. Such a society is seen as one which: (a) would know how to operate, manage, and build the instruments of production and to create, adapt and master new techniques on the technological frontier; (b) would be able to impart this knowledge and know-how on the young by formal education or by apprenticeship; (c) would be employ, promote and demote workers on the basis of competence and relative merit; (d) would afford opportunity to individuals or collective enterprise and encourage initiative, competition and emulation (see, among others, Landes (1998)).

Such ideal societies are said to have social and political institutions that would secure rights of private property and personal liberty; enforce contracts; provide stable, responsive, honest, transparent and accountable governments; allow for social and geographic mobility; and evolve a more equal distribution of income supporting a large middle class.

While these are all of critical importance worthy detailed discussion, this section would, in the interest of brevity, limit itself to the most fundamental of the issues that define the necessary minimum prerequisite for an orderly economic activity to take place: the political and civil wars.

### The Political Environment

African countries, with only fifty years of experience behind them as modern societies, are struggling to approximate the ideal growth and development society. Over the last half a century they have experimented with various forms of governance regimes, spanning the gamut of extreme totalitarian regimes to the liberal democratic tradition. The attributes of the state with respect to the overall economic management, rule of law, and respect for private property have been very much informed and influenced by the ideology of the day. Since the 1980s, and most notably following the end of the cold war, the political environment in African countries is increasingly being reoriented to the framework of liberal democracy.

Africa enters the 21st century with a mixed political mold. The governance situation is detailed in Table AII.5 using the indicators of political freedom constructed by Freedom House. The table shows the form of government obtaining in each country in 1998/99, the country scores on measures of political rights, civil liberties and the average score of the two, and the classification of the country as to its freedom status (free, partly free and not free). These measures are derived from the Freedom of the World survey produced by Freedom House. Scores between 1 (for free) and 7 (not free) are assigned to the categories of political rights and civil liberties.

The political rights category measures the extent to which the government is chosen by means of free and fair elections of candidates. A checklist of 8 questions relating to standard norms of political freedom informs the scoring

of this category. In addition, two questions are added to account for special circumstances of traditional monarchies and to account for safeguards for ethnic minorities. Thus, for example, for countries with a score of 7 "political rights are absent or virtually non-existent due to the extremely oppressive nature of the regime or severe oppression in combination with civil war".

The civil liberties score essentially measures freedom from government oppression, encompassing the strength and objectivity of the rule of law as well as personal freedom such as those of expression and religion. A checklist of 14 questions relating to standard norms of civil liberties informs the scoring of this category. These questions are classified in four broad categories of "freedom of expression and belief", "association and organization rights", "rule of law and human rights", and "personal autonomy and economic rights". In rating countries on the basis of the checklist on civil liberties it is those rights enjoyed in practice that are used instead of the constitutional guarantees of such rights. Thus, countries rated 7 have virtually no freedom and an overwhelming and justified fear of repression characterizes them as societies.

Averaging the two scores for political rights and civil liberties gives the score for freedom. Countries are given the status of "free" if the average score lies in the range 1-2.5; the status of "partly free" is given to scores falling in the range 3-5.5 while the status "not free" is given to scores in the range 5.5-7.

This methodology has been applied for a long period of time (since the 1970s) and Freedom House indices are used quite frequently in rigorous analysis. However, individual countries may have reservations about the status assigned to them and as such can contest the methodology adopted. While not necessarily subscribing to the methodology or the way it is applied we believe that it enables a fairly objective way of assessing the initial political conditions in the continent as it enters the 21st century.

Given the above understanding, the picture painted by the results reported by Freedom House is one that calls for cautious optimism. On a global scale African countries tend to be the least free in the world, with repressive regimes still common and democracy still nascent. Thus, for example, 23 out of the 50 countries classified as "not free" are African. On the other hand, the move towards freedom and democracy that has occurred in the past decade has been unprecedented, as more progress has been made in this direction in the 1990s than was made in the 1980s and 1970s combined.

In this respect it is worth noting that seven of the nine African countries classified as "free" achieved this status in the 1990s. Continent wide, the political freedom index of 5.1 assigns the continent as a whole a status of "partly free" a significant improvement over the start of the decade by 0.53 points when the continent was "not free". The improvement is even more striking in terms of the civil rights index of 4.5 where the 1990s witnessed an improvement of 0.66 points.

On sub-regional basis the results show the Southern Africa sub-region as the most free with a freedom score of 3.09. In this respect it is worth noting that 52.1% of the population of the sub-region live in countries classified as "free", 36.5% of the population live in countries classified as "partly free" with the balance of the sub-region's population living under "not free" conditions. The next most free sub-region of the continent is West Africa with an overall

freedom index of 4.63 and with 8% of its population living in "free" countries and 75.1% living in "partly free" countries. East Africa region ranks as the third most free sub-region with a freedom index of 4.99 and where 57% of the sub-region's population live in "partly free" countries while the rest live in "not free" countries. Central Africa region, with a freedom index of 5.4, ranks fourth in terms of freedom where 15.9% of its population live in "partly free" countries and 83.6% live in "not free" countries. Lastly, North Africa is the only sub-region that garners an overall "not free" status with a freedom score of 5.83. Morocco, the only country classified as "partly free", accounts for 16.4% of the population of the sub-region.

Table 2.12: Political Freedoms, Civil Liberties and Type of Government in Africa

| Type of Government | Number of Countries | Status as Group | Population (million 1998) | Countries in the Group |
|---|---|---|---|---|
| Dominant Party | 22 | PF (5.2) | 325 | Egypt, Mauritania, Tunisia, Burkina Faso, Côte d'Ivoire, Gambia, Guinea, Niger, Senegal, Togo, Cameroon, Equatorial Guinea, Gabon, Comoros, Djibouti, Ethiopia, Kenya, Rwanda, Tanzania, Uganda, Zambia & Zimbabwe. |
| Presidential-Parliamentary Democracy | 12 | PF(3.2) | 200 | Benin, Cape Verde, Ghana, G. Bissau, Liberia, Mali, Nigeria, CAR, Chad, Sao Tome & Prin., Madagascar, & Malawi. |
| Presidential-Legislative Democracy | 6 | PF (3.4) | 81 | Sierra Leone, Seychelles, Angola, Mozambique, Namibia, & South Africa. |
| Civilian Military | 3 | NF | 65 | Algeria, Sudan, & Burundi. |
| Military Backed Dictatorship | 3 | NF | 58 | Libya, Congo Rep., & Congo Dem. Rep. |
| Monarchy and Limited Parliament | 1 | PF | 28 | Morocco |
| Rival Ethnic-Based Militias | 1 | NF | 11 | Somalia |
| Parliamentary Democracy and Traditional Chiefs | 2 | PF(3) | 3.7 | Botswana & Lesotho. |
| One-Party Transitional | 1 | PF | 3.5 | Eritrea |
| Legislative Democracy | 1 | Free | 1.1 | Mauritius |
| Traditional Monarchy | 1 | NF | 0.9 | Swaziland. |
| All Government Types | 53 | | 778 | All the 53 African Countries |

Notes:

Notes: F =Free, PF = Partly Free, NF = Not Free

***Source:*** Freedom House (1999)

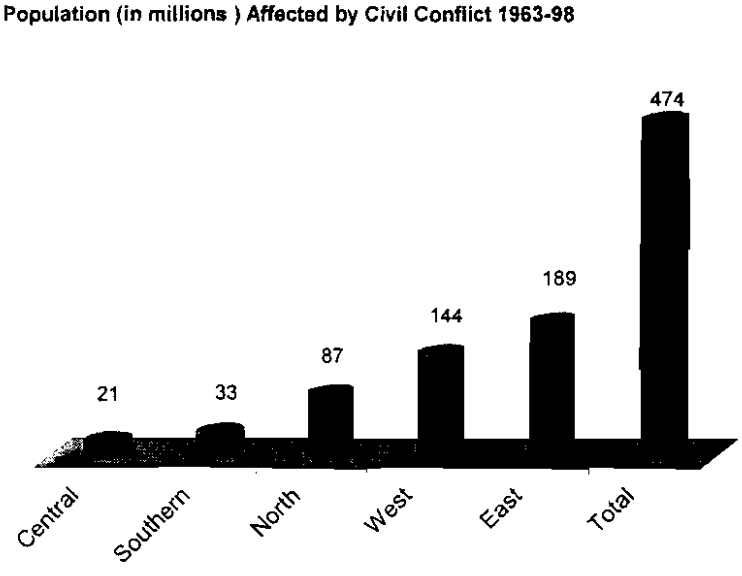
The information provided by Freedom House also enables an analysis of the type of governments ruling the continent as it approaches the 21st century (See Table 2.12). According to this information 11 types of government are identified, though the terminology used is not conventional. The most important types include: "dominant party rule" in 22 countries with a population of 325 million accounting for 41.8% of Africa's population; "presidential-parliamentary" in 12 countries with a population of 199.9 million accounting for 25.7% of Africa's population; "presidential-legislative democracy" in 6 countries with a population of 81.3 million accounting for

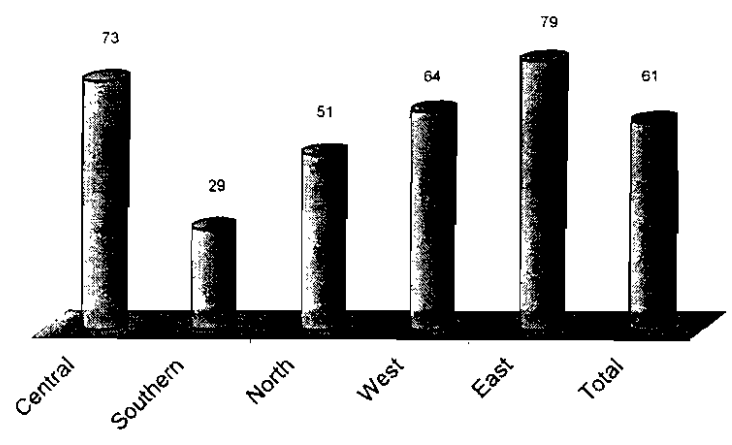
10.5% of the population of Africa; "military backed dictatorship" in 3 countries with a population of 58 million accounting for 7.5% of the population of Africa; and, "civilian-military" in 3 countries with a population of 65.3 million accounting for 8.4% of the population of Africa.

### Civil Wars and Conflicts

Starting with the early days of independence when the accent was on nation building and socio-economic transformation, Africa experimented with various forms of institutions and strategies. While an enduring peace and stability emerged in the majority of African countries, a good many encountered civil strife and conflicts generated by dissatisfactions with the economic, social and political arrangements.

Figure 2.5: Total Population and Percentage of the Population affected by Civil Conflict 1963-1998



The highest form of conflict is civil war. Over the 1960-1996 period 28 civil wars are reported to have taken place in various parts of the world of which 14 were in Africa, 6 in Latin America and the Caribbean and 8 in Asia. Some of the longest civil wars were in Africa (e.g. Ethiopia, Mozambique and Sudan) and some older civil wars are still raging. According to OAU's records 26 African conflicts have taken place since the establishment of the organization in 1963 and up to the end of 1998. All in all 474 million Africans, representing 61% of the population of the continent, were affected by these conflicts. No region was spared the agony of the sufferings caused. East Africa was the region with the highest percentage of affected population (79.4% of the population or 189 million ), followed by Central Africa region (73% of the population or 21 million), West Africa (64% of the population or 144 million) and North Africa (51% of the population or 87 million). The Southern Africa region recorded the lowest share of civil conflicts affected population (29% of the population or 33 million).

Of the 26 listed conflicts the OAU classifies 7 as inter-state. While six out of these were related to border disputes OAU classified three of them as border conflicts: (Algeria-Morocco: 1964-65), Somalia-Kenya (1965-1980), and Cameroon-Nigeria (1996). The other three are classified as territorial claims relating to disagreement over the interpretation of colonial legal documents: Ethiopia-Somalia (1964-1965 and 1976-1977), Morocco (involving Algeria in the context of Western Sahara, continuing up to now), and, Ethiopia-Eritrea (1998 to the present). The seventh is the conflict that between Uganda and Tanzania in 1979 which resulted in the invasion of Uganda by a rebel force.

The remaining 19 conflicts are classified as internal. These include the Democratic Republic of Congo (1964 and 1998), Guinea (1970), Benin (1977), Uganda (1970-1979), Chad (1977-1980), Mozambique (1975-1992), Angola (1975- 1999), Liberia (1990-1997), Somalia (1991-1999), Burundi (1993-1998), Rwanda (1992-1994), Sao Tome and Principe (1994), Republic of Congo (1998), Comoros (1995-1998), Sierra Leone (1993-1998), Guinea Bissau (1998-1998), Sudan (1983-1998), and Lesotho (1998).

**Box 2. 3**
**Civil Conflicts in Africa**

| | |
|---|---|
| BORDER DISPUTES | |
| Algeria-Morocco | 1964-65 |
| Somalia-Kenya | 1965-1980 |
| Cameroon-Nigeria | 1996 |
| | |
| TERRITORIAL CLAIMS | |
| Ethiopia-Somalia | 1964-1965 ;1976-1977 |
| Morocco (Western Sahara) | 1963-present |
| Ethiopia-Eritrea | 1998-present |
| Uganda and Tanzania | 1979 |
| | |
| INTERNAL | |
| Dem. Rep. of Congo | 1964 and 1998 |
| Guinea | 1970 |
| Benin | 1977 |
| Uganda | 1970-1979 |
| Chad | 1977-1980 |
| Mozambique | 1975-1992 |
| Angola | 1975- 1999 |
| Liberia | 1990-1997 |
| Somalia | 1991-1999 |
| Burundi | 1993-1998 |
| Rwanda | 1992-1994 |
| Sao Tome and Principe | 1994 |
| Republic of Congo | 1998 |
| Comoros | 1995-1998 |
| Sierra Leone | 1993-1998 |
| Guinea Bissau | 1998 |
| Sudan | 1983-1998 |
| Lesotho | 1998 |

*Source:* Based on OAU (1998).

The causes of civil wars are, admittedly, very complex. In the OAU summary analysis of the root causes of African civil wars, at least six causes are identified: destabilization by mercenaries (DRC in 1964; Guinea in 1970 and Benin in 1977); human rights violations (Uganda: 1970-1979); geopolitics and cold war (Chad during 1977-1980; Mozambique during 1975-1992); ethnic (Burundi in 1993; Rwanda during 1992-1994); power sharing (DRC since1998; Sudan since 1983; Sao Tome and Principe in 1994; Comoros since 1995); and, inter clan and other factional rivalries and their contagion (Somalia since 1991; Liberia during 1990-1997 and Guinea Bissau since 1998). However, none of these causes, or the examples given, should be considered as pure. Nonetheless, recent research has shown that the core explanatory variables in civil wars around the world are economic in nature. Central to these is that "poorer countries have considerably higher risk of civil war than richer countries and poverty matters because it implies a low opportunity cost for the young men and women to join the rebel armies".

While a proper understanding of the negative impact of civil strife and conflict on economic performance is still being researched some obvious effects are generally acceptable. These include the destruction of physical and human capital, reduction of savings, diversion of portfolios from domestic investment to capital flight, disruption of economic transactions, and distortion of government expenditure from the provision of public services to military expenditure. The combined impact of these negative effects is likely to be on the growth rate of the economy rather than a once-and-for-all reduction in the level of output. Reduced growth, even if the inequality in the distribution of income and wealth remains the same, would increase poverty. This is a cycle of conflict and poverty that seem to feed on itself in a spiral. It is in this respect that countries out of conflict in the continent need special handling in the design of their development programs.

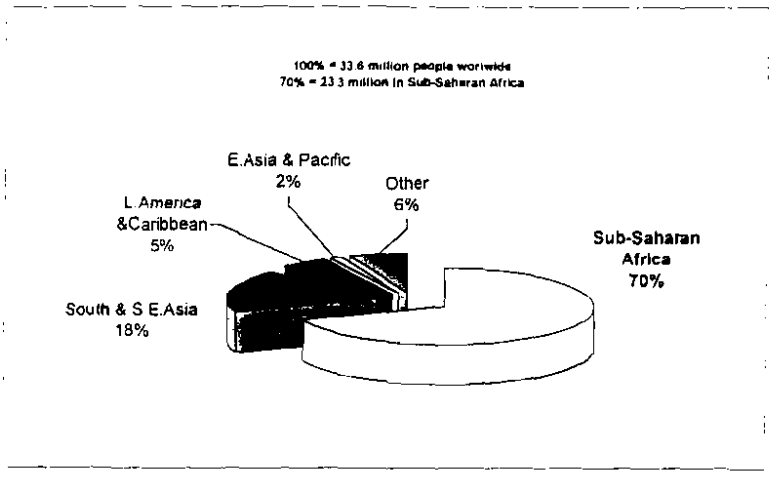
## 2.6 Human Capital

With the world economy moving towards globalization, an increasing premium is bestowed on scientific and technological capacities to activate innovation and adaptation, and to increase productivity and competitiveness. Growth in the knowledge driven economy of the 21st century is predicated on a labor force that is healthy and is well endowed with knowledge and skills. Progress in education and health made in Africa over the last half a century notwithstanding, both the volume and quality of human capital is widely acknowledged as being grossly insufficient to meet the challenges of the 21st century. We report on three major aspects of the initial conditions of human capital of the continent: health status and scientific and technological capacity and education.

### Health Status

Without a healthy population, Africa does not have the necessary basis to foster productive societies. Most African countries at the end of the 20th century have to confront serious public health challenges such as the HIV/AIDS pandemic, malaria and the resurgence of tuberculosis. Still much remains to be done to eradicate preventable diseases and chronic protein energy and micronutrient malnutrition. The health disadvantages of African countries have a negative impact on wages and productivity (Strauss and Thomas 1988). Improving the health status of the African population may be one of the most effective contributions to economic growth.

Figure 2.6: People Living with HIV/AIDS




HIV/AIDS has grown from epidemic to pandemic in Africa with serious economic consequences (Box 2.4). UNAIDS (1999), estimates the global HIV/AIDS infected population at 34 million of which over 23 million are in sub-Saharan Africa. As a result of this scourge, the gains in life expectancy achieved in the previous half century are projected to be lost out completely over the next decade. For example, the tremendous increase in life expectancy in Southern Africa from 44 years in the 1950s to 59 years the 1990s is projected to drop to 45 years between 2005 and 2010 (Bloom and Sachs (1998)).

**Box: 2.4**
**The Economic Implications of HIV/AIDS in Africa**

HIV/AIDS is a serious threat to human health and humanity in general. The considerable international attention that the disease has produced is not because it is specific to Africa, but because of its global consequences and impact. President Museveni of Uganda cautioned that Africa would be facing an apocalypse, with millions dying and economies and societies collapsing. The statistics are far worse than ever anticipated. New and frightening statistics come out every year and the trend seems quite dismal.

Here are some of the statistics from UNAIDS (1998/99) which highlight the dimension of the pandemic in Africa:

- Over 23 million Africans are currently living with HIV/AIDS
- More than 13 million Africans have already died
- Globally over 8 million children are orphaned by AIDS and over 90% are in Africa
- 55% of infected adults in SSA are women
- African girls aged 15-19 are five times more likely to be HIV-positive than boys of the same
- In the last two years close to 8 million adults and children were newly infected
- Nine of the mostly affected countries in the world are all in Africa

Why is HIV/AIDS such a serious threat to Africa? Although AIDS has long ceased to be a killer disease in the industrialized countries, it has now become the leading cause of death in Africa. Presently, HIV/AIDS is erasing the social sector gains through its mortality impact in productive adults, its creation of orphans who represent an important social sector responsibility for the coming years and its continuing contribution to poverty and human suffering. AIDS will kill more people in Sub-Saharan Africa than the total number of casualties lost in all wars of the 20th century combined.

HIV/AIDS is jeopardizing economic growth in Africa. Although much of the disease's economic impact remains difficult to measure, one study estimates that over the next 20 years AIDS will reduce by a fourth the economies of Sub-Saharan Africa. According to a study in the Economist (1999), it was estimated that AIDS in Nambia cost the country 8% of GNP in 1996 and Kenya's GNP will be 14.5% smaller than it would have been without AIDS by 2005.

AIDS is not only decimating the ranks of the skilled, educated and the future generation of leaders, but is now single handedly undermining much of the progress in development that has been made in Africa. In many African countries AIDS is reducing life expectancy by more than 20 years (see graph below). For example, projected life expectancy in Botswana is 29 years less, while it is 21 years less in Zimbabwe in 2000-2004, than it would have been without AIDS (World Bank, 1999).

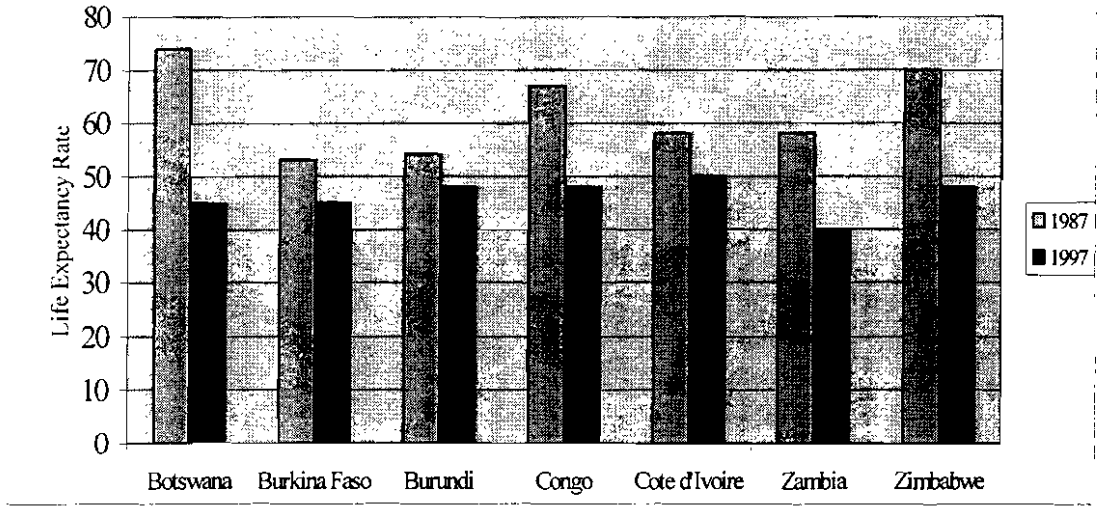
Infant mortality rates are higher due to AIDS, reversing the gains achieved in infant and child survival in many countries. In East and Southern Africa, infant mortality rates are nearly 70% higher over what they might have been without AIDS. In Botswana, AIDS is projected to account for 64% of deaths among children under five (UNICEF, 1999).

In the agriculture sector, the loss of workers, particularly during planting and harvesting periods has been shown to reduce the size of harvest significantly. For example, a study conducted by the Zimbabwean Farmers Union demonstrated that the death of a breadwinner due to AIDS will cut production of maize in small-scale farming and communal areas by 61% and vegetables by 49%. In addition, the loss of agricultural labor is likely to cause farmers to change to less-labor intensive crops. Therefore, AIDS could affect the production of cash crops as well as food crops.

AIDS is also having a significant impact on firms by increasing expenditures and reducing revenues. Firm expenditures are increased by the health care costs, burial fees, replacement of employees; while revenue is decreased by absenteeism due to illness, caring for the ill, attending funerals and time spent on training to replace employees. Several studies in Africa show that company profits decreased by from 7 to 20 percent as a direct result of HIV/AIDS. The annual cost of HIV/AIDS to a firm ranges from US $17-300 per worker. Uganda Railways has already lost 5,600 employees (10% of its workforce) to AIDS and now has AIDS-related labor turnover of 15% annually (Futures Group 1999).

Families suffer the most from AIDS-related illnesses and death (Piot 1999). The average family income will decrease by over 50% when a family member dies of AIDS. Such losses for those who are already on the brink of survival are catastrophic. Income loss leads to painful choices. A study in Cote d' Ivoire, showed that in families where someone had died of AIDS school expenditure went down by half. In addition, the Economist (1999) reports that by the year 2010 there will be approximately 40 million orphans as a result of AIDS. AIDS has placed an entire generation of Africa's children in jeopardy.

Figure 2.7: Impact of AIDS on Projected Life Expectancy Rates for 2000-2004 for Seven Sub-Saharan Countries




Malaria, for long recognized as one of the most serious health threats in the region, is estimated to kill close to a million people in sub-Saharan Africa each year (WHO 1999b). The continent, in contrast to other regions of the world, enters the 21st century with a trend of rising death rates from malaria. According to WHO, the annual mortality rates from malaria were declining all over the world since the start of the 20th century. Though at all periods Africa sustained high malaria mortality rates compared to other regions, the trend was similar to that recorded for the rest of the world up to 1970. Thus, over the period since independence in Africa, the death rates from malaria declined from 184 to 107 deaths per 100,000 population in 1970. By 1990 the rate increased to 148 deaths and further increased to 165 deaths by the end of the 1990s. The countries where malaria is endemic include the most impoverished in the continent, and the economic burden of malaria for individual households can be extremely high. Since the disease has a negative impact of more than 1 percentage point on GDP growth (Gallup and Sachs 1998), addressing malaria is a major battle in the war against poverty, social and economic development, not just health.

WHO (1999b) reports that tuberculosis is the leading cause of death of HIV-positive people. It accounts for over one third of AIDS deaths worldwide. Sub-Saharan Africa, with over 12 million new tuberculosis cases has the highest incidence in the world as well as a high rate of tuberculosis and HIV co-infection.

As the continent enters the 21st century, hunger and malnutrition are still rampant. Nearly 36 million under-five-year-old children are malnourished. Iodine, vitamin A and iron deficiencies are a commonly observed phenomenon in Africa. Chronic protein and micronutrient malnutrition is associated with stunting and wasting, and with several diseases, some of them deathly: blindness, chronic diarrhea, acute respiratory infections, goiter, anemia, etc.

These diseases and unnecessary deaths can be prevented with cost-effective interventions that can improve the wellbeing of women and children and have important positive impacts on productivity and growth (World Bank 1993, Jamison 1993, and USAID 1992).

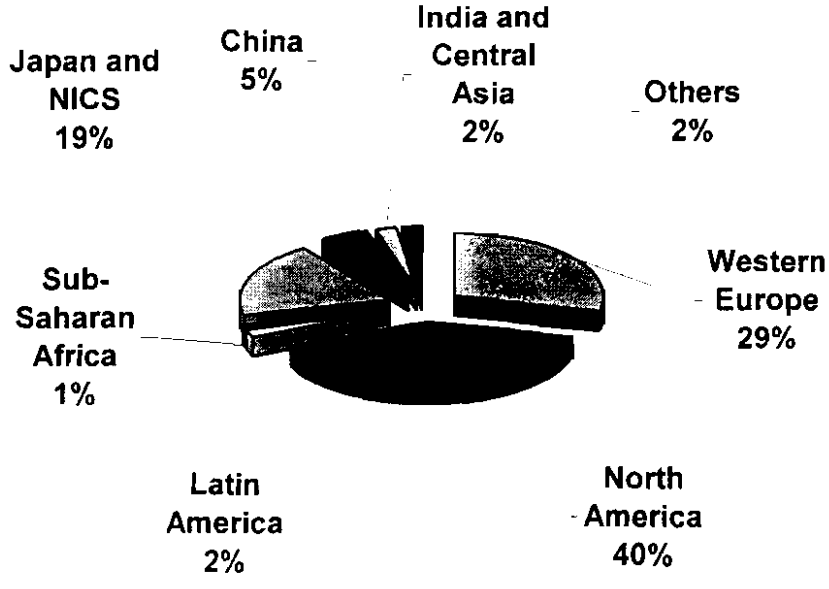
Traditionally, poor health conditions in Africa have been attributed to budget constraints, deteriorating and antiquated health systems, civil conflicts, large-scale human migrations, climatic and environmental changes, and increasing resistance to insecticides and drugs. A more recent reinterpretation also acknowledges the environmental determinism of geography. According to Sachs (1999) if it "were true that the poor were just like the rich but with less money, the global situation would be vastly easier than it is. As it happens, the poor live in different ecological zones, face different health conditions and must overcome agronomic limitations that are very different from those of rich countries. These differences, indeed, are often a fundamental cause of persisting poverty". On the basis of this mapping exercise, an appeal is made to the world community to mobilize not only resources for better health but also for scientific knowledge and technology to help poor countries (for a similar understanding see Landes (1998)).

### Scientific and Technological Capacity

Implicit in the appeal to help poor African countries to face the health challenges imposed by the environment is an acknowledgement that Africa's scientific and technological base is lacking as the continent enters the 21st century. This is a true reflection of the initial conditions of the continent in the education field despite the observation that enrollment at both the primary and secondary level has appreciably increased since independence; and literacy rates have also improved, Africa has yet to produce a critical mass of skilled and highly trained workers capable of initiating and sustaining a dynamic development path.

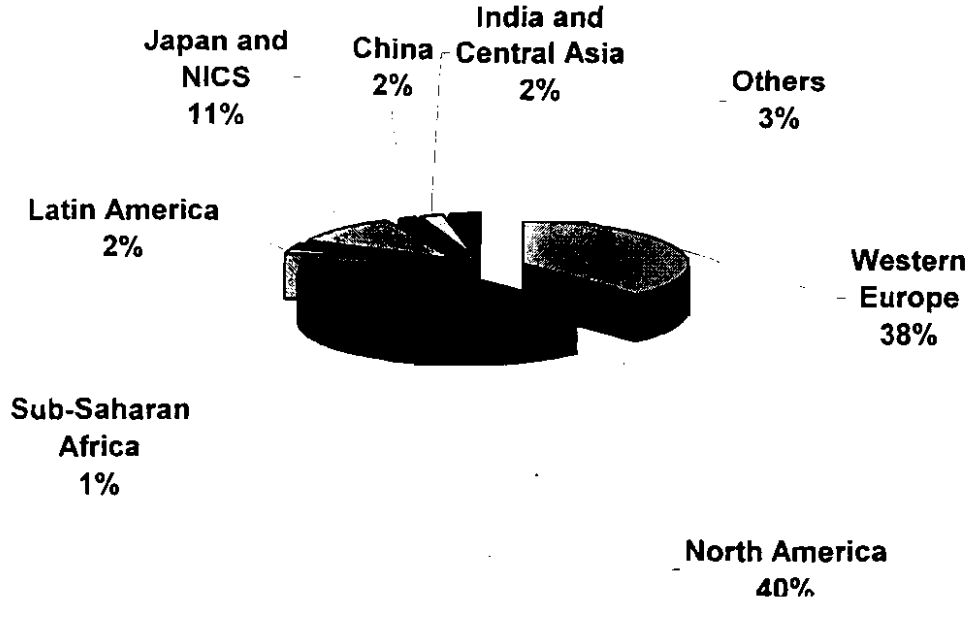
Recent advances in information and communication technology (ICTs) have transformed the culture and nature of work. They have created the possibilities for emergence of a knowledge society that is characterized by improved use of human mind rather than automating their muscle through increased application of distributed and continuously-learned intelligence rather than centralized and monotonous knowledge. Networking has ushered knowledge workers that have become the source of economic power in developed world. While developed countries continued to prepare grounds for organizing the economy around such knowledge and information society by educating citizens (creating knowledge workers) and building the necessary infrastructure, Africa's capacity to generate knowledge (participate in the knowledge society) has continued to decline. This has exacerbated the asymmetry between rich and poor and the imblance in the structure of global governance widening the gap between "connected" world and "isolated" Africa.

Figure 2.8: Expenditure on R&D




The scientific and technological capacity of nations is currently measured by a number of indicators. According to the latest World Science Report produced by UNESCO (1998: 22-30) such indicators include total expenditure on Research and Development (R&D), science and technology personnel, scientific publications and registered patents.

Figure 2.9: Scientific Publications



According to the latest available information gross domestic expenditure on R&D in the world amounted to US$470 billion in 1994. At the maximum Africa's expenditure would amount to US$4.2 billion (a share of only 0.9% of total world expenditure) inclusive of the share of all Arab states reported by UNESCO. The share of Sub-Saharan Africa, including South Africa, is only 0.5% of the world total (US$2.3 billion). Most of the R&D expenditure is contributed by North America (37.9%), Western Europe (28%) and Japan and the newly industrialized countries (NICs) with a share of 18.6%.

Table 2.12: Scientific and Technological Capacities in World Regions: 1995

| Region | Expenditure on R&D* | Scientific Publications | European Patents | US Patents |
|---|---|---|---|---|
| Western Europe | 28.0 | 35.8 | 47.4 | 19.9 |
| North America | 37.9 | 38.4 | 33.4 | 51.1 |
| Latin America | 1.9 | 1.6 | 0.2 | 0.2 |
| Arab States | 0.4 | 0.7 | 0.0 | 0.0 |
| Sub-Saharan Africa | 0.5 | 0.8 | 0.2 | 0.1 |
| Japan and NICS | 18.6 | 10.1 | 16.6 | 27.3 |
| China | 4.9 | 1.6 | 0.1 | 0.2 |
| India and Central Asia | 2.2 | 2.1 | 0.0 | 0.0 |
| Others | 2.2 | 2.9 | 1.3 | 0.6 |
| World | 100.0 | 100.0 | 100.0 | 100.0 |

*Source:* UNESCO (1998: 23-26). * Figures are for 1994.

Scientific output and activity is conventionally measured by the number of articles published in scientific journals. Data from the Science Citation Index, which provides systematic coverage of the articles published in 2500 most cited and influential journals, is used for this purpose. According to the latest information the maximum share of Africa in this output was only 1.5% of total scientific publications in 1995, inclusive of the share of all Arab states. Sub-Saharan Africa, contributed 0.8% of the total scientific output in the world. As with gross domestic expenditure on R&D, the world scientific output is concentrated in North America (38.4%), Western Europe (35.8%), and, Japan and NICs (10.1%).

The number of patents published by patent offices are used as a measure of the technological capability at the frontier of knowledge. Despite recognizing the limitation of using patents published by the two biggest and most important patent systems in the world, UNESCO reports such indicators by world region. The latest available information on this indicator shows that Africa's share in 1995 was only 0.2% in European patents and only 0.1% in US patents. As would be expected Western Europe dominates the European patent system with a share of 47.4%, followed by the USA (a share of 33.4%), Japan and NICs (16.6%). Similarly, the USA dominates the US patent system with a share of 51.5%, followed by Japan and NICs (with a share of 27.3%) and Western Europe (19.9%).

The UNESCO report recognizes that scientific publications are not the only products of scientific work. Science also generates other products such as

higher education and technical expertise. The crisis in human capacity building in Africa is further compounded by the fact that progression to the tertiary level, that is, the number of secondary students advancing to institutions of higher learning is less than 10 per cent of those completing high school.

### Tertiary Education

The number of students at the tertiary level per 100,000 people is an indicator that can be used to compare the relative strength of university education in different countries. In 1996, for instance, there were only a few countries with more than five thousand university students per 100,000 people: Canada (with 5,997 students), United States (5,339), Australia (5,552), and South Korea (5,609). In Africa, only four countries had over 1,000 university students per 100,000 people; these were: Egypt (1,900), Algeria (1,236), South Africa (1,664) and Tunisia (1,330) (See Table AII.6).

Another way to look at the same phenomenon is to analyze the percentage of people in a country who are attending the university. In 1996, only 0.06% of all Ethiopians and only 0.08% of all people in Burkina Faso were enrolled in tertiary education; whereas 6% of South Koreans and 3% of Chileans attended universities.

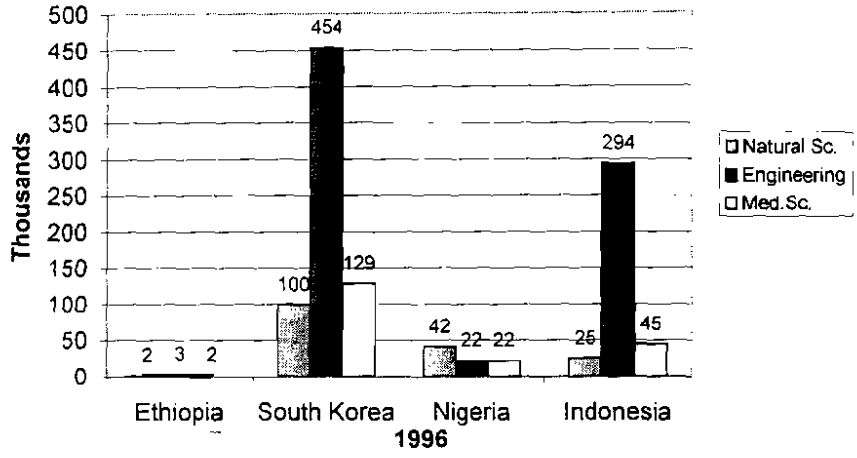
Looking at the same statistic, but for 1960, is most revealing. Forty years ago, only 0.005% of all people in Ethiopia and Nigeria and only 0.001% of the people in Burkina Faso were enrolled in the university. Whereas in the same year 0.4% of Koreans, 0.05% of Indonesians and 0.3% of Chileans already attended tertiary school.

To realize how Africa fell so far behind in its human capital investments in the last 40 years, one can also look at another useful statistic that compares the absolute number of students by field of study at the third level. Of particular interest may be the fields of engineering, natural and medical sciences.

Around 1960, Ethiopia for instance, had 106 university students in the field of natural sciences, 257 in engineering, and 46 students in the field of medical sciences; whereas the Republic of Korea (a country with comparable to Ethiopia in terms of population and resources) had between 6 and 8 thousand (8,802; 7,838; and 6,712) students in the same respective fields in that same year. In the same time period, Nigeria had between 30 and 500 (488; 28, and 78) natural science students, engineering students, and medical science students respectively; whereas Indonesia (again a country comparable to Nigeria in terms of population and resources) had between one and four thousand (1,351; 3245; and 4,560) students in the same fields.

Around 1996, the number of students in natural science, engineering, and health-related programs at the tertiary level is as follows: in Ethiopia we find between 2 and 3 thousand (1,730; 3,393; and 2,080); whereas in South Korea there are between 100 and 500 thousand (100,120; 454,033; and 128,619). In Indonesia, there are between 25 and 300 thousand (25,124; 293,946; and 44,678) students in the fields of natural science, engineering, and health-related programs. In contrast, in Nigeria there are between 22 and 41 thousand (41,504; 22,080; and 22,121) students in the same fields.

Figure 2.10: Number of University Students in 1996




In conclusion, when analyzed comparatively, different statistics about tertiary education in various African countries seem to point to a basic problem: lack of sufficient well-trained professionals to spur economic and social development.

The constraint of the small size of highly trained workers has been further exacerbated by the lack of employment opportunities at home, and more importantly, by the brain drain or human capital flight, that is, the departure of graduates from institutions of higher learning to other countries.

One of the causes of brain drain may be the shortfall of jobs that exists in Africa even for the more highly educated. Recent data shows that the number of unemployed university graduates is large and growing. For example there were 3 times more unemployed university graduates than the number of new graduates in Algeria in 1995 (ILO 1999, UNESCO 1998). As a result 32,557 new graduates of the class of 1995 had to confront a labor market with a pool of 96,830 unemployed university graduates of earlier years. In Madagascar there were about 1.5 times and in Ethiopia 4 times more unemployed university graduates than new graduates. The prospects of employment for new graduates are grim given the odds against the larger and increasing pool of graduates who have not been able to find gainful employment.

A problem related to the effective use of graduates of higher institutions is the conspicuous brain drain. Estimates, (ACP-EU 1996) indicate that between 1960 and 1975, about 27,000 highly trained Africans left the region for Western countries. Between 1975 and 1984 this number increased to about 40,000. Between 1985 and 1990, Africa lost more than 60,000 doctors, university lecturers, engineers and other professionals and the outflow since then has grown to about 20,000 per annum.

The exodus of doctors is even more striking. According to UNDP (1998) there were more than 21,000 Nigerian doctors practicing in the United States alone; 60% of Ghanaian doctors have left the country during the last two decades;

while the Sudan has lost 17% of its doctors, 20% of its university lecturers, 30% of its engineers and 45% of its surveyors in 1978 alone.

The challenges are daunting and must be addressed if the continent is to claim its rightful place in the global economy and emancipate its people from poverty. Africa is a region with great natural resources, large internal market. Above all it has the advantage of a late comer on the technological scene. With the right type of human capital investments in basic health and education, institutional renovation, and above all political commitment, there is no reason for Africa not to transit from poverty and locate itself on a sustained growth and development trajectory.

# CHAPTER THREE

# Africa's Development Strategies and Policy Options for the 21st Century

The primary objective of this chapter is to outline the key components of a strategy for the economic and social transformation of Africa in the 21st Century through rapid and sustained growth and development. It is anchored on the findings of Chapter Two which has analyzed the implications of initial conditions prevailing in the continent on the choices of optimal policies and strategies as well as the experiences of other developing countries that have succeeded in transforming their economies thereby attaining high and sustained rates of economic growth and poverty reduction. In this regard, the main question that we ask is: given initial economic and social conditions discussed in the previous chapter, can the continent effect a take-off to sustained growth and development in the 21st century? If the answer is in the affirmative, as it ought to be, what are the appropriate strategies and policies that need to be undertaken in order to realize this take-off? Another important question that the Chapter attempts to answer is: what lessons can Africa draw from the experiences of those developing countries that have managed to take-off? The Chapter will combine these findings with the results of the current empirical literature on growth performance in Africa to outline a strategy and policies for Africa's take-off in the 21st Century.

The initial conditions of African countries at the end of the century are in many ways similar to those of the currently Industrialized Countries (NICS) of East and South East Asia (ESEA) before their take-off since the 1960s. For example, the low per capita income and the high incidence of poverty and inequality in Africa were the features that were shared by these countries. However, there are also important differences. One such difference is that African economies are more open and have deregulated their trade and market regimes more than their ESEA counter parts were in the 1960s. However, in terms of the levels of physical and social infrastructure as well as other social indicators such as the level of education and life expectancy, African countries are below the levels that were prevailing in ESEA and even in Latin America before their take-off. Also, the levels of savings and investment are comparatively much lower indicating a slower accumulation process.

Moreover, it is important to note that African countries face a socio-political and economic environment at the global level that is in many ways quite different from the one that existed during the late 1960s and early 1970s. The global economy has become more interdependent as a result of globalization and the rules of international trade are now different and are being determined in the context of the WTO regime. In this regard, African countries will find it increasingly difficult to protect their domestic markets for infant industry learning. At the same time, there will be increased pressures to further liberalize their domestic markets for product and services sectors as well as in

investment thereby making it difficult to catch up with the developed world as was the case for ESEA countries. Moreover, protection of intellectual property rights will preempt duplicative imitation of foreign technologies and thus make it costly to assimilate and adapt these technologies.

Other challenges such as the HIV/AIDS epidemic and the spread of conflict and insecurity have emerged and have compounded the already difficult economic situation in the continent. In addition, the relative success of the newly developed countries may pose new obstacles to growth than was the case with their experience in the 1960s and the 1970s. All these factors have important implications for the growth and development strategy that Africa needs in order to attain economic and social transformation in the 21st Century.

Despite the above scenario, it can be argued that the prevailing conditions within the African continent do not preclude a take-off to rapid and sustained growth. The merely broaden and deepen the challenges but not insurmountable. There are emerging signs of a new awareness and determination on the part of many African leaders to pursue new approaches and some countries are enjoying success in contrast to their own recent past. It is important to build on these successes in order to lay a firm foundation for long-term development. Moreover, the continent has a lot of scope for more effective use of its resources for development.

The essential message is that dynamic growth and development can be achieved through becoming an active participant in the global economy. This would require a major effort by African governments and their development partners to undertake the requisite action to reverse the long-term processes of marginalization and exclusion that have underpinned the continent's poor economic performance in the past.

## 3.1 Towards A Strategy for Sustained Growth and Development

An important result emerging from the previous chapters is that the development challenges and constraints facing the majority of Africa countries at the down of the new millennium are complex and multidimensional—involving economic, socio-cultural, political and environmental factors--and cannot be adequately addressed through separate and isolated interventions. In terms of human development, socio-economic indicators show a worsened situation, reflecting increased numbers of people in poverty and higher inequality than in other regions. This has been compounded by the highest population growth rates which, combined with low incomes, have resulted in low or negative per capita income growth rates and high dependency ratios (ADB et al 2000).

Despite substantial progress on economic reforms--including macroeconomic stabilization, privatization, trade and exchange liberalization--the continent is still highly dependent on primary production and a high degree of export concentration on one or few primary commodities in addition to being highly indebted. Moreover, a weak institutional framework and high transactions costs associated primarily with inadequate and inefficient public services—utilities, transport, contract enforcement, and maintenance of law and order—have led to reduced competitiveness thereby making it difficult for Africa to compete in the global economy. Other natural and man-made factors such as drought, landlockedness, disease, civil war, poor governance, and corruption have exacerbated the situation thus contributing to the already complex development problem. More importantly, these development problems and constraints are not isolated but rather inter-twined and are manifested in an interactive and mutually propagating manner.

Taking the above factors into account, an important consideration in formulating a development strategy for Africa is the recognition that these challenges and constraints require a comprehensive approach that addresses all the key issues in a co-ordinated manner. There is now a growing consensus in the development community that this is the most appropriate approach to addressing the development challenges facing many developing countries especially in Africa. In many respects, the recognition of the need for a comprehensive approach is not new. After many years of development experience, the World Bank came to this conclusion in its 1989 Report when it pointed out that African governments needed to go beyond issues of public finance, monetary policy, prices and markets to address fundamental questions relating to human capacities, institutions, governance, the environment, population growth, and distribution and technology (World Bank, 1989). Even more striking, African scholars and most policy makers had long before recognized this important aspect of development policy and called for action (Mkandawire and Soludo 1999). The question then becomes why the comprehensive development approach was not adopted in Africa and what it would take to develop and implement such a strategy. Answers to these questions might perhaps provide insights into the key elements of a comprehensive development strategy for Africa.

Perhaps one major explanation is that development practice continued to be dominated by two key players—donors and African governments--who pursued a narrow perspective to development focusing almost exclusively on macroeconomic fundamentals (Mkandawire and Soludo 1999; Stiglitz 1998). Even in cases where issues like poverty and environment were considered, they were not addressed in the context of a broader development approach. In the case of donors, development was seen as synonymous with getting the macroeconomic fundamentals right—price, trade, and exchange liberalization of all key economic sectors, privatization and reduction in the size of governments—which was mainly spearheaded by the International Monetary Fund (IMF) and the World Bank (WB) in the context of Stabilization and Structural Adjustment Programmes (SAPs). In addition, the availability of development finance became increasingly dependent on a country entering into a SAP arrangement with these institutions before it could qualify for external assistance. As a result, African governments were forced to accept the SAPs even in cases where they truly felt that the conditionalities were not appropriate. This led to a situation whereby the African governments did not "own" the development program and therefore did not exert the requisite effort towards its implementation. The failure of SAPs to develop African economies underscores the fallacy of conditionalities when key stakeholders are excluded from the process of defining the development agenda.

Moreover, other key domestic stakeholders were excluded from the process--the communities, civil society organizations and the private sector and therefore continued to see the development programmes as something belonging to the donors and/or the government and did not therefore "own" them. As noted by Stiglitz (1998), development involves change in mindset and transformation of society comprising a movement from traditional relations, traditional ways of thinking, traditional ways of dealing with health and education, traditional methods of production, to more modern ways. He adds that such changes cannot be ordered from outside however well intentioned and that they have to come from within. In this context, he argues that involving the participation of the key stakeholders is the most effective way of ensuring that the change occurs not only in the mindset of a small elite but reaches deep down in society. In this regard, participation entails open dialogue and broadly active civic engagement where individuals have a voice in the decisions that affect them. Also, participation comprises transparency, openness, and voice in both public and private settings. Taking these observations into account, there will be a need to establish institutional arrangements that are consistent with participation.

In their quest to secure financial assistance, many African governments and policy makers became obsessed with the narrow view of development as defined in the SAPs—stabilization ((Mkandawire and Soludo 1999). In this process they lost the big picture of development that requires and is embedded in a broader and comprehensive approach. In order to reverse this trend, it would be important for Africans to take control of the development agenda and reclaim the driver's Seat in defining and implementing their development strategy for the 21st century. An important requirement for this would be a strong political and organizational leadership with a vision for the future.

Based on the above observations, what are the broad features of the required development strategy for Africa's development in the 21st Century?--i.e. the "Development Fundamentals". The following are the key principles that the strategy must be based upon.

- First and foremost, development policy framework cannot be solely guided by market principles. It is now widely acknowledged that in the context of the historical, socio-cultural and economic environment reminiscent of many African countries, reliance on market forces alone is not sufficient to achieve the change required for Africa's development in the 21st century. Development must be based on a Comprehensive Development Framework as is now being advocated by the World Bank.
- Secondly, it will be important to ensure that all the key stakeholders are involved in the formulation of the strategy and the identification of actions that need to be undertaken. Participation by these stakeholders will permit ownership of the development strategy and thereby help mobilize all the stakeholders towards the realization of the important goal. Moreover, it would help policy makers in identifying the incentives that are necessary in influencing each individual's behavior towards the important goal of development.
- Thirdly, the development strategy must be guided by a strong leadership with a vision, national commitment and political will to mobilize society for the requisite social and economic transformation required for development. The leadership should outline this vision in terms of goals understandable by the people and then devise mechanisms to influence and mobilize the people towards the attainment of the goals.
- Another important consideration is that the development strategy must set priorities and outline an appropriate sequencing of actions. In addition to setting a vision, the development strategy should indicate what should be done first—appropriate sequencing. This will help in ensuring that resources are utilized in priority areas and enable appropriate sequencing.

## 3.2 Key Components of an African Development Strategy for the 21st Century

The development strategy proposed here represents the key elements that must be addressed in order for Africa to attain the social and economic transformation required for development in the 21st Century. In addition to the key features outlined above, the strategy recognizes the impediments to development defined as the social and economic transformation of society, and proposes measures to address them. Moreover, the strategy should learn from the experiences of other countries that were underdeveloped as Africa is today and were able to achieve dynamic and sustained rates of growth and social transformation such as East and South East Asia (ESEA) and some Latin American countries. Evidently, every African country will need to develop a strategy that best suits its specific socio-political and economic circumstances and anchored on the initial conditions that obtain in each of their milieu.

The strategies for Africa's growth and development are derived from a framework that identifies the key determinants of growth. According to the current literature, economic growth is determined by factors such as the initial level of per capita income relative to the long-run or steady state level which can be represented in an equation as follows:

$$Dy = f[y, y^*]$$

Where Dy is the rate of growth of per capita output, y is current per capita out put, and $y^*$ is the long-run level of par capita output (See for example Barro, 1997). For a given $y^*$, the growth rate of per capita output diminishes while it rises for a given y. Moreover, the target value of $y^*$ depends on a number of choice and environment variables such as private sector behavior in terms of savings rates, labor supply, and fertility rates. Others include government choice variables such as tax rates, degree of market distortions and governance.

From this framework, the determinants of growth and development are therefore the initial level of per capita output, and the factors that influence $y^*$. Identifying these factors are the key to a growth and development strategy. The initial conditions for African development have been analyzed in Chapter II which shows that the initial levels of per capita income are very low. The Chapter also indicated that initial conditions that influence $y^*$ are not all favorable. While considerable progress has been made in improving the policy environment, there are important measures that remain outstanding especially in strengthening the institutional infrastructure and improving governance. Moreover, the level of human capital development is very low and this is compounded by a policy environment that does not retain highly trained labor force. Taking these considerations into account, the following are the major components of the development strategy.

## Broad Based and Equitable Growth

A key requirement for Africa's development strategy for the next millennium will be to achieve dynamic, equitable, and sustained rates of growth that will be necessary to reduce poverty and raise the living standards of the population. As experience elsewhere has shown, no meaningful development can occur without high and sustained rates of growth. According to the ECA Economic Report on Africa for 1999, it is estimated that in order to make a significant reduction in poverty by 2015, Africa needs to sustain growth rates of at least 7 percent annually, which is far higher than the rates of growth attained by many African countries during the 1990s which averaged about 2 percent per annum. Moreover, it is widely acknowledged that the level of poverty and inequality are inimical to growth and this is particularly critical in the case of Africa given the initial conditions characterized by high numbers of people living below the poverty line and under extreme state of inequality combined with high population growth. Current estimates show that 52 percent of the African population lives below the poverty line while the degree of inequality where the upper 20 percent of the population receive over 51 percent of the income (see Chapter Two). The key question then becomes, given the current conditions prevailing in Africa, what strategies and policies are required to achieve a more rapid, dynamic and sustainable growth?

An important element of the growth strategy would be fostering private sector development as the principal engine of growth. As the experience of NICs shows, private investment can contribute substantially to growth and development. But in Africa private investment has been constrained by high transaction costs and the perceived uncertainties of doing business on the continent. In order to reverse this situation, it would be essential to promote an enabling environment for private sector development. Such an environment should engender confidence in the sustainability of appropriate macroeconomic policies; create and maintain a transparent, even-handed and efficient legal environment for enforcing contracts, competition, bankruptcy and commercial laws and a justice system that protects property rights; ensures that the necessary infrastructure and qualified labor are available; create regulatory framework to promote competition and prevent monopolistic practices.

In promoting broad based and equitable growth, an important point to note is that this takes time and as the experience of the ESEA countries has shown, this can go to 30 years or more. It takes time to put the whole strategy in place and to mobilize resources while engaging all the key players in the process of social and economic transformation. In this regard, the growth strategy should have actions that would bring growth and development benefits in the short to medium term. More important, and given the resource endowments of African economies, these countries will inevitably continue to depend on the expansion of resource based production in the near future. Also, research shows that there is a significant amount of unexploited potential in both primary production as well as in the manufacturing exports sector (Wood and Mayer, 1998). This means that export production and growth can be increased relatively quickly if the African countries exert their efforts in removing the constraints that impede the exploitation of this potential—particularly infrastructure and an enabling environment for economic agents to operate efficiently and competitively. In this case, the strategy should be aimed at removing these constraints in order to maximize growth in the short to

medium-term while at the same time laying the foundation for long-term sustainable growth—e.g. by investing in education and skill development. Moreover, increasing output in the primary sector and in the untapped export of manufactures would generate more output thereby increasing the surplus for more investment.

### Savings and Investment in Physical Capital

The achievement of high and sustained growth rates in Africa will require a substantial increase in investment and growth of total factor productivity (TFP). Increasing investment is important for productivity growth as it entails the use of more productive technologies and higher skill levels, which are usually embodied in new plant and equipment. Moreover, there will be need to increase both private and public investment particularly in order to exploit the complementarities and synergies that are important for growth. However, the current situation in African is characterized by low savings, which are for the most part, responsible for the low investment rates. As indicated in Chapter II, domestic savings rates in Africa are not only low, but have actually fallen from about 15 percent of GDP during the 1970s, to about 9 percent during in the 1990s. Compared to the NICs of ESEA, the savings and investment rates in Africa are much lower than for these countries before the start of their economic take-off. In this context, strategies to raise the level of domestic savings will be a critical component of Africa's development strategy. Moreover, the strategy must provide the requisite mechanisms to ensure that the mobilized savings are utilized in areas where they yield the most growth benefits to the economies such as investing in plant and equipment instead of in real estate and idle land.

Given the initial low level of savings, increased investment, particularly in the short to medium term, will continue to be constrained by the availability of financing. In this regard, the development strategy for Africa will initially require measures to attract foreign savings—both public and private--in order to attain the requisite investment rates. At the same time, it is notable that Africa has the largest share of its wealth held overseas by its residents than any other continent and repatriating these resources can substantially add to the financing requirements of Africa's growth and development and thus reduce the reliance on foreign financing. The development strategy must therefore address this issue by undertaking measures to stem and reverse capital flight. This will entail undertaking the requisite institutional and economic as well as political reforms that are necessary to reduce the risk and at the same time increase the returns on savings and investment in the continent. The key measures include a stable macroeconomic environment, efficient, stable and well-regulated financial sector, effective rule of law, protection of property rights, contract enforcement and good governance, among others.

### Investment in Human Capital and Technological Development

The economic and social transformation of Africa in the next millennium will not occur without increased investment in health and education, which are primary sources of human and economic development. In the recent growth literature on Africa, low levels of investment in education and health have been identified as major impediments to growth and development. In this

regard, one of the first key steps towards, modernization is investment in human capital as reflected in increased higher shares of government budgets targeted to these sectors. Such investment should be complemented with creating the requisite environment for the participation of the private sector. Investing in education will enable Africa to attract private investment, to adopt and develop modern technologies and more important, to learn, accept and engender the change that must come with development. Moreover, investing in health will ensure a productive labor force. While African countries have made some progress in enhancing education and health, they are still lagging behind other regions particularly in ESEA. Diseases like malaria and tuberculosis continue to pose major challenges. For instance, it is estimated that in 1996 the proportion of Africans attending university were less than 1 percent of the total population compared to 6 percent and 3 percent for Korea and Chile respectively. The strategy to develop human capital must also confront the challenge posed by the HIV/AIDS pandemic that has emerged to compound the already precarious health situation thereby affecting both economic and social welfare. As indicated in Chapter II, this epidemic threatens to wipe out the gains made in life expectancy over the last half century.

An important consideration in human capital development will be to ensure investment is balanced at all levels—primary, secondary and tertiary in order to lay a strong foundation for the subsequent economic and social transformation and to prepare for competition in knowledge intensive sectors. The emphasis should be on increasing the quantity and quality of these services, as well as the efficiency of resource use and equity in their provision. Equity is particularly important because inequitable distribution of these services leaves out a lot of undeveloped human potential. Assuming that ability is normally distributed, equitable provision of health and education will enable Africa to tap on this human potential for development. Moreover, increasing the share of the budget allocated to the social sector will not be sufficient. It would be important to ensure that within the social sectors, expenditures are targeted to actual projects and programmes and not to other categories such as wages and salaries. The strategy for human capital development must also address the problem of retention as indicated by the high level of brain drain. In 1960 and 1975, it is estimated that Africa lost 27,000 highly trained personnel to western countries and this figure increased to about 60,000 between 1985 and 1990.

While investment in physical and human capital are important, they are by no means sufficient for the realization of the economic and social transformation envisaged in Africa's development. As argued by Landes (1990), sustained growth is not possible without technological progress and gains in productivity and this requires the creation and/or assimilation of new knowledge and organization, which in turn depends on transformation within society. In this regard, it will be important for African governments to establish the incentive structures for firms to engage in adoption and mastering of new technologies and other modern practices as well as in entrepreneurship, innovation and learning. As demonstrated by the experience of ESEA NICs, this will entail a symbiotic relationship between government, the private sector and institutions of higher learning whereby the government provides the requisite environment—e.g. tax, credit and labor policies, as well as an efficient and transparent legal and regulatory framework and well defined government business relationships--that is supportive of private sector efforts to learn

about, risk to operate, and master technologies and other new practices. In this endeavor, it will be critical to ensure that the highly trained technical personnel are not just available to government bureaucracies where their skills do not contribute much to development.

### Trade and Industrialization Strategy

One of the most important development lessons from past is that the required economic and social transformation cannot occur without industrialization and as shown by the experience of the newly industrializing countries, this requires an active industrialization and trade strategy. Such a strategy is part and parcel of the comprehensive development approach--the new development fundamentals. The continent will not realize the social and economic transformation required for development unless it breaks out of the vicious circle of dependence on the production and export of primary commodities and on traditional comparative advantage of raw materials and unskilled labor which are increasingly less important in today's competitive and knowledge based global economy. The challenge will be to identify, support and expand activities where value added is greater, productivity growth is faster, and demand elasticities in world markets are higher. In order to meet this challenge, government intervention in industrial development will be inevitable and should be key element of the strategy.

The justification for an active industrialization strategy is based on the experience of the countries that have succeeded in industrializing their economies and also on theoretical grounds. No country in the world has been able to industrialize without some protection including the United States of America, Japan, and more recently the Asian tigers. Moreover, there are complex imperfections and market failures associated with externalities, imperfect and asymmetric information, co-ordination problems, economies of scale, deficient capital markets and the absence of supporting institutions and skills, (Stiglitz (1998b and 1998c), UNCTAD (1996)). A strong case for such a strategy has also been made by Mkandawire and Soludo (1999) who argue that there would be no need for an active industrial policy if markets worked perfectly; if there were competitive markets with no economies of scale, perfect information, and no risk or uncertainty; and if firms operated with full knowledge of all possible technologies, with equal access to them, and with the ability to use them efficiently without risk, cost, or additional effort.

The situation in Africa is compounded by the fact that the continent is a late comer in the process of industrialization and more important, the changed global environment in the context of the WTO. However, there is still scope for carefully selected and purposeful government interventions to protect domestic industry from massive flows of imports that have come with trade and exchange liberalization and to facilitate industry's access to and capacity to adopt and assimilate technology. Critics of an active government role in industrialization point out to the costly mistakes that African countries experienced during the import substitution industrialization era of the 1960s and 1970s—infant industries that never matured, anti export bias, bias against domestic raw materials and negligible employment benefits. Again, as the experience of the Asian tigers has shown, it possible to identify strategic sectors that require some protection and then formulate a policy regime that protects them while at the same time providing incentives for firms to increase exports.

The foregoing discussion points out to another important element of the industrial strategy--an appropriate trade policy regime that is supportive of Africa's long term development goals. In this context, there is need to carefully review the trade policy adopted by many African countries particularly under Structural Adjustment Programs (SAPs) since the early 1980s. The trade regime under SAPs focused on measures to remove domestic policy distortions, open the economies to international competition through trade and exchange liberalization, and thereby create an incentive neutral environment that did not discriminate between exports and imports or production for export and for the domestic market. There is now a growing consensus particularly among African development practitioners that this obsession with "getting prices right" went too far and in the process has undermined Africa's capacity to industrialize (Mkandawire and Soludo, 1999).

Based on empirical research and on the experience of the ESEA countries, there is no conclusive evidence to support the argument that trade liberalization is a necessary condition for growth. Neither is there any agreement that protection is good for growth (Rodrik 1999). Never the less, the diversification of the production and export sectors required for Africa's development in the next century is not possible without some protection of infant industry as argued above. This calls for a gradual and more selective approach to trade liberalization. Even in the context of the WTO regime, there is still some scope for a pro-industry trade policy. Africa's development strategy should therefore focus on how governments can strategically intervene to promote exports while at the same maintaining some selective import restrictions. In our view, any push to further trade liberalization should be carefully scrutinized with a view to ensuring that strategic areas critical for Africa's industrialization are protected. In the area of trade policy the focus should therefore be to identify strategic sectors that require protection and then establish the appropriate protective environment. It should however be warned that protection in this case should be strictly tied to clearly defined and identifiable benchmarks to become competitive both in the domestic market as well as in the external sector that are agreed upon between the private sector and the government.

Africa's industrialization strategy will not be complete without a policy focus on Small and Medium-scale Enterprises (SMEs). Although not always competitive, especially in their initial phase, SMEs play an important role in African economies in terms of their contribution to GDP, employment generation, regional development, and in meeting consumer needs. It is therefore important to intensify efforts in promoting the growth and competitiveness of SMEs. In this context, the trade liberalization and industrial policy advocated by the proponents of an "investment neutral" environment have for the most part, been an impediment to the growth of SMEs because of their inability to compete in a fully liberalized world. In this regard, there is need to foster an enabling environment through the provision of business development services in order to enhance their competitiveness. Moreover, the promotion of collective efficiency through clusters and networking in production and marketing is of critical importance (UNIDO, 1999).

## Agriculture and Rural Development

A strategy for Agricultural and rural development is a critical component of the overall development strategy for a number of reasons. Firstly, agriculture contributes substantially to GDP, employment, and incomes of many African countries. Secondly, the majority of the African live in the rural areas and agriculture is their main source of economic security either directly or indirectly. Thirdly, developing agriculture is important for Africa's industrialization for it provides both markets for manufactured goods and also supply of commodities for processing. Fourthly, it is the sole source of foreign exchange for many of these economies. For these reasons, and given that development involves the transformation of society, no development strategy can be considered comprehensive unless it includes agricultural and rural development as the major goal.

In virtually all the African countries, the majority of the rural populations are poor. The rural economy is characterized by poor agro-ecological potential with few investment opportunities and a high degree of risk. In Africa, farmers face risks associated with a high probability of crop failure, commodity price fluctuations and thus high crop income volatility. In order to mitigate against these constraints, farmers respond by taking measures aimed at reducing these risks such as self-insurance through diversification, both within agricultural activities and non-agricultural activities, as well as by accumulating liquid assets for consumption smoothing (Collier and Gunning 1999). These responses are not growth enhancing and therefore contribute to the low incomes and poverty of rural households. The situation is worsened by the poor provision of government services and infrastructure. The strategy for rural development must therefore be seen in the context of a broader strategy for poverty reduction and its eventual elimination.

Over the last fifteen years, the strategy for agricultural development in Africa has been largely focused on removing the distortions in the incentive structures because these were seen as the main causes of poor performance. These included liberalization of both input and output prices to align them with their international counterparts, establishment of market-determined exchange rates, deregulation of the marketing institutions, and the involvement of the private sector mainly in marketing of inputs and outputs. Despite these efforts, the reforms did not elicit the expected supply response. As a result the agricultural sector in most African countries is not growing at the rates required for the rapid growth of the economies. Moreover, the demand for agricultural goods will rise to meet the needs arising from higher population growth rates and due to the initial low per capita consumption. At the same time, Africa cannot afford to import more than a modest share of its food requirements given the weak export base and thus insufficient foreign exchange earnings.

The strategy for agricultural development should therefore go beyond "getting the prices right" and focus more on increasing the productivity of the sector by removing the institutional and structural constraints that are largely responsible to the poor performance. This calls for increased public investment in agricultural research and infrastructure, as well as in increasing farmer's skills and access to credit. More important, public investment in agricultural research should focus on developing technologies that are appropriate to the natural conditions of different regions in Africa. There is

ample evidence that the agro-ecological conditions in Africa are not uniform through out the continent and therefore technologies that do not take this into account are unlikely to succeed as had happened in Asia during the green revolution where the conditions were largely uniform. Moreover, farmers have shown that they have the capacity to adopt new technologies and appropriate inputs provided that these suit their needs and conditions (Voortman, Sonneveld, and Keyser, 1999). For this reason, the strategy should pay attention to developing technologies that are region specific because this will not increase its likelihood of being adopted by the local farmers but will also have a higher impact on yields.

### Environmental Protection

Environmental protection is part and parcel of sustainable growth and development and in this connection, it is essential that effective environmental policies are implemented both at the national and international levels. Although the 1992 United Nations Conference on Environment and Development (UNCED) helped to raise awareness and to promote new initiatives, there are growing concerns that the overall trends in sustainable development are worse than they were in 1992. Over the years, environmental deterioration has increased due to a number of factors such as increased poverty, high population growth rates and the resultant pressure on scarce resources, short-term growth programmes that are unmindful of the environmental consequences. It will be essential for African governments to address the underlying causes of environmental degradation including market failures, poor information, and pernicious incentives. Also, there will be a need to promote local solutions to environmental problems based on analysis of costs and benefits and in consultation with stakeholders to promote a firm basis for cost effective use of resources as well as promote local ownership of the solutions. Given the declining levels of ODA, the challenges are daunting.

### Integration into the Global Economy

At the global level, the economic and social transformation of African economies will depend on the extend to which the continent is integrated into the world economy through the exchange of goods, services and financial assets as well its active participation in the institutions and negotiations on future international economic relations. The strategy for this will need to address the constraints associated with the small markets, lack of competitiveness and the need for diversification of African economies. In this regard, efficient regional integration will be one way through which these countries can diversify their economies and promote an industrial policy that will enable them to reclaim their place in the global economy. Efficient regional integration would allow many countries to surmount the obstacles posed by their relatively small sizes, permit greater economies of scale, and strengthen their ability to trade on a global scale. This would also provide a framework within which African countries could co-operate in developing common infrastructure such as transport and communications, as well as banking and insurance services. More importantly, African governments will need to pursue an outward oriented regional integration strategy that will enable them to achieve more integration in the world economy.

At the same time, most of these global trade and development issues will continue to be addressed in the context of the WTO and it is generally acknowledged that Africa countries have not benefited significantly from the WTO regime. In order to ensure that the multilateral trading system is beneficial to Africa, it would to addresse the constraints that these countries continue to face. This includes problems of market access; the obstacles to trade, investment and access to technology that have been intensified by the introduction of new issues such as labor and environmental standards, as well as TRIPS and TRIMS.

A key characteristic of the current trading regime is that while tariffs have been significantly reduced, they have been replaced with new forms of protection that are harder to asses and quantify and thus difficult to contest. These include "fair trade laws" such as anti dumping and countervailing laws as well as the introduction of labor and environmental standards. This phenomenon of fungibility of protection across different trade regimes has been compounded by technological advances that have resulted in the development of products in areas where there are no agreed standards—e.g. in genetic foods. Moreover, further liberalization as advocated by developed countries will entail increased costs to African countries in certain respects. Firstly, liberalization in the absence of complete markets does not guarantee that resources released in the affected sectors will find employment elsewhere. In Africa, this translates to unemployment and poverty because the requisite social safety nets are lacking. Also, implementing liberalization often requires institutional setups that increase the costs of implementation thereby using Africa's limited resources. African countries will therefore need to develop a strategy to benefit from the multilateral trading system by addressing these constraints.

### Aid and External Debt

An important fact of Africa's development in the 21st century--particularly in the context of international relations--is that it will continue to be dominated by aid and debt (ADB *et al* 2000). Past aid has accumulated into largely unsustainable debt stock and the resulting debt burden has led contributed to low growth in a number of ways. High indebtedness has discouraged investment (especially foreign) and therefore contributed to low economic growth in Africa. Moreover, it has reduced the amount of financial assistance available to fund new projects because a large proportion of new aid is used to service past debts. Given the low savings rates, in Africa, there is little doubt that the development challenges for the 21st century will require substantial aid flows. Yet it is estimated that between 1990 and 1996 ODA declined by 24 percent in real terms and this trend is expected to continue (O'Connel and Soludo, 2000). A key factor in this declining trend of ODA is donor fatigue which, it is argued, is due to the ineffectiveness of past ODA flows. While past ODA was not always well managed, it is important to note that on the part of donors, it was not based entirely on economic criteria. Despite the vast literature on the ineffectiveness of ODA, a strong case can be made for increased ODA flows to Africa. Firstly, the conditions that were largely responsible for the ineffectiveness are improving. Secondly, given the development challenges for the 21st Century, the need for ODA is even greater (ADB et al 2000).

## Institutional Infrastructure and Good Governance

An important element of Africa's development efforts has been the move towards a market economy—mainly through liberalization of key markets and privatization--in which the private sector is the engine of growth. Despite these efforts, the benefits in terms of higher growth and poverty reduction have been limited. One explanation for this discouraging result has been that the reform efforts did not take into account the institutional environment in which these economic policy reforms were undertaken. Markets cannot function without an effective and efficient institutional framework because economic transactions and the underlying incentive structures depend on the effectiveness of these institutions. The institutional infrastructure comprises the rules and regulations that govern the functioning of a market economy such as property rights regime, contract enforcement, a regulatory apparatus for anti competitive behavior, as well as social and political systems that mitigate risk and manage social conflicts, the rule of law and good government.

The governance situation in Africa as we start the 21 Century has been analyzed in detail in Chapter Two in terms of political and civil liberties which are indicators of objectivity of the rule of law, freedom of expression, personal autonomy and economic rights. As indicated in the analysis, Africa is ranked the least free in the world with some highly repressive and undemocratic regimes. However, there are significant improvements during the 1990s as more and more countries become democratized.

As noted earlier, the development requirements for Africa will entail a radical social and economic transformation of society and one implication of this transformation will be to weaken some of the existing institutional arrangements while creating the need for new ones. In order to manage the change that will come with development it will be absolutely important to strengthen the institutional infrastructure and where necessary establish new institutions. For example, one area where new institutions may be necessary is in managing competition policy as the African economies move more and more to a full market economy.

## Role of Governments and Public Policy

Perhaps the most important development challenge arising from the foregoing discussion is the critical role that African governments will have to play in ensuring that region will achieve the social and economic transformation that is required for development in the next millennium. First and foremost, it is important to recognize that even in a completely private market economy, governments will be required to manage the rules and regulations that govern the functioning of a market economy. At the core of a market economy are transactions, which involve the exchange of goods and services and are governed by property rights, contracts, as well as the rules and regulations that specify these contracts and rights. To ensure an even playing field, the governments must be there to monitor and enforce these rules and regulations effectively and equitably. More important, and in most real life cases, markets are incomplete mainly because there are pervasive interactions among economic agents that are not mediated through markets. In this regard, there is a need for institutions that facilitate the specification, enforcement and/or monitoring of these economic transactions. In the context of Africa's

development requirements in the next century this will require strengthening the administrative and managerial capacity of the public sector. In this regard, the key question behind the strategy for public sector would be to clearly define the role of the government and identify what it should and should not do.

In this regard, it should be noted that the reform measures that required the diminution of the role of state in economic activity and relegated it to mere housekeeping was a reaction too far (Killick 1989). A consensus has by now emerged that assigns a broader role to the government, including providing leadership and the development of the private sector through teaching by doing. This activity does not preclude the involvement of the state in participating in those activities that are deemed of critical importance to socio-economic development of the countries but cannot be undertaken by the private sector either because for lack of capacity or the huge risk involved.

### Sequencing and Prioritization

The African development strategy outlined here will not be complete without considering the priority actions that need to be undertaken and the appropriate sequencing. This is important because all countries face resources limitations and it is critical that the available resources be put in the areas where they yield maximum benefits. Moreover, the objectives of the development strategy may not be realized if the actions required are not implemented in the appropriate sequence. The key priority areas for Africa include development of physical and human capital—health, education, and infrastructure such as transport communications and energy. Also, nations need to strengthen their institutional capacities—the institutions and leadership necessary to catalyze, absorb and manage the process of economic and social transformation—development.

**Box 3.1**
**Lessons from the East and South East Asian Countries**

Over the last twenty to thirty years, most of the economies of East and South East Asia achieved remarkable performance in terms of rapid economic growth and poverty reduction which was largely due to prudent macroeconomic policies as well as success in liberalizing their markets and integrating themselves into the global economy. This experience demonstrated that the potential benefits of globalization can be potentially large. However, the recent financial crisis that hit these economies and then spread to other emerging economies such as Russia showed that these benefits are not riskless. For the most part, this crisis was due to inadequate financial supervision and prudential regulation of their financial sectors, weak accounting systems and the non-existence of disclosure rules as well as capital adequacy requirements. The crisis was compounded by the susceptibility of international financial markets to the self-fulfilling prophecy and the herd instinct which led to massive outflows of capital from the region at the onset of the crisis. Moreover attempts to contain the crisis through deflationary measures spilled over and crippled the real sector thereby destabilizing the economies and society. Despite the magnitude of the crisis, African economies were largely unaffected—at least directly-- except the republic of South Africa mainly because of their weak and underdeveloped financial sectors that were not integrated into the global financial markets.

Based on these observations, one of the most important lessons from the development experience of the ESEA countries is that the development model that we all believed should be emulated is after all not complete. This is mainly because the crisis started from the countries that had succeeded in transforming their economies and modernized their societies largely by taking advantage of globalization. As we have noted, the two key missing links were an effective institutional framework for the management of the financial sector and the inadequacy of the international financial infrastructure. Besides this painful lesson, the positive message is that provided these deficiencies can be corrected, it is possible for the countries to return to a path of sustained growth and development. There is evidence that the economies of ESEA are now recovering from this crisis and this suggests that as long as the fundamentals are in place, these countries will be able to regain their growth and development momentum. These fundamentals are at the core of the other lessons that African countries can learn from the experience of the ESEA countries.

An important message to African countries is that they can benefit substantially from globalization provided that they pursue policies and strategies that enable them to benefit from globalization while avoiding the associated dangers. The fact that this crisis occurred in Asia is a pointer to the double-edged nature of globalization. As we have noted, the root cause of the financial crisis can be traced to the liberalization of the capital account and the deregulation of domestic financial markets without having developed the necessary institutional mechanisms and policy measures for proper management and regulation. In this regard, an important lesson for African economies is to ensure that they have the requisite institutional arrangements for supervision and regulation are in place before considering the liberalization of their financial sectors.

However, globalization is a highly dynamic process and it is not possible to predict with certainty where the next crisis is going to come from. Even with well-regulated financial sectors, short-term capital flows are very volatile and are very sensitive to perceived soundness of the economic policies as well as unforeseen economic and political developments. In this respect, they can be very disruptive to an economy even when the fundamentals appear to be right. For this reason, African countries need to learn for the experience of countries like Chile that succeed in putting measures in place to discourage excessive and speculative outflows of short term capital while at the same time maintaining incentives to retain productive capital flows.

Another lesson from the East and South East Asian countries for Africa is that diversification of their economies cannot occur without an active industrial and technological policy and this entails an important role of the government. Reliance on markets alone cannot do the trick because markets are not perfect. One of the key factors behind their successful industrial strategy was that they provided protection to strategic sectors through tariffs, access to cheap credit and other government assisted programs (Stiglitz 1996). However, government interventions did not attempt to replace markets where they existed, it was intended to supplement them in situation where they were deficient.

## 3.3 Policy Challenges

In view of the current conditions, what are the policies required to meet the challenges outlined above for Africa's development in the 21st Century?. On the basis of experience, research and lessons from other nations that have attained dynamic and sustainable development, there has been an emerging consensus that Africa's development agenda needs to focus on sustaining the economic and structural reforms that have already been undertaken while at the same time addressing other impediments including institutional weaknesses, governance well as the establishment of an enabling environment for the private sector.

Africa will need to consolidate macroeconomic stability by continuing to undertake sound fiscal and monetary polices including realistic exchange rates and interest rates in ways that are consistent with the selected development strategy. In particular, macroeconomic stability should be sought through increased supply of goods and services rather than in the suppression of demand. Policies that are capable of using the natural and human resources that remain under or unutilized should be designed to reduce poverty, mitigate social ills, increase supply of goods and services as well as initiate and sustain a robust and dynamic economic activity.

In this connection, there will be a need for fiscal consolidation which would among other things, involve strengthening of tax and customs administration as well as the re-allocation of expenditures from non priority areas in order to release resources for social sectors such as education, health, and the development infrastructure. More important, there will be a need to establish safety nets for addressing poverty and the adverse consequences of economic reform on society. At the same time, and given the limited revenue resources, there will be need to develop incentives to attract the participation of the private sector in the provision of some of the basic social services such as infrastructure, education and health. In the provision of health and education, attention should be paid to the quantity, quality and the equity of these services.

In the financial sector, it will be essential for African governments to deepen and enhance the reforms that have already been undertaken in order to mobilize savings, attract foreign capital and increase the efficiency of financial intermediation. While significant progress has been made in this area, important issues remain. Most central banks lack the necessary capacity for effective bank supervision and regulation. The range of financial products is very limited and many financial institutions are fragile. In addition, the payments systems in most of the countries are inefficient and cannot ensure rapid settlement of transactions and interbank markets are very thin. The weaknesses in financial markets remain unresponsive to the development needs of the countries in the allocation scarce resources. All these constraints reduce the efficiency of financial intermediation, raise borrowing costs, reduce incentives to save, and increase the risk of bank failures as well as lead to unproductive use of the financial resources that have been mobilized.

In the years ahead measures should therefore be undertaken to remove these impediments and thereby lay a foundation for the development of a dynamic and efficient financial sector-- which is critical for the social and economic transformation of the continent.

Liberalization of the financial system and the free market arrangements have marginalized the vast majority of the population, and more so the agricultural population in the acquisition of credit and the supply of critical inputs including fertilizers. To address these issues measures should be taken to establish specialized financial institutions and instruments for mobilizing long-term savings as well as mechanisms for extending credit to the rural sector.

At the core of the development strategy for Africa is fostering the private sector as the principal engine of growth and development. In this regard, every effort should be made to create the requisite enabling environment that is required for private investment and growth. The key measures will need to focus on the reduction of transaction costs and remove uncertainties that make the economic environment costly, uncompetitive, and risky for private economic agents. Specifically, it will be essential to create and maintain an effective, efficient, and transparent legal and regulatory framework that safeguards property rights and enforces contracts in a fair even handed manner. This would require adequate and efficient courts particularly for commercial law, and a regulatory system that safeguards against monopolistic practices both of which should be free of political influence. As African economies become more market driven, the need for competition policy would be even more critical. This is especially so given that in most of the countries, the private sector is not well developed and the markets are not large enough to promote competition.

Another policy challenge will be the promotion of all aspects of good governance. In a state of poor governance, the state cannot perform its key functions effectively--particularly in the provision of services and in managing the rules and regulations that govern the functioning of a market economy. Good governance is therefore a key element of a comprehensive development strategy and it entails establishing strong systems of government that are transparent, efficient, accountable and provide equal treatment for all. Such systems are characterized by checks and balances in public administration and the use of public resources, rule of law, separation of powers between the legislature and the executive, and decentralized decision making. Also, good governance involves measures to eliminate political influence for the private benefit of minority interest groups especially in the use of public resources, and ensuring that public institutions and corporations are accountable to the citizens. For instance, public corporations provide essential services to the private sector and to the public at large and for this reason, it is important to ensure that they do not impose undue costs or engage in arbitrary pricing practices. Legal recourse to such corporate behavior should be made prompt, efficient, and effective. Access to information and participation by all key stakeholders is an essential element of the checks and balances that constitute good governance. In this connection, measures to strengthen civil society—NGOs, political, unions, professional organizations and think tanks are part and parcel of the promotion of good governance.

Lack of good governance has been compounded by the absence of participative political systems and political instability that followed after independence, coupled with conflicts and civil strife that are largely associated with historical and ethnic factors. These have hindered the development of an effective and efficient political and institutional environment necessary for growth and development. Civil wars, armed conflicts and political instability reduce the expected profitability of investments because they increase the risk that capital assets will be destroyed and economic activity interrupted while government instability leads to uncertainty about economic and other policies. In this regard, African governments clearly need to seriously address these issues by creating an institutional and political environment that increases efficiency and reduces uncertainties and the risk of economic activities.

At the regional and global level, African governments will need to intensify their efforts towards economic integration by initiating strategies that accelerate the process. More specifically, this will require broadening the areas of integration beyond macroeconomic policies, trade liberalization and a common external tariff to investment in transport and communications, energy, food security, conflict management, collective security, and prevention of armed conflicts. As noted earlier, efficient integration would allow countries to overcome the constraints posed by their small individual markets, realize economies of scale, and thereby enhance their capacity to trade globally. In this regard, regional integration can be used as a vehicle for economic diversification and for reintegration of Africa in the global economy. The key here would be political commitment to implement the agreed polices and strategies.

At the global level, African countries must go beyond the divisions that have persisted since independence and speak with one voice. This action alone can unleash a lot of negotiating power that Africa needs in order to reclaim its fair position in today's globalize world. It is particularly important in the quest for market access—a critical constraint to African exports—and also in stemming the tide of new protectionism in the context of the WTO.

## Box 3.2

### Regional Integration as a Strategy for Africa's Integration in the Global Economy

At the regional level, one of the key strategies for Africa's development is to promote economic integration among African countries. A key factor that has constrained the integration of African economies to the global economy has been their small markets and that do not permit the realization of economies of scale that are necessary for an economy to be competitive. In this connection, regional integration can be one way through which these countries can diversify their economies and thus reverse the process of de-industrialization and marginalization that has been afflicting them in the past. How can regional integration contribute to the diversification of African economies? One way is by providing access to a wider trading and investment environment thereby permitting economies of scale to be realised. Regional integration also induces backward and forward linkages and thus contributes to regional value added. More important, regional integration promotes the diversification and exports to regional markets providing operational experience before entering into global markets. Also, an integrated market provides a framework within which African countries can co-operate in developing common infrastructure such as in transport and communications and financial services as well as mechanisms for joint exploitation of natural resources.

Despite these potential benefits from regional integration, progress towards the integration of African economies has only yielded modest results in the past largely due to implementation failures. This poor implementation record contrasts sharply with the popular and widespread support that many African governments attach to economic integration. In order to design appropriate strategies for regional integration in Africa, it is important to understand why past efforts have failed to attain the expected results. Firstly, regional integration initiatives in Africa were based on the import substitution model that emphasised production for the region by protected industries that could not compete in the world markets. In this regard, many African governments saw regional integration as an extension of the import substitution model whereby, they could enlarge markets for their protected industries. Moreover, such a model required a planned industrial structure particularly given the small size of the individual markets and this could not be sustained partly because each of the countries tended to favour the same industries.

Secondly, such an inward-looking strategy was associated with a protective regime based on trade and exchange controls and fixed exchange rate systems. In this context, inappropriate macroeconomic policies—usually associated with expansionary fiscal and monetary policies—further limited the scope for integration largely because governments were reluctant to undertake the appropriate adjustment measures for fear of losing foreign exchange, tax revenue, and the contractionary effects of such measures. The existence of powerful vested interests in the import-substituting sector with strong lobbies further made it difficult to undertake appropriate corrective measures. Thirdly, regional integration was also constrained by structural factors especially the similar economic structures such as factor endowments, low incomes, and small markets that limited the scope for trade creation.

Fourthly, failure to address the distributional issues associated with integration was another important constraint to the success of the regional integration efforts. These initiatives entailed removal of tariffs among members, as well as other trade and exchange controls and thus threatened loss of fiscal revenues, and loss of output and employment especially in cases where there were large differences in the efficiency of the protected industries among the member states. Virtually all regional integration institutions in Africa are characterised by an asymmetry whereby one member is more industrialised and therefore more dominant. Examples include the East African Community (EAC) where Kenya is more dominant, and the Southern African Development Community (SADC) where South Africa is more dominant. In the case of the EAC, it has been estimated that the establishment of a free trade area would lead to a 8 to 10 percent decline in revenue for Uganda and a 5 to 6 percent decline for Tanzania (Yeats, 1999). A fifth constraint was the political and institutional factors that contributed to the failure to implement regional integration initiatives as reflected in ineffective binding commitments and lack of supranational institutions to enforce obligations. In some cases, there were inconsistencies between national legislation and integration commitments as well as mechanisms for enforcing integration commitments. Related to this were fears of losing national sovereignty, which were compounded by inconsistent political philosophies among member countries, uncertainties associated with frequent and undemocratic changes in government, and in some cases border conflicts among member states.

Even in recent integration initiatives, the implementation record has not improved significantly. African boasts the largest number of regional integration initiatives in the world and some of these groupings are characterised by overlapping memberships. Yet, despite these past failures and weak implementation of existing initiatives, the case for economic integration in Africa continues to be compelling. The benefits of integration have already been outlined. Moreover, there is now a broad consensus among African policy makers and other development practitioners that openness and sound financial and economic policies are essential for growth and development. For this reason, most African governments have already undertaken far reaching economic and financial reforms and have opened their economies to foreign competition. All these measures are key ingredients to an outward oriented integration strategy as demonstrated by the experience of regional integration in East and South East Asia. These experiences suggest that as long as the goal is to make industries better able to compete internationally, then regional integration initiatives are more likely to succeed. Moreover, African countries have realized that as the process of globalization intensifies, the world economy is getting compartmentalized into large regional trading blocks—like in Europe, North America, and Asia—and this threatens to further marginalise them from the global economy.

The way forward for the regional integration agenda in Africa should therefore be characterized by a broad and outward oriented approach. The recent liberalization and reform efforts in Africa are an indication that regional integration efforts are moving away from the inward-looking and centrally planned approach and governments now view regional integration as a way to penetrate international markets and promote FDI. More specifically, this will require broadening the areas of integration beyond macroeconomic policy coordination, trade liberalization and a common external tariff to cooperation in investment in transport and communications, energy, food security, conflict management, collective security, and prevention of armed conflicts. The Southern African Power Pool represents a good example of cooperation in the power sector. The benefits include reductions or postponement in new power requirements for generating capacity and reserves, reduction in fuel costs and more efficient use of electricity. More important, and as observed from the Asian financial crisis, economies that depend on the production and export of a few primary commodities can be hit hard by the shocks emanating from the globalization process. In this regard, African countries will need to diversify their economies in order to minimize these negative effects of globalization and regional integration will be one strategy for reducing this dependence.

Although most of the obstacles to regional integration in Africa appear to have been eliminated, there are outstanding issues that still remain unaddressed. Even in the current wave of regional integration initiatives, the distributional considerations still pose a major challenge. Most regional, groupings in Africa are still, characterized by dominance by at least one member. States need to identify the economic and distributional consequences as well as identify appropriate and equitable compensatory mechanisms. This will require political will and commitment.

## 3.4 Conclusions

In conclusion therefore, we note that the current conditions in Africa may be largely attributed to the interaction of economic, political, social, institutional and geographic factors that have prevented the emergence of the right conditions for development. However, Africa is not doomed to remain poor. Most of these factors can and must be changed for Africa to realize the development objectives in the next millennium. The key will be strong governments with the requisite leadership, determination and political resolve to undertake the required policy measures. More importantly, African governments must do more than defining strategies and implement the necessary measures. This requires unprecedented political will.

# CHAPTER FOUR

# Sustainability of African Economies

Both economic history and economic theory reveal that the structural transformation of an economy requires good economic performance sustained for a sufficiently long period of time. They also show that appropriate and feasible government interventions, primarily in the form of economic policies, can and do promote structural change. Hence, if African countries are to economically develop they need to produce and sustain positive outcomes, in part by adopting and effectively implementing appropriate policies. Accordingly, the Economic Report on Africa – 1999, ERA (1999), introduced two new composite economic indicators: the Economic Sustainability Index (ESI) and the Economic Policy Stance Index (EPSI).[3] The introduction of these indices constituted the first step towards a more comprehensive evaluation of the performance of African economies by the ECA.

This chapter reports further refined ESI and ESPI. Both indicators have been updated and expanded with new data. Most importantly, the indicators have been supplemented by the results of a qualitative survey conducted by ECA.[4] The results are examined in the following order. First, countries are ranked by the scores they obtain in each index. Subsequently, countries from the top and bottom of the rankings are examined more closely. Second, cluster analysis is utilised to classify countries into three relatively homogenous groups characterised as high (or good), middle (or fair), and low (or bad) [5]. These country-groupings are then examined briefly. Finally, country-rankings are used to explore the co-movements of sustainability, constituents of sustainability, and policy stance with one another as well as with other attributes of countries via correlation analysis.

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[3] The ERA-1999 also reported other measures – a Borda index of wellbeing and the Annual Economic Performance Index. Obviously, both can be computed for ERA-2000 as well. However, in line with the theme of ERA-2000, this chapter focuses exclusively on ESI and EPSI.

[4] The survey focuses on the perception of stakeholders concerning: the quality of governance; the extent and direction of human capital development; the type and level of transactions costs; and the nature and effectiveness of policies for alleviating poverty, gender development, market development, institutional development, sectoral development, and macroeconomic stability. The stakeholders covered include government employees, members of business communities, resident employees of international organisations and NGOs, academics, members of mass organisations, and independent professionals. Details regarding the construction of the indices as well as the survey are provided in the Technical Notes.

[5] The specific classification procedure used is called the K-Means Cluster Analysis, whereby the means of the selected characteristics are used to classify countries into relatively homogenous clusters. Countries are iteratively assigned to the nearest cluster centre using the simple Euclidean distance.

## 4.1 Economic Sustainability Index (ESI)

The ESI is intended to be a broad and comprehensive measure of economic sustainability. Towards that end, economic sustainability is characterised as an economy's capacity to regularly produce outcomes that are consistent with long-term structural change (or economic development). The magnitude and quality of the constituents of this capacity are then employed as measures of sustainability. Correspondingly, the ESI assesses a country's medium- to long-term potential to produce and maintain good economic performance by focusing on indicators of sustained growth, human capital development, structural diversification, transactions costs, external dependency, and macroeconomic stability. Currently the index is comprised of thirty-four indicators. Each country is given a score between one and ten on the basis of how it compares with the average of three best performers in Africa. The ranking of African countries on the basis of the ESI is reported in Table 4.1. Six countries are excluded due to insufficient data.

The ESI scores show that sustainability of African countries is rather low, even relative to the best performers in the continent. Of the forty-seven countries ranked, twenty-one (or about 51 percent) scored below 3.5 (which is only half of the best-practice score of 7). In fact, no more than five countries (Seychelles, Tunisia, Egypt, South Africa, and Mauritius) could score above 5.

It is also instructive to examine which countries make up the ten best and the ten worst performers. Seychelles, Tunisia, Egypt, South Africa, Mauritius, Morocco, Botswana, Lesotho, Swaziland, and Algeria constitute the top ten in that order. This is a diverse group of countries. Three of them (South Africa, Algeria and Botswana) are relatively well-endowed with natural resources. While only two countries belonging to this group (Seychelles and Botswana) are tropical, three (Lesotho, Swaziland, and Botswana) are landlocked. The physical size of the countries is variable with four of them (Seychelles, Mauritius, Lesotho, and Swaziland) quiet small. Of the ten countries only two (Algeria and Botswana) have population densities lower than the Sub-Saharan average. Yet, only the island economy of Mauritius has a very high population density. One common feature can be identified, however. Most of them have enjoyed political stability for long periods. The major exception is South Africa, and more recently, Algeria. This stability partly explains their success. Finally, as expected, the North and Southern African sub-regions dominate the top ten. Indeed, except Seychelles, all of these countries are from the two sub-regions.

Conversely, the ten worst performers, in ascending order, are Sierra Leone, Chad, Niger, Guinea-Bissau, Burundi, Central Africa Republic, Uganda, Ethiopia, Mali, and Democratic Republic of Congo. The group is made up of countries from the three (Central, Eastern, and Western) relatively poor sub-regions of Africa. It also contains tropical countries with relatively low natural resource endowments (with the exception of Democratic Republic of Congo). As to physical size, both large (Democratic Republic of Congo, Ethiopia, Chad, Mali, and Niger) and small (Burundi, Guinea-Bissau, and Sierra Leone) countries are represented. Though five (Burundi, Ethiopia, Guinea-Bissau, Sierra Leone, and Uganda) have population densities above the Sub-Saharan

average, only Burundi can be considered as densely populated. A rather striking characteristic of this group is the proportion of landlocked countries. Six of these countries (Burundi, Chad, Ethiopia, Mali, Niger, and Uganda) are landlocked. Since relatively successful landlocked countries exist in Africa (Botswana, Lesotho, and Swaziland) and elsewhere, the significance of this feature has to be explored further.[6] Another not-so-surprising feature is that most of these countries experienced political instability and/or civil war in their recent past. In fact, six (Burundi, Democratic Republic of Congo, Ethiopia, Guinea-Bissau, Sierra Leone, and Uganda) are, to a varying degree, currently subject to internal and/or cross-border conflicts. It is clear that conflicts of these kind and low level of sustainability go together. The poor performance of these countries partly reflects past neglect and destruction.

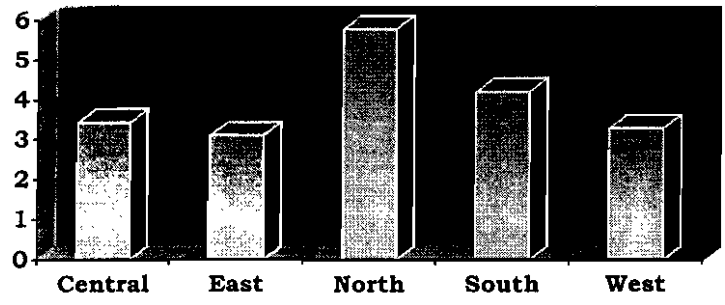
The ESI scores also reveal that the degree of sustainability varies significantly across the sub-regions of the continent (see Figure 4.1). The North African sub-region rates as the most sustainable, with a score of 5.79. Between this sub-region and the rest of the continent there is a significant margin of difference. Southern Africa is a distant second with a score of 4.20. Central Africa and West Africa fill the next two lower places with scores of 3.44 and 3.20, respectively. With a score of 3.12 East Africa comes out last, but only slightly behind the Western sub-region. The sub-regional ranking by ESI scores corresponds roughly to the one in terms of per capita income. Southern Africa is slightly ahead of North Africa, with both significantly outperforming the Central, West and East Africa. However, though their rank-order is the same, the difference between the bottom three sub-regions is significantly less pronounced in terms of sustainability than it is in terms of per capita income.

Table 4.1: ESI Scores and Ranking by Country - 1999

| Country | Score | Rank | Country | Score | Rank | Country | Score | Rank |
|---|---|---|---|---|---|---|---|---|
| Seychelles | 5.62 | 1 | Cote d'Ivoire | 3.87 | 17 | Madagascar | 2.98 | 33 |
| Tunisia | 5.48 | 2 | Gambia | 3.86 | 18 | Mauritania | 2.94 | 34 |
| Egypt | 5.31 | 3 | Kenya | 3.69 | 19 | Rwanda | 2.90 | 35 |
| South Africa | 5.17 | 4 | Ghana | 3.67 | 20 | Angola | 2.89 | 36 |
| Mauritius | 5.12 | 5 | Sudan | 3.63 | 21 | Guinea | 2.89 | 37 |
| Morocco | 4.87 | 6 | Congo, Rep. | 3.60 | 22 | Congo, Dem. Rep. | 2.86 | 38 |
| Botswana | 4.84 | 7 | Senegal | 3.56 | 23 | Mali | 2.86 | 39 |
| Lesotho | 4.70 | 8 | Zambia | 3.48 | 24 | Ethiopia | 2.81 | 40 |
| Swaziland | 4.42 | 9 | Togo | 3.45 | 25 | Uganda | 2.78 | 41 |
| Algeria | 4.35 | 10 | Cape Verde | 3.44 | 26 | Central Africa Rep. | 2.76 | 42 |
| Zimbabwe | 4.27 | 11 | Mozambiqu e | 3.44 | 27 | Burundi | 2.74 | 43 |
| Equatorial Guinea | 4.17 | 12 | Nigeria | 3.32 | 28 | Guinea Bissau | 2.71 | 44 |
| Cameroon | 4.02 | 13 | Malawi | 3.20 | 29 | Niger | 2.48 | 45 |
| Tanzania | 4.01 | 14 | Burkina Faso | 3.18 | 30 | Chad | 2.47 | 46 |
| Namibia | 3.93 | 15 | Benin | 3.04 | 31 | Sierra Leone | 2.25 | 47 |
| Gabon | 3.89 | 16 | Comoros | 3.03 | 32 | | | |

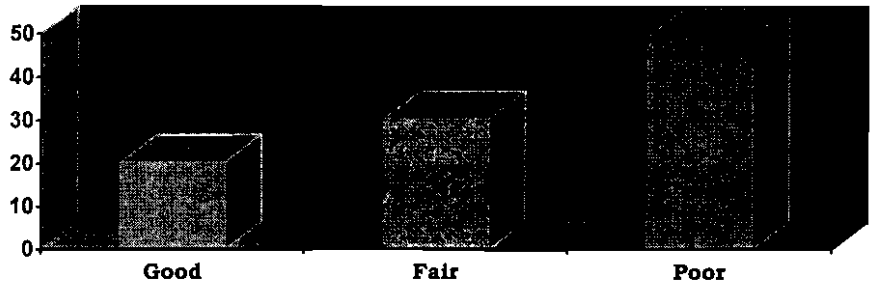
[6] See, for instance, Gallup and Sachs with Warner (1999) on this and related issues.

Figure 4.1: Economic Sustainability Index by Subregion - 1999




Cluster analysis shows that the countries with the highest potential for long-term development consist of a group of eight countries comprising 20.2 percent of Africa's population (see Figure 4.2). The fair cluster, which contains nineteen countries, accounts for 30.4 percent of the total. The twenty poor performers make up the largest group in terms of population accounting for 49.4 percent of the continent's total population. The implications of these results are mixed. That a fifth of the continent's population lives in relatively more sustainable countries is encouraging. In contrast, the fact that half of Africa's population resides in countries with low degrees of sustainability suggests much have yet to be done to achieve sustainable development. This is particularly true for countries from Central, East (except the relatively small Seychelles), and West Africa, none of which belong to the 'good' ESI cluster.

Figure 4.2: Population Shares by Cluster Rating, ESI-1999




## The Sub-indices of the ESI

The ESI represents the overall extent of sustainability characterising African countries. In contrast, the sub-category indicators comprising it focus on more specific constituents of sustainability. As such they are important in their own right. Furthermore, they unveil the relative strengths and weaknesses of African countries regarding aspects of economic sustainability. Accordingly, this section examines the sub-category country-scores and their correlation.[7]

**Human Capital**: The Human Capital Index (HCI) measures performance of countries in the areas of *health* (access to safe water, access to medical services, mortality, life expectancy, and incidence of AIDS) and *education*

[7] The sub-category scores are reported in Table (AIV.1).

(literacy, school enrollment, and higher education).[8] The HCI country-scores suggest that the human capital of the continent is not well developed. Exactly half of the countries ranked scored less than 3.5, while six of the countries (or thirteen percent) achieved scores higher than 5.

The HCI scores identify Mauritius, South Africa, Algeria, Tunisia and Egypt as the top-five performers, and Burkina Faso, Ethiopia, Gambia, Central African Republic, and Niger as the bottom-five performers. In this regard, the first four of the top-five countries belong to the lower half of the top-ten in the per capita income ranking. Only Ethiopia belongs to the bottom-ten income group, though all of the five poorest performers are low-income countries. This suggests a nonlinear relationship between income and human capital that grows stronger at higher levels of the two.

**External Dependency**: The External Dependency Index (EDI) is divided into two categories: *debt* (debt stock and debt service) capturing the debt burden, and *dependence* (official development assistance, food imports, and export destination) indicating the extent to which a country is reliant on donors and a single trading partner. By the EDI scores Botswana, South Africa, Lesotho, Nigeria, and Tunisia are rate as the least-externally-dependent African countries, while Guinea-Bissau, Sierra Leone, Mauritania, Burundi, and Cote d'Ivoire are the five most- externally-dependent countries. Note also that around eleven percent and eighteen percent of the ranked countries obtained scores less than 3.5 and greater than 5, respectively. In fact the EDI scores of African countries are generally higher than analogous scores in other sub-categories. This outcome is explained not by a relatively better performance in this area. Rather, it results from a relatively weak but commonly shared performance. In fact, Africa's vulnerability to external economic forces is quite high.

**Structural Diversification:** The Structural Diversification Index (SDI) combines *export portfolio diversification* with the extent of single *primary commodity export concentration* and the *share of manufacturing in national output.* The performance of African countries in this sub-category is quite mixed. Thirty countries obtained a score of 3.5 or lower. This is almost sixty-eight percent of all the countries ranked. In contrast, nine countries (or twenty percent) managed to obtain a score of 5 or better. On both counts, the number of countries is the highest compared to the other sub-categories. Hence, on the one hand, there is cause for optimism since several African countries managed to achieve a significant degree of structural diversification. On the other hand, it is clear that most of the countries have yet to develop a structurally diversified economy. Indeed, structural non-diversification appears to be the largest contributor to the low level of sustainability characterizing most African economies.

According to the index South Africa, Egypt, Swaziland, Tunisia, and Morocco are the five most modern and diversified economies. Nigeria, Equatorial Guinea, Botswana, Angola, and Gabon are identified as the least diversified countries. It is noteworthy, in this regard, that the bottom-five countries are all well-endowed with natural resources. In contrast, with the exception of South Africa, the natural resource endowments of the top-five countries are

[8] The index is also intended to cover poverty, inequality, and gender disparity. They are currently excluded due to lack of up-to-date data.

not significant. This outcome implies that considerable natural resource endowments are neither necessarily a boon nor a bane. Additionally, the presence of two of Africa's highest income countries (Botswana and Gabon) in the bottom five carries the ominous implication that even some of the most successful African countries have achieved rapid income growth with limited structural diversification.

**Transaction Costs**: The Transaction Costs Index (TCI) takes into account *utilities*, *communications*, and *transport* in terms of effective of and costs of provision. Fifty-six percent of the countries ranked obtained scores below 3.5, while only two (South Africa and Mauritius) have scores above 5. These scores suggest that, even relative to the continent's best performers, transaction costs are high in most African countries. This partly explains low levels of foreign investment and slow domestic growth. This is further corroborated by the fact that South Africa, Mauritius, Egypt, Tunisia, and Zimbabwe comprise the top-five countries, while Mali, Niger, Chad, Burkina Faso, and Central African Republic make-up the bottom-five.[9] Therefore, reduction of transaction costs, partly through further infrastructural development, is of crucial importance to these countries.

**The Macroeconomic Sustainability Index (MSI)** is comprised of *export strength*, *savings*, *investment*, *inflation*, *and current account balance*. In this sub-category, forty-nine percent and nine percent of the ranked countries obtained scores below 3.5 and above 5, respectively. These results imply that a sustainable macroeconomy is yet to be achieved by a large proportion of African countries. In this regard, it is notable that the top-three scorers (Equatorial Guinea, Gabon, and Botswana) are not only natural-resource-rich but also poor performers in terms of structural diversification (they in fact belong to the bottom-five group). Only Morocco and Mauritius have achieved comparable status in macroeconomic sustainability and structural diversification. In contrast, but unsurprisingly, conflict and economic mismanagement largely explain the performance of the bottom-five countries (Sierra Leone, Congo DR, Rwanda, Malawi, and Zambia).

### Correlations

What follows reports on the relationship between the various elements of the sustainability index established via correlation analysis. The correlation coefficients are presented in the table below.

Table 4.2: Correlation Matrix - Sub-categories of the ESI

| | SGI | EDI | HCI | SDI | TCI | MSI |
|---|---|---|---|---|---|---|
| DI | 0.05* | | | | | |
| HCI | 0.14 | 0.39* | | | | |
| SDI | 0.02* | 0.45 | 0.51 | | | |
| TCI | 0.14 | 0.23* | 0.72 | 0.66 | | |
| MSI | 0.22 | 0.34* | 0.60 | 0.24* | 0.45 | |
| Per capita | 0.24 | 0.17* | 0.63 | 0.10* | 0.49 | 0.68 |

*Note*: (*) indicate that the correlation coefficient is not significant at 10 percent. The correlation coefficients between SDI and DI and between MSI and TCI are significant at 10 percent. The rest of the correlation coefficients are significant at 5 percent or lower.

[9] That all bottom-five countries except Burkina Faso have relatively low population densities partly explains the implied high transaction costs.

Table 4.2 shows the results of correlation analysis between the sub-indices, as well as per capita income. As expected, we find that most of the sub-indices have some relationship to income and to each other. A country which is more developed in a particular area can be expected to be more developed in other areas as well. The following observations can be made.

(1) The degree of external dependency appears to be unrelated to any of the other sub-categories other than structural diversification. This suggests that a more diversified economy is less likely to be dependent.

(2) Human capital development is strongly connected with all the sub-categories, except the level of external dependency, and per capita income. The results indicate the critical importance of human capital to economic sustainability.

(3) The strongest link is observed between human capital development and the level of transaction costs. Two possible explanations can be noted. First, a two-way feedback mechanism involving human capital variables and infrastructure is at work: a well-functioning infrastructure is a key determinant of effective provision of health and education services, while a healthy and skilled labour force significantly contributes to the development of infrastructure. Second, both human capital and infrastructure are public goods supported by governments. Hence the link between human capital development and transaction costs may reflect correlated government programs and policies in these areas.

(4) It is notable that the degree of structural diversification is strongly correlated with the level of transaction costs. The result suggests that lowering transaction cost can promote faster structural diversification. Infrastructure development is clearly an important means for this purpose. Hence, it has to be given due weight in the development programs of African countries.

(4) Also notable is the correlation between macroeconomic sustainability and per capita income. The high correlation between the two suggests that countries with a sustainable macroeconomy are more likely to achieve higher levels of per capita income.

## 4.2 Medium-Term Change in Economic Sustainability Index

As the constituents of the Economic Sustainability Index are long-term in focus, there is little change in the index on a year-to-year basis. In order to get some idea of how the situation with respect to sustainability has changed in the recent past, an ESI for the year 1987 as well as a comparable, pared-down ESI for 1999 are constructed.[10] A look at the extent to which countries have made progress is encouraging (see Table 4.3). Overall, Africa's ESI score improved by a modest 4.8 percent. While twenty-six countries registered positive changes in their ESI scores, eighteen countries managed increases of more than 10 percent. In contrast, seven countries (Comoros, Angola, Gambia, Sierra Leone, Rwanda, Gabon, Democratic Republic of Congo, and Zambia) experienced a more than ten-percent decline in their ESI scores. At the sub-regional level, Western Africa scored the highest increase (12.3 percent), followed by North Africa (7.8 percent), and Eastern Africa (4.3 percent). Southern and Central Africa suffered declines of 6.9 percent and 2.8 percent, respectively.

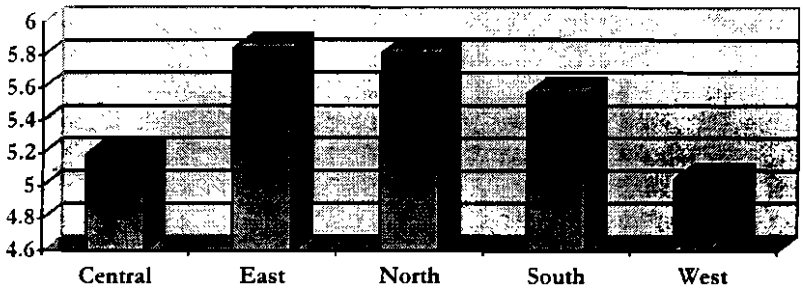
It is notable that, among the countries that showed substantial improvement, examples can be found of countries of all sizes, regions, and levels of development, showing that the potential exists for all African countries to make progress towards a more sustainable future. Most of the best performers, in this regard, benefited from cessation of civil wars, greater stability, and economic and political reforms. In contrast, almost all of the bad performers suffered from serious civil conflict and unrest during the period under consideration. This suggests that peace, stability, and deepening economic and political reforms are necessary conditions for Africa's sustainable development during the 21st century.

[10] The pare-down index used contains twenty-four indicators. Further details are included in the Technical Notes.

Table 4.3: Change in ESI Scores, 1987-1999

| Country | ESI-1999 | ESI-1987 | Change in ESI | Percent |
|---|---|---|---|---|
| Benin | 3.04 | 1.90 | 1.14 | 60% |
| Sudan | 3.63 | 2.57 | 1.06 | 41% |
| Uganda | 2.78 | 2.10 | 0.68 | 33% |
| Senegal | 3.56 | 2.81 | 0.74 | 26% |
| Mali | 2.86 | 2.32 | 0.54 | 23% |
| Ethiopia | 2.81 | 2.29 | 0.52 | 23% |
| Chad | 2.47 | 2.02 | 0.44 | 22% |
| Ghana | 3.67 | 3.03 | 0.64 | 21% |
| Lesotho | 4.70 | 4.02 | 0.68 | 17% |
| Madagascar | 2.98 | 2.57 | 0.42 | 16% |
| Morocco | 4.87 | 4.21 | 0.65 | 15% |
| Nigeria | 3.32 | 2.91 | 0.40 | 14% |
| Togo | 3.45 | 3.05 | 0.40 | 13% |
| Seychelles | 5.62 | 5.02 | 0.60 | 12% |
| Mozambique | 3.44 | 3.09 | 0.35 | 11% |
| Burkina Faso | 3.18 | 2.86 | 0.32 | 11% |
| Tanzania | 4.01 | 3.60 | 0.41 | 11% |
| Mauritius | 5.12 | 4.61 | 0.51 | 11% |
| Mauritania | 2.94 | 2.67 | 0.27 | 10% |
| Tunisia | 5.48 | 5.19 | 0.28 | 5% |
| Gambia | 3.86 | 3.76 | 0.09 | 2% |
| Central Africa Rep. | 2.76 | 2.69 | 0.06 | 2% |
| Swaziland | 4.42 | 4.33 | 0.08 | 2% |
| Algeria | 4.35 | 4.28 | 0.08 | 2% |
| Egypt | 5.31 | 5.28 | 0.03 | 1% |
| Kenya | 3.69 | 3.67 | 0.02 | 1% |
| Cape Verde | 3.44 | 3.44 | 0.00 | 0% |
| Malawi | 3.20 | 3.20 | 0.00 | 0% |
| Namibia | 3.93 | 3.98 | -0.05 | -1% |
| Guinea | 2.89 | 2.93 | -0.04 | -1% |
| Congo, Rep. | 3.60 | 3.66 | -0.07 | -2% |
| Burundi | 2.74 | 2.79 | -0.06 | -2% |
| Botswana | 4.84 | 5.01 | -0.17 | -3% |
| Niger | 2.48 | 2.57 | -0.09 | -4% |
| Cote d'Ivoire | 3.87 | 4.02 | -0.15 | -4% |
| Guinea Bissau | 2.71 | 2.83 | -0.12 | -4% |
| Zimbabwe | 4.27 | 4.59 | -0.32 | -7% |
| Cameroon | 4.02 | 4.35 | -0.34 | -8% |
| South Africa | 5.17 | 5.77 | -0.60 | -10% |
| Comoros | 3.03 | 3.40 | -0.37 | -11% |
| Angola | 2.89 | 3.29 | -0.40 | -12% |
| Sierra Leone | 2.25 | 2.73 | -0.47 | -17% |
| Rwanda | 2.90 | 3.52 | -0.62 | -18% |
| Gabon | 3.89 | 4.78 | -0.89 | -19% |
| Congo, Dem. Rep. | 2.86 | 3.52 | -0.66 | -19% |
| Zambia | 3.48 | 4.39 | -0.91 | -21% |

Figure 4.3: EPSI Scores by Sub-Region, 1999



## 4.3 Economic Policy Stance Index

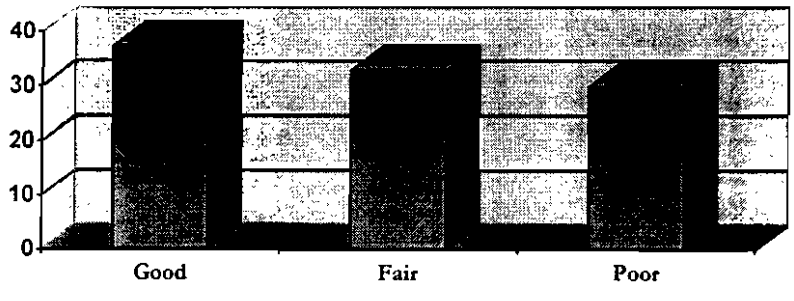
This year's Economic Policy Stance Index confines itself to the area of macroeconomic policy, with a more detailed treatment of a sample of eleven countries for which a qualitative survey exercise was carried out (see next section). The macroeconomic policy stance index combines a total of 7 indicators covering fiscal, monetary, and exchange rate policies. As in the Economic Sustainability Index, countries are scored from one to ten on the basis of how they compare with the continent's best performers. Data was sufficient to allow for the scoring of 26 of the 53 African countries.

The country scores and rankings are reported in Table 4.4. Surprisingly, Kenya earns the top score, bolstered by strong performance across the board. Ethiopia comes second, having made significant progress towards liberalization in recent years. South Africa, Gabon, and Namibia round out the top five; these are also the three best performing countries in terms of per capita income of the countries which received scores. Sao Tome and Principe, Malawi, Central African Republic, Angola, and Sierra Leone comprise the lowest scorers. Civil conflict and economic mismanagement appear to be significant explanatory factors here.

Table 4.4: EPSI Scores and Rankings by Country – 1999

| Country | Score | Rank | Country | Score | Rank | Country | Score | Rank |
|---|---|---|---|---|---|---|---|---|
| Kenya | 6.36 | 1 | Congo, Rep. | 5.67 | 10 | Lesotho | 5.08 | 18 |
| Ethiopia | 6.22 | 2 | Mauritius | 5.64 | 11 | Madagascar | 4.94 | 20 |
| South Africa | 6.11 | 3 | Gambia | 5.56 | 12 | Uganda | 4.89 | 21 |
| Gabon | 5.89 | 4 | Zimbabwe | 5.56 | 12 | Sierra Leone | 4.83 | 22 |
| Namibia | 5.89 | 4 | Chad | 5.17 | 14 | Angola | 4.83 | 23 |
| Equatorial Guinea | 5.83 | 6 | Cape Verde | 5.14 | 15 | Central Africa Rep. | 4.81 | 24 |
| Egypt | 5.81 | 7 | Cameroon | 5.14 | 15 | Malawi | 4.56 | 25 |
| Swaziland | 5.78 | 8 | Zambia | 5.11 | 17 | Sao Tome & Principe | 4.47 | 26 |
| Tanzania | 5.69 | 9 | Guinea | 5.08 | 18 | | | |

Figure 4.4: Population Share by Cluster Rating, ESPI - 1999



Across regions, we find that East Africa comes out ahead with a score of 5.84, followed by North Africa's 5.81, and Southern Africa at 5.57. Central Africa scored a 5.19, while West Africa places last with a score of 5.04. Due to the fact that scores were obtained for only half of the African countries, significant distortions may be evident in the regional scoring because of the particular countries for which data were available. Only in the Central and Southern sub-regions were scores available for at least half of the countries.

Cluster analysis shows that though the good performing category consists of just three countries, the population share of these countries is higher than either the fair or poor categories, which contain 10 and 13 countries respectively. Overall, the population share of each cluster is broadly similar, with the good cluster accounting for 37.3 percent of the population, the fair cluster 32.8 percent, and the poor cluster containing the smallest population share at 29.8 percent. On the basis of cluster analysis, then, the policy outlook for African countries appears more optimistic than that of sustainability.

### Expanded Economic Policy Stance Index

For this year's Economic Report, the quantitative aspects of the Economic Policy Stance Index have been combined with the results of a qualitative survey which was completed in 11 countries.[11] This survey was conducted using a questionnaire which was filled out by a sample drawn from a variety of occupational groupings (see below). The qualitative assessment allows for an Economic Policy Stance Index with greater breadth than using quantitative data alone. We are able to include areas such as policy targeting of women and the poor, effectiveness of property rights regimes, and independence of the central bank, which are difficult to quantify using numerical data. A fuller accounting of the results is available in the Technical Notes.

Our sample consisted of a pool of respondents from each country from the occupational categories of government employees and officials, representatives of the business community, employees of international organisations, representatives of NGOs, academics, and independent professionals. Not surprisingly, government officials tended to have to highest degree of confidence in their countries' economic policies. Members of the business community were next, which bodes well for Africa's future competitiveness, suggesting that policymakers are making serious attempts to facilitate a business-friendly environment. Conversely, representatives of NGOs gave the worst scores of any of our occupational categories. It is also interesting to observe that employees of international organisations and academics occupy the middle ground.

[11] The Survey covers the whole of Africa. However, currently it is completed in eleven countries only.

Table 4.5: Average Rank by Occupational Category

| Category | Average rank |
|---|---|
| Government | 1.75 |
| Business | 2.875 |
| International Organisation | 3.125 |
| Academic | 3.625 |
| Independent Professional | 4.286 |
| NGO | 5.125 |

Note: Supplemental, included for review only.

Due to the inexact nature of a subjective questionnaire survey instrument, we confine our report of the scoring to four Economic Policy Stance Index groupings: good, above average, below average, and poor. The numerical scores as well as the computational details can be found in the Technical Notes. Though the small number of countries precludes a systematic analysis, two features of the country scores stand out. First, the four countries are made up of those with more democratic traditions. In contrast, the two countries in the Poor grouping have both been beset with a history of civil conflict, as well as relatively undemocratic governance. Second, we note that all four of the top performers were from the Southern African sub-region, while all of the East African countries included in the sample fell into the bottom two groups. In particular, note that the two top scoring countries by the quantitative EPSI (Kenya and Ethiopia) can only manage a below-average score by the expanded EPSI. Such contrasting outcomes deserve further investigation.

Table 4.6: Country Classifications by the Expanded EPSI

| Excellent | Above Average | Below Average | Poor |
|---|---|---|---|
| Botswana | Lesotho | Ethiopia | Burundi |
| | Mozambique | Kenya | Sudan |
| | Namibia | Malawi | |
| | | Nigeria | |
| | | Zambia | |

The country-by-country category scores, qualitative survey responses in various policy areas, are given in Table (AIV.4) in the Statistical Annex. The average score given for each area can be found in Table 4.6. Each score is on a scale of one to six, with one representing the most favourable response, and six the least favourable. Overall, our sample perceived macroeconomic policies, particularly with regard to liberalisation, as relatively positive. The top three categories were Exchange Rate Policy, Monetary Policy, and Macroeconomic Policy Co-ordination. Conversely, we find Civil Service at the bottom of the list, reflecting the continuing problem of corruption on the continent. The fact that Transactions Costs Policies and Human Capital Development Policy also scored poorly is somewhat worrisome in light of the crucial importance of these two areas as discussed in the previous section. However, this is explained in part by the difficulty of designing these types policies compared to

other policy areas covered by the survey. Also of note is the high opinion respondents have of their countries' gender policies. It appears that the concept of gender equality has gained currency among policymakers.

Table 4.7: Average Score by Category, Qualitative Questionnaire

| Category | Average Score |
|---|---|
| Exchange Rate Policy | 2.55 |
| Monetary Policy | 2.58 |
| Macroeconomic Policy Coordination | 2.61 |
| Gender Equality | 2.65 |
| Central Bank | 2.96 |
| Public-Private Sector Coordination | 2.97 |
| Trade Policy | 2.99 |
| Effectiveness of Sectoral Policies | 3.03 |
| Financial Sector Policy | 3.09 |
| State owned enterprises | 3.11 |
| Product Market Policy | 3.15 |
| Legal System | 3.24 |
| Factor Market Policy | 3.25 |
| Pro-Poor Policies | 3.26 |
| Property Rights | 3.29 |
| Human Capital Development Policy | 3.41 |
| Transactions Costs related Policy | 3.65 |
| Civil Service related Policy | 4.15 |

It should be noted that all the high ranked policy instruments are those that had high priority in the reform packages implemented by African countries since the mid 1980s with the assistance of donors including IMF and the World Bank.

## 4.4 Sustainability and Policy Stance

The interrelationships between sustainability and policy stance are summarized below in Table 4.7. Correlation analysis shows a moderate, though definite relationship between the Economic Sustainability Index and the Economic Policy Stance Index. It is clear that though good performance sustainability and policy stance are related, a country cannot assure its long-term sustainability on the basis of macroeconomic policies alone. In terms of the income variables, we find the most significant correlation to be between sustainability and per capita income, with only slight relationships between sustainability and income growth, and policy stance and income. There is no significant relationship between the EPSI and growth. The implications of these results are somewhat ominous. It appears that countries which have been successful have by and large succeeded on the basis of taking advantage of temporary conditions, and not on the basis of a solid foundation of creating an enabling environment for long-term growth and pursuing sound economic policies.

Table 4.8: Correlation Matrix – Change in ESI, ESI, EPSI and Income

| Item | Medium Term Change in ESI | EPSI-1999 | ESI-1999 |
|---|---|---|---|
| ESI-1987 | 0.17 | - | 0.75 |
| Per Capita Income - 1987 | 0.04* | 0.03* | |
| Per Capita Income - 1999 | - | - | 0.41 |
| 10-Year Per Capita Income Growth | 0.17 | 0.16 | 0.14 |
| ESI-1999 | - | 0.29 | - |

Grounds for optimism can be found, however, in an examination of the relationship between medium term ESI change and the other variables. The strongest correlation in the table is the one between 10-year per capita income growth, and medium term ESI change. This suggests that economies which have grown in the past 10 years have managed to translate this growth into improved conditions for long-term sustainability. Moreover, countries which showed ESI improvement were not necessarily countries with high incomes, or high sustainability to begin with. The overall implication, then, is that though substantive improvement in terms of long-term sustainability and policy stance has not been made in the past, definite potential for progress in the 21st century exists.

The findings in this Chapter once again demonstrate the problematics of African economies to pick-start and sustain a rate of growth sufficient to reduce poverty in the foreseeable future. The ESI is uniformly low across the region mainly because the particulars that make up the bundle from which the index is derived including human capital, structural diversification, efficiency of governance (as measured by transaction cost) and macroeconomic sustainability are very low.

Although countries score better with the ESPS, there is no necessary correlation between it and ESI nor growth performance. Countries that score high on EPSI do not have high ESI nor sustained GDP growth rates.

These findings tally with the observations of Chapter Two and point to the need for a broader approach to policy selections and the development of strategies that are consistent the initial conditions that define the starting point.

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# Technical Notes[12]

Three main tasks are associated with the construction of the key indices of this chapter. The first task is to identify the constituents of each composite index. Deriving a system of scoring the variables in a standardized manner so that they may aggregated into a composite index is the second task. Finally, weights must assigned to the constituent scores. A brief description of how these tasks have been carried out is provided in this section.

## Economic Sustainability Index (ESI)

### Constituents

The sustainability index combines a large number of variables associated with sustained good economic performance. It contains six main subindices: human capital development, structural diversification, external dependency, transaction costs, macroeconomic indicators of sustainability and sustained growth performance. Each of these subindices, in turn, combines a number of relevant variables. A list of the variables used is provided. For further details see Soludo (1998).

1. Human Capital Development Index

1a. Education
1a.1 Adult literacy
1a.2 Gross enrolment ratio
1a.3 Higher Education
1a.3.i Natural and applied science enrolment (as percentage of total tertiary enrolment)
1a.3.ii Research and Development Scientists and Technicians per 1,000

1b. Health
1b.1 Primary Health
1b.1.i Under-Five Mortality per 1,000
1b.1.ii Infant Mortality per 1,000
1b.1.iii Life Expectancy
1b.2 Health Infrastructure
1b.2.i Number of doctors per 100,000 people
1b.2.ii Number of people per hospital bed.
1b.2.iii Percentage of the population with access to clean water supply
1b.3 AIDS incidence, Adult Percentage

[12] The detailed conceptual and methodological issues concerning the construction of the indices are contained in the background paper prepared for the Report. Data availability has led to a restricted application of the framework set out in that paper. These notes summarize aspects relating to what can be achieved by this particular report.

2. Structural Diversification

2a Share of manufacturing in national output
2b Largest Single Primary Product as a Percentage of Total Exports
2c Export Diversification Indices
2c.i UNCTAD Diversification Index
2c.ii UNCTAD Concentration Index

3. Dependency

3a Debt
3a.i Total External Debt as a Percentage of GDP
3a.ii Debt Service Ratio
3b Reliance
3b.i Official Development Assistance as a Percentage of GDP Excluding Grants
3b.ii Food Imports as a Percentage of Total Imports
3b.iii Share in Total Exports of Largest Single Export Recipient

4. Transactions costs

4a Utilities
4a.i Per Capita Electricity Production Capacity
4a.ii Loss of electricity as percentage of total production
4b Communications
4b.i Number of telephone lines per 1,000 people
4b.ii Number of Internet hosts per 1,000 people
4b.iii Average cost of local telephone calls
4b.iv Ratio of excess demand for telephone connections to the total number of connections
4c Physical Infrastructure
4c.i Ratio of Total Kilometers of Road to Land Area
4c.ii Ratio of Total Kilometers of Railroad Tracks to Land Area

5. Macroeconomic indicators of sustainability

5a Export Strength
5a.i Per capita exports
5a.ii Real per capita export growth, average of previous 5 years
5b Gross national savings as percentage of GDP
5c Gross private investment as percentage of GDP.
5d Rate of inflation
5e Current account balance as a percentage of GDP

6. Sustained growth index

The ESI assesses a country's medium- to long-term potential to produce and maintain good economic performance. The extent of this potential partly depends on the country's historical growth performance - a country with sustained good growth in the relevant portion of its past has a greater capacity to do so in the future than a country with patchy historical growth accomplishments. Hence, it is appropriate to include a measure of the

historical growth performance of African countries in the ESI. The sustained growth index (SGI) is constructed for the purpose.

The growth in per capita real GDP is identified as the indicator of economic growth achieved by a country. Using this indicator, the index of sustained growth accounts for three aspects of the growth process – level, regularity, and volatility of growth rates. A country is said to have sustained good growth performance if it regularly records positive per capita real GDP growth. This is a minimum requirement that needs to be strengthened to accommodate the relative speed and volatility of growth. A growth pattern with higher and less volatile positive growth rates is better than that with lower and more volatile ones. Accordingly, countries that achieve continued positive growth at relatively higher rates and with lower volatility score higher in the SGI than those with worse performance in some or all of these aspects.

A sustained growth episode is defined as a period of five successive years each of which has a positive five-year moving-average growth rate. The five-year moving average growth rate associated with a year is computed as the average of the growth rates over the five-year period that ends with that particular year. On the basis of this definition, the SGI is constructed in four steps.

(a) Step I: Determine whether each year in the period covered is an element of a sustained growth episode. A year is deemed an element of a sustained growth episode if two conditions are satisfied:

(i) the average of the growth rates over the five-year period that ends with the year in question is positive; [13] and

(ii) the year belongs to a sequence of five years with positive moving-average growth rates.

If these conditions hold the year is given a value of one, it is given a value of zero otherwise, i.e.,

$$v^{i}(t) = g^{a,i}(t) \times \boldsymbol{I}\ (t)$$

where: $g^{a,i}(t) = (1/5)\sum_{j=0}^{4} g^{i}(t-j)$ = the five-year moving average of annual growth rates of per capita real GDP in country $i$ for year $t \geq 5$; $g^{i}(t)$ = the annual growth rate of per capita real GDP in country $i$ during year $t$; $v^{i}(t)$ = a dummy variable which takes a value of 1 if year $t$ belongs to a sustained growth episode and 0, otherwise; $\boldsymbol{I}\ (t)$ is an indicator function which takes a value of 1 if t belongs to a sequence of five years with positive moving average growth rates [i.e., with positive $g^{a,i}\ ()$] and o, otherwise.

(b) *Step II: Determine the relative duration of sustained growth experienced by a country.* It is desirable to measure the sustained growth performance of a country relative to what is possible. The

[13] This criterion is a relaxed version of a recent definition of 'high growth' as positive per capita income growth by IMF. For further details see Calamitsis, Basu, and Ghura (1999).

relative duration of sustained growth is measured as the ratio of the number of sustained growth episodes achieved by a country to the maximum number of episodes achievable during the period covered. The former is equal to the total number of years which satisfy conditions (1.a) and (1.b) divided by five (i.e., the number of years which makeup a sustained growth episode), while the later is equal to seven. [14] In short:

$$S^i = (1/7)\{[\sum_{t=1}^{35} v^i(t)]/5\}$$

where $S^i$ = the relative duration of sustained growth experienced by country *i*. $v^i(t)$ is as defined above. Note that the sum of $v^i(t)$ (i.e., $\sum_{t=1}^{35} v^i(t)$) gives the total number of sustained growth years (or the 'absolute' duration of sustained growth) completed by country *i*.

(c) *Step III: Compute the sustained growth raw scores.* As noted above, the definition of sustained growth relies on the minimum requirement of regular positive growth. This needs to be strengthened to allow for differences in the relative speed (mean growth rate) and volatility (standard deviation of growth rates) of growth. Towards that end, the level and variability of the growth achievements of each country are compared with those of the countries with the highest number of growth episodes. Once the latter group of countries is identified, the weighted-average of the mean and variance of their growth rates over the sustained growth years are computed. [15] Subsequently, the mean and standard deviation of the growth rates of each country over the corresponding 'absolute' duration of sustained growth are computed. Finally, the desired sustained growth raw score of country *i* is obtained by weighting $S^i$ by corresponding measures of the level and variability of the growth achievements of a country relative to the countries with the highest number of growth episodes. Specifically:

$$s^i = \{(g^{m,i} / g^{m,max})/[\sigma^i(g) / \sigma^{max}(g)]\} \times S^i = [CV^{max} / CV^i] \times S^i = w^i \times S^i$$

where: $s^i$ = the sustained growth raw score of country *i*; $g^{m,i}$ = the mean growth rate of per capita real GDP in country *i* over the

[14] The period under consideration covers the years 1960-99. It means that there are thirty-nine simple growth rates (starting at 1961) and thirty-five five-year moving average growth rates (starting at 1965). Hence, there are seven potential sustained growth episodes, each of which is five years long. In short:

*maximum number of episodes = (T- 5) /5 = 7*

where T = 40.

[15] It is possible to find more than one country with the highest number of sustained growth episodes. In that case, $g^{m,max}$ is computed as a weighted average of the mean growth rates of the relevant countries, while $\sigma^{max}(g)$ is computed as the square root of the weighted average of the variances of the growth rates of the same countries. The weights used are the country per capita GDP shares in the sum-total of per capita GDP of the countries in question.

years which belong to sustained growth episodes; $g^{m,max}$ = the mean growth rate of per capita real GDP in the country (or countries) with the highest number of years belonging to sustained growth episodes; $\sigma^i(g)$ = the standard deviation of the growth rates of per capita real GDP in country $i$ over the years which belong to sustained growth episodes; $\sigma^{max}(g)$ = the standard deviation of the growth rate of per capita real GDP in the country (or countries) with the highest number of years belonging to sustained growth episodes; $CV^i$ = the coefficient of variation of the growth rates of per capita real GDP in country $i$ over the years which belong to sustained growth episodes; $CV^{max}$ = the coefficient of variation of the growth rates of per capita real GDP in the country (or countries) with the highest number of years belonging to sustained growth episodes. $S^i$ is as defined above. Note that the sustained growth scores thus obtained account for the level, regularity, and variability of growth performance of countries.

(d) *Step IV*: *Construct the Sustained Growth Index (SGI).* This is done via the procedure used in constructing the other elements of the ESI. The average of the sustained growth raw scores of the three best performing African countries is set as the norm with a score of 7. Subsequently, SGI country scores are determined by using one-half standard deviations of the distribution of the raw scores as boundaries.

## Scoring Methodology

For each individual indicator, the average of the three best performing African countries for that particular indicator is set as the norm, a score of 7. Boundaries were determined by using one-half standard deviations of the distribution of the data. Where appropriate, half standard deviations of the logarithmic transformation of the data were used instead. The scores for all indicators within each category were averaged to find the category scores, and the category scores were subsequently averaged to determine the overall sustainability index.

## Weights

Simple averages of the scores for each indicator within a particular sub-category are used to derive the sub-category scores (e.g., Health, Education). The sub-category scores are averaged to find the category scores (e.g., Human Capital Development Index), and the five category indices are then averaged to compute the final index.

- **Medium Term Change in Economic Sustainability Index**

For this exercise, 25 of the 36 component indicators of the ESI were available. Available data was from various years between 1985 and 1987. The scores for the 1987 ESI were computed in the same manner as the 2000 ESI, with the exception of the fact that the 'best practices' benchmarks, used to determine a score of 7, were taken from the 2000 ESI. Thus, the change in ESI measures the extent to which countries have improved or worsened in relation of the best performers of 2000.

Economic Policy Stance Index (EPSI)

- ***Macroeconomic Policy Stance Index***

Constituents

The macroeconomic policy stance index summarises the performance of countries regarding the economic policies they have pursued. It is divided into subindices of fiscal, monetary, and exchange rate policy, each of which combine one or more relevant variables, as in the Economic Sustainability Index, as follows:

1. Fiscal Policy Index

1a Government budget deficit as a percentage of GDP
1b Taxation Policy
1b.i Ratio of taxes on international trade to taxes on income and profits
1b.ii Ratio of indirect taxes to taxes on income and profits

2. Monetary Policy Index

2a Growth rate of the money supply (M2)
2b Commercial bank deposit interest rates
2c Spread between prime lending rate and savings deposit rate

3. Exchange Rate Policy Index

3a Ratio of parallel market exchange rate to official exchange rate

**Scoring Methodology**

The Economic Policy Stance Index follows the same scoring methodology as the Economic Sustainability Index; see above for details.

**Weights**

Again, scores for individual indicators are averaged to derive the category scores, and the two category scores are averaged to find the final index.

- **Expanded Economic Policy Stance Index and Survey Exercise Results**

Constituents

For the expanded version of the Economic Policy Stance Index, the macroeconomic policy index detailed above has been supplemented with the results of a survey questionnaire on qualitative aspects of economic policy. This survey was carried out for 11 countries. Respondents were asked to give a score between 1 (strongly agree) and 6 (strongly disagree) in response to a series of statements about different areas of economic policy. The survey instrument was constructed such that for all items, a low score by the respondent reflected a desirable opinion. Thus, the lower score in a particular area, the higher the opinion of our respondents was in that area, and the better the score. The policy areas were as follows:

1. Policies for Sustainable Growth and Structural Transformation

1a Pro-poor policies
1b Private and public sector coordination
1c Policies for gender development
1d Trade policy
1e Financial sector policy
1f Product market policy
1g Factor market policy
1h Administration of public enterprises
1i Effectiveness of sectoral policies

2. Policies for Market and Institutional Development

2a Guarantee of property rights
2b Legal system
2c Civil service
2d Independence of central bank

3. Macroeconomic policies

3a Monetary policy
3b Exchange rate policy
3c Macroeconomic policy coordination

Also included in the constituents of the expanded EPSI are the quantitative variables from the macroeconomic policy stance index discussed previously.

## Scoring Methodology

Because of the difference in the distribution of quantitative indicator scores and survey responses, we depart from the previous "best practices" scoring methodology. Instead, the distribution of each indicator and policy area is replaced with the respective z-scores, so that the mean is equal to zero and the standard deviation is equal to one. Because of the small sample size, individual scores are not reported; rather, the scores are divided into four categories using cluster analysis.

## Weights

As in the ESI and macroeconomic policy stance index, the individual scores are averaged to find the category scores, which are then averaged to find the expanded EPSI score.

## Notes on the Survey Exercise

The surveys were distributed by ESPD staff, county consultants, and representatives of the Sub-Regional Development Centers. The questionnaire consisted of two separate forms: Form 1, for all respondents, and Form 2, for respondents with particular knowledge of economic affairs. The sample size for each form and country was as follows:

| Country | Form 1 | Form 2 |
|---|---|---|
| Botswana | 11 | 11 |
| Burundi | 22 | 22 |
| Ethiopia | 19 | 15 |
| Kenya | 19 | 12 |
| Lesotho | 12 | 14 |
| Malawi | 14 | 13 |
| Mozambique | 9 | 9 |
| Namibia | 20 | 16 |
| Nigeria | 22 | 14 |
| Sudan | 14 | 13 |
| Zambia | 14 | 14 |

**ECA - CEA**

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**Economic Commission for Africa**
**Commission économique pour l'Afrique**

Date: 28 January 2000
Ref.: ESPD/00

To: Mrs. J. Ouedraogo, Chief, ACW
Mr. S. Jack, Chief, PPFED
Mr. J. Nxumalo, Chief, DMD
Mr. Y. Suliman, Chief, RCID
Mrs. Karima Bounemra, Chief, DISD
Mrs. P. Makinwa-Adebusoye, Chief, FSSDD
Mr. P. Chiumya, Chief, CGSD

From: Ali Abdel Gadir Ali
Chief, ESPD

**Subject:** **Review Meeting on the Economic Report on Africa 2000: ESPD Meeting Room, 14 February 2000**

Noted for PMA 4/2/00

Enclosed please find a copy of the Economic Report on Africa 2000. The theme of the report is the "***Initial Conditions for Africa's Development in the 21st Century***".

The ERA 2000 contains four chapters. The first one is a review of Africa's performance in 1999. Chapter 2, based on a reading of the vast literature on the determinants of economic performance, addresses the issue of initial conditions. The reader is served with a selective stock taking exercise on where the continent is as it enters the 21st century. We believe that our selection of the "initial conditions" is appropriate, given the accumulated knowledge. Chapter 3 then explores the policy options open to the African policy makers. While not very original, this chapter attempts to open the debate on a number of issues that may have been side tracked by the economic policy debate of the past two decades. We note in this respect that appreciating the complexity of the development process as a transformation process must suggest that the policy menu should not be viewed in narrow technical economic terms.

The last chapter of the ERA 2000 is once again on sustainability indicators. As we promised our member states we believe that the current version is a more deepened one. The data base is better, the coverage wider and the ranking is in accord with our intuition. An innovation that we introduced this year has to do with the concept of sustainability itself. We developed an indicator based on past growth performance to take account of this aspect. The ranking of countries is based on the ability to generate and sustain positive growth rates (where we use moving averages and define a growth episode), the level of these growth rates and their variability over time (where we use the coefficient of variation). Thus in addition to the sub-categories of last year we have an additional category in the sustainability indicator that captures the dynamic aspect. All sub-categories are equally weighted.

I will be grateful if you could review the ERA 2000. To facilitate the process of producing the report we will appreciate it if you could follow the following suggestions for review:

(a) Review the Report and provide comments with a view to improving the content and presentation of the results;
(b) Where changes are deemed necessary, provide concrete suggestions as to specific rewording of paragraphs, relocation of paragraphs or deletion of paragraphs;
(c) Where changes are deemed necessary, provide concrete suggestions as to specific redrawing of graphs, relocation of graphs or deletion of graphs;
(d) Where changes are deemed necessary, provide concrete suggestions as to specific arraying of tables, relocation of tables or deletion of tables;
(e) Provide, if any, suggestions for worthy inclusions in the bibliography.

We plan to hold an inter-divisional meeting on Monday, 14 February 2000 to listen to your reactions and suggestions to improve the content and presentation of the Report.

Cc: Executive Secretary
Deputy Executive Secretary