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Africa is a region of great diversity in terms of geographical size, population, income per capita, resource endowment, historical background, socio-political fabric, climate and topology of individual countries. This characteristic makes it almost impossible to address issues of economic development without risking an overgeneralization. This paper takes that risk and looks into the major economic development issues in Africa with a view to throwing some light on the lessons that can be learned from the process of development in Africa in the past two decades and the implication of this experience on the choice of strategy in the region.

In the first section, the African region is examined in the context of the international economy with a view to indicating the impact of the international factors on the African economy in absolute terms and relative to other regions. The second section looks at the African economy in terms of domestic categories like economic growth, agricultural development, industrial development, investment, government finance and political instability. These categories are used as partial indicators of the performance of the African economy in the development process of the past two decades. The third and final section examines the strategies which have been followed and the policies which have been pursued in Africa in agricultural and industrial development.

Development Issues: The International Context

The current account deficit (excluding official transfers) increased from 4 percent of GDP in 1973 to 9.5 percent in the 1975-1980 period (Rwegasira 1982). The current account deficit continued to deteriorate from $1.9 billion in 1973 to $13.7 in 1981. This increasing deficit can be attributed to the recession in the world economy (to the extent that it affected the demand for exports and terms of trade), the oil price hikes, the cost of borrowing and declines in the supply of exports from Africa (due to external and internal factors).

As Goreux (1980) has shown, there is a strong relationship between the business cycle in the industrial economies and the prices of primary commodities. He found that each 1 percent change in the business cycle index is associated with a 2.2 percent change in primary commodity prices. Furthermore, Wheeler (1982) has used an econometric analysis and found that in Sub-Saharan Africa most of the growth explanatory weight seems to be carried by percentage changes in the quantity index of imports of industrial economies. In this context, Africa stands to lose most from recession in the industrial economies, since it is the world region most dependent on primary products. Some of the countries in Africa are highly dependent on the export of minerals and metals (in 1978 these constituted 40 percent of exports in Niger, 87 percent

in Mauritania, 71 percent in Zaire, 98 percent in Guinea, 49 percent in Togo, 63 percent in Liberia, and 94 percent in Zambia) while the majority are highly dependent on exports of agricultural primary products (in 1978, for example, these constituted at least 90 percent of exports in fourteen countries out of thirty-one non-oil exporters for which data was available).

Sub-Saharan Africa has had a high commodity concentration of exports. On average, the share of the three principal exports in total exports in 1976-1978 was 79.1 percent up from 60.6 percent in 1961. At least in eight countries this share was above 90 percent. Such a high concentration of commodity exports is a potential indicator of fluctuations in export earnings in the event of price changes (such as the fall in the price of copper that has badly affected Zambia and Zaire recently) or volume changes (due to drought, for example).

In non-oil exporting African economies the widening current account deficit was thus dominated by the increase in the non-oil trade deficit, which in 1981 accounted for 76 percent of the total current account deficit. This is explained both by deterioration in the terms of trade and by declines in the export volume. Average non-fuel export prices fell sharply by 17 percent (Rwegasira 1982).

In oil-importing African economies,[1] the oil trade balance alone deteriorated from a deficit of $362.1 million in 1973 to $3,918.1 million in 1981. Thus, in 1981 the share of the oil trade balance in these countries had increased to about 30 percent, up from 22 percent in 1973. In the same group of countries the non-oil trade balance declined from a surplus of $943.3 million in 1973 to a deficit of $2,555.2 million in 1981. The rest of the deficit in 1981 ($6,665.9 million) was due to net service and private transfers. The deficit in the oil-trade balance increased that much in spite of the absolute declines in the volume of oil imports in many of these countries.

The increased cost of borrowing reinforced by the shift of the structure of loans towards commercial sources contributed to the worsening balance of payment position. Thus, interest payments on long-term debt in Africa[2] contributed $400 million to the current account deficit, this figure rising to $3,100 in 1981 up from $1,700 in 1979 and $800 in 1978 (Rwegasira 1982). The terms of borrowing worsened. Average terms of new commitments of public and publicly guaranteed debt worsened between 1970 and 1979. The average interest rate more than doubled, maturity of loans was shorter by 50 percent, the grace period became shorter by 30 percent and the share of the grant element declined by 29.6 percent points (from 46.3 percent to 16.7 percent).

These developments led to an increase in the public debt (including publicly guaranteed debt) from $5,136.4 million in 1970 to $32,256.2 million in 1979 in Sub-Saharan Africa. In the Sub-Saharan region the debt service as a percent of exports of goods and services increased from 5 percent in 1970 to 6.9 percent in 1979. In six countries in 1979 this ratio exceeded 20 percent compared to only one country in 1970.

The purchasing power of exports fell at an annual rate of 2.7 percent during 1970-1979 while the growth of imports decelerated from an annual growth rate of 6 percent in 1960-1970 to 3 percent in 1970-1979. In fact, in 11 out of 29 countries for which data was available, an absolute decline in the volume of imports was recorded. The effect of this on economic growth could not have been positive.

Development Issues: The Domestic Context

Economic Growth. The growth of the world economy declined from an annual rate of growth of GNP of 5.1 percent during 1955-1970 to only 3.8 percent during 1970-1980 and growth of GNP per capita decelerated from 3.1 percent during 1955-1970 to only 1.9 percent during 1970-1980.[3] All developing countries recorded GNP growth rates somewhat above the world average (annual growth rate of 5.1 percent [1955-1970] and 5.3 percent [1970-1980] and GNP per capita average annual growth rate of 3.1 percent) during 1955-1980. Africa, however, fell behind the decelerating growth in the world economy. Thus during 1960-1979 Sub-Saharan Africa recorded an average annual growth rate in GNP per capita of only 1.6 percent with eight countries experiencing an absolute decline in their GNP per capita.[4] During 1970-1979, Sub-Saharan Africa had a GNP annual growth rate of 2.9 percent with seven countries experiencing an absolute GNP decline during that period. Over the 1960-1980 period, of the eleven countries (in the world) which recorded absolute declines in GNP per capita, nine countries are to be found in the Africa region alone.[3]

Within Africa, however, there is great variation in the growth performance of individual countries. Among the mineral-rich countries the oil producers generally showed favorable growth rates while the non-fuel mineral-rich countries like Zambia and Zaire were negatively affected mainly by shifts in the terms of trade. Over the 1970-1980 period[5] the oil-rich countries recorded high growth rates (6.5 percent for Nigeria, 7.5 percent for Tunisia and 7 percent for Algeria). Adedeji (1982) has pointed out that while the oil exporting countries experienced an average growth rate of 7 percent during 1960-1978 the non-oil exporters' average annual growth rate was only 3.8 percent over the same period. The economies which are rich in minerals and metals experienced low GNP growth rates (Zambia 0.7 percent, Mauritania 1.7 percent, Zaire 0.1 percent, and Liberia 1.7 percent). Wheeler (1982) has indicated that five mineral states (Mauritania, Sierra Leone, Togo, Zambia and Zaire) have exhibited a pronounced downward trend in relative performance during the last two decades.

Acharya (1981) has used the cases of Kenya, Malawi and Ivory Coast to argue that market-oriented economies have had higher growth rates than what he calls the etatist economies of Tanzania, Ghana, Sudan and Guinea. Roamer (1982) has used the cases of Ivory Coast and Kenya to argue that market-oriented economies have grown faster than economies marked with government intervention (in his case taking Ghana and Tanzania to represent the latter group). However, a look at the low (or negative) growth economies (1970-1979) shows that such countries like Chad, Upper Volta, Mauritania, Sierra Leone, Zaire, Madagascar, Liberia, Ghana, Angola, Mozambique and Uganda are a mixed bag in terms of market orientation or government intervention. With such a mixed bag it is possible to select a sample systematically in order to impose one's own view either way. A more useful analysis would involve some indications of how the market and government intervention would have been used to influence growth.

Categorizing African economies by income level, Adedeji (1982) has indicated that while the low income economies (less than per capita income of $100.00 at 1970 prices) registered an annual average growth rate of 2.9 percent during 1960-1978, the middle income economies ($100-$300 at 1970 prices) and high income economies recorded annual average growth rates of 4 percent

and 6 percent respectively over the same period. In their review of alternative forecasts about the future of Africa, Shaw and Munton (1982) have shown that all projections point toward minimal growth in the region as a whole though a few states may register considerable growth up to year 2000.

On the whole, the impact of the international economy (especially terms of trade) on economic growth in Africa has been paramount. The diversity of growth rates between oil exporters and non-oil mineral exporters, for instance, is a reflection of this impact. Wheeler (1982) has provided further evidence that barter terms of trade are a significant explanatory variable of growth in Sub-Saharan Africa and in fact he proceeds to show that when the trade environment of the 1960s is recreated the growth rates in Sub-Saharan Africa in the 1970s almost double.

Agricultural Development. Agriculture accounts for over 40 percent of the GDP and over 75 percent of the population live on agriculture in the bulk of the African region. The growth of the agricultural sector, however, has been disappointingly low. The last decade was a difficult one for agriculture in the whole world, with the annual rate of growth of world output declining from 2.6 percent during 1960-1970 to 2.2 percent during 1970-1980. The corresponding per capita annual growth rates declined from 0.7 percent to 0.4 percent in the two decades. Africa, however, had its annual rate of growth of agricultural output declining more sharply from 2.7 percent during 1960-1970 to 1.3 percent during 1970-1980 with the corresponding per capita annual growth rates declining even more sharply from 0.2 percent to -1.4 percent in the two decades.[6]

The growth performance in the agricultural sector has been poor with respect to both food crops and non-food crops. Africa's share of non-oil exports in total developing country exports declined from 17 percent in 1980 to 11 percent in 1979.[7] While the volume of exports increased at an average annual growth rate of 5.9 percent (1960-1970), it declined at an average annual rate of 0.8 percent during the 1970-1979 period. Food production annual growth rate decelerated from 2.6 percent during 1960-1970 to 1.6 percent during 1970-1980 in Africa with food output per capita declining in absolute terms (decreasing at 1.1 percent annually) in the last decade.[8] This has led to a decline in nutritional standards and an increase in food imports at the rate of 3.5 percent per annum during 1969/1971 - 1977/1979 in Sub-Saharan Africa.[9] Shaw (1982) has quoted FAO for indicating that in order for Africa to feed its population by the year 2000 an annual growth rate of 3.5 percent in food production is required. This rate was achieved by only nine countries in Africa over the 1970-1979 period.

The significance of agriculture in Africa in terms of the proportion of the population that derive their livelihood from this sector raises great concern about the eradication of poverty in rural Africa. The fact that agricultural growth fell behind GDP growth suggests widening income disparity between agricultural sector incomes and incomes in the rest of the economy. The mass poverty in the rural areas cannot hardly be improved this way. If this problem is so acute (as indicated by the trends in aggregate agricultural production), it becomes even more so if the analysis is made in terms of ownership and entitlement as Sen (1981) has pointed out. In this context, he argues that to understand the impact of this problem it is necessary to focus the analysis on the ownership patterns of different classes and the exchange possibilities that these classes have. In the African context, Sen (1981) has demonstrated the significance of this type of analysis for some of the Sahelian economies.

Industrial Development. During the past two decades the industrial sector in Africa has grown faster than the GDP. During 1970-1979 the average annual growth rate in industry in Sub-Saharan Africa was 3.3 percent compared to the GDP growth of 2.9 percent.[10] However, this compares unfavorably with the average annual growth rate of industry in all low income countries (4.2 percent), all middle income countries (6.5 percent) and marginally exceeding that of industrial countries (3.2 percent).[10]

Within Africa, however, not only is the level of development of industry extremely diverse but even the average annual rate of growth of the sector is diverse. In 1976, for instance, four countries (Egypt, Nigeria, Algeria and Morocco) accounted for about 53 percent of manufacturing value added in Africa while twenty-three countries had a share of less than 1 percent each in manufacturing value added in Africa.[11] During 1970-1976 annual growth rates in manufacturing value added (MVA) in individual countries varied widely from a low of -10.8 percent to a high of 28.6 percent.[11] Ten countries had negative MVA growth rates while Gabon, Libya, Swaziland, Nigeria, Congo, Mauritius, Tunisia, Botswana, Algeria, and Mauritania recorded MVA annual growth rates in excess of 10 percent. Some of these countries with high MVA annual growth rates are oil exporters and the majority of the remainder had their MVA growing from a very low initial level.

For most African economies the industrial structure is relatively undiversified, consisting largely of food, beverages and textile manufactures. These three traditional industries (food, beverages and textiles) accounted for 42 percent of MVA in Egypt, 32 percent in Ghana, 71 percent in Ethiopia, 76 percent in Burundi, 62 percent in Malawi, 43 percent in Tanzania, 51 percent in Nigeria, 35 percent in Ivory Coast and 47 percent in Mozambique.[11]

While on average the industrial growth rate has been higher than the annual GDP growth rate in the past two decades, industry has performed below expectations in terms of (i) impact on the balance of payments (has been a net user of foreign exchange), (ii) forging inter-sectoral and intra-sectoral linkages, (iii) acquisition and development of skills, and (iv) the development of the technological capacity. These issues will be taken up in later sections of this paper.

Investment. One determinant of GDP growth is investment. There seems to have been an association between the growth in gross domestic investment (GDI) and growth in GDP. In countries where the annual rate of growth of GDI was negative (for example, Ethiopia, Mozambique, Zaire, Uganda, Ghana, and Zambia), the annual rates of GDP were either very low or negative. Countries which experienced high annual growth rates in GDI (for example, Nigeria, Ivory Coast, Cameroon and Sudan) also recorded high annual GDP growth rates.[12] In Sub-Saharan Africa as a whole, however, GDI increased at a higher average annual rate (3.2 percent) than GDP (2.9 percent) during 1970-1979.[12] In spite of the fact that the annual rate of growth of GDI was higher than that of GDP during 1970-1979, the growth of GDP decelerated in the 1970s. This may be thought to be an indication of less efficient use of investments. This indication, however, may not be valid in the context of African economies whose structures have been changing during this period. The important investments in infrastructure and in industries which are basically capital-intensive (petrochemicals, for example) may have contributed to a rising incremental capital-output ratio. In addition, investments in agriculture have in some places been in marginal lands which had to be irrigated (for example, in Sudan and Nigeria).

Government Finance. The slow rate of growth of African economies reinforced by the balance of payments crises have had a negative impact on government finances. First, the slowing down of economic activity has made revenue raising efforts less effective. Second, the decelerated export and import growth has had a negative effect on revenue from export taxes and import duties. Third, governments have been under continued pressure of demands for basic services (such as education and health) which are associated with demographic changes and expenditures associated with the momentum of past economic growth. Fourth, the rise in the debt service ratios has increased pressure on the government budgets (reducing net external borrowing). Fifth, inflationary pressures have contributed to budget deficits to the extent that inflation is not built into the tax base while it is built into government expenditures. Pressures on the government budgets have resulted in increasing deficit financing and the consequent high growth rates in money supply. The association of government budget deficits to supply constraints render inappropriate economic policies which attempt to deal with budget deficits as a short-term stabilization phenomenon when in fact it is inseparable from the structural phenomena. The close link between short-term demand management and longer-term supply restructuring warrants a re-examination of the types of policies which focus on the former as a separate phenomenon. While this should not imply that there is no place for short-term policies in Africa, preoccupation with such policies alone can be inappropriate in this context.

Political Instability. Instability of governments has been a common phenomenon in Africa. Whether this has taken the form of civil war, coups, revolutions or political unrest, the effect of such political changes on the African economies has been paramount. Political instability has influenced economic activity through its effect on investments (domestic and foreign), brain drain, diversion of resources to meet political ends, and shifting attention to short-term socio-economic objectives. Negative growth rates in Chad, Mozambique, Uganda, Ghana and Angola, for instance, are associated with struggle for power in some cases or the violent transfer of power to the people in other cases. In this context, Wheeler (1982) has used an econometric model to show that political instability is a significant explanatory variable of growth in Sub-Saharan Africa. While this is a useful pointer to the role played by political instability, there is no simple causal relationship between this phenomenon and growth. Political instability may in some cases be a desirable turning point in the history of an economy depending on its impact in the organization of production and distribution of the social product.

Strategies of Development

Agricultural Development Strategies and Policies. It has been shown above that agricultural production (exports and food crops) has grown sluggishly, stagnated, and in some cases declined in absolute terms. Determinants of such an unsatisfactory performance and the strategies which have been tried in Africa would give useful hints on the possible strategies for the future. Factors such as weather, pricing, marketing, supply of inputs and services, direction of research, organization of production, and choice of technology deserve specific mention.

Weather. Weather has had a negative effect on agricultural output in many African countries. Drought has afflicted the Sahelian countries and, to a lesser extent, countries like Kenya, Tanzania, and Zambia. Wheeler (1982) also has found drought to be a significant explanatory variable of growth in Sub-

Saharan Africa, especially in the Sahelian States and East Africa. It is still not established whether this is a general change of climate or whether it is a temporary deviation from the type of climate experienced in earlier periods (such as the 1950s and part of the 1960s).

Unlike Asia, for instance, irrigation has so far played a very small role in Africa's agriculture. Of the total irrigated area in Sub-Saharan Africa, 80 percent is in Sudan (65 percent) and Madagascar (15 percent).[13] Irrigation also plays an important role in some of the Sahelian countries (Mali and Senegal) and to a lesser extent in the northern parts of some West African countries (Ivory Coast, Nigeria, Cameroon), and in river valleys of Ethiopia, Mozambique, Somalia and Zimbabwe.

Most schemes, however, have been large, requiring considerable investments (in foreign exchange) and imported maintenance inputs. In some cases, the domestic resource cost has been in excess of the foreign exchange savings (Senegal and Mali, for example). Hence, in Sudan, for instance, the foreign exchange shortage has led to the lack of imported spare parts, fuel and machinery to keep the irrigation schemes operating. Some of the problems which have also been mentioned in connection with these schemes include poor water management, insufficient leveling of land, soil problems, input supply bottlenecks, use of varieties not adapted to local conditions and poor economic incentives.[14]

River basin development through large-scale irrigation is receiving priority in several countries since the early 1970s (the Senegal valley, the Rufiji and Kagera River basins in Tanzania, the Badhera Dam in Somalia, the Sokoto Rima, and Hadejia-Jama area river systems in Nigeria). The experience of financial (local and foreign exchange) implications of such large schemes in Sudan, Niger, Mauritania and Northern Nigeria should provide a useful lesson to the design of new schemes in the future.

Small-scale irrigation in flood plains and swamps has been practiced in some countries (for example, Nigeria, Ivory Coast, Sengal, Sierra Leone and Madagascar). These schemes have been more amenable to fuller farmer participation and self-help and cheaper (in terms of capital and foreign exchange). The potentials that exist could be tapped. Efforts to tap small-scale irrigation based on ground water development through pumping are being undertaken in some countries (such as Nigeria).[14]

In some countries, efforts are being made to encourage peasants to grow drought-resistant crops and to develop quick-yielding varieties for areas with short rain seasons (Tanzania, Kenya and Zambia, for instance). It seems necessary to shift the emphasis of research in supprt of the development of such drought-resistant crops and quick-yielding varieties.

Pricing and Marketing. Since it is through prices and markets that farmers transform their efforts into incomes it is worth looking into pricing policies and marketing systems of both food crops and exports.

The main problem with the pricing of export crops lies in the African countries' inability to influence the world market prices. Most of Africa's exports (primary product export concentration is highest in Africa) are auctioned in the market as if a minimum cost covering price does not exist. In the first section of this paper, the unfavorable trend of terms of trade has been shown. Even in years when terms of trade improved this was often

explained by accidents (for example, the coffee boom of 1967/1977 following the crop failure in Brazil and Colombia). If these accidents are excluded then the deterioration of terms of trade would be more severe. Recent trends do not point to much progress towards controlling or at least influencing world prices in commodity exports. There have been disappointments in several recent commodity agreements (tea and cocoa, for example). Even in commodities where Africa is a significant producer, considerable losses have been incurred in the process of trying to withhold stocks in order to raise the price (for example, Ivory Coast, Nigeria, and Ghana on cocoa).[15] The world system of division of labor is the major factor behind the inadequate price levels of exports from Africa.

In view of the bitter fact that the structure of exports is unlikely to change significantly in the near future yet the import-dependent development structures cannot be abandoned abruptly, it seems inevitable for governments in Africa to do what is within their control to influence the producer prices in order to prevent further deterioration of urban-rural terms of trade and reduce chances of dramatic declines in the output of export crops. One such area is the minimization of the margin between the world market price and the price paid to the farmer.

It has been argued that taxation on export crops has been very severe. Estimates of the nominal protection coefficients (producer price as a share of the world price minus transport, marketing and processing costs) have shown that during 1976-1980 the NPC for cocoa were 0.38 in Ivory Coast, 0.4 in Ghana and 0.45 in Cameroon. For coffee the NPC was 0.59 for Tanzania and 0.36 for Ivory Coast.[16] The low values of NPC indicate that reduction of export taxes could have an influence in the price offered to the producers.

The marketing costs have also contributed to lowering the prices received by farmers. In an effort to control the marketing of export crops, several governments have established government-owned marketing institutions. Some of these have had such high overhead costs that it is now being recognized that they are operating at the expense of the producer. In Kenya this function is being transfered to cooperatives and private firms.[17] In Tanzania cooperatives are being reintroduced (they were disbanded in 1976) and the crop authorities whose operating costs have been high hitherto[18] are being streamlined and rehabilitated.[19]

Another means whereby the producer prices of exports could be increased within the constraint of the world market prices is by devaluation. Some devaluations have been undertaken in some African countries in the 1970s (for instance, Kenya and Sudan). Many countries in Africa have been hesitant to invoke devaluation partly because of its unintended effects on a wider range of domestic prices adjusting to import prices, thus reducing its impact on relative prices and balance of payments. However, in countries where the domestic prices are greatly divergent from the world prices, moderate devaluations may be necessary to reduce such divergence gradually.

Pricing of food crops has been under government control in most African countries in pursuance of the dual and conflicting objectives of providing incentives to producers and protecting the interests of consumers. One consequence of attempts to achieve both objectives at the same time has been the considerable budgetary implications of subsidies or losses incurred by the marketing institutions (for example, Tanzania's national milling corporation). In some countries food imports have played the role of depressing domestic

food prices, thus negatively influencing food production (as in Nigeria).[20]

In an attempt to reduce price inequalities among farmers of different regions some countries have pursued pan-territorial pricing policies (all producers receive the same price). In the case of Tanzania, Ndulu (1980) has shown that this policy has encouraged producers to disregard the effect of transport costs; thus, in some remote rural areas of Tanzania, low value crops have displaced high value crops.[21] Such shifts increase demands for transport with its fuel and foreign exchange requirements.

Supply of Inputs. Even if high producer prices were paid, agricultural production and productivity would still be inhibited by inadequate or irregular supply of inputs (for example, fertilizer, improved seeds, insecticides, pesticides, farm implements, machinery and spare parts). This important function has not been carried out satisfactorily in most African countries.[22] Noting that procurement and distribution of inputs has largely been monopolized by governments and parastatals in most countries in Africa, it has often been suggested that this function has been unfulfilled because of the insufficiency of government agencies.[22] While it is true that depending on their organization, some parastatals may be inefficient, it does not seem evident that "government agencies have failed to meet these needs because they have difficulties in adapting bureaucratic, financial and administrative procedures to commercially oriented operations."[22] The experience of most countries in Africa, however, suggests that the inadequate supply of agricultural inputs to agriculture reflects macrolevel priorities and imbalances. The industrial sectors, even in countries where industry is relatively more developed (for example, Nigeria), have not been linked to the agricultural sectors in terms of supplying the latter with inputs. Even in cases where industrial plants to produce agricultural inputs have been set up, they have been highly import dependent (even when local raw materials exist, for example, the fertilizer plant in Tanzania) such that the recent foreign exchange crises have inhibited adequate supply. The foreign exchange bottleneck has directly led to short supply of imported agricultural inputs. Under these circumstances any import intensive agricultural schemes (large irrigation schemes, some large state or private farms of crops which are not even amenable to economies of scale) have contributed to the overall shortage of supply of imported agricultural inputs.

Within the constraints of the balance of payments crisis, governments have first a choice between allocating the meager foreign exchange to consumer luxuries or to agricultural inputs. There is no undisputable evidence of the pattern of choices that governments in Africa have taken but shortage of agricultural inputs does not seem to have been preceded by the shortage of luxury consumer goods in several countries in Africa. To the extent that this is so, rehabilitation of agriculture will require a shift in the priorities (in the type of industrial development and in the pattern of allocation of foreign exchange) to ensure adequate supply of inputs at national level.

Organization of Production and Technologies Used. The bulk of agricultural output in most African countries is produced by small-holder farmers. Islands of large plantation farms, however, are to be found mainly in the formerly white settler areas (such as Kenya, Zambia and Zimbabwe) and in large irrigation or river basin schemes (such as Sudan, Upper Volta, and Senegal). During the 1960s and 1970s many African countries established state farms either from scratch or by nationalizing the large-scale farms (for example, Tanzania, Ethiopia, Zambia, Ghana, and Ivory Coast). These large-scale farms were established in order to facilitate transition to mechanized, high productivity

schemes which would increase marketable surplus. In areas where state farms took the form of irrigation schemes, the main objective was to combat drought (as in Chad, Mali, Sudan, Mauritania, Senegal, and Northern Nigeria).

A World Bank Report has argued that these ventures did not fulfill expectations as they were beset with problems of management, over-employment of staff, underutilization of expensive machinery, and maintenance of equipment and infrastructure.[23] This report uses this evidence to put forward the case for giving high priority to small-holders. It is not very clear whether the argument is for small-holders, against large-scale farms, or against government-owned farms. Further evidence in the report, however, suggests that it is putting up a case against government-owned farms and not large-scale farms as such. This is clear from the subsequent argument in the report that large private farms provide major shares of marketed output in Kenya, Malawi, Swaziland, Zambia and Zimbabwe, and therefore proceeds to argue that any growth-oriented strategy must include these "islands of high productivity agriculture."[24]

One important characteristic of most countries in Africa is the high rate of population growth. Unlike in the now industrialized countries where increasing productivity in agriculture released labor into other sectors of the economy, in Africa there seems to be a situation where the land is facing increasing pressure partly because of the low labor absorptive capacity of other sectors of the economy and partly because of high population growth rates. Under these conditions, in many parts of Africa the transition from land-extensive type of agriculture to land-intensive agriculture becomes a necessity. The place for large mechanized farms, while not ruled out, becomes more limited (whether these be state farms or "islands of high productivity," large private farms). Another phenomenon which may render large scale farms more limited is the chronic balance of payments crisis which economies in Africa are facing. These crises will not work in favor of expensive imported fuel and spare parts. This may be afforded probably at the expense of other agricultural inputs without which overall agricultural output may not increase even if productivity in the few large scale farms may be high. Even in Kenya where highly productive large-scale farms are supposedly found,[24] a recent government policy paper has pointed out that small farms have demonstrated higher productivity and employment intensity per hectare for most crops and are the principal means by which the benefits of agricultural production can be equitably shared among large numbers of people.[25] A further caution against taking for granted these "islands of high productivity" is provided by van Zwanenberg (1972) showing how they were protected from the small holders through preferential access to transport, markets, extension services, marketing (channels and pricing), and credit, and through taxation, labor laws, and prohibitions on African small holder cultivation of certain cash crops.

While these arguments do not rule out the possibility of efficient mechanization in isolated cases, large scale mechanized farming is not likely to be a viable general approach in Africa in view of the increasing population pressure on the land and inability to produce these basic agricultural machinery and equipment in the domestic industrial sectors in Africa.

Agricultural Research and Extension. Expenditure on research in the mid-1970s was estimated to be 1.4 percent of the value of agricultural output in Sub-Saharan Africa, this being half of proportion in the industrialized countries.[26] Despite considerable achievements in some export crops, much of the research effort has been inadequately focused, lacking in continuity, and has

suffered from the shortage of funds. The lack of continuity has made it difficult to maintain improved technologies. One of the most significant weaknesses of the research focus is its failure to tackle the problems of staple food crops with a view to raising the yields and improving their drought resistance.

Carrying out basic and applied research can be expensive and beyond reach in many small countries in Africa. This is an area where sub-regional and regional research institutions should really be encouraged. The several such institutions that are existing now need to be strengthened. Such regional and sub-regional research institutions would have to be complemented by national or intra-national research stations which can take care of the local specific nature of agricultural research. In this way the experience and limitations of the transfer applicability and maximization of benefits from regional and subregional research institutions, as shown by Schlie (1976) in the case of the East African Agricultural and Forestry Research Organization, can be avoided.

Extension services are an important vehicle for carrying the technology package and research findings to the users. For the Africa region it has been pointed out that the inadequate spread of improved technology has contributed to the slow growth in agriculture [FAO (1978) and ADSA (1981)]. One of the problems which have faced extension services is the insufficient recognition and appreciation of the socioeconomic conditions in the traditional farming systems in which peasants are operating. While the extension staff have often operated with a partial farming system in mind (such as cash crops in which there is technological improvement to carry to the farmer) the farmer has in mind the farming system as a whole. In fact in some cases extension services for specific cash crops have been provided without proper coordination of extension services for other cash crops (such as the case of crop authorities in Tanzania where each authority has been providing services for its specific crop). Failure to appreciate and take account of specific conditions pertaining to the whole farming system has been quite common as shown by various examples in the World Bank (1982) report. For instance, in Northern Uganda the farmers' resistance to early planting of cotton (as advised by extension staff in order to increase yield) can be explained in terms of the farmer's decision to avoid risk of loss caused by occasional hail storms during harvest time and the need to deliberately extend the planting season in order to accommodate the planting of other crops (such as millet). In Nigeria the farmers' insistence on intercropping in spite of the extension staff's advice on pure stands (to raise yield of the specific crops) was not understood until studies showed that gross returns per hectare of crop mixture were 60 percent higher than those of pure stands. In view of these experiences, it seems important to reorient extension services towards the systems approach on the farm whereby the services can be provided with full consideration and appreciation of the farming system within which the farmer is operating. Another limitation pointed out by ADSA (1981) and World Bank (1982) is the shortage of operating funds and the rising burden of recurrent costs of extension services. In this context, it may be noted that the choice of mode of operation (such as transport) can influence the severity of this limitation. While, for instance, in the 1950s and early 1960s it was common for extension staff to move in the villages on foot or bicycle, the most common form of transport now is the four-wheel-drive vehicle. This "jump of development" from the foot/bicycle to the vehicle (even by-passing the motorcycle) has, as expected, reduced the extent to which extension services can be provided in the present conditions of the fuel and balance of payments crises. In Kenya, for instance, ADSA

(1981) has pointed out that even by the early 1970s some extension staff were operating only the first two months out of a six-month budget period due to lack of fuel for their vehicles (in this respect, the position of Kenya is definitely not the worst in Africa).

Industrial Strategies. One task of industrialization is to spread industrial techniques of organization and production in order to control and manipulate the physical environment in the interests of society. In this context, industrialization ought to perform these tasks through at least two mechanisms:

(i) creating flexibility in the economy in such a way that it is possible to alter the output-mix in response to changes in the demand pattern (domestic or world market) without significant reduction of total output and at reasonable cost; and

(ii) raising the productivity of industry itself and other sectors of the economy. This can be achieved through technological developments in industry itself and their effect on other sectors (by supplying inputs to these sectors and creating demand for outputs from these sectors in addition to the effect of other externalities).

In order to understand the process of industrialization in Africa it is important to point out that on the demand side the high rate of urbanization has been a main factor. The annual rate of growth of the urban population in Sub-Saharan Africa has been about 5-6 percent in the past 20 years, with the 35 major capitals recording an annual growth rate of 8.5 percent.[27] This exceeds considerably the annual rate of growth of urban population in low and middle income countries (about 4 percent) and in industrial economies (less than 2 percent).[28] This factor is important in explaining the types of industrial goods produced to meet the demand patterns and the locational concentration of industries in Africa.

On the supply side, foreign exchange (mainly earned through primary exports and various forms of foreign capital inflow) has provided the main source of capital goods and intermediate goods required in the industrialization process. The centrality of foreign exchange on the supply side was expected to diminish to the extent that industry would be a net foreign exchange earner. The stagnation of exports in the 1970s and the absolute decline in the net capital inflows since 1980[29] are pointers to the likely stagnation of any import-dependent and non-exporting industrial development strategy.

The industrialization strategy which has been pursued in Africa (whether stated explicitly in plans or not) has been import substitution industrialization (ISI). The ISI has been characterized by adoption of more sophisticated patterns of consumption (commensurate with the imports they replace) without the corresponding process of capital accumulation and technological development. The changing composition of output, therefore, reflected the progressive substitution of imports by domestic production. In this process the structure of industrial output has included the perishables (for example, food manufacture), bulky consumer goods (such as beer, which accounts for 60 percent of manufacturing output in Burundi, for instance, and is to be found in practically every African country), goods which are easy to manufacture and for which the technical optimum is small (for example, textiles, shoes, plastics, paints, and safety matches), assembly operations which make use of unskilled labor (such as radios, tractors, and bicycles), very heavy intermediate products (for example, cement and concrete blocks) and processing of agricultural raw materials in order to reduce deterioration (such as tea), or to upgrade traditional exports (such as cordage, coffee, and cocoa).

Under conditions of a very rudimentary entrepreneurial class in Africa the ISI has mainly been carried out by foreign investments and government enterprises and various types of combinations of the two. Foreign investments (through direct investment or joint ventures) and parastatal enterprises have played a considerable role in large scale manufacturing in countries as ideologically diverse as Ivory Coast, Tanzania, Kenya, Ethiopia, Sudan, Ghana, and Zambia, to mention only a few. State ownership of industry (through investment of own funds, borrowed funds, or joint ventures) has been considerable in pracatically all economies in Africa (as in Ivory Coast, Kenya, Tanzania, Sudan) in view of the need to acquire some domestic control of industry under conditions of a limited indigenous capitalist class and/or in reponse to failure of foreign investments to flow in as anticipated (having guaranteed protection and incentive structures). As Adedeji (1981) has indicated, the approaches taken in this context by African countries have varied. Some countries have steadily increased state control of the economy since the early 1960s at the expense of private enterprise (Egypt, for example); some have encouraged both indigenous entrepreneurs in the technologically simple sectors and the state enterprises in the strategic and technologically sophisticated sectors (Nigeria and Ghana, for example). Others have promoted state and local enterprises cautiously making sure foreign interests are not provoked (Kenya and Ivory Coast, for example), or have adopted a deliberately revolutionary approach in nationalizing the key sectors (Algeria, Mozambique, Angola, Ethiopia, and Tanzania, for example), while still others have remained a class to themselves as enclaves of the South African economy (Swaziland, Lesotho, and Botswana, for example). Foreign investments are also present in all African economies although to varying degrees. As Green (1981) has indicated, foreign investment is relatively low in the nationalist states which are structurally more developed (such as Egypt), in more developed socialist states pursuing state capitalism (such as Algeria), in weak economies with a transition to socialism (such as Tanzania, Angola, Mozambique and Ethiopia), and in economies which are so underdeveloped that foreign investment does not have much to reap (such as Mali and Lesotho). Green continues to indicate that foreign investment is high in the economies which are centered on petroleum, minerals or forestry export enclaves (such as Gabon, Zaire and Liberia). It is also notable that recently transnational corporations and other foreign firms have tended to move into joint ventures (with governments) and into management or technical contracts and various selling arrangements thereby reducing commitments in fixed assets physically located in Africa while maintaining control via "leasing" knowledge and capital as pointed out by Green (1981).

The importance of foreign investments and state enterprises in various countries in Africa has been elaborated further; for instance, by Rweyemamu (1973) for Tanzania, Obi (1978) and Teriba and Kayode (1977) for Nigeria, Mohamed (1980) for Ethiopia, Mills (1980) for Ghana, Kongstad (1980) and Leys (1975) for Kenya, and Aziz (1980) for Egypt. One common phenomenon in most of these studies is the considerable impact foreign investments (direct or joint ventures) have had on the determination of the type of technology to be used often corresponding to the technologies developed in their own countries and used in their various global activities elsewhere. As Thomas (1976) has indicated, there is incompatibility of choice of imported techniques and domestic input structures and this is explained by the tendency for the choice of products to precede the choice of techniques. This pattern, he argues, has been motivated by preferences for sophisticated, latest vintage and typically capital-using technology.

A most glaring phenomenon in the industrial development process of Africa has been its import intensity and the consequent failure to perform the integrating role of the economy and promote productivity in other sectors, especially agriculture. On the degree of import intensity, Rweyemamu (1973) and SAP (1973) have shown that the import content of manufacturing is high in the case of Tanzania; for Nigeria, Obi (1978) has pointed out that during 1963-1973 for every Naira of value added in manufacturing the economy spent 0.67 Naira on non-factor imported inputs alone; for Ethiopia, Mohamed (1980) has pointed out that industrial production has largely been based on imported raw materials; for Ghana, Mills (1980) estimated that in 1967/1968 about 85 percent of all industrial inputs were imported; and for Egypt, Aziz (1980) has shown that over the 1953-1972 period the established industrial profile increased its requirements for intermediate and capital goods such that whatever import substitution took place failed to offset these greater import demands. For Africa as a whole, while there has been saving of foreign exchange spent on manufactured consumer goods imports, the reduced import content of consumer goods has been more than offset by the increase in the imports of intermediate goods and capital goods.

The ISI has contributed to the marginalization of the rural areas through the following mechanisms:

(i) Failure to supply agricultural inputs and farm implements to agriculture. These requirements have largely been met by imports, thus making their supply sensitive to the balance of payments crises (for example, in Zaire, Sudan and Zambia).

(ii) Negative impact of ISI on rural small-scale and cottage industries. Muller (1978) has shown how rural based metalworking skills degenerated with the influx of imports and import-dependent locally manufactured farm implements in Tanzania. With the balance of payments crisis, imports and local manufactures can no longer cope with requirements of agriculture and the rural-based metalworking activities are no longer there to bridge the requirements-supply gap. In Ethiopia large-scale textile factories have been reported to have inflicted damage to the small-scale rural-based textile activities (Mohamed 1980), while in Kenya Kongstad (1980) has pointed out that mechanical workshops in non-urban areas are degenerating following the influx of imported implements and the Nairobi-based import-dependent manufactures.

(iii) The location of the ISI has been urban-biased. Thus, in Tanzania, 75 percent of manufacturing output in 1974 was accounted for by five towns, in Senegal over 80 percent of industry is concentrated in and around Dakar, in Ethiopia two towns accounted for 80 percent of manufacturing investments in the early 1970s, and in practically all countries in Africa the capital cities and the few large cities have attracted the bulk of industrial activities.

Through these mechanisms whereby the rural areas have been marginalized, the employment effects of ISI (on these rural areas) could not have been positive. Even within industry itself, the employment creation of ISI has been marginal. During the 1960s, for instance, while manufacturing output increased by 100 percent in Africa, employment increased by only 45 percent. This may be explained in terms of the increasing use of capital-intensive techniques of production brought about by:

(i) the overall increase in labor productivity all over the world

(ii) choice of technology biased in favor of the labor-saving techniques developed to suit factor endowments in the industrialized countries. This tendency is reinforced by the considerable role of foreign investors and foreign financiers in the choice of technology in industry in Africa.

(iii) the effects of widening the industrial base to include the types of industries which are esentially capital-intensive (for example, aluminum smelters and petrochemicals).

The share of manufacturing sector employment to total labor force is still below 2 percent in most African countries. For instance, the share is 0.76 percent in Somalia, 1.3 percent in Malawi, 0.86 percent in Tanzania and 0.5 percent in Ethiopia.[30]

The marginalization of the rural areas has resulted in a situation where in Africa allocation of resources to industry has tended to appear competitive to allocation of resources to agriculture. In the absence of support from industry, agricultural production has increased sluggishly or has stagnated. Since it is a main foreign exchange earner in most countries in Africa, the stagnation of agriculture has led to foreign exchange crises through the stagnation of exports reinforced by the increasing food imports. In fact, in recent years, especially in the 1970s, most countries in Africa experienced decelerating growth rates in manufacturing. In several countries (Tanzania, Uganda, Zaire, Ghana) even absolute declines of manufacturing output were recorded in the late 1970s due to supply bottlenecks caused mainly by the foreign exchange crises.

Furthermore, the stagnation or decline in agricultural production of some crops has resulted in capacity underutilization in the manufacturing industries which are based on such crops. In Ghana, for instance, supply of sugar cane has not kept pace with the requirements of sugar factories; in Tanzania the supply of oil-seeds has plagued the manufacture of soap and cooking oils; and in Senegal the manufacturing sector's growth is very strongly influenced by the size of the groundnut crop.

The Energy Problem: Some Implications. In the 1970s the cost and availability of energy and particularly of oil has become a well known problem. Countries in Africa have been no exception in becoming increasingly dependent on petroleum products to maintain their industrial sectors, agricultural production, transport systems and other important activities. Many countries in Africa are experiencing more acute balance of payments crises and higher fuel costs are forcing cuts in other imports, the bulk of which are directly related to production.

In the first part of this paper we saw the growing magnitude of the current account deficit in oil importing African countries. The oil trade balance alone has reached 30 percent of the total current account deficit. The effect of the rising cost of fuel has been felt directly in the productive sectors of the economy and indirectly through its effect on the services sector. African economies have faced difficulties in importing maintenance inputs for industry and agriculture and have found it increasingly difficult to meet the full requirements of the oil-dependent transportation systems (which are crucial for the supply of inputs to the scattered agricultural activities and for the marketing of that agricultural output). While there is no clear evidence of

the development of alternative sources of energy on a significant scale since the early 1970s there seems to be a case for stepping up preparations for the use of the potentially available hydroelectric power, solar energy and probably coal to replace the costly oil.

The oil-exporting countries of Africa have enjoyed surpluses in their balance of payments largely rising from gains from terms of trade in their oil sectors. However, they have not escaped some negative implications stemming from this apparently advantageous position. As Adedeji (1982) has pointed out, this group of countries have registered serious declines in the growth rate of agricultural production in the 1970s. The World Bank (1982), in this context, has noted that in the case of Nigerian revaluation of the Naira, attraction of the young Nigerians into towns and the manpower shortage in public agricultural investments (all enhanced by the oil income) have contributed to depressing agriculture. Adedeji (1982) has also indicated that the group of oil-exporting countries in Africa have faced increasing rates of inflation, a serious decline in the domestic savings rate due to increased consumption and a fall in the growth of exports in real terms in the 1970s.

Considering both commercial and non-commercial energy, the energy crisis in much of Africa means the shortage of firewood. Poor families in the rural areas have to travel longer distances to find wood for cooking purposes while their land is increasingly being denuded of trees. The danger of desertification is progressively becoming real with its far-reaching implications for rain-fed agricultural production.

Conclusion

The recent economic development experience in Africa indicates that developments in the international context have not been favorable. The effects of the economic recession in the industrialized countries (affecting demand and terms of trade), the oil price hikes and the rising cost of borrowing (including the worsening terms) have reinforced each other in increasing the balance of payments deficits in most countries in Africa. In the domestic context (partly because of these developments in the international context) the rates of growth of GDP, agriculture and industry have tended to decelerate in the recent past. The development strategies which have been followed have not contributed to the liquidation of dependence on the industrialized countries of the North. These strategies have not contributed to integrating the African economies, whereby development would be less import-dependent and more self-sustaining.

On the basis of the recent development experience it appears that the import dependent structures cannot be dismantled or significantly changed in the very short run. The external links have been internalized in the development process of these economies to the extent that it is not realistic to talk of disengagement "overnight." This implies that allowing foreign exchange earnings to fall would accelerate the disruptive trends which have already set in in many African economies. For this reason there seems to be a case for safeguarding against dramatic declines in exports. On the other hand, there seems to be a strong case for restructuring the present economies, making them more self-reliant, more integrated and less import-dependent. While acting to prevent dramatic declines in exports may appear tantamount to maintaining the existing production structures, this need not be the case if the foreign exchange so earned can be used to enhance the structural transformation process.

The two aspects of this strategy (foreign exchange generation, outward-looking; and the foreign exchange saving, inward-looking) can be complementary, contrary to the commonly held view that the two aspects are clear alternatives.

The efforts to generate foreign exchange earnings need to ensure the rehabilitation of the declining agricultural sector. Since agricultural exports account for a very considerable proportion of all exports, such efforts will help to reduce the disruptive effects of the balance of payments crises while playing an important role as a resource for the transformation of the African economies.

In the context of the need to generate foreign exchange, promotion of manufactured exports can have an important role to play. In Africa, however, manufactured exports have so far been marginal, accounting for only 4 percent of all exports in 1978 in Sub-Saharan Africa.[31] While a few countries (Ivory Coast and Kenya, for example) have declared that they are intending to pursue the strategy of developing manufactured exports, prospects for the bulk of African countries do not seem to be particularly bright in this area. Impressed by the success of some developing countries in the export of manufactures (for example, South Korea, Taiwan, Singapore and Hong Kong), it has been argued that export-oriented industrialization should be adopted to replace the inward-looking strategies.[32] Such outward-looking industrialization strategies are based on the principle of comparative advantage and are to be pursued through trade liberalization. The supporters of this strategy have argued that the export-oriented industrialization strategy will correct the defects of ISI.

Reservations have been expressed about the "magic" of the export-oriented industrialization strategy (EOI).[33] First, the recently increasing tendency of industrialized countries to protect their own industries against imports from developing countries does not show signs of changing. Second, while a handful of developing countries have achieved substantial levels of manufactured exports, it is uncertain whether all developing countries can simultaneously succeed in achieving such levels. Third, the Taiwanese and South Korean models can only be adopted with great caution. In the case of Taiwan, the success in the export of manufactures was accompanied by factors like massive aid, the proximity of the Japanese market, the presence of immigrant and indigenous entrepreneurs, and the favorable trade conditions provided by the Vietnam War. The supporters of EOI have not sorted out the relative contributions of these factors, most of whcih can hardly be repeated in African economies. In the case of South Korea, it is evident that a wide range of import substitution industries were also developed and, contrary to the free trade arguments used by the supporters of EOI, many non-price measures were used to promote export industries. Fourth, the supporters of EOI have so far failed to show how this strategy would ensure (a) the development of linkages in the economy (especially the neglected relation between agriculture and industry), (b) the development of the domestic technological capacity, (c) the integration of the economies, and (d) the correct prediction of the dynamic comparative advantage. This is not the place to go into the details of the relative merits of different strategies but only to indicate that the EOI does not seem to be capable of correcting the defects of ISI; hence, any suggestion to replace ISI by EOI need to be viewed more cautiously in Africa. In fact, as this paper has shown, the main problem with ISI as it has been implemented in Africa is that it has not been sufficiently inward-looking. The defects of ISI

have therefore largely stemmed from its outward-looking characteristic as far as inputs are concerned. It is at that level that efforts to correct the defects of ISI would have to focus rather than on EOI as such.

On the foreign exchange expenditure side, the development experience in Africa points to the need to choose economic activities and technologies with a view to reducing import dependence and make use of domestic resources. Choice of economic activities (i.e., the output mix) will have to rely on the immense human and natural resources of Africa. Choice of the output-mix would have to give high priority to the development of linkages in the African economies and to the development of the technological capacities. This strategy will imply that Africa engages more than she has done hitherto in the production of intermediate and capital goods. In this context, one major obstacle seems to be the size of the domestic market. However, as has been recognized in the recent Lagos Plan of Action,[39] measures for the basic restructuring of the economic base of Africa will have to follow the regional approach based primarily on collective self-reliance. To facilitate the attainment of objectives of self-reliance and self-sustainment, it has been recognized that it will be necessary to establish national, sub-regional and regional (for Africa as a whole) institutions. It is in this framework that the concept of collective self-reliance could be extended to the Third World increasingly replacing the North-South links with the South-South links.

FOOTNOTES

[1]Excluding South Africa, Libya, Nigeria, Algeria, Congo, Gabon and Tanzania.

[2]Excluding South Africa, Algeria, Libya and Nigeria.

[3]World Development Report 1982 (World Bank, 1982).

[4]Accelerated Development in Sub-Saharan Africa (World Bank, 1981).

[5]World Development Report 1982 (World Bank, 1982).

[6]Ibid.

[7]M. Roamer, "Economic Development in Africa" (mimeo, Harvard Institute of International Development, November 1982).

[8]World Development Report 1982.

[9]Accelerated Development in Sub-Saharan Africa.

[10]To achieve the Lima target of a 2 percent share in world industrial production by the year 2000, Africa would have to step up its MVA annual average growth rate to about 10 percent to 12 percent.

[11]UNIDO, Recent Industrial Development in Africa, 1979.

[12]Accelerated Development in Sub-Saharan Africa [Hereafter called ADSA], Tables 2 and 4.

[13]Ibid.

[14]Ibid., 76-78.

[15]The efforts were partly frustrated by the uncooperative actions of some Latin American producers.

[16]The NPC estimates seem to be lower than expected. For instance, the export tax on coffee in Tanzania was in the region of 10 percent in 1976-1980. The NPC of 0.59 is probably an exageration.

[17]Sessional paper No. 4 of 1982 on Development Prospects and Policies.

[18]Ellis Frank has shown this in the case of coffee and cashew nuts. Economic Research Bureau Papers, 1979.

[19]Structural Adjustment Programme for Tanzania [SAP], June 1982.

[20]ADSA, 57.

[21][SAP], June 1982, 16, also points this out.

[22]ADSA, 60.

[23]ADSA, 51.

[24]ADSA, 52.

[25]Sessional Paper No. 4 of 1982 on Development Prospects and Policies.

[26]ADSA, 69.

[27]ADSA, 114, and Table 36.

[28]World Development Report 1982, Table 20.

[29]Rwegasira (1982), Table 2.

[30]UNIDO (1981).

[31]ADSA, Table 8.

[32]See for instance Roamer (1982), Krueger (1978), and Hughes and Waelbroeck (1981).

[33]See for instance Streeten (1982).

[34]Lagos Plan of Action: Adopted by Organization of African Unity Heads of State, 28-29 April 1980.

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