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Perspectives and Problems of Development in Sub-Saharan Africa

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Perspectives and Problems of Development in Sub-Saharan Africa

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Summary. — This paper analyses the initial conditions for development facing post-colonial African nations, outlines alternative development strategies followed by different groups of countries and assesses the consequences for growth and poverty alleviation. On the basis of this diagnosis the paper outlines a number of policy priorities for the future including greater research, extension and infrastructure support for smallholder agriculture, an improvement in the overall structure of incentives in favour of agriculture, a more realistic urban formal sector wage structure to reduce rural-urban migration and foster a more internationally competitive manufacturing sector, and greater emphasis on surplus generation through government budgets and parastatal enterprises.

1. THE HISTORICAL LEGACY

A good development economist should also be something of an applied historian of economic thought (Myint).

(a) *The pre-colonial setting*

The researches of the Leakey family and others indicate that man's origins may be found in East Africa. But after the species had spread to other continents, sub-Saharan Africa was increasingly isolated from land masses to the north and east by the spread of deserts across Sahara and Arabia. Toynbee (1964) has observed, 'Geography kept sub-Saharan Africa out of the history of civilization . . . The desert in the north, the falls at the mouth of the rivers which prevented navigation, isolated Africans and deprived them of the mingling of peoples which produces civilization.' The 15th century (A.D.) witnessed the first major contacts between sub-Saharan African societies and the mercantilist European nations, which were destined to leave their colonial imprint on Africa. It is a good point of departure to sketch some salient aspects of contemporary African economic and social organization and outline their evolution under the influence of growing commercial and political contact with Europe.

The overwhelming majority of Africans were engaged in subsistence farming. As most soils of

tropical Africa tended to be light, low in plant nutrients, easily leached by heavy rains and scorched by the sun, the farmers adjusted to these natural deficiencies by resorting to shifting cultivation, usually based on slash-and-burn techniques. In most parts of the savannah and bush country shifting cultivation was facilitated by the virtually limitless supply of land. The system discouraged permanent individual rights in land. When communities moved, individual farmers could stake out their new fields with family labour as the chief defining constraint. Communities were typically delineated by kinship. A political concomitant of shifting cultivation was that chiefship tended to be over people rather than land (Goody, 1971). With one or two prominent exceptions (Ethiopia for example), European-style feudalism based on land-scarcity was unknown.¹ In addition to this dominant mode of farming, other types of agriculture were practiced by nomadic herdsmen, like the Somali and Masai.

While the agricultural subsistence economy was dominant, commerce was nourished by, and in turn nurtured, the West African medieval empires of the Niger bend (such as Ashanti, Dahomey, Mali, Benin), which flourished *ca* 14th-19th centuries. Some of these empires

* The views and interpretations in this document are those of the author and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting on their behalf.

were founded on the long-distance trade which took gold, ivory and slaves from West Africa across the Sahara to the Maghreb and Europe in return for salt, cloth and beads. Profits from the trade not only sustained some of the states, but also nurtured craftsmen (jewellers, weavers, iron-workers, potters, masons, carpenters), who met the local needs of the better-off merchants and nobility. There was, however, no universal link between the growth of commerce and the rise of structured state systems (Duignan and Gann, 1975). Sometimes, as in Benin, the rulers derived power and profit from their control over long-distance exchange. At other times state power relied less on the cash nexus and more on protection offered their subjects, favours and a variety of religious, judicial and political services. Conversely, commerce did not always require strong state systems. Furthermore, while commerce was usually impelled by economic motives, kinship and tribal affiliations often influenced its course more than pure market principles. Finally, while the trade in commodities was responsive to supply and demand, land and labour were seldom allocated through markets. From the viewpoint of long-run economic development, the West African long-distance trade suffered from one grievous handicap: it relied much too heavily on wasting assets like gold, ivory and slaves, and very little on production.

In comparison with contemporary Europe and Asia, one aspect of sub-Saharan African societies is sharply silhouetted: their technological backwardness. Some key examples will suffice. One Bronze Age invention which was prevalent throughout Eurasia, the plough, had not yet reached sub-Saharan Africa (except Ethiopia). This meant animal power could not be harnessed to farming. More generally, animal traction was little used in sub-Saharan Africa. In part this was due to the high incidence of fly-borne, draft-animal-killing diseases like trypanosomiasis. But it is also attributable to a more general lacuna in adopting the wheel to its numerous potential uses, including harnessing wind and water power and as an integral element in various irrigation devices. While the technique of iron-smelting is known to have reached Meroe in Northern Sudan as early as the 6th century B.C. and to have spread to other parts of Africa subsequently, the level of craft skills in iron-working *ca* 16th--18th centuries was not yet adequate to localize the manufacture of muskets brought by the Europeans (this contrasts with experience of contemporary Japan and Sri Lanka). This was to place Africans at a serious disadvantage in their

conflicts with European encroachment (Goody, 1971).

The advent of European mercantilist interests on the west coast of Africa in the 15th century had profound consequences. First, the existing overland trade links were gradually supplanted, in relative significance, by the European-controlled maritime commerce linking the West African coast to Europe, as well as points on the West African coast to each other. In part, this reorientation of trading patterns was due to the economic superiority of the new sea-borne commerce over the land routes. But sometimes it was helped along by the use of superior force to disrupt the existing trade route.² Thus, early in history, a pattern was set which would inexorably strengthen the economic links between Africa and Europe, while inducing the gradual atrophy of intra-African economic ties (Rodney, 1972). Second, during the 16th and 17th centuries the growing influx of European manufactures, especially textiles, pre-empted the market for local African craftsmen and may well have induced a situation of 'technological arrest' amongst the local fledgling manufacturers (Rodney, 1972).³

Probably, the most profound immediate consequence of European mercantilism was the massive boost it gave to the slave trade. Slavery had existed for many centuries and in many forms.⁴ The pre-15th century growth of long-distance commerce and associated gold-mining had undoubtedly increased slavery. But pre-colonial Africa had never developed large-scale plantation economies. The European conquest of the New World led to the institution, in the Americas and West Indies, of large tropical-crop plantations (sugar, tobacco, cotton, coffee), which were sustained by one of the most massive and cruel forced migrations of recorded history. Anywhere between 10 and 15 million captives may have been shipped across the Atlantic in the course of the four centuries during which the trade flourished (Duignan and Gann, 1975; Kamarck, 1971). Uncounted millions more lost their lives in slave raids and during transshipment. Aside from the excruciating human cost to those directly afflicted, the far-reaching consequences of the slave trade have been summarized thus by one experienced and sober analyst of Africa (Kamarck, 1971, p. 8): 'It drew off from the continent human beings at their most productive ages. Worse still, it encouraged tribe to fight tribe and encouraged conflicts within tribes. Finally, and perhaps most importantly, any advantages that Africa derived from contact with the rest of the world ... the learning of some skills, the introduction

of new foods such as maize and manioc -- were more than offset by the slave trade's plunging vast stretches of Africa into anarchy. Whatever else economic development requires, it does need a basic minimum of personal security.' In addition this vast expansion of the slave trade retarded the evolution of African wage labour and labour-enhancing technical innovations.

The final consequence of Europe's 15th-century coming to Africa was that it led, step by inexorable step, to the extension of European military and political domination over the continent, culminating in the 1880s 'scramble for Africa', when the continent was comprehensively carved up among the rival European powers. Though the volume of trade increased gradually after the 15th century, European involvement in sub-Saharan Africa until the 1870s remained limited to the peripheries⁵ (except for the migration to the Cape Colony which began in the 17th century). Europeans controlled small coastal, trading enclaves through a form of 'informal empire' based on gunboats and consuls. In the 1870s a number of developments precipitated a much keener imperial competition for territory. A vast new market for palm-kernels was opened by a French scientist's discovery of margarine. In the Cape Colony the Kimberly vein of diamonds was discovered. The steamship came of age as a low-cost, long-distance carrier of bulk commodities, and was adapted for inland river navigation. In East and Central Africa the European explorations in quest of the source of the Nile opened up new horizons for adventure and annexation. Finally, imperialism became a rallying cry in the domestic politics of European nations, thus lending support to the European merchant houses seeking greater political expansion to consolidate their expanding commercial interests against rival European traders and African brokers. The marriage of political expediency and commercial gain was exemplified in the large, new, monopolistic, chartered companies which attempted to fuse commerce and government at no cost to the imperial nation.⁶ While many of these companies failed to make much profit for most of their shareholders (though company officials were often enriched), they succeeded in their primary objective of bringing vast tracts of the African hinterland under European imperial domination.

(b) *The impact of colonialism (1890-1960)*

The early years of colonial rule were characterized by a mixture of brutal application of

force and the founding of the infrastructure of modern economic states. In their territorial expansion in quest of commercial opportunities and minerals the European chartered companies and concessionaries, in collaboration with their imperial mother-nations, fought bloody battles of subjugation. Nor did they hesitate to use forced African labour in exploiting the newly-opened mines, collecting and transporting ivory, rubber and timber, and building the great new railways. On the other hand, colonial rule put an end to slavery and slave-raiding. And the railways and roads did get built. Though sometimes they were built for strategic purposes, they inevitably opened up vast tracts of African hinterland and gave an enormous fillip not only to the European-controlled mining, but also to African commercial agriculture.⁷ Given the earlier paucity of wheeled transport, and the susceptibility of pack animals to fly-borne diseases, the impact of railways and lorries on African economic development was enormous (however, there were some adverse consequences in the form of a more rapid spread of communicable diseases, including some European imports that were new to Africa).⁸ New crops, like cocoa, sisal and cotton, were introduced and propagated (Yudelman, 1975). A start was made with public health facilities to control the effects of diseases affecting man and livestock. Schools were built, with the missionaries taking the lead. Above all, once the colonizing conflicts had been fought to their conclusion, the system provided the minimum of public security necessary for economic development. In sketching some of the lasting elements of the colonial imprint it is useful to deploy Kilby's (1975) distinction between two types of experience:

- (i) the 'white-settler colonies' of East and Central Africa;⁹ and
- (ii) the peasant economies of West Africa.

(i) *The 'white-settler colonies'*

There are at least three major distinguishing characteristics of the economic evolution of the 'white-settler' colonies, as exemplified by Kenya and Southern Rhodesia. First, the development of African commercial agriculture was retarded, at least until the early 1950s, when the policy was reversed. European settlers, in conjunction with the colonial administration, deployed policies of land alienation (and the associated concept of 'African reserves'), discriminatory orientation of government research, credit and extension services, manipulations of prices and markets, and outright bans on African farming of certain crops, to develop and maintain the

profitability of European farms. The 'African reserves' served as pools of wage labour to the European farms. Africans were induced to work (after forced labour had been phased out by the end of World War I) through the need to pay taxes levied on them and the concomitant denial of cash farming opportunities. In Kenya, Africans were prohibited from growing coffee until 1948-1949, and dairy cattle were strongly discouraged by withholding essential veterinary services until 1955 (Heyer, 1976).¹⁰ It was only in the 1950s that the restrictions on African farmers were lifted and state support shifted in their direction (in the form of the Swynnerton Plan). The result was a rapid growth in African agricultural output. By way of contrast, in Uganda, where the settler farming community was much less influential, African farming of cotton was encouraged from the early 1900s. Here, the discriminatory power of the state was aimed more at the Asian traders (the middlemen between the African producers and the European ginners), who responded by switching from trade to ginning and other industrial activities (Kilby, 1975).

Second, local industry began much earlier in the settler colonies than in the peasant economies of West Africa. One general reason seems to have been the pro-industrialization influence of a resident European population which possessed the necessary technical, managerial and entrepreneurial skills, the requisite contacts with home-based firms and the political leverage to influence the colonial administration to grant support and protection to nascent industrial activities. There were, of course, also individual factors like the Ugandan Asian reaction to trading restrictions (noted above) and the pioneering industrialization role of the British South Africa Company in Southern Rhodesia (Kilby, 1975). In these economies, where local industry (albeit controlled either by Europeans or Asians) had an early start, the disruption of trade caused by World War II gave a major import-substituting boost to industrialization.

Third, the settler colonies were generally characterized by a more venerable tradition of state intervention in the economy. From the earliest years of British colonial rule in East and Central Africa restrictions were imposed on the number and nationality of traders allowed to operate in specified areas. State monopolies over export crops were set up. Restrictions were imposed on who might sell what to whom. Industrial licensing, currency restrictions, trade controls and tariffs proliferated. World War II greatly increased the variety and intensity of the colonial administration's intervention in

these economies. As Bauer (1975, p. 645) notes:

From the 1930s to well into the 1950s, the major beneficiaries of trading and processing in East and Central Africa were expatriates . . . The cost was invariably borne by the would-be entrants excluded from these activities, and by the unorganized farmers and consumers whose terms of trade were worsened . . . Under African conditions, the familiar effects of such a maze of restrictions were pronounced: fragmentation of the economy; restriction on the movement of people and commodities; retardation of the spread of the exchange economy; obstruction of the establishment and extension of low-cost producers; provocation of political tension; retardation of capital formation and the emergence and extension of corruption.¹¹

(ii) *The peasant economies of West Africa*

The outstanding differentiating characteristic of the West African peasant economies was the lynch-pin role of African farmers throughout the colonial period. Except for a few plantations in the Ivory Coast, Liberia and Nigeria, the market-oriented production of both export crops and foodstuffs was in the hands of African peasants. This had three major economic consequences. First, by the mid-20th century the average West African peasant from the Gold Coast (Ghana), the Ivory Coast, Nigeria or Senegal enjoyed a much higher standard of living than his counterpart in East and Central Africa (except for some regions of Uganda). Second, this long history of commercial farming provided the experience necessary for large numbers of Africans gradually to move into wholesale and retail trade, transport and various artisan activities. Third, amongst the African farming population there evolved a much higher degree of economic differentiation than in East and Central Africa.

While the colonial period was marked by a prolonged agricultural boom, industrialization lagged. The share of manufacturing in national product has been estimated to be as low as 0.6% in 1950 (Nigeria) and 0.4% in 1954 (the Gold Coast), compared to 8.9% in Kenya and 7.2% in Uganda in 1954 (Kilby, 1975, p. 475). The buoyant agricultural record meant that lack of domestic demand could not be a plausible explanation. The answer adduced by economic historians to account for the situation is the highly monopolistic character of the export-import trade in these economies. As early as 1930, four companies accounted for 60% of the export-import trade.¹² The monopolistic position was strengthened and preserved through to the mid-1950s and was successfully deployed to discourage any local manufacturer from

hiving off any significant share of the market. The dominant interests of the export-import firms were strengthened by interlocking connections with freight lines and banking houses (Kilby, 1975). Nor was there any white-settler population of consequence to exert the pro-industrialization supply-side pressures which existed in East and Central Africa. After the mid-1950s there was a massive spurt in industrialization, when the surge in imports broke down the old oligopolistic barriers around the import trade and induced a series of market-protecting local industrial investments by the previously dominant trading firms (Kilby, 1969, 1975).

State intervention in the West African economies took a quantum leap with the outbreak of World War II. The most influential instruments were the state export monopolies. Initially introduced to avert the price collapse threatened by war-induced shipping scarcities, these marketing boards soon became permanent and powerful instruments of agricultural taxation, notwithstanding the official lip-service paid to their price-stabilization aims. The boards had far-reaching political and economic consequences extending well beyond the colonial era. The massive rents extracted by some of these boards soon became targets for corruption and were used, in turn, to finance over-manning, political activities and other parasitic tendencies (Bauer, 1954, 1975).

(iii) *World War II and after*

World War II witnessed an enormous increase in the responsibilities and roles of government in the Allied nations of the West. This trend found reflection in much more actively development-oriented policies of the colonial administrations. This was the period when 'colonial planning' effectively took shape as a result, generally, of a mixture of efforts by the local (or federal) authorities to express their needs in a more explicit form, and by the metropolitan powers to integrate capital outlays for overseas territories in their own national plans. This was particularly true for the French colonies and somewhat less so for the British. Furthermore, financial aid in the former was always exclusively in the form of grants and quasi-grants, whereas loans, mostly on soft terms, were the rule in the latter. In both cases net financial flows were decidedly from the centre to the periphery, but situations varied and local expenditure was sometimes financed mainly through local taxation. Investment was mainly oriented toward infrastructure, especially highways and ports. At the same time

the welfare of Africans became a more explicit concern of colonial policies. Expenditure on African-oriented agricultural support services increased and besides a few large, ill-conceived, and widely publicized attempts at large-scale mechanization (the Kongwa scheme in former Tanganyika, the Casamance groundnut scheme in Senegal), there were serious though unequally successful efforts at organizing African farmers at village level for productive and distributive purposes ('co-operatives', 'sociétés de prévoyance', 'paysannats indigènes' etc.). Also, the state surpassed missionaries in social welfare expenditures on schools and hospitals although these continued to be located mainly in urban areas. In the 'white-settler colonies', the bulk of state interventions continued to benefit disproportionately the most influential local group, namely the colonial expatriates in farming, commerce, industry and government.

The post-war era was also one of intensified state intervention in trade and money. Typically, there was the increase in licensing, controls, marketing boards etc., that we have observed earlier. There was also a more formal implementation of 'imperial preferences' of various kinds, especially in the Franc zone area. This resulted in trade arrangements especially advantageous to exports from the 'métropole' in terms of the degree of tariff preference accorded to their exports of manufactures, and beneficial to the colonies in terms of stable prices and assured-markets for their primary products. The system eventually entailed some painful, though generally gradual, adjustments to world market conditions in the first years following independence. But it also had favourable lasting effects, notably among former French colonies, in the form of regional and subregional common markets and common currency arrangements that have been instrumental to this day in facilitating movement of goods and people alike, and minimizing balance-of-payments problems among members that have adhered to the Franc area system.

(c) *Initial conditions at independence*

Most of the sub-Saharan African countries attained political independence in the late 1950s and early 1960s. As a generally applicable approximation 1960 is the watershed year. What were the economically salient features of the legacy these countries received at independence? This subsection attempts to sketch an answer.

(i) Natural resources

The majority of these countries were blessed with relatively favourable arable-land-to-population ratios at independence. However, the quality of land was typically poor because of the interactions of topography and climate. In about three-quarters of sub-Saharan Africa rainfall is scanty. Where rainfall is bountiful, year-to-year fluctuations are great, and the intra-season pattern frequently uneven and unpredictable; both aspects hinder rainfed agriculture. Across most of sub-Saharan Africa soils are derived from old acid parent rock which is poor in calcium and plant nutrients. And if green cover is removed, the high heat of the tropical sun and/or heavy spasmodic rainfall easily threaten the thin layer of humus on which plant life depends. When that happens the soils readily turn into infertile laterite (Kamarck, 1971, pp. 129-130). There are, of course, significant exceptions to this endowment of poor soils, in the shape of the rich volcanic soils in some East African highlands and the alluvial clays of the coastal plains. Finally, tropical heat and absence of frost permit life and reproduction of bacteria, insects and plants to go on throughout the year, thus enormously complicating the problems of pest and weed control. In Karmarck's words (1976, p. 17), 'The great executioner of nature, winter, is absent'.

The tropical climates of sub-Saharan Africa also constrain human endeavour. First, the high heat and humidity directly engender lassitude, and perhaps even loss of mental initiative.¹³ Second, tropical climates are very hospitable hosts to a formidable range of parasitic and infectious diseases, which exact an enormous toll in morbidity and death (once again, the absence of winter, as a natural killer of vector-borne diseases, is a significant factor). The most well-known of these scourges are bilharzia, malaria, riverblindness, sleeping sickness, parasitic worms, yellow fever, cholera and leprosy.

Minerals were an important magnet drawing colonialists to Africa. But their recent and foreseeable role in economic development is limited to a handful of countries where the known mineral resources are concentrated: Zambia, Zaire, Botswana, Gabon, Sierra Leone and Southern Rhodesia. And while minerals have provided large flows of rent income to these countries, their exploitation has also been associated with massive distortions of the domestic wage structure, which have tended to retard the development of non-mineral sectors.

(ii) Human resources

For most sub-Saharan African countries the colonial heritage of trained indigenous manpower was abysmally small. The rapid develop-

Table 1. *Education indicators for 1960*

	Enrolment in primary school as % of age group	Enrolment in secondary school as % of age group	Enrolment in higher education as % of population aged 20-24
<i>Selected African countries</i>			
Ghana	59	3	(.)
Guinea	30	2	..
Ivory Coast	46	2	(.)
Mali	7	2	..
Ethiopia	5	1	(.)
Kenya	47	2	(.)
Malawi	63	1	..
Sudan	25	3	(.)
Tanzania	24	2	..
Zaire	60	3	(.)
Zambia	48	1	..
<i>Other countries</i>			
Brazil	95	11	2
India	41	23	2
Pakistan	30	11	1
Philippines	95	26	13
Thailand	136	8	2
Turkey	75	14	3

Source: *World Development Indicators*, 1978, Table 18.

Note: .. indicates not available; (.) indicates less than 0.5%.

ment of schooling facilities after World War II had ensured that the primary-school enrolment ratios of 1960 were not dramatically lower than in other developing countries (Table 1). But the record on secondary and higher-level education was much more stark. As for Africans with experience in administrative, managerial, financial and technical pursuits, the cadres were extremely thin.

Quite apart from formally trained manpower, the indigenous populations of the newly independent African states were endowed with very limited entrepreneurial heritages. In East and Central Africa, commerce, finance and industry had been almost exclusively the preserve of Europeans, Asians and Arabs. Though the latter two were frequently discriminated against (socially and economically) by the Europeans from the imperial nations, from the vantage point of African nationalists they were usually perceived as being closely associated with the colonial power structure [see, for example, Mamdani (1976) on Uganda]. Consequently, the post-colonial potential of these entrepreneurial, ethnic minorities has been bedevilled by political uncertainties. African participation in industry, in particular, was almost non-existent. After 60 years of colonial rule the most 'advanced' economies of Kenya, Uganda and Southern Rhodesia boasted not one African-owned-and-operated enterprise with more than 10 employees.

The entrepreneurial heritage in some of the West African economies was more promising. The long exposure of Africans to commercial farming and then commerce had begun to spawn significant numbers of small African enterprises engaged in the craft trades of tailoring, woodworking, goldsmithing and motor repair, as well as more mainstream manufacturing activities like baking, printing, bottling, sawmilling, soapmaking and even manufacture of electric motors. The heritage was, of course, unevenly distributed with Nigeria, Ghana and Senegal leading the field (De Wilde, 1971). Studies of backgrounds of these African entrepreneurs point up the importance of a family history of exposure to and participation in the non-farm cash economy, thus supporting the presumption that trading and artisan activities provide important (perhaps necessary) learning opportunities in the transition from peasant agriculture to industrial entrepreneurship (Harris, 1971; Rowe, 1970; and Kilby, 1975). Large- and medium-scale enterprise remained a preserve of European conglomerates and ethnic minorities such as Levantines, Greeks and

Asians; these minorities were also important in trade and small-scale manufacturing enterprise.

(iii) *Economic structure*

At independence, almost all the sub-Saharan African nations were small open economies with foreign trade accounting for 20% or more of national product. Typically the export trade was characterized by heavy dependence on a few primary commodities. Except in the mineral-producing countries, these primary commodities were agricultural items like coffee, cocoa, tea, palm-oil, cotton, oilseeds and sisal. There were few inter-industry links, since the overwhelming bulk of the processing of the exportable agricultural surplus had been conducted in the imperial, importing nations. Barring the mineral producers, agriculture was the dominant sector, accounting for 40-60% of national product, with half or more of value-added being generated in subsistence activities, which provided means of livelihood to the majority of the population. The modern infrastructure of railways, roads, banks, power and water utilities and commercial networks buttressed and serviced the links between the productive cash economy (commercial farms, plantations and mines) and the former metropolitan nations which purchased its produce in return for manufactured producer and consumer goods necessary for the sustenance and expansion of the local monetized economy. Urban communities were small, but usually growing rapidly.¹⁴

Aside from this pattern of physical infrastructure and commercial/financial links, colonial rule bequeathed two other economic characteristics that were to prove significant for subsequent development. First, at the end of their day the colonial administrations loomed large in the economic life of these nations, not only in national accounting terms, but also in the scope of activities they controlled through legislation, administrative fiat and extra-government public agencies like the marketing boards. Second, the middle and upper levels of wage and salary scales of the colonial public sector were designed to facilitate recruitment from the colonial nations and were thus set according to prevailing payscales in those countries; they bore no sensible relationship to the average standard of living in the African nations. Thus, it was commonplace to see ratios of 30 or 50 to 1 between top public service salaries and average (or legal minimum) wages of unskilled labour, which was in marked contrast to the ratios of 4 or 5 to 1 to be found in Great Britain or the United States (Kamarck, 1971, p. 74). The in-

appropriate structure of public incomes was compounded by policies with regard to perquisites such as housing and car subsidies. This sort of inappropriateness also spilled over into excessively high design standards for public services such as water, lighting, health and housing. In part this reflected the transplant of colonial standards; it may also have been due to the absence of local 'intermediate technology' practices, itself the result of the earlier history of 'technological lag', cited previously.

(iv) *Institutional heritage*

Perhaps the strongest and most lasting institutional bequest of colonialism was the concept and practices of a nation state, which transcended ethnic and kinship ties. This is not to belittle the role of the African nationalist movements which helped to bring about independence, but rather to recognize that the crystallization of such nationalist sentiments and political parties were spurred in many cases by the fact of colonial rule.¹⁵ It is also to recognize that the geographic boundaries of the sub-Saharan African states were usually the accidents of colonial history, and frequently not congruent with any indigenous cultural and linguistic demarcations. Nationhood, in the form of the apparatus and practices of a modern state, came to Africa very fast and created formidable new challenges to expand traditional loyalties, which tended to be limited to kinship groups and tribes, to embrace the nation. In this sense the advent of statehood frequently preceded the crystallization of a full-blown national consciousness. This had important consequences for the functioning of modern economic institutions, pre-eminent among which was the government: to the extent moral loyalties and allegiances commanded by tribe and kinship group exceeded those extended to public institutions, to that extent the workings of the latter were swayed more by these traditional ties than by the assumptions of national, 'professional' or institutional loyalties upon which these institutions were founded. Visitors to some countries of Africa are impressed by the volume and pervasiveness of bribery and corruption. But as Andreski (1968, p. 101) has pointed out, much of this can be explained as 'solidaristic graft', where the individual undertakes illegal actions to conform with the moral obligations of benefiting his kinship group, whether in the form of allocating licences, public jobs, or other forms of patronage.

Andreski (1968) has gone much further and argued that the hurried onset of statehood and very rapid urbanization has severely diluted the

traditional (largely tribal and in rural settings) moral restraints without there being time enough to nurture new supratribal loyalties and obligations to the institutions of the modern state, thus leading to a situation of 'moral disorientation', conducive to unrestrained and highly individualistic pursuit of wealth and power through any means at hand. Indeed, he sees some of the modern African state apparatuses as not much more than arenas where protagonists compete for private enrichment through the manipulation of administrative rules and powers of government. This is probably too extreme a view. It may be more appropriate to recognize that since independence there has been a race to instil and nurture the notions of supratribal loyalties and ethics before customary webs of obligation won out (or crumbled too early), a race which may have been temporarily lost or won in some countries, but which has almost nowhere been run to a finish.

Colonial rule not only left behind the large new apparatuses of modern states, but also a heritage (especially from the last two decades of imperial rule) of public intervention to solve perceived problems of the populace. To some extent the latter-day paternalism of colonial administrations bred, amongst the affected populace, a syndrome of dependency toward the state in respect of free (or subsidized) services such as schools, hospitals, water, sewerage, roads, lighting and housing. While these public benefits had been mainly limited to urban communities during colonial times (not incidentally because that is where most of the imperial rulers lived!), with independence the expectation of such benefits spread far wider to the much more numerous rural populations. This 'consumptionist' approach to public services was a colonial heritage with major post-colonial consequences.

2. DEVELOPMENT POTENTIAL, STRATEGY AND EXPERIENCE

(a) *Initial conditions and development potential*

Before undertaking a summary review of the development policies and experiences of the post-independence period, it would be useful to sketch some generalizations regarding the manner in which the heritage of initial conditions affected the development potential and policy choices of the sub-Saharan African countries. Some of these interactions will be explored more fully later in this paper. At this point only some rather bald assertions (in some cases,

speculations) will be offered, the main objective of which is to buttress the intuitively plausible claim that initial conditions (which are themselves a cumulation of past history) exercise substantial influence on subsequent feasible development paths.

First, over large tracts of sub-Saharan Africa (especially in East and Central Africa, but also including the Sahel countries of West Africa) the relatively poor natural endowment of soils and climates and the rather skewed networks of transport, credit and extension services, which were inherited, constituted major hindrances to dynamic agricultural development. This did not mean that rapid and sustained agricultural growth could not occur, but rather that it would usually be unrealistic to expect it until investment and experience in agricultural research and extension had generated crop varieties adapted to local conditions, appropriate weed and pest control measures had been established to protect crops, and the somewhat skewed inheritance of supporting infrastructure (transport, credit etc.) broadened to facilitate the economic activity of the majority of the population. The agenda for action was particularly urgent for foodcrops for which the history of research, extension and supportive infrastructure was weak, even in the agriculture-oriented coastal economies of West Africa. Otherwise the low factor productivity in foodcrops would act as a brake on both cash crop development and industrialization (Lewis, 1977).

Second, though land was frequently of poor quality, its relative abundance in relation to population allowed a low-level subsistence livelihood to be reaped 'easily' (relative, say, to South Asian economies), except, of course, when stochastic scourges such as droughts or locusts intervened. This tended to ensure a high 'reservation price' for rurally located labour during the early efforts at industrialization and fostered tendencies towards 'circulatory migration' (rural → urban → rural), which inhibited the development of a permanent industrial labour force (Elkan, 1967).¹⁶ The relatively high wages paid (which usually became enshrined in minimum wage legislation at some point) to attract and hold an urban labour force succeeded, but at wage levels which inhibited export prospects in labour-intensive manufacturing.

Third, the acute scarcity of African technical, managerial and administrative cadres constrained the yields on all projects and programmes and frequently confronted governments with the unenviable choice between rapid Africanization (with its attendant loss in efficiency) and heavy

reliance on expatriate manpower (with its aura of neocolonialism). In addition expatriate recruitment at internationally competitive pay-scales made it politically difficult for African governments to compress the inherited (and highly distorted) public pay structure from the top.

Fourth, this inherited and inappropriate public pay structure exacted significant tolls in efficiency and equity.

Fifth, the paucity of African participation in the modern private sector, especially industry, tilted all development policy choices heavily towards étatist modes, since the newly independent state tended to be the most Africanized part of the modern economy.

Sixth, the typical dependence on a few primary product exports meant that these economies were subject to large fluctuations in foreign exchange earnings (due to variations in both price and output) and, in some cases, faced secular declines in their commodity terms of trade. Both features created severe problems for economic management.

Finally, the legacy of a 'consumptionist' attitude towards public services, noted earlier, placed heavy pressure for rapid expansion of government public services, which tended to reduce public savings, especially where the expenditure costs of increases in facilities were compounded by 'overdesigning' predilections.

(b) *Development strategies*

In attempting to review the post-independence development policies and experience of the sub-Saharan countries, an analyst is immediately confronted by the enormous variety of policy choices and diversity of results. To do justice to this richness of experience would require a separate study of each of 40 odd countries. However, the high degree of abstraction necessary in a paper as short and broad-ranging as this one can also be a virtue, since it forces a search for the commonalities in policies and experience. It is mainly through the striving for valid generalizations that an understanding of the development process is enhanced. It is this kind of argument which must excuse the sometimes glib (and arbitrary) use of the notion 'development strategy' in this section.

To bring some kind of order to the underlying diversity two broad types of development strategy are distinguished. Before outlining their distinctive features it is as well to have the caveats up front (rather than in footnotes). First, in several countries it would be a travesty to impose the notion of a development strategy

on the congeries of *ad hoc* policies adopted. Second, in some countries where a coherent strategy existed in theory it was swiftly overtaken by the pressure of short-term internal and external events in practice. Third, hardly any country followed pure versions of either strategy; the relevant strategy was usually leavened by some elements of the other. Finally, even among the group of countries which followed a strategy consistently for an extended period, the stage at which it was adopted and the duration over which it was pursued varied widely, a fact which bedevils inter-country comparisons based on common time-periods.

These caveats notwithstanding, it is useful to distinguish between two broad kinds of development strategy pursued by the post-colonial sub-Saharan African nations. The first was characterized by some or all of the following elements:

- (i) a high level of state ownership and investment in modern sector industry, agriculture, transport and commerce, combined with a penchant for public control over resource allocation in all key sectors;
- (ii) rapid Africanization of middle- and high-level jobs in the economy;
- (iii) a deliberate effort to 'force' the pace of industrialization and a willingness to accept the resultant skewing of the structure of incentives against agriculture; and
- (iv) a dubious stance towards foreign trade and investment, which typically spawned inward-looking production priorities.

Using the first feature for a short-hand label, this strategy may be termed '*étatist*'. The second strategy boasts some opposite characteristics:

- (i) relatively greater reliance on markets, especially international market forces, for guiding investment and output allocation, with state enterprises limited *mainly* to the traditional public utilities and various types of infrastructure which support the directly productive sectors;
- (ii) slower Africanization of high-/middle-level manpower;
- (iii) a greater willingness to let the pace and character of industrialization be governed by market forces; and
- (iv) a tendency to view external trade and investment as a source of gains.

Following the earlier convention the short-hand label for this strategy is '*market-oriented*'. This

label merits some qualification. Virtually all sub-Saharan African governments were highly interventionist, though the *étatist* ones were considerably more so, especially regarding the degree of state ownership of productive enterprises. Perhaps the crucial distinguishing characteristic of the 'market-oriented' countries was the degree to which they permitted international market forces to govern their pattern of economic specialization; *étatist* countries were far more prone to try and swim against world market tides.

Examples of countries which followed the *étatist* strategy are Guinea, Ghana, Sudan, Tanzania and Zambia.¹⁷ Countries which have followed a more market-oriented strategy include the Ivory Coast, Kenya and Malawi.¹⁸ Ethiopia is a country which has decisively switched strategies in the period under review: it would have been more comfortably classified in the market-oriented group prior to the 1974 revolution, when it crossed sides, so to speak.

Both in terms of the number of countries and the populations they contain the *étatist* strategy has been more influential in post-colonial sub-Saharan Africa. There are reasons for this. The transfer of power at independence involved, primarily, a handing over of the machinery of government. Since African participation in the private modern-sector activities was limited, the inherited state structure offered the easiest arena for fulfilling both the social aspirations of self-reliance and control over the nation's destiny as well as the individual desires for material gain through rapid career advances in an expanding public sector. Basically, the inherited weakness of the indigenous private sector, especially industry, gave an early commanding role to the new African political/bureaucratic élites, which tended to foster *étatism*. This tendency to view the state as the primary instrument of development was, no doubt, strengthened by the fact that in their last two decades colonial governments had played highly interventionist roles in the economic sphere. *Étatism* (or 'African socialism') was also fostered by the personal philosophies of key charismatic leaders like Kaunda, Nkrumah, Nyerere and Sékou-Touré. Finally, it was no accident that key elements of the preferred *étatist* strategy (such as a 'big-push' productive role for the state, rapid industrialization and inward-looking import-substitution) were consonant with the mainstream development theories of the 1950s and early 1960s [Leibenstein (1957); Nurkse (1953, 1959); Rosenstein-Rodan (1943); Rostow (1960); Scitovsky (1954); Singer (1950); and UN (1951)].¹⁹

Table 2. *Structure of output* (per cent of current price GDP at factor cost)

		Agriculture	Manufacturing	Transport and communications	Trade (commerce)	All other
<i>Étatist countries*</i>						
Ghana	1960	40.8	9.8	4.5	11.9	33.6
	1965	40.8	9.8	4.5	11.9	33.1
	1970	46.9	11.4	4.3	11.5	25.9
	1975	51.1	10.8	3.5	10.6	24.0
Sudan	1960	57.5	4.7	7.4	6.8	23.6
	1965	47.8	6.0	7.0	14.7	24.7
	1970	40.2	9.8	9.8	10.5	29.6
	1975	41.2	9.7	6.3	17.2	25.6
Tanzania	1960	57.1	5.1	6.7	..	31.1
	1965	45.8	7.6	6.8	12.4	27.4
	1970	41.2	10.1	8.7	12.7	27.4
	1975	41.4	10.5	8.5	12.9	26.7
<i>Market-oriented countries</i>						
Ivory Coast	1960	43.4	7.1	7.0	..	42.4
	1965	35.9	10.1	8.9	..	45.2
	1970	27.2	13.4	7.7	..	51.6
	1975	26.4	14.2	9.7	..	49.7
Kenya	1960	38.0	9.4	7.5	10.3	34.6
	1965	35.3	11.4	8.3	10.5	34.5
	1970	33.3	12.0	7.9	9.4	37.4
	1975	31.4	12.3	5.9	11.8	38.5
Malawi	1960	57.5	5.8	5.3	12.6	18.7
	1965	57.4	9.7	4.1	8.5	20.4
	1970	48.9	14.9	4.1	9.6	22.6
	1975	44.5	14.5	6.7	10.8	23.6

Source: World Bank data.

* Data for Guinea not available.

(c) *Development experience*

To keep this review of experience manageable, the analysis is restricted, in the main, to seven sub-Saharan countries listed in Tables 2-4, and 6. Three considerations have influenced the choice of countries. First, the countries in each group offered relatively strong and explicit examples of their respective strategies. Second, none of the countries earned significant rents from mineral resources during the period under review. Third, there had to be substantial research available on them.

(i) *Aggregate output: structure and trends*

A base period (1960) snapshot of the seven countries in Table 2 reveals the broad similarities in the structure of output. Agriculture accounted for two-fifths or more of total value-added, with, as one would expect, the poorest countries like Malawi and Tanzania displaying the higher shares. Manufacturing accounted for

less than 10% of GDP in all countries. Its share was usually comparable to that of the 'transport-and-communications' sector and invariably less than that of 'trade' (commerce). There were greater differences in the disposition of national output (Table 3). Leaving aside the exceptional case of Malawi, gross national savings ranged from a low of 5.4% of market price GNP in Guinea to a high of 16.2% in Ghana. The share of gross domestic investment in GNP varied from 8.7% in Sudan to a high of 24.7% in Ghana, where the 'big-push' development policies of the Nkrumah government were well underway. With the exception of Sudan, imports of goods and non-factor services ranged between a quarter and a third of GNP, with exports averaging a little lower.

Growth rates of real GDP, agriculture and manufacturing between the early 1960s and 1975 are summarized in Table 4.²⁰ The data permit several generalizations. First and foremost, it is clear that on average the market-

Table 3. *Key expenditure shares* (per cent of current market price GNP)

		Gross domestic investment	Gross national savings	Imports (goods + NFS)	Exports (goods + NFS)	Import surplus
<u>Étatist countries</u>						
Ghana	1960	24.7	16.2	35.8	28.5	7.3
	1965	18.1	7.1	27.1	17.4	9.7
	1970	14.5	11.6	24.4	23.7	0.7
	1972-1974	10.4	11.5	20.1	22.3	-2.2
Guinea	1960	5.4	5.4	21.4	23.2	-1.8
	1965	21.1	9.9	25.4	16.9	8.4
	1970	20.7	7.6	23.9	15.2	8.7
	1973-1975	15.8	0.0	30.0	18.1	11.9
Sudan	1960	8.7	8.8	11.8	12.1	-0.3
	1965	9.2	6.8	13.7	12.5	1.2
	1970	10.3	10.9	11.3	12.5	-1.2
	1973-1975	15.3	10.3	16.6	12.4	4.2
Tanzania	1960	14.6	17.4	26.5	31.0	-4.5
	1965	14.8	14.5	25.5	26.4	-0.9
	1970	22.6	17.9	28.5	24.1	4.4
	1973-1975	22.3	10.3	32.1	20.4	11.7
<u>Market-oriented countries</u>						
Ivory Coast	1960	15.5	11.9	36.7	39.5	-2.8
	1965	20.2	15.0	35.4	36.8	-1.4
	1970	23.3	18.7	39.9	41.1	-1.2
	1973-1975	23.2	17.1	43.9	45.4	-1.5
Kenya	1960	20.4	14.3	34.8	32.2	2.6
	1965	14.8	12.8	31.5	32.2	-0.7
	1970	25.3	20.7	31.8	31.0	0.8
	1973-1975	23.8	14.7	38.4	34.0	4.4
Malawi	1960	10.6	-5.2	35.7	21.1	14.6
	1965	14.5	-0.3	31.2	18.8	12.4
	1970	21.9	6.3	35.3	21.9	13.4
	1973-1975	23.7	13.1	34.4	22.7	11.7

Source: World Bank data.

oriented countries had a significantly higher rate of growth of GDP, 6.9%/year, than the étatist nations which averaged only 3.8%/year. Indeed, Malawi and Ivory Coast are the only two nations in sub-Saharan Africa which achieved growth rates of 7% or higher over an extended period and without the benefit of mineral exploitation. Second, in all countries (except Guinea) in Table 4 growth was slower after 1970 than before; part of the explanation must lie with the vicissitudes of the international economy and the droughts which affected agricultural production in many sub-Saharan countries in 1973-1975. Third, a growth rate in agriculture greater than 3% seems to be a necessary, if not a sufficient, condition for relatively rapid GDP growth. Fourth, there is no apparent correlation between the

achieved pace of industrialization and the extent to which the objective was considered central to development policy. Thus manufacturing in Malawi and Ivory Coast (neither of which gave primary emphasis to industrialization) sustained annual growth rates of 13 and 10%, respectively, while in Ghana (which slanted development policies in favour of industrialization) the long-term industrial growth rate was only 2.6%/year. As a consequence, while the share of manufacturing in GDP stagnated around 10% in Ghana between 1960 and 1974, it grew from 7.1% (1960) to 14.2% (1975) in the Ivory Coast and from 5.8% (1960) to 14.5% (1975) in Malawi (Table 2).

(ii) *Trends in poverty and income distribution*
Systematic and intertemporal studies of

Table 4. *Growth in real value added* (per cent per year, at factor cost)

	Period†	GDP	Agriculture	Manufacturing
<u>Étatist countries*</u>				
Ghana	1965-1974	2.8	3.9	2.6
	1965-1970	2.3	3.9	4.4
	1970-1974	3.3	3.8	0.2
Guinea	1960-1975	3.8	2.8	11.3
	1960-1970	3.6	2.7	14.7
	1970-1975	4.4	3.0	5.9
Tanzania	1964-1975	4.8	2.9	7.9
	1964-1970	5.4	3.4	10.5
	1970-1975	4.2	2.3	4.7
<u>Market-oriented countries</u>				
Ivory Coast	1960-1975	7.3	3.7	10.0
	1960-1970	8.1	4.5	11.3
	1970-1975	5.5	2.1	7.6
Kenya	1964-1975	5.8	3.2	8.4
	1964-1970	6.6	4.7	7.2
	1970-1975	4.9	1.6	9.9
Malawi	1964-1975	7.5	4.8	13.0
	1964-1970	6.3	3.7	15.1
	1970-1975	9.0	6.2	10.5

Source: World Bank data.

* Data for Sudan were under revision.

† For each country the longest possible period with consistent data has been used and then divided into two subperiods around 1970.

poverty and income distribution in sub-Saharan Africa hardly exist. A prominent exception is a recent study by the World Bank for Tanzania which sums up the main tendencies in the distribution of income in the period between the Arusha Declaration (1967) and 1975 as follows. First, that Tanzania took a series of steps which were largely successful in preventing the emergence of an indigenous urban élite reaping high incomes from industrial, commercial and residential capital. Second, amongst the urban wage-salariat, while the highest levels (perhaps the top 2-3%) have suffered significant absolute and relative declines in post-tax real income, the top quarter retained (indeed, slightly increased) its share of the urban wage-salariat pie. Third, amongst Tanzania's smallholder households, those in the rich regions, on average, achieved small increases in private real incomes, while those in the poor regions suffered significant declines, indicating some worsening in the intra-rural distribution of private incomes. But this disequalizing tendency was counterbalanced by a significantly egalitarian trend in the distribution of certain public services, notably primary education. Fourth, the disparity in aver-

age real income between smallholders and urban wage/salary earners remained largely undented by policy efforts, though this was an enormous improvement on the pre-1967 record of widely diverging trends. Finally, this continuing gap in urban-rural living standards, along with other factors, fuelled increases in rural-urban migration which increased the rate of urban unemployment and lowered real incomes in a growing, low-income informal sector.²¹ Basically, a strongly egalitarian approach was somewhat weakened in implementation by an unsatisfactory agricultural growth record, a misconceived emphasis on shoring up real urban minimum wages through wage-policy, and by a pronounced upward shift in the skill-composition in the middle orders of the wage-salariat, in part reflecting successful attempts to evade the prevailing incomes policy through in-service promotions and job-reclassifications.

For other countries the available evidence is much less complete. In Ghana, Knight (1972) estimated some narrowing of urban-rural income differentials between 1960 and 1967 mainly because of a 20% rise in rural incomes. Within the urban wage-salariat Killick (1978)

cites evidence to show a worsening distribution between 1956 and 1968, attributable partly to salary increases skewed in favour of the upper ranges of the civil service and partly to a rapid erosion of real minimum wages through differential rates of inflation. In Kenya, urban unemployment had emerged as a significant problem in 1969 (ILO-Kenya, 1972). The preliminary evidence from an ongoing World Bank study on Kenya suggests a pattern of fairly rapid increase in average rural incomes since the mid-1960s alongside growing land and income concentration. The top 30% of rural households appear to have benefited most. While the next 30% have also enjoyed significant 'trickle down', there does not seem to have been any significant change in the *per capita* incomes of the lowest 40% of rural households. Among urban households there appears to have been a similar pattern of rapid growth plus worsening income distribution between 1969 and 1974, except that in this case the lowest 40% seem to have participated in the real income gains. Furthermore, between 1969 and 1974 there does not appear to have been any significant worsening in the rate of urban unemployment or informal sector incomes. And the available evidence suggests that thanks to the nexus of family links with higher-income households, the unemployment in 1974 was not associated with deep-seated urban poverty. Berg (1971, p. 233) uses Amin's (1967) work to show how the rapid growth of the Ivory Coast between 1950 and 1965 benefited a large majority of the country's rural population, including in the relatively disadvantaged northern region: 'Only one-third of the rural population is now (1965) in "isolated and stagnant" zones, as compared to sixty percent in 1950, and real cash income of the northern villager has, according to Amin's figures, doubled in fifteen years.' Two recent point estimates for 1970 (Chenery *et al.*, 1974) and 1973/1974 (IBRD-Ivory Coast, 1978) indicate a significant improvement in the national size distribution of income in the intervening years, though some of this may simply reflect differences in available data and assumptions.²²

(iii) *Development problems, policies and results*

The last few pages have provided some cursory information on trends in output and income distribution for selected countries. It is now time to enrich the account by essaying some causal connections between initial conditions, development policies and results. It will be particularly interesting to compare and contrast the policy stances of the *étatist* and market-oriented countries with respect to the major development issues.²³

Developing agriculture

Both sets of countries inherited economies in which agriculture was by far the largest sector, providing livelihood to 80% or more of the population, the vast majority of whom were smallholders. The consequences of policies taken (or omitted) to enhance smallholder productivity were likely to be far-reaching. They were, on balance, the market-oriented countries were more successful than the *étatist* nations in creating policy frames appropriate for exploiting the potential of smallholder agriculture.

First, *étatist* nations were prone to emphasize structuralist (or 'transformation') approaches to agricultural development over gradualist (or 'improvement') ones. The former approach was typified by the concentration of scarce public capital and trained manpower on a few large-scale schemes and/or emphasis on state-sponsored institutional reorganizations of the rural sector. Thus in Ghana during the 1960s newly established and mechanized state farms received the bulk of agricultural development funds, while the extension service for smallholders languished (Berg, 1971). In 1962 responsibility for extension work was transferred from the Ministry of Agriculture to the politicized United Ghanaian Farmers' Council (UGFC), which was also given the responsibility for setting up co-operatives and providing credit. This led to the deterioration of extension services, the politicization of credit allocations and the antagonization of the peasantry (Killick, 1978, Chap. 8). In Tanzania, between 1961 and 1967, public development capital was lavished on a handful of village settlement schemes which suffered from premature mechanization, excessive investment in social services and an unwarranted degree of what Dumont has termed 'spoon-feeding' (Dumont, 1969).²⁴ During this period government policy also embraced the 'improvement approach', which relied heavily on the spread of extension services to cash crop farmers and achieved significant initial successes. But, in 1967, the economic differentiation among the peasantry resulting, in part, from the uneven advantage taken of these services, sparked a series of egalitarian Government institutional initiatives, including the 'ujamaa' campaigns, the 1972 decentralization of Government and the 1974-1976 crash villagization programme. While these initiatives were aimed at creating a framework conducive to long-term, broad-based rural development, the prolonged flux in the peasant's institutional environment exacted a significant short-term toll in foregone rural production and incomes. In Sudan, investment, research and qualified man-

power resources were concentrated throughout the period on a few massive, state-run irrigation schemes (such as the Managil extension of the Gezira, the Khasm-el-Girba scheme, and the recent Rahad project) and some programmes in support of private, mechanized farms. The 10 million people earning a livelihood from traditional rainfed smallholder cultivation were residual legatees of the agricultural development effort (ILO-Sudan, 1976).

In contrast, the market-oriented countries made support of private peasant production the main plank of agricultural development policy. Though these countries tended to steer clear of direct state production in agriculture, there was no lack of public investment in infrastructure, research, marketing, extension and credit facilities. Thus it is noteworthy that agriculture was receiving 36% of total public investment in the Ivory Coast in the period 1966-1970, compared to 30% in Tanzania in 1974-1975, even though the latter had, by then, begun to shift investment priorities in favour of the directly productive sectors of agriculture and industry.²⁵ The market-oriented countries sustained and expanded successful programmes of adaptive research in individual cash crops. In the Ivory Coast specialized, long-established research institutes for coffee, cocoa, oilcrops and cotton worked closely with the 'development societies' for these crops (IBRD-Ivory Coast, 1978). In Kenya, the newly-independent Government built on the inherited research programmes in coffee, wheat and pyrethrum. The Kenya Tea Development Authority pioneered a system of 'tea roads', smallholder extension and organization of collection and processing functions which permitted smallholders to become efficient producers of tea, usually regarded as a plantation crop par excellence because of the need for close co-ordination between the production, plucking, and collection of tea leaves and factory processing to produce a quality product. The successful adaptation of hybrid maize for smallholder cultivation in high-potential areas of Kenya was a rare success story of adaptive research in foodcrops in sub-Saharan Africa. Aside from these directly supportive activities by state agencies the governments in market-oriented countries usually provided qualitative encouragement to progressive farmers, instead of viewing them as unwelcome harbingers of an entrenched kulak class. For example, in Malawi, the 'Achikombe' programme provides various kinds of benefits and recognition to smallholders who consistently achieve certain high standards of husbandry and market orientation (Humphrey, 1974).

Second, in the majority of the sub-Saharan countries the policies with regard to producer and consumer pricing, the exchange rate, foreign trade taxes/subsidies and controls, and domestic indirect taxes were such as to engender incentive structures which were biased in favour of industrial and commercial activities and against agriculture. Put another way, these policies turned the domestic terms of trade against agriculture. Thus, in Sudan, Acharya (1975) estimated that the incentive structure prevailing in the early 1970s implied an effective taxation of agricultural value-added of nearly 30% and an average effective protection of a sample of industrial activities of well over 100%. In a similar study limited to the agricultural sector of Zambia, Wolf (1974) estimated an effective taxation of agriculture of about 30% in 1974. While there are not comparable estimates of effective protection of industry in Zambia the average is bound to have been high, given the high structure of nominal tariffs and restrictive quantitative controls. In a detailed study of the factors responsible for the negligible growth in *per capita* farm incomes in Uganda over a 40-year period ending in 1967, Jamal (1976) pinpoints wage, pricing and tax policies as chief culprits. Evidence for substantial bias in the structure of incentives against agricultural pursuits is also available for Ghana (Killick, 1978; Pearson *et al.*, 1976), Tanzania (World Bank internal report), Kenya (IBRD-Kenya, 1975) and Ivory Coast (Pursell *et al.*, 1975).

The main reasons underlying the widely observed phenomenon of incentive bias against agriculture were as follows:

- (i) The perennial pressure for cheap food in urban centres led governments to hold producer prices for foodcrops below their border price equivalents (it should be noted that in the great majority of sub-Saharan African countries the state sets producer prices for most important food and export crops). A similar tendency existed for export crops because they provided administratively easy tax handles. This tendency was accentuated in *étatist* countries for two reasons: first, such countries gave progressively greater roles to parastatals and state-sponsored co-operatives for intermediating between the farmer and the point of final sale, and the inefficiencies and financial difficulties of these nascent organizations were typically accommodated by widening the transport/marketing margins at the expense of the farmer; and second, there was a distinct ambivalence towards price incentives to reinforce a pattern

of export specialization in agricultural raw materials that was associated with colonialism.

(ii) The widespread attempt to 'force' the pace of import-substituting industrialization (again more pronounced in *étatist* countries) led to tariffs and import regimes which protected domestic industry and raised the cost of manufactured goods to rural buyers.

(iii) Attempts to compress the inherited, and widely divergent, urban pay structure from the bottom up tended to raise the average level of wages, especially for unskilled labour. This rise in wage costs was compounded, in some countries, by predilections towards overmanning in the growing number of parastatal industrial and commercial enterprises. The rise in wage costs instigated higher levels of protection for industry and commerce and was paid for by domestic consumers, most of whom were rural dwellers.

Basically, all these forces limited the real income earning opportunities in agricultural pursuits. Two countries where such tendencies were least pronounced were the Ivory Coast and Malawi (both in the market-oriented sample). In one 'recently *étatist*' country, Ethiopia, the income opportunities for peasants have been greatly enhanced by the structural land reforms of 1975 in sub-Saharan Africa's one country with an archetypally, feudal agrarian structure (Cohen *et al.*, 1976).

Finally, it should be noted that irrespective of the strategy followed, the sub-Saharan countries with well-developed mineral sectors (such as Zambia and Zaire) were especially guilty of neglecting agricultural development. The readily accessible rents and foreign exchange earnings from minerals masked the long-term need for instituting appropriate structural and incentive policies for developing agriculture.

Both *étatist* and market-oriented nations tended to continue the pre-independence pattern of relative neglect of foodcrops with respect to pricing, infrastructure and, especially,

adaptive research. Food production statistics for countries of this region are subject to large margins of error (partly because of the large share of non-marketed production) and the heavy dependence on climatic factors leads to large variations, which make it difficult to interpret trends. Nevertheless there are clear and disturbing indications that the expansion of food production has failed to keep pace with the growth of population in a number of sub-Saharan countries. In a still larger set of nations output has grown more slowly than effective demand, which has expanded more rapidly than population because of the growth in *per capita* production and incomes. Indeed, it is only because slow growth of incomes (due to a levelling off in the expansion of export crops as well as lagging domestic food production) has held down the growth in *per capita* incomes that the gap between the rates of increase in food production and in effective demand for food has not been wider. The FAO's regional indices of *per capita* food production illustrate the relatively poor record in Africa, especially when compared with other continents (FAO, 1977, p. 26) (see Table 5). One conspicuous result of the slow growth in food production has been the increased recourse to imports, financed in part by food aid, but also purchased with foreign exchange.

The external sector: constraints and policies

Given the initial openness of the sub-Saharan African economies and the foreseeable demands for increased import flows, a successful, long-term export policy was a prerequisite for a sustained development effort. That was easier said than done. The initial export structure of these countries was heavily dependent on a few agricultural commodities. The choice facing most countries was whether to deepen the existing specialization further on the basis of comparative advantage or attempt to nudge the evolution of export competitiveness away from agricultural products. A strong attraction of the latter choice was the very sharp declines in external terms of trade that these countries had

Table 5. *Indices of food production per capita, 1961 = 100*

	1972	1973	1974	1975	1976
Africa	99	92	98	96	97
North and Central America	106	107	107	112	114
South America	101	101	104	103	111
Asia	103	106	105	109	109

Note: These are price-weighted indices and thus reflect changes in the quality (as reflected in the market value) as well as quantity of food produced.

Table 6. *Indices of export volume and terms of trade, 1970 = 100*

	1954-1956	1960-1962	1966-1968	1973-1975
<u>Etatist countries*</u>				
<u>Ghana</u>				
Export volume	66	85	71	123
Terms of trade	148	90	94	75
Purchasing power	98	75	67	92
<u>Sudan</u>				
Export volume	65	84	80	60
Terms of trade	119	89	97	132
Purchasing power	77	75	78	77
<u>Tanzania</u>				
Export volume	52	78	103	76
Terms of trade	123	95	102	111
Purchasing power	64	73	102	84
<u>Market-oriented countries</u>				
<u>Ivory Coast</u>				
Export volume	29	56	83	157
Terms of trade	139	77	95	79
Purchasing power	40	43	80	125
<u>Kenya</u>				
Export volume	25	63	89	101
Terms of trade	154	96	97	87
Purchasing power	38	60	86	88
<u>Malawi</u>				
Export volume	48	51	102	148
Terms of trade	111	100	89	77
Purchasing power	53	51	90	113

Source: *UNCTAD Handbook of International Trade and Development Statistics, 1976.*

* Data are not available for Guinea.

experienced between the mid-1950s and 1960-1962 (Table 6), and which was an important explanation for the ambivalence towards primary exports shown by many of the newly independent countries. The market-oriented countries cast their lot on the side of continued specialization in agricultural exports, with the partial exception of Kenya, which also pursued manufacturing export markets in the partner countries of the East African Common Market. Not coincidentally, these were the countries which sustained the most favourable environments for private peasant agriculture. The étatist nations, on the other hand were, on balance, less favourably disposed towards both private peasant agriculture and further specialization in agricultural exports.

The information in Table 6 supports some surprisingly clear-cut judgements on the relative efficacy of these choices. First, the fears of a long-term decline in the terms of trade were not misplaced. Comparing 1954-1956 to 1973-

1975, five out of the six countries experienced substantial declines in their commodity terms of trade (the number drops to four if 1973-1975 is compared with 1960-1962). But the real issue was whether, given the correctness of such a prediction, these African countries had a viable alternative export policy to one of continued specialization in agricultural exports. If the past two decades of experience are any guide, the answer seems to be negative. Comparing 1954-1956 to 1973-1975, the export volumes of the Ivory Coast, Kenya and Malawi increased five-fold, four-fold and three-fold, respectively, while they failed to double for Ghana, increased by about 50% in Tanzania and stagnated in Sudan. What is even more telling is the record on the 'purchasing power of exports'. These indices stagnated for Ghana and Sudan, and rose by a third in Tanzania. In contrast, the index tripled for the Ivory Coast and more than doubled for Kenya and Malawi. The market-oriented countries were clearly able to

generate volume increases which far outweighed adverse price trends, through a policy of continued specialization in agricultural exports combined with increasing diversification across agricultural commodities. The ambivalence of the *étatist* nations was apparently an unsound basis for a successful export policy. In Berg's (1971, p. 227) somewhat colourful words, it would appear that 'Competition in export markets for primary products may be something like war, in which there are only the quick and the dead'.

Finally, the argument that the *étatist* nations did not need a strong export policy because of their inward-looking development strategy, does not hold much water. For example, despite the importance attached to the goal of self-reliance in Tanzania after the 1967 Arusha Declaration, the volume of imports grew by over 60% between 1966-1968 and 1973-1975, compared with increments of 14% for Kenya, 54% for Malawi and 74% for the Ivory Coast over the same period. As a share of GNP Tanzania's import surplus averaged 11.7% in 1973-1975 compared to 4.4% in Kenya, 11.7% in Malawi and an *export* surplus of 1.5% in the Ivory Coast (Table 3). In the absence of a strong export record, the continued high dependence on imports simply necessitated growing dependence on external aid.

Human skills and economic development

(i) *Manning the government.* The acute scarcity of experienced African administrators, technicians and entrepreneurs at independence cannot be overemphasized.²⁶ At a time when most African governments were poised to embark on bold new development programmes, the higher-level skills that existed within the boundaries of these nations were largely held by non-Africans. The choice facing most nations was whether to 'Africanize' as rapidly as possible, trusting to on-the-job skill acquisition to compensate for the lack of previous experience or formal training, or alternatively, to maintain, and even deepen, the reliance on expatriate skills until the ongoing investments in education bore fruit.²⁷ Given the colonial history, the pressure for rapid Africanization was extremely strong and directed especially towards the machinery of government. Most African countries, and especially the *étatist* ones, opted for rapid Africanization.

Thus, for example, Tanzania pursued a very determined policy of 'citizenization', which increased citizen representation in the senior and middle grades of the civil service from 26%

at independence in 1961 to 90% by 1971, while the total number of posts in these categories increased by 140%. It entailed increasing the number of citizen officers *nine-fold* from 1170 in 1961 to 9708 a decade later. This remarkable feat was accomplished mainly through inducting large numbers of existing African school teachers into the civil services and giving the government first claim on emerging cohorts of secondary-school leavers. One major problem with this policy was that the inherited education system was better adapted to producing clerks than managers and technical specialists, even though these were precisely the skills in greatest demand as the scale and complexity of the public administration's development effort expanded. The symptoms of an inadequately staffed public administration showed up in the form of reduced capacity to implement policies (especially those which required a high degree of co-ordination) and low standards of maintenance and operating efficiency, in running public facilities like rural water supply systems, roads and health facilities, leading in many cases to premature destruction of expensive capital assets. The problems were compounded by the discouragement of non-African, small-scale operators in construction, transportation and various kinds of repair/maintenance activities.

Depending on the initial heritage of trained manpower and subsequent policies, these problems may be found in varying degrees in other countries. Thus, compared with Tanzania, the even greater scarcity of trained African manpower in Zambia accentuates some of the problems described above. In Kenya, on the other hand, a larger initial stock of people with appropriate skills, combined with a slower pace of Africanization and a more permissive attitude to non-African small-scale operators, has engendered greater efficiency in public administration and services. Countries which launched major *étatist* initiatives have tended to exacerbate their trained manpower scarcities and associated problems. Thus, Ghana at independence was better off with respect to trained African cadres than Tanzania, Zambia or Kenya. But the extremely rapid increase in public-sector functions and responsibilities during the Nkrumah years placed insupportable burdens on a small, but competent, civil service. Berg (1971, p. 205) has drawn the following lesson from the early Ghanaian experience: 'A large increase in the size and character of the tasks imposed on a weak administrative system does not simply mean that capacity to perform declines marginally. Rather it tends to set into

motion forces that erode the whole decision-making machinery and destroy the capacity to execute and control'. Echoes of such a phenomenon may be discerned in Guinea during the 1960s and in Tanzania between 1967 and 1975.

Two market-oriented countries, Malawi and the Ivory Coast, opted decisively for heavy continued dependence on expatriate skills. Thus, in the Ivory Coast the population of Europeans (who play a major role in the modern sector of the economy, including public administration), increased from 30,000 in 1965 to 50,000 in 1975 (IBRD-Ivory Coast, 1978). Greater efficiency was obtained at the price of much slower rates of Africanization. Progress towards self-reliance, in the sense of visible, African control over the commanding heights of the economy, was slower. While such a policy was heavily criticized in many quarters as neo-colonialist, it paid one other dividend over and above the efficiency gains of a more gradual transition period. By entailing slower rates of promotion for Africans in high-/middle-level positions of the government it created less of an 'excessive expectations' problem for future cohorts than in the other countries, where rapid Africanization permitted swift career advances for the initial cohorts of African civil servants. As a related point, the more restricted government career opportunities in these market-oriented countries induced fresh entrants to the educated labour force to undertake much more serious efforts to seek remunerative occupations in non-government activities, such as commercial farming or non-farm small-scale enterprise. In the more rapidly Africanizing countries the early association of secondary-school-and-above qualifications with the virtual guarantee of a well-paid government job engendered massive demands for post-primary education, which, when met, engendered long-term problems of educated unemployed (Andreski, 1968). Among the few countries which successfully resisted this pressure and held the expansion of post-primary facilities in some reasonable balance with long-term skilled manpower requirements was Tanzania.

(ii) *Entrepreneurship and industrialization.* The lack of a strong class of African industrialists tended to confront policy-makers with the choice between continuing with the colonial heritage of an industrial sector owned and controlled by private non-African groups (including both foreign transnational investors and local 'ethnic minorities') or 'Africanizing' modern industry through nationalizations and

public investment in industrial plant. Most countries veered towards the latter path. Ghana and Guinea led the way immediately following their independence (1957 and 1958, respectively). On the east coast, Tanzania followed suit after the 1967 Arusha Declaration, Sudan in 1969, and Zambia embraced the parastatal mode for industrial organization in 1968. The three market-oriented countries, the Ivory Coast, Kenya and Malawi, continued to rely predominantly on foreign private investment and management for industrial development.

Thus far the development of successful African industrial entrepreneurship, whether in private or parastatal modes, has been limited. As discussed in Section 1, at the time of independence the greatest promise for private African entrepreneurship appeared to be in some of the coastal West African economies like Ghana, Nigeria and Senegal. But very soon after independence, these countries activated strong import-substitution policies, including detailed administration of import and industrial licences, which tended to favour the larger established foreign subsidiaries and new government industries and be biased against emerging, small-scale indigenous manufacturers. These policies, together with the existing handicaps of the environment (Schatz, 1972) inhibited the evolution of private African entrepreneurs. In the lower-income East African countries it was probably too early to expect a significant transition of Africans from cash farming to industry. Besides, in all these countries the availability of relatively well paid and secure government jobs dampened proclivities for industrial ventures. In the étatist countries like Ghana, Guinea, Sudan and Tanzania, the emergence of private industrial African entrepreneurs was further inhibited by the anti-private-sector stances of government policies.

Almost by definition, the scale of state entrepreneurship in the industrial sector of the étatist countries has increased greatly. Given the relative infancy of the industrial sector as a whole and the even briefer history of the parastatal mode, it is probably too early to form a definite evaluation of African state entrepreneurship. However, in most countries policies of import restrictions, tariffs, preferential access to domestic and imported raw materials and intermediate imports, confinement schedules and subsidized credit and equity terms have created a highly protective framework which discourages striving for efficiency [see, for example, Killick (1978) on Ghana, Acharya (1975) on Sudan]. Many of these features of the macro-policy-frame are also to be found in

Table 7. *Industrial resource use efficiency in Ghana and Tanzania*

<u>Ghana</u>			
	<u>1962--1963</u>	<u>1965--1966</u>	<u>1969--1970</u>
Value-added per worker (in constant 1962 cedis) in			
(a) Private enterprises	1635	1775	1424
(b) State enterprises	748	690	784
<u>Tanzania</u>			
Performance-indicators:			
<u>ratios 1972--1973/1966--1967</u>	<u>Parastatal</u>	<u>Private</u>	
Capital-output ratio	1.46	1.33	
Capital-labour ratio	1.00	1.36	
Value-added per worker	0.69	1.01	
Gross real rate of return on capital	0.73	0.87	
Index of total factor productivity	0.70	0.88	

Sources: For Ghana, Killick (1978); for Tanzania, World Bank data.

some of the market-oriented countries like Kenya (IBRD--Kenya, 1975), which were also more susceptible to being exploited through transfer-pricing and overinvoicing practices of large foreign companies. But in the case of parastatal firms the macro-policy problems are compounded by the weakness of firm-level incentives for workers and managers, the inexperience of the latter, the multiplicity and diffusiveness of objectives and the transference of bureaucratic procedures from civil-service backgrounds. Notwithstanding all the caveats regarding product composition, appropriateness of the time period etc., the data in Table 7 appear to support the view that parastatal firms in Ghana and Tanzania have performed worse than private ones in recent history. Further, the siphoning off of many of the more capable and experienced senior civil servants to man the growing number of parastatals diluted the quality of the government administration.

Wage policy and its effects

Both the colonially-bequeathed wage structure and the subsequent course of policies had significant implications for growth and income distribution in the sub-Saharan African countries. Pursuing this paper's penchant for generalizations a stylized version of these issues is presented here, which purports to encapsulate the salient findings of studies on Tanzania (World Bank internal report), Kenya (IBRD--Kenya, 1975; ILO--Kenya, 1972), Sudan (ILO--Sudan, 1976), Uganda (Jamal, 1976) and some interpretive pieces like Wolf's (1973).²⁸

In essence, such a stylized version runs as follows. As seen earlier, the colonial period be-

queathed a widely divergent public pay structure, which was mirrored, for similar reasons, in the small, urban non-government sector. Not only was there an enormous difference between the top, European salaried official (or company manager) and the unskilled African wage-earner, but the wage of the latter had had to be set high enough to attract rural peasants with a relatively high reservation price into 'permanent' urban wage labour. Around the end of the colonial period these unskilled urban wage rates tended to become codified in minimum wage legislation. After independence, there was rapid Africanization of the administrative grades of the civil service. But the change in race was not associated with any significant change in the pay structure. One major reason for this was that it was politically extremely difficult to reduce the pay of senior African civil servants substantially, when the old pay scales (or even better ones) were necessary to retain many of the ex-colonial expatriate staff in the more technical government functions. And in the private modern sector, foreign firms continued to pay their predominantly expatriate senior staff the same high salaries as before. Thus, post-independence pressures to reduce the massive disparities between the top and bottom of the urban pay structure could be accommodated more easily by raising the pay scales at the bottom. This is what happened.

There were several significant consequences. First, during the first decade after independence the gap in real earnings between small-holder peasants and urban unskilled workers or clerical staff widened greatly. Consequently the demand for such urban formal-sector jobs

expanded much faster than supply and the positions had to be rationed, usually on the basis of educational qualifications, such as primary-school leaving certificates. This, in turn, generated a massive demand for education, where the emphasis was on the diploma rather than the content of education, since it was the former which was seen as the passport to formal-sector jobs; there was no particular reward attached to the more difficult process of acquiring vocational or craft skills. The supply of education increased rapidly, especially in rural areas, partly in response to the vastly increased demand and partly to well-grounded desires to reduce illiteracy and ignorance. Armed with the necessary certificates large numbers of rural youth migrated to urban centres to engage in the lottery for relatively well-paid formal-sector jobs. As the rate of growth of such employment typically lagged behind the combination of natural increases in existing urban labour force and the growth of migration to towns, the result was increasing urban unemployment, the growth of an informal sector, and greater urban poverty, all relatively new phenomena in sub-Saharan Africa.

This pattern of pay increases for the lower end of the urban formal-sector employees was not seriously constrained by market forces. In the case of government employees there was hardly any 'market discipline' since government services are 'non-marketed' outputs; the only consequence was a swelling of recurrent expenditure budgets and a decline in budgetary savings. Prices of marketed but non-traded services (like hotels, commerce) went up. In the industrial sector, which produced tradeable output, the increases in the wage-bill could only be accommodated by increased protection (almost invariably granted) which cushioned competitive pressures for industrial efficiency and raised the relative prices of manufactures purchased by rural dwellers. The pattern of high and increasing wages for unskilled industrial labour also augmented existing biases in favour of capital-intensive industrial activities. The government was often particularly guilty of granting excessive pay increases to middle-level personnel. This tended to fuel the demand for secondary education and discouraged the emergence of private African enterprise.

Thus the adverse consequences of wage policy included:

- (i) widening urban-rural income differentials;
- (ii) the emergence of urban unemployment and poverty;
- (iii) excessive investment in the wrong type

- of education;
- (iv) reduced government savings;
- (v) increased protection of the nascent industrial sector;
- (vi) increased orientation within industry in favour of capital-intensive activities; and
- (vii) a failure to reward craft skills necessary for the evolution of African non-government enterprises.

In varying degree, these policies and consequences may be found in both étatist and market-oriented countries. A somewhat greater predilection towards overmanning in the urban formal sector, a lower level of industrial efficiency and a higher incidence of inefficiencies and disruptions in the distribution networks serving rural areas may all have made the implicit tax on rural incomes exerted by the structure of overvalued urban formal-sector incomes more onerous in the étatist nations. Finally, the presence of a well-developed mineral sector tended, as in Zambia, greatly to accentuate the problems of an inappropriate wage structure. Labour earnings were typically very high in the capital-intensive mineral sector and tended to impart a strong upward bias to the entire formal-sector wage structure.

3. DEVELOPMENT ISSUES AND POLICY PRIORITIES FOR THE FUTURE

This section draws on the earlier historical and diagnostic account to map an agenda of development issues and policy priorities that are likely to face the low-income countries of sub-Saharan Africa in the next decade or two. The underlying organizing theme of this section is: given the stage these countries had reached in the mid-1970s, what are the critical long-term development issues that they must tackle to provide the best hope for self-sustaining development that helps to alleviate poverty? In the interests of brevity the caveats and qualifications are shed by the wayside; to avoid the fence-sitting of Joan Robinson's famous 'two-handed economist' (on the one hand . . . while on the other . . .) and encourage the crystallization of some ideas, the tone will be much more prescriptive (perhaps even didactic) than a more scholarly, and agnostic, treatment might warrant. Before launching into a discussion of these critical development issues it is helpful to set the stage with a set of considerations which profoundly affect the longer-term aspects of many of the development issues. These considerations relate to the question of population growth.

(a) *The demographic setting*

Of all the regions of the world, sub-Saharan Africa displays the highest fertility and mortality rates; and while mortality rates have been declining, there is yet to be any significant change in fertility rates; so the rate of population growth is likely to accelerate before it declines. Although historical data on mortality rates in these countries are scarce and unreliable, it is clear that over the past two or three decades there has been a significant decline, leading to increases in life expectancy at birth of 7-10 years between the early 1950s and early 1970s (Table 8). Total fertility rates have remained high, in the range of 5.5-7.0, with crude birth-rates clustering around 45-50/1000 (Table 8). Except in the two small island nations of Mauritius and Réunion there has been no significant decline in fertility. Indeed in some countries, fertility appears to have risen in recent years (Cassen, 1977). Rates of population growth range between 2.5 and 3.5% per annum.

The continuing pattern of low life expectancy is attributable to extremely high rates of infant and child mortality, explained by the usual features of high incidence of communicable disease, malnutrition, gastric diseases, poor traditional midwifery and weaning practices. These seem to bear especially harshly on Africa because of adverse climate and terrain, unusually hardy disease vectors and the relative paucity of countermeasures (Cassen, 1977). The health conditions also influence fertility. Where fertility is believed to have risen in recent years, it has been attributed to adult health factors such as higher fecundity and reduction of secondary sterility.

With continuing improvements in general health conditions, all those factors which will improve women's ability to conceive and bring pregnancies successfully to term will tend to increase fertility. On the other hand, improved prospects of children's survival will tend to reduce the desired number of live births. In the decade ahead, the first influence is likely to outweigh the second in most countries. There is much debate on the effects of urbanization and education on fertility. Parents' recognition that they cannot afford education (especially secondary education) for large numbers of children is probably the best hope for future fertility decline. Very few governments presently endorse strong family planning programmes, though in quite a few countries elements of such programmes are increasingly being incorporated into the maternity-child-health component of national health services. Even when governments adopt family planning programmes, as in Kenya, the spread of family planning, as measured by numbers of acceptors, does not appear to be accelerating; besides, programme activities are still mainly confined to the highly educated (Cassen, 1977).

Thus the outlook for the next two decades is of continued (and sometimes even accelerating) rapid population growth. Ultimately, as improvements in child mortality reduce the number of desired births and education offsets strongly held pro-natal feelings, fertility can be expected to decline. Family planning programmes and motivational work may be able to accelerate this change but at present, as Cassen (1977) concludes, 'their greatest appeal may come from stressing the (true) fact that longer birth intervals and fewer births improve the

Table 8. *Demographic data for selected sub-Saharan Africa countries*

Country	Estimated expectation of life at birth (years)*			Change	Estimated crude birth-rates in 1970s (per 1000)†	Estimates of total fertility rates‡
	1950	1954	1970-1974			
Ethiopia	31		38	+7	45.1	6.7
Kenya	40		50	+10	47.7	6.7
Somalia	33		41	+8	47.7	6.1
Tanzania	34		44	+10	47.1	6.1
Malawi					49.1	6.1
Congo	33		43	+10	44.9	5.8
Zaire	38		43	+5	45.5	5.9
Ghana	34		43	+9	46.8	6.9
Ivory Coast	33		43	+10	45.8	6.8
Upper Volta	31		38	+7	48.8	6.4

* From *Report on Monitoring of Population Trends*, Tabulation, UN E/CN.9/xix/CRP Add 1 (December 1976).

† From U.N.E.C.A. *Demographic Handbook for Africa*, 1975.

‡ From R. Cassen, 'Population change: current trends', mimeo (November 1977).

prospects of child survival, and mothers' survival too'.

In the meantime, economic policy-makers must plan on the basis of high rates of population growth. Two obvious consequences of this growth will be: (i) increases in social service spending budgets, which should strengthen the case for institution of cost-recovery systems; and (ii) acceleration of the shift in agriculture from land-extensive civilization systems to more scientific ones.

(b) *A strategy for agriculture*

For most of these countries, in the medium and long run, the key to more rapid growth, swifter alleviation of poverty, containment of unemployment, the reduction of urban-rural income differentials, a more manageable balance of payments and a more robust basis for long-term structural transformation of the economy, lies with increasing production in the rural economy. While industrialization of the right kind can play a strong supportive role, its capacity to generate employment and incomes directly will be quite limited for decades to come. Thus, for example, in Tanzania, where the choice of industrial strategy has been the focus of sustained analysis and debate during the past 5 years, long-term simulations reveal that whatever their other differences, none of the strategies under consideration offers a scale of manufacturing employment greater than a mere 3% of the projected labour force by 1995 (World Bank, and Roemer *et al.*, 1976). Tanzania is not atypical: employment in the organized manufacturing sector in the 1970s in higher-income countries like the Ivory Coast and Ghana accounted for only 2% or so of their labour force. For the foreseeable future the task of providing productive employment for the growing labour force of these nations must rest squarely with the agricultural sector.

Within the agricultural sector the long-term objectives of growth, poverty alleviation and structural transformation are likely to be best served by concentrating resources and policies in favour of smallholder agriculture. Smallholder agriculture offers the best opportunities for transforming abundant resources of land and labour into output, while economizing on scarce factors of capital and foreign exchange. This is true both for the present endowment of resources and for likely future technical innovations. The long-term, international record on agricultural innovations and their diffusion is replete with promise for divisible, scale-neutral innovations, which can be adopted by small-

holders and which enhance the productivity of land and labour at their command (Johnston and Kilby, 1975; Hayami and Ruttan, 1971).

Before outlining the principal elements of a smallholder strategy, certain additional reasons may be cited as to why large-scale, capital-intensive agricultural modes (state farms, private estates) are likely to play only a limited role in the optimal, long-term strategy for agricultural development in Africa. Such capital-intensive agricultural modes (at least, the privately managed ones) are frequently associated with higher land productivity than peasant farming. Less often they also boast greater total factor productivity. Amongst their attractions for policy-makers are the ready accessibility of their level of production. For example, inclement weather not only reduces the yields of cash crops; it may lead peasants to switch resources away from cash crops and into subsistence crops to assure a livelihood. Estates are not likely to make such a switch.

There are two principal arguments against emphasis on private estates and state farms even when they pass the test of static economic efficiency. Both reasons derive from the fact that production from these entities pre-empts a part of the market for smallholders producing the same crops. The market may be domestic (typically for foodcrops) or international (as for export crops); in either case the issue of actual or potential pre-emption is valid. The first reason is based on equity: the benefits from estate production are likely to be distributed much less widely than those from smallholder production of the same output. The second reason follows from this but invokes the mantle of *dynamic efficiency*. Because the diffusion of their incremental incomes is limited, estate farms are less likely to set in motion the broad-based increases in rural purchasing power that are necessary to bring about a mutually supportive dynamic interaction between agriculture and domestic industry, of the kind which has transformed the economy of the Indian Punjab in the last 15 years.

The force of these cautionary remarks (against large-scale agriculture) based on market pre-emption varies across countries; with respect to their factor endowments and the specific market situations they confront. For example, in land-abundant countries like Zambia and Zaire large farms based on hired labour may be an appropriate mode of production for quite a few years before the demographic pressures on land sharpen the issues of market pre-emption and income earning opportunities for smallholder farming. In countries where land is less

abundant, like Kenya, Ethiopia and Ghana, the arguments based on market pre-emption are already persuasive about the limited role for large-scale farming units. As the demographic trends press harder against the availability of land there will be more Kenyas and fewer Zambias in the future of sub-Saharan Africa.

(i) *Increasing smallholder productivity and incomes*

The details of an appropriate smallholder strategy will vary across countries and across agronomic zones within countries. But some principal elements, likely to be common to all, may be distinguished.

First, the incentive bias against agriculture present in the policy frames of most countries needs to be substantially diminished, if not eliminated. This will require hard decisions on exchange rates, tariff structures, formal-sector wages, retail price controls, and agricultural producer prices. Nor will it always be sufficient to increase the purchasing power of rural incomes through such policy reforms if failures in the distribution systems conveying manufactured, consumer goods upcountry subvert the use of increased incomes for increased purchases. However, if these actions are taken one can confidently predict substantial increases in rural incomes and production. That smallholders will react positively to improved incentives can be reliably asserted on the basis of the wealth of evidence from all over the globe (including Africa) attesting to the rationality of peasant responses. Indeed, in the short and medium run the anticipated gains from such 'macro'-policy reforms are likely to be greater than benefits from more 'structural, supply-side' improvements in the technology of agricultural production, as the gains from the latter usually have a longer gestation period.

Second, throughout the greater part of sub-Saharan Africa, population growth is gradually inducing a transition from resource-based, land-extensive farming to science-based, land-intensive practices (Johnston, 1978). This fact has profound implications. Virtually all studies of African farm systems carried out in the 1950s and 1960s stressed the labour-constrained nature of agricultural output (Cleave, 1974), but the doubling of the population in the last quarter of a century is changing all that. Like all transitions the picture is mixed. There are still substantial opportunities for increasing output by expanding the cultivated area: both through shifts into lower-quality lands and through opening up good virgin land through extension of the rail and (primarily) road net-

works.²⁹ But the pressures for land-intensive cultivation are now being clearly felt in many areas. In Kenya 'high-potential' land is virtually exhausted and in certain pockets landlessness has begun to emerge as a significant social problem (Heyer, 1976). Population pressure is also being felt in the good land areas of the Arusha, Kilimanjaro and West Lake regions of Tanzania, northern Ethiopia and the Sahel countries. The symptoms of population pressure may be seen in shortened fallow periods and resulting soil fertility problems. Benneh (1973, p. 139) has estimated that in recent years in Ghana the average fallow period has been reduced from 6-10 years to 2-3 years in the predominant bush fallow system of cultivation. Hance (1970, p. 421) estimated that by the end of the 1960s nearly 40% of land area in tropical Africa had become 'subject to pressure'. All of this suggests that in the long term, growth in agricultural output will come increasingly from improvements in the intensive use of land, stemming from both better husbandry and greater use of 'technical packages' including fertilizer, pesticides and improved seeds. Further, where population pressure on land has been accentuated by a government's 'nucleation' policies (such as Tanzania's villagization programme) the need for improved 'packages' and practices is that much greater.

Given the enormous heterogeneity of the physical environment (primarily due to differences in rainfall patterns and soils) and the relatively small stock of research, especially in foodcrops, the transition to a science-based, land-intensive farming strategy will be a long, slow haul. The need for location-specific adaptive research is great, especially in semi-arid zones. Special attention needs to be devoted to rootcrops and coarse grains, which are particularly prominent in African food production and consumption (International Food Policy Research Institute, 1977). Adaptive research will need to embrace biological chemical innovations such as seed fertilizer combinations as well as mechanical innovations. There is an urgent need to strengthen the capacity of national and regional research organizations to generate an efficient sequence of technical innovations that are feasible and profitable for small farmers subject to severe budget constraints (Johnston, 1978).

Nor will the existence, or discovery, of high-yield 'technical packages' usually be enough. For success they will need to be preceded by (or, at least, combined with) improvements in cropping and tillage practices. To ensure that all this complex information is readily avail-

able to the farmer will require wider and faster-reacting extension service systems than are presently available in most countries. Extension services are the critical link between research and farm practice. Providing for a dialogue between African farmers and researchers is difficult at present, but is essential for increasing the impact of research on farm productivity and output. Furthermore, to avoid costly errors, the introduction of new techniques and inputs should be done with an adequate understanding of the full farm system (Johnston, 1978). Narrowly conceived and implemented innovations could have unexpected and adverse consequences.³⁰

With greater pressure on land resources there will be increased need for government assistance in planning land use (Lele, 1975) to facilitate soil conservation and define property rights and markets in land as the old patterns of shifting cultivation and communal access give way to sedentary agriculture with some form of permanent rights to land. Governments can also expect to play a more significant role in management of water resources. In present-day Africa irrigated agriculture is expensive and technically demanding. In the short and medium run it makes more sense to focus adaptive research and development programmes on the predominant rainfed mode, including the semi-arid areas which are increasingly being brought under cultivation. But in the long run irrigation could have a greater role and some attention needs to be given to accumulating hydrological data and beginning to acquire the necessary technical expertise and experience for the design, construction and management of irrigation schemes.

Third, one readily transferable technical innovation, the tractor, should be approached with extreme caution. The experience with tractorization schemes in sub-Saharan Africa is, on balance, adverse (for example: Kline *et al.*, 1969; Lord, 1973; de Wilde, 1967; Amarshi, 1969; Clayton, 1972; and Collinson, 1965). Most tractorization schemes have been characterized by overcapitalization, poor organization, inadequate repair/maintenance facilities, unproductive and inefficient use of machines, high land-clearing costs and insufficient increases in output. And, in contrast with biologically-based innovations, tractorization is typically labour-displacing. Recent research (using detailed linear programme modelling of farm systems) by the World Bank on the comparative economic profitability of manual, oxen-based and tractor technologies in the context of Sukumaland farming systems, found tractors inferior to oxen cultivation, even when it was assumed that

all of a village's land was farmed as one unit. This was *a fortiori* the case for individual peasant holdings.³¹

This does not mean that African farmers should be condemned in perpetuity to the presently prevailing system of manual cultivation based on the hoe. There is great scope for equipment and tillage innovations which interact with biochemical innovations in raising yields. The potential from improved tools and implements is particularly promising for oxen-based farming systems, wherever soils, topography and the tsetse fly permit. Indeed, a *fourth* element of a smallholder-oriented development strategy would be the institution and encouragement of oxen cultivation and related propagation of new tools and implements. It must be emphasized that this is no overnight panacea. Breeding programmes need to be developed for stronger, more effective oxen for cultivation. A broader range of implements and tools has to be developed, tested, produced and marketed, especially if draft animal power is to be harnessed to a wider range of farm tasks than is currently the case in the few areas where oxen are used for cultivation. The integration of draft animal power into farming practices will also require changes in social customs and attitudes towards the role of cattle and in the rules governing their access to grazing land. But the potential is there. Animal draft power is an indigenous resource, and farm incomes can be raised directly and indirectly by a close integration of crop production and livestock activities. Furthermore, local, small-scale manufacture of a widening range of hand-tools and animal-power implements (such as ploughs, cultivators, seed-fertilizer drills and planters) can stimulate the growth of rural-based manufacturing activities, especially the growth and diffusion of metalworking and other technical skills essential for the evolution of broad-based manufacturing capabilities (especially, in simple capital goods production) and the associated expansion of non-farm employment opportunities. The burgeoning rural workshops of India, Pakistan, the Republic of China and the People's Republic of China have proved to be fertile ground for the development of efficient and increasingly sophisticated small-scale manufacturing enterprises (Johnston, 1978).

The *fifth* component of a smallholder strategy must be to reduce the transport and marketing margins between the peasant and the point of final sale. Principally, this will involve improvements in physical transport infrastructure, especially feeder roads and storage facilities, and measures to increase the operating ef-

iciency of marketing and transport intermediaries (Lele, 1975). The inefficiency of parastatal marketing and transport agencies is a particularly pressing problem in étatist countries, where their role is much greater. Measures to improve their efficiency will be part and parcel of efforts to increase overall parastatal efficiency in these countries through specification of clearer objectives and targets, tighter discipline on overmanning and financial management and worker incentives. In addition, where relevant, governments could consider imposing some countervailing competitive pressure on the public marketing bodies through allowing the role of private traders to expand.

Finally, as population pressure increases, African farming is likely to encounter some problems of agrarian structure, problems that have hitherto been much less conspicuous in Africa than in Asia and Latin America. The one large country in which a feudal, landed aristocracy weighed heavily on peasant efforts and rewards, Ethiopia, has recently undergone the liberating process of a surgical land reform, which bodes well for the future of its peasants (Cohen *et al.*, 1976). In Tanzania, the 1974-1976 villagization programme was associated with considerable *de facto* land redistribution, and the present system is unlikely to engender serious problems of agrarian structure in the foreseeable future. The same cannot be firmly asserted for Kenya and Sudan. In both countries there is evidence of growing land concentration. In the Kenyan case the greater proximity of the 'land frontier' presages more imminent problems if the trend is not stopped or reversed.

(c) *The role for industry*

Though the manufacturing sector now contributes from 10 to 15% of GDP in the sub-Saharan African countries, its contribution to employment has been no higher than 2-3% of the labour force (this refers to data from industrial surveys; the figure may be 3-6% if various informal-sector units are also included). Typically 80% or more of industrial value-added is in import-substituting activities, principally in 'early-stage' lines like food and beverage processing, textiles, garment manufacture, wood products, paper and printing along with a sprinkling of very capital-intensive projects in cement, fertilizers, metal-processing and petroleum-refining. The studies cited earlier showing the substantial bias in policy frames against agriculture also document a heavy bias *within* the industrial sector in favour of import-sub-

stituting activities and against exports. They also point to widespread economic inefficiency in industrial activities, whether measured by 'domestic-resource-cost' criteria or levels of effective protection necessary to keep enterprises solvent. The inefficiency of industrial enterprises is attributable to a variety of causes including some that are simply characteristic of 'infancy':

- (i) lack of competitive pressures due to heavy protection granted by the policy frame;
- (ii) uncertain and chaotic implementation of quantitative import restrictions, confinement schedules and other market-fragmenting devices;
- (iii) scarcity of management cadres and middle-level industrial skills;
- (iv) inefficiencies and interruptions in supply of key supporting infrastructure inputs such as transport, power and water;
- (v) virtual absence of industrial consultancy and technical services;
- (vi) policy discrimination against small-scale enterprises, which are frequently the training ground for indigenous entrepreneurs;
- (vii) special problems of parastatal enterprises, such as diffuse objective, excessive and insufficiently co-ordinated government intervention, and weak incentives for managers and workers.

The nub of this sorry summary is not that sub-Saharan African countries should not industrialize, but rather that certain kinds of costly errors and 'non-solutions' should be soft-pedalled, while some positive actions are supported. Some of these issues are now elaborated.

(i) *Import substitution vs import-substitution policies*

A remarkably common fallacy is one which says: most early industrial activities in low-income countries will be of an import-substituting nature, *therefore* industrial policy should have a strong, generalized import-substituting bias. As noted above, the poverty in logic is not reduced by the weight of historical evidence. Import-substituting activities frequently have been economically efficient options in early development stages in many of these countries owing to the natural protection offered by transportation costs and their natural resource endowments. But that does not, in itself, justify a set of *policies* biased in favour of import-substitution. In particular, it does not justify the heavy recourse to quantitative restrictions, import bans and tariff structures characterized by

high and widely differentiated rates of effective protection.

This should not be read to mean that there is never a sound case for protecting industry. The generalized infant industry arguments (such as skill acquisition, growth of entrepreneurship) may well warrant a moderate degree of special advantage for industry relative to other sectors. Ideally, this should be at a uniform rate (20–30% as a rule of thumb) for all industrial activities and should not discriminate between import-substituting and exporting options. There may be certain exceptional cases which warrant greater inducements for special reasons. Thus the metal-working sector may be particularly favoured for its special possibilities for skill acquisition *and* the longer-term capability for technological adaptation; otherwise poor countries may remain permanently dependent on inappropriate technologies imported from developed countries with totally different factor endowments (Acharya, 1974).

In granting such special treatment to industry, three considerations should be kept uppermost. First, it is vitally important to maintain some competitive discipline toward the nascent industries. Hence tariffs-cum-export subsidies are to be preferred to quantitative import restrictions. The latter are not only indeterminate regarding the degree of special advantage conferred, but also encourage the growth of oligopolistic structures, where a few, privileged early entrants carve up the implicit rent in the restricted market. Second, the notion of infancy as a temporary state should not be forgotten. There needs to be some recognition of the desirability of future reductions in the special advantages initially granted. Finally, the concern with price-interventions should not preclude the development of 'structural' supports to industry such as technical and consultancy services, account and audit training, and improvements in physical infrastructure.

(ii) *The role of regional common markets*

The most prominent experiment in regional market integration in sub-Saharan Africa has been the East African Common Market.³² The experiment accommodated two distinct motivations. First, the adoption of a common external tariff, with much higher rates for manufactured products, may be seen as an extension of national import-substitution policies, with the protective wall shifted from national to regional frontiers (Robson, 1968); in this version market forces are allowed to determine the inter-nation distribution of the increases (and decreases) in manufacturing induced by protec-

tion. The second motivation gave greater emphasis to intergovernmental policy agreements for inter-nation distribution of some key industries, characterized by large economies of scale.

In practice both themes have run into difficulties, related essentially to nationally perceived inequalities in the distribution of gains and losses. Based on her early industrial lead, Kenya made the greatest import-substituting use of the common protecting policy. However, over time this became a mixed blessing. As the 'lagging' partner countries gradually import-substituted against Kenya's early regional export pattern, Kenya sought out 'more advanced' manufactures for sale to partner countries. While this shored up her share in the regional market, it took her away from relatively simple manufactures and instead encouraged a type of specialization in manufactures in which Kenya did not have a long-run comparative advantage with respect to the much larger and more dynamic, extra-regional market (Porter, 1974). As for the more *dirigiste* 'allocation-of-regional-industries' efforts, they were almost invariably overtaken by subsequent decisions of partner countries not to abide by the initially agreed allocation (Robson, 1968).

The East African effort has ultimately foundered on the rocks of political disagreements, but the underlying economic rationale was not beyond question. It has been sometimes argued that the countries were too similar in industrial structure and stage of development and, in practice, too averse to genuine intra-market specialization, for the experiment to flourish in the long run.

Similar schemes towards regional economic integration have developed in Western and Central Africa. Two of these are confined to Francophone countries, viz. the West African Economic Community (CEAO) grouping the Ivory Coast, Mali, Mauritania, Niger, Senegal and Upper Volta, and the Central African Customs and Economic Union (UDEAC) comprising Cameroon, the Central African Empire, the People's Republic of Congo and Gabon; their origins date back to pre-independence days. New on the scene is the 16-member Economic Community of West African States (ECOWAS) which became operational only in 1977 and whose membership includes that of CEAO plus Benin, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierra Leone and Togo. All these schemes aim at establishing common markets with particular emphasis on industrial development. Another common trait is the diversity between members in resource endowment and level of economic

development: each grouping includes comparatively rich coastal countries alongside land-locked countries that are among the 'least developed'. In order to ensure fair sharing of the benefits of regional development, each treaty therefore provides for mechanisms to compensate for losses in fiscal revenues due to changes in trade shares, as well as 'development funds' to assist the poorer member countries in particular.

UDEAC, in its present form, has existed for about a decade and has, on the whole, been reasonably successful. Bones of contention have been the allocation of new industries between member countries and the distribution of revenues from the Solidarity Fund; both these issues led Chad to withdraw from UDEAC in 1968. CEAO started operating at the beginning of 1975 and so far appears to be developing smoothly if modestly. ECOWAS is just beginning to function. Its large and widely diverse membership makes it the most ambitious effort at economic integration in West Africa yet. It will take strong determination on the part of the Community's principal partners — Nigeria and the Ivory Coast — to turn it into a success. Preliminary indications are that the scheme is indeed obtaining full support from these two governments, as well as from smaller countries such as Togo or Senegal which would be particularly interested in exploiting wider regional markets for their potential exports of manufactured goods. Only time will tell whether the rationale of reaping scale economies through market integration will be fulfilled or whether the experiment will fall prey to vicissitudes of the kind encountered in East Africa.

(iii) *Prospects for manufactured exports*

It is likely that for the next decade or so the main thrust of industrialization in sub-Saharan Africa will continue to be along import-substituting lines. The main reasons why the outlook for manufactured exports is limited are:

- (i) the policy bias in favour of import substitution;
- (ii) the small stock of skilled and highly productive workers;
- (iii) high wages for unskilled labour (compared to, say, South Asian countries); together with the weak artisan tradition, this leads to high unit labour costs;
- (iv) the high cost of expatriate technical and managerial personnel, who continue to man many industrial enterprises;
- (v) a relatively high supply price for foreign risk capital, owing to uncertainties over political stability and exchange rates;

- (vi) high transportation costs, particularly for land-locked countries, and/or the inadequacy of transport infrastructure;
- (vii) weak tradition of African entrepreneurship;
- (viii) the small processing margins prevailing in many primary, processed commodities; and
- (ix) the low efficiency of parastatal, industrial enterprises.

The prospects will, of course, improve if the policy bias against exports is eliminated through tariff reform, export subsidies, and free trade zones. But since many of the other constraints are less tractable in the short run, not too much should be expected in the way of manufactured export increases in the next decade, except in a few resource-exploiting activities.

In the long run the need to develop manufacturing export capability will become more pressing; in some relatively land scarce countries, like Kenya, it has already become so. Assuming population growth at 3%/year, *per capita* income increases of 2.25%/year, and an income elasticity for food of about 0.6, Africa's demand for food is likely to grow at over 4%/year. With the failure over the last 15 years of food production in Africa to keep pace with population growth, increments in effective demand for food due to income growth have increasingly been met through imports. Increases in food production have come mainly from the extensive margin. If future food deficits are to be kept manageable, output increases need to be more rapid and to come increasingly from improvements in factor productivity and/or shifts of acreage from cash crops to food. Basically, rising demographic pressure will increase the competition for land use between food and cash crops. In whichever way this is resolved, the demand for foreign exchange will increase: either to purchase more food abroad or replace the export earnings lost through substitution of food crops for export crops. To meet this demand for foreign exchange, labour-intensive manufactured exports have to be developed. To prepare for this predictable stage of development it is necessary to institute, as soon as possible, policies to reduce the obstacles to manufactured exports cited earlier. Countries facing greater pressure on arable land and dimmer prospects for agricultural productivity increases will need to devote correspondingly greater attention to augmenting their manufactured export capability.

Finally, with growing exploration and exploitation of mineral resources, a number of sub-Saharan African countries can expect to

enjoy increases in earnings from mineral exports like oil, iron ore and bauxite. While the rents from such resources will bring welcome relief from the foreign exchange bind, countries with growing mineral sectors will need to guard carefully against the problems of a highly distorted wage structure, neglect of agriculture and urban bias, which have plagued mineral producing African countries over the past two or more decades.

(iv) *Small-scale industry*

The scope for small-scale industry in Africa is largely uncharted but potentially significant, especially if small businesses can be induced to weld mutually supporting links with rural income growth. Among the main lessons for government policy are:

- (i) Existing discrimination against small-scale enterprises with respect to the allocation of inputs should be eliminated.
- (ii) Overly bureaucratic attempts to foster small-scale industrial estates should be avoided (they frequently turn out to be highly discriminatory and not really small-scale).
- (iii) The non-tradeable nature of the products (usually because of their low quality and lack of standardization) of informal-sector manufacturing enterprises, and hence the limited market for them, should be recognized, and care taken that the domestic market is not pre-empted by higher-quality, standardized production from large- and medium-scale plants (Little and Mazumdar, 1977).
- (iv) Private initiatives and effort should be encouraged rather than criticized.

Perhaps the best prospect for the development of small-scale industry lies in fostering close links with the anticipated transition to a science-based, land-intensive agriculture that makes increasing use of implements and tools manufactured by indigenous, small-scale industry. History has demonstrated how the rural workshops of India, Pakistan, the Republic of China and the People's Republic of China have often progressed from the manufacture of relatively simple elements such as ploughs and carts to seed drills, electric motors, diesel engines, stationary threshers and power tillers. Moreover, production of one or more farm inputs has often led to the manufacture of consumer goods like electric fans, bicycles, sewing machines and producer goods like oilseed expellers, lathes and hand drill presses (Johnston, 1978). Because of the pervasive importance of

metal-working skills, the technical and managerial capabilities bred in rural workshops can greatly enhance the development of a light engineering industry, which is crucial for the assimilation of more complex (and appropriate) manufacturing technologies.

(v) *Special problems of parastatal industry*

Most of the special problems of parastatal enterprises in Africa stem from an inadequate specification of goals at the firm level, insufficient autonomy with respect to the policy instruments available to a firm's managers (such as pricing, hiring/firing and investment), and a weakly articulated system for monitoring and 'policing' performance. Some tentative suggestions for reform include:

- (i) Specification of simple, efficiency-oriented goals; these could be physical output targets, but financial profitability may be an easier criterion to apply given the past familiarity with such signals and the problems of physical targeting for multi-product enterprises. Of course, this would require prior reform of the macro-incentive frame so that financial results bear a close correspondence with economic performance.
- (ii) Given the acute scarcity of experienced and skilled personnel, centralized approaches to industrial development should be eschewed, as they demand complex and detailed co-ordination. With greater reliance on (reformed) market signals, scarce administrative talent can be conserved. Such a decentralized approach would be associated with greater autonomy (and responsibility) for firm-level managers.
- (iii) The 'policing' of performance will, ultimately, demand political preparedness to penalize unsuccessful managers. In the case of public monopolies or oligopolies, countervailing pressure from imports or some licensed private producers may be desirable.

None of the above quite solves the conundrum of how to internalize entrepreneurship, innovation and capacities for technological adaptation in state-owned-and-managed enterprises.

(d) *Priorities for education*

It is now widely agreed that education and training policy in sub-Saharan African countries must: (i) emphasize primary and adult education; (ii) give greater weight to vocational and

technical skills at post-primary levels; (iii) restrict the growth of post-primary formal education to be in reasonable balance with manpower needs; and (iv) undertake thoroughgoing curriculum reform at all levels.

No one challenges the need for expansion in primary schooling. The issues relate to the pace of expansion, the content of schooling and the modes of financing. Since the late 1960s many of the low-income, African countries, especially in East Africa, have set target dates for universal primary education, and have generally accelerated the growth of primary-school enrolments. As there has simultaneously been a trend towards abolition of all fees for public primary schools (which are usually responsible for nearly all primary education), these countries have faced rapid increases in budgetary expenditures on education. Thus, for example, in Kenya recurrent budget expenditures on education grew at the annual rate of 21% between 1964 and 1975, by which time they were claiming 28% of the total recurrent budget. Projections made in the early 1970s saw this share rising to 53% by 1983/1984. In Tanzania, the original target date of universal primary education (UPE) of 1989 was brought forward in 1974 to 1977, which implied that recurrent budget expenditure on primary education alone would rise from about 6% of total recurrent revenues in 1974/1975 to 16% in 1983/1984.

That increases of this magnitude were likely to cause severe problems of financial management has become progressively clearer to policymakers in both countries. Thus in late 1975 the Kenyan Government established a National Committee on Educational Objectives and Policies (NCEOP), to advise on education structure and policies within the specified constraint of education expenditures not exceeding 28% of the recurrent budget. The NCEOP advised a slowing down of primary-school enrolment growth, reduction of the intake into secondary schools to conform with anticipated manpower needs, and the regulation of the explosive growth rate of private, secondary 'harambee' schools. The extent to which these recommendations will be successfully implemented remains to be seen. But the Government's seriousness may be gauged from the abolition of certain automatic teacher salary increases in 1975 and the severe rationing of promotions. In Tanzania, at the Government's request, the World Bank carried out a study of the fiscal implications of the new UPE target, which outlined a number of cost-saving options such as 'double-shifting' of classes, reduction in real teacher salaries through allowing deliberate erosion by inflation and a

reduction in the number of years of primary schooling.

In reconciling the desires for rapid expansion in primary schooling with obvious financial constraints several countries, like Tanzania and Somalia, are experimenting with the use of untrained teachers (such as national service personnel) and village self-help schemes to build classrooms and teacher housing. How far these mobilization efforts can bring about lower-cost delivery systems for mass education will depend crucially on the degree to which they become *permanent* features of the education system, as distinct from temporary recourses to cope with problems of transiting from, say, 50% enrolment ratios to 95% enrolment ratios. In recent years Ethiopia has gone far in instituting such long-term education-system reforms. Less trained and lower-paid teachers are being deployed as part of a 10-year programme, not just to cope with a temporary bulge in enrolments. A major portion of the recurrent cost of teachers is being borne by the newly formed peasant associations, which, in turn, rely on contributions from individual households.

Most of these countries are also pushing ahead simultaneously with adult literacy programmes. Aside from its basic human-rights aspects, such efforts are to be commended on the presumption of positive links between literacy and agricultural productivity. However, it must be recognized that the resources being mobilized (sometimes on a semi-voluntary basis) for adult literacy programmes frequently compete with those being marshalled for accelerated programmes of primary education. Furthermore, the concentration on quantity and population coverage may be detracting from the quality of education, particularly from the simultaneous efforts to restructure curricula to match education with the pupil's anticipated role in society, which usually implies giving greater weight to practical work and agricultural matters.

While the need to keep the expansion of secondary-school facilities in rough balance with skill demands is generally recognized, the political pressures for increases have been so great that few countries have been able to follow Tanzania's lead in bringing down the ratio of primary-school leavers entering secondary schools from 36% in 1962 to 11% (including enrolments in private secondary schools) in 1974. Thus, for example, the ratio stood at 31% in Kenya in 1975/1976 and 49% in Sudan in 1976/1977.

Finally, the virtually automatic tendency

towards free primary education in most of these countries may be questioned. Given: (i) the burgeoning demand for all types of social services and the associated growth in recurrent budgetary expenditures; (ii) the strong demand for education; and (iii) the difficulty of finding tax handles in rural areas which do not induce resource misallocation or are easy to evade, it can be argued that primary-school fees aimed at partial cost recovery can reduce the pressure on government savings, without frustrating the spread of education or being fully offset by a decline in household savings. Furthermore, to the extent that the cost of educating children affects decisions on preferred family size, fees for primary education may be expected to have a restraining influence on the rate of population growth.

(e) *Meeting other basic needs*³³

The objective of meeting the basic needs of a nation's population is unassailable. The economic issues, arising out of the fundamental economic problem of resource scarcity, relate to scale and phasing of programmes and the design of delivery systems. Amongst the sub-Saharan African nations, Tanzania, Ethiopia and Somalia have gone farther than others with basic-needs approaches. Not enough is yet known about the Ethiopian and Somalian experience to warrant any conclusions. Tanzania's experiences yield some tentative insights.

First, the topography and physical environment of the country have a profound influence on the cost of meeting a given basic-needs target. Thus, in the case of rural water supply, Tanzania's plateau formation and geological structure sharply limit the technical possibilities for low-cost shallow wells of the kind prevalent in South and East Asia. Instead, recourse must be had to high-cost deep bore-holes and surface reservoirs. A recent, detailed study by Bank staff of technological alternatives for rural water supply in Tanzania estimated that the capital costs of going from about 35% coverage of the rural population in 1975 to full coverage by 1980 would range from 2.5 to 3.7 billion Tanzanian shillings (1976 prices), or from 300 to 400 million US dollars. Expenditures of this magnitude would swallow up between 15 and 25% of the capital outlays proposed under the Third Five-Year Plan, that is from *three to five* times the share actually allocated to this head under the Second Five-Year Plan (1969-1974). Universal rural water supply by 1980 had been enunciated as a goal in 1974. But the massive

requirements in capital resources, technical manpower and organizational skills persuaded the Government, in 1977, to postpone the target date to 1991.

Second, it is all too easy to underestimate the organizational difficulties associated with an extremely rapid geographical spread of a freshly designed, basic-needs delivery system. Since the late 1960s Tanzania has undertaken far-reaching reforms in its health services, designed to convert an urban-oriented, élitist service to one serving the masses, the vast majority of whom live in rural areas. At the same time there has been a shift in emphasis from curative to preventive health care. This has necessitated root-and-branch reform of the organizational structure of the health service and the training programmes and supply logistics necessary to sustain it. A recently compiled survey of Tanzania's health sector by the Bank points to grave organizational, financial, supply and distribution problems which are presently besetting the operation of the health service and sharply reducing its potential effectiveness. It is too early to judge whether these problems are transitional or are a more permanent consequence of entrusting a very large proportion of the final outputs of the system to cadres of lightly trained para-professionals, operating in a system with very weak medical and financial accountability for the use of scarce material resources.

In any case, one important benefit of aiming for universal access to social services like education, water supply and health facilities has been the steady, and welcome, erosion of the inherited urban bias in these systems.

On the debit side, it would seem that the demand for rapid expansion of social services, along with the public employment increases that this accommodates, has led to much more rapid increases in government employment rolls than in the complementary inputs of materials and transport necessary to make them effective. Thus in Tanzania between 1972 and 1974 there was a net increase in government employment of some 20,000, on a base of approx. 130,000. This increase, together with wage increments, put enormous pressure on the Government's recurrent budget in the mid-1970s and entailed reducing the relative supplies of complementary inputs. In effect, the overly rapid proliferation of public employees charged with delivering social services represented investment in scarce human capital which remained underutilized because of constraints on the availability of complementary inputs.

Furthermore the accent on free government

Table 9. *Central government expenditures and revenues* (per cent of current market price GNP)

		Recurrent revenue	Recurrent expenditure	Recurrent surplus	Development expenditure	Total expenditure
<u>Étatist countries</u>						
Ghana	1959/1960	12.6	10.6	2.0	6.5	17.1
	1965	17.9	13.8	4.0	8.9	22.7
	1970	19.2	14.7	4.5	4.5	19.2
	1975	13.5	15.6	-2.1	5.4	21.0
Guinea	1960	13.4	14.3	-0.8	--	--
	1965	15.2	7.6	7.6	--	--
	1971/1972	26.1	23.9	2.2	--	--
	1975	23.1	21.2	1.9	--	--
Sudan	1962	10.8	8.8	2.0	3.3	12.1
	1965	10.9	9.9	1.0	4.4	14.3
	1970	16.9	16.3	0.6	2.6	18.9
	1975	20.2	19.2	1.0	8.0	27.2
Tanzania	1964	15.2	14.5	0.7	3.4	17.9
	1965	16.8	16.1	0.7	4.2	20.3
	1970	17.5	16.2	1.3	8.3	24.5
	1975	21.3	20.6	0.7	12.6	33.2
<u>Market-oriented countries</u>						
Ivory Coast	1960	20.0	16.3	3.7	--	16.3
	1965	21.3	15.5	5.8	5.2	20.7
	1970	21.3	17.0	4.2	7.9	24.9
	1975	21.4	17.7	3.6	6.9	24.6
Kenya	1963	14.0	15.0	-1.0	4.0	19.0
	1965	15.0	17.0	-2.0	3.3	20.2
	1970	20.1	18.1	2.0	7.1	25.2
	1975	22.0	20.0	2.0	10.2	30.1
Malawi	1958/1959	8.4	8.3	0.1	3.6	11.9
	1965	12.2	18.3	-6.1	5.3	23.6
	1970	16.6	18.5	-1.9	10.6	29.1
	1975	12.7	11.9	0.8	8.3	20.2

Source: World Bank data.

services has tended to reinforce the 'dependence' on government as the ultimate provider of 'goodies' and to slow the growth of participatory decision-making at the village level. This tendency was noted in the Tanzania health sector study cited earlier, which recommended local contributions and user charges on the grounds that such local, co-operative financing would also strengthen the accountability of health workers to their client population, thereby enhancing local participation. Similar problems have afflicted rural water supply systems in Tanzania particularly severely; lack of interest and commitment appears to have been a factor in keeping 10% of an inventory of water supply systems in 1975 inoperative and another 30% subject to sporadic interruptions of service, even though 98% of them were in sound mechanical order (Engstrom and Wann,

1975). A fee for even partial cost recovery could encourage the villagers' sense of responsibility for these systems, and enhance better local maintenance. It might also serve to relieve the financial constraints on supply of recurrent inputs like fuel. In the final analysis, a priced but functioning rural water supply system is likely to yield greater social benefits than a free and inoperative one.

In general, the present limited capacity for operation and maintenance in many sub-Saharan African countries argues against excessively fast expansion of expensive social overhead capital structures requiring skilled maintenance. Basically, for costs to be manageable and operation effective, the evolution of simple, low-cost, replicable delivery systems must precede, or, at least, accompany, the massive growth of social service networks.

(f) Mobilizing domestic resources

As Table 9 shows, both *étatist* and market-oriented countries generally achieved considerable success in raising their revenue-to-GNP ratios between 1960 and 1975, often by orders of 60% or more. However, the concomitant, and frequently faster, growth in recurrent expenditures severely constrained the growth of government savings, as measured by the ratio of recurrent budget surpluses to GNP. Given the recurrent budget claims for past development projects and continued pressure for increased social services, it would be unrealistic to expect much of a savings dividend from the budget. Indeed, in several countries, unless the expansion of social services is accompanied by the institution of cost recovery measures and much greater local 'self-help' efforts, the government could become a significant net dissaver. Nor, given the historical correlation between expenditure and revenue growth, can much solace be sought from further increases in revenue ratios. Indeed, it may make more sense to aim for a target revenue-to-GNP ratio and then tailor expenditure decisions to live within that constraint. Otherwise income might be progressively diverted to an entity with a demonstrated record of poor incremental savings behaviour, namely the government.

Thus, in the next decade or so, the task of generating adequate domestic savings must lie principally with parastatals and private agents. In the *étatist* countries, parastatals must assume a large share of the savings responsibility. To a great extent the measures to increase parastatal efficiency, discussed earlier, will help to increase their savings; they need not be rehearsed again here. Basically a parastatal savings strategy must embrace two themes: one for generating higher gross surpluses in the first instance and another for protecting these surpluses for investment finance, instead of having them transferred to sectors or entities which use this finance for consumption. In pursuing the latter aim it may be worth experimenting with various kinds of earmarking devices.

The role for private savings is likely to remain larger. This will certainly be the case in market-oriented countries. In both groups of countries, to the extent that policy frames encourage income and productivity growth of units (like farms and small-scale businesses) which combine saving and investment roles, the inducements for increased effort and investment may be enough to call forth the increases in savings necessary for self-financed investment. However, it can be anticipated that with

greater urbanization the proportion of households who are not also direct investors, will increase. Hence there is likely to be a greater role for financial institutions to mobilize such potential household savings and allocate them efficiently. This, in turn, will require reforms in financial institutions and more active interest rate policies than have been pursued hitherto [see, for example, IBRD-Kenya (1975)].

(g) Formal-sector wage policies

The social costs of an overvalued wage structure and too rapid a growth in formal-sector real wages were analysed in Section 2. The benefits of a lower real wage (and slower growth) follow conversely, but may be briefly recounted. First, a lower real urban wage will, other things being equal, mean reduced urban-rural income differentials. As a consequence the demand pull for rural-to-urban migrants would be reduced, as would the associated problems of urban unemployment and poverty.³⁴ Second, a lower real wage should, in a protected, cost-plus pricing system, be associated with lower prices for manufactured goods purchased by rural dwellers than would otherwise be the case, in other words implying a reduction in the implicit tax on agricultural incomes exerted by protected non-agricultural activities. Third, lower unit labour costs in the formal sector should enhance the competitiveness of potential manufactured exports. Fourth, lower labour costs should augment corporate or parastatal surpluses and reduce government recurrent budget expenditures, thus, on balance, increasing domestic savings. In an *étatist* economy an increase in parastatal surpluses should not be associated with any worsening of the urban household income structure, a possibility which clearly exists in the case of private corporate surpluses which typically yield income to richer segments of the household distribution. Finally, the lower attractiveness of wage employment should increase the relative attraction of non-wage income opportunities, such as small enterprises and craft occupations. Thus, a lower real wage (and/or slower growth) should have unambiguously favourable effects on economic efficiency and growth, and a mixture of effects on income equity, though the latter on balance are likely to be favourable, especially in the *étatist* countries.

(h) Role of external assistance

Sub-Saharan Africa has been a particularly favoured beneficiary of concessional external assistance. Thus net inflows of concessionary

capital between 1970 and 1975 cumulated to \$42 *per capita* compared to \$16 *per capita* for South Asia and \$23 *per capita* for Latin America. The returns from these large transfers of capital have been constrained by both internal and external factors. The former have largely been dealt with in preceding pages. Some of the latter factors merit attention for future resource transfer programmes.

First, there have been the usual problems of country and project tying. While these features generally reduce the real value of aid and reduce the recipient country's control over investment priorities, they are of particular significance in Africa, where external flows finance larger proportions of domestic investment than elsewhere. Second, and for much the same reason, donors need to be particularly sensitive to the co-ordination problems faced by the recipient country in dealing with a large number of donors, each with some special preferences for sectors or forms of assistance; these co-ordination problems are accentuated by the scarcities of administrative/co-ordinating manpower in African countries. Third, donors have sometimes helped (whether inadvertently or not) semi-autonomous agencies in these countries (such as large parastatals) to line up support and finance for projects without adequate screening by central co-ordinating Ministries of Finance and Planning with respect to national investment priorities. These central ministries have thus been presented by *fait accomplis* on project choice, even when the external finance involved was, in principle, allocatable according to national investment priorities.

Finally, and perhaps most importantly, donors have given insufficient attention to designing projects to suit the local conditions of weak managerial and skill cadres and fledgling institutions. Providing expatriate technical assistance to fill obvious gaps is a partial solution, but one which frequently goes astray. More fundamental attempts to design projects and procedures in line with prevailing manpower and institutional weaknesses may be necessary for the least developed countries of Africa.

(i) *The Sahel problem*

The Sahel countries (Chad, Mali, Mauritania, Niger, Senegal and Upper Volta) constitute one of the poorest regions in the world. With the exception of Senegal, which has a more diversified economic structure and a significantly

higher income level (US\$390 *per capita* in 1976), the countries are among the world's 25 'least developed countries' with *per capita* GNPs around \$100 (the 1976 figure of \$340 for Mauritania is 'distorted' by one important enclave iron ore operation). The five countries (that is, excluding Senegal) have a combined population of 20-25 million and cover a land area about two-thirds the size of the United States. While significant differences do exist among them, they share sufficiently common physical and economic characteristics to justify treatment on a regional basis.

In essence, the Sahel countries display in extreme form some of the handicaps shared by other sub-Saharan African countries. Thus the Sahel region is characterized by:

- (i) low and highly variable rainfall;
- (ii) soils with little nutrient content;
- (iii) acute scarcities of educated or trained manpower; adult literacy rates are 10% or less, primary-school enrolment ratios are usually less than 20%, and secondary-school enrolment ratios are about 2%;
- (iv) high transport costs because of the terrain, climate and land-locked characteristics;
- (v) very high export concentration in three commodities: livestock, cotton and groundnuts; and
- (vi) often divisive and hostile ethnic groups living within the framework of weak nation states.

The precarious ecological and economic balance was illustrated by the drought of 1968-1973. Foodcrop production fell between 20 and 30% below 'normal' levels, necessitating massive emergency food imports. Export crops declined sharply, for example a 30% drop in cotton in Upper Volta and a 90% decline in groundnuts in Niger. Losses of cattle are estimated to have ranged between 20 and 50% of the herds in Mauritania, Niger, Mali and Chad, and somewhat less in Upper Volta. Tens of thousands of farmers moved south to become refugees in urban centres while infant mortality and general morbidity increased. Surprisingly, the available evidence does not indicate a significant increase in overall mortality (Caldwell, 1975). According to Caldwell, 'the major demographic response to the drought has not been death but migration'. While the return of normal weather had restored agricultural production to roughly normal levels by 1975, the underlying problems persist.

Most of the recent studies of long-term development potential in the Sahel countries conclude that *technologically* it is possible for

the region to support its projected population on a sustained basis (which is not, of course, to say that the Sahel will become a major growth centre).³⁵ The key issues relate to finding *economically* optimal approaches and sequences to realizing the technological possibilities. These vary from subregion to subregion, but all are based on further development of cropping and livestock activities. They include:

- (i) extensive and reorganized livestock breeding;
- (ii) extensive and intensive dry-land farming;
- (iii) extensive and intensive irrigated farming; and
- (iv) resettlement in areas from which disease has been eradicated.

The general conclusions of the studies indicate, first, that the potential for livestock development is greatest in the higher-rainfall areas of the south and east, or the Sudano-Guinean subregion. It is however conditional on the control, either through animal breeding or by trypanocidal drugs, of trypanosomiasis. Second, there is substantial potential for increasing dry-land crop output through both extensive and intensive farming. Substantial increases in acreage, not necessarily at high technical levels, are suggested for Mali and Chad and moderate increases in acreage for Mauritania. *Decreases* in acreage accompanied by intensive techniques are indicated for parts of Senegal, Niger and Upper Volta. Third, although technically there is a large potential for irrigated agriculture, the high costs of irrigation indicate that it should play a secondary role until the costs associated with expanding dry-land production rise to

similar levels. Fourth, settlement possibilities in disease-eradicated areas, despite the current optimism, seem to be fraught with difficulties — at least that is the initial experience with settlement of parts of the 700,000 km² area encompassed by the present onchocerciasis (riverblindness) control programme.

To cope with the critical problems created by variability of rainfall the suggested long-term options, aside from the obvious one of food imports, include:

- (i) storage of excess production in good years;
- (ii) a greater reliance on irrigated agriculture; and
- (iii) development of a grain-based livestock industry.

At present, all three are seen as high-cost alternatives, compared with the option of food-grain imports. This is another way of saying the objective of self-sufficiency in food poses very high costs, compared with organizing agriculture according to comparative advantage.

Finally, a major mechanism for adjusting economic activity to environmental potential is likely to be migration, as it has been in the past. Previously, this has taken the form of semi-permanent migration to coastal countries, principally the Ivory Coast, as well as the seasonal movements of nomadic herdsmen. In the future there may be a greater need for non-seasonal migration amongst the Sahel countries from zones of particularly poor agronomic potential to ones better off. The extent to which such movements are accommodated by political and cultural factors remains to be seen.

NOTES

1. There is a venerable and erudite literature on whether 'feudalism' is a relevant socio-economic category for the analysis of African social and economic history. To the amateur reader, the present summary position on the debate suggests a substantial convergence amongst conservative (such as Duignan and Gann, 1975) and radical writers (like Goody, 1971) on the point that the absence of land scarcity in pre-colonial Africa together with low-technology, shifting cultivation practices were the crucial differences, which precluded the evolution of European-style feudalism. The exception was Ethiopia, where land scarcity, sedentary agriculture and the adoption of the plough all combined to create a land-based nobility living off the surplus generated by serf-like tenants.

2. One such example, given by Rodney (1972), relates to the active coastal canoe trade between the 'Ivory Coast' and the 'Gold Coast' which was forcibly

and deliberately disrupted by the Portuguese by their fort at Cape Three Points, past which the coastal canoes had to ply.

3. This would appear to run counter to the Gerschenkron thesis (1965), which sees technological backwardness as an opportunity for rapid 'catching up' by the laggards via the innovations achieved in the 'leader' nation(s). Rodney's (1972) argument is that African societies of this period were not in a position successfully to borrow more advanced technology because 'the most dynamic groups over a great area of Africa became associated with foreign trade . . . (and) . . . the trading groups could make no contribution to technological improvement because their role and preoccupation took their energies away from production' (Rodney, 1972, Chap. 4). A somewhat similar, anti-Gerschenkronian view is advanced by Andreski (1968, p. 36) in relation to modern Africa, when he attributes many of its development difficulties 'to the tendency

to jump the stages' in social and economic development, induced by Africa's rather abrupt entry into the modern economic world. These views can be reconciled with Gerschenkron's (1965) optimistic interpretation of European economic development if one believes that technological disparities may spur 'catching up' in the backward economy if the gap is not too wide (and certain other favourable conditions obtain), but if the 'technological gap' is very large, then the effects of contact on the lagging economy may indeed be adverse.

4. See Kamarck (1971), Duignan and Gann (1975), and Turnbull (1977).

5. Thus, in the 1880s, the exports of sugar and cocoa from the tiny islands of Mauritius and Sao Tome, respectively, were almost equal to that of Nigeria (Duignan and Gann, 1975).

6. Such companies included the Royal Niger Company, the Imperial British East Africa Company, the British South Africa Company, the Deutsch-Ostafrikanische Gesellschaft, the Deutsch Kolonialgesellschaft, the Société de Haut-Ogooue, the Compagnie de Congo pour le Commerce et l'Industrie and the Comité Speciale du Katanga.

7. Basically, what occurred was that the dramatic reduction in transport costs brought more resources of land and labour into productive use and generated a marketable surplus over and above the ongoing subsistence activities. This is essentially a 'vent-for-surplus' view of the expansion in trade (Myint, 1971).

8. Thus the draft animals drawing artillery in the 1890s Italian invasion of Ethiopia may have brought rinderpest to Africa, which then swept across the eastern coast of Africa, killing millions of cattle. The explorer Stanley's 1887-1888 trek from west to east Africa is credited with the transfer of sleeping sickness from west to east, resulting in a prolonged epidemic around the shores of Lake Victoria, which may, over a decade or so, have accounted for 250,000 deaths (Kamarck, 1971, p. 14).

9. South Africa is excluded from this discussion; it soon became a special case of a settler nation which developed imperial ambitions of its own.

10. For detailed analyses of these policies, see Smith (1976) and Leys (1974).

11. It is interesting how conservative economists like Bauer find so much common ground with radical analysts like Leys, on the extent to which the colonial state apparatus was deployed to serve the economic interests of the settler groups.

12. The contrast with East Africa is striking. In the East African territories of Kenya, Uganda and Tanganyika, the leading firm of Gailey and Roberts controlled 4% of the import trade in the 1950s, whereas in Nigeria and the Gold Coast the United

Africa Company controlled between 35 and 40% of imports during the same period (Kilby, 1975, p. 491).

13. Anyone who has lived in a tropical country should have little difficulty in agreeing with this statement. For a more authoritative citation, the reader is referred to Lee (1957). The extreme cold which is encountered in temperate climes also affects human capacities. But little agricultural activity occurs in these environments during winter and it is a more feasible proposition to design climate control around the spatially centralized, non-agricultural activities. But agriculture, the leading sector in tropical African countries, cannot be air-conditioned!

14. Below are percentages of population living in urban areas in selected African countries in 1960 (from *World Development Indicators*, 1978):

Ghana	-- 32	Kenya	-- 11
Guinea	-- 20	Malawi	-- 6
Ivory Coast	-- 20	Sudan	-- 13
		Tanzania	-- 7

This compares with average urbanization levels of 61% for Latin America, 29% for East Asia and 21% for South Asia.

15. To varying degrees, Somalia, Sudan and Ethiopia were exceptions to this generalization.

16. This phenomenon was particularly pronounced in East Africa, where, it should be remembered, industrialization during the colonial period started earlier than in West Africa.

17. Usually, such étatism was associated with deliberate efforts to encourage 'African socialism', a philosophical viewpoint which attempts to combine the traditional, European concepts of socialism with pre-colonial African concepts and practices of labour-sharing and communal access to land.

18. Kenya, though a market-oriented country, also attempted to 'force' the pace of industrialization within the common protective policy of the East African Common Market.

19. Killick (1978) draws a very explicit link between the ideas of these development theorists and the development strategy choices of the Nkrumah years.

20. The factor cost data are preferred for constant price estimates because of the internal discipline exerted on the data from having to build up the GDP total, industry by industry.

21. It must be emphasized that in 1975 rural Tanzania was still suffering from the 'backwash' of the 1973-1974 droughts and the villagization programme launched in 1974, both of which impinged disproportionately on poorer rural regions; so the 'normal' intra-rural distribution should be better.

22. The estimates of income shares by groups are:

	Lowest 40%	'Middle' 40%	Top 20%
Chenery <i>et al.</i> (1974), for 1970	10.0	32.1	57.1
IBRD-Ivory Coast (1975), for 1973/1974	19.7	28.7	51.6

23. It needs to be emphasized that in the search for plausible generalizations, distinctions between these two groups of countries are, sometimes, deliberately sharply drawn.

24. It should be pointed out that these village settlement schemes grew out of the recommendations of an IBRD country study of Tanzania conducted in 1959.

25. The estimate for Tanzania excludes most of the investment expenditures on the TanZam railway. Had they been included the share of agriculture in Tanzanian public investment would be significantly lower.

26. There was, of course, enormous variation across countries. Thus, for example, Ghana, Sudan and Ethiopia, were much better off with respect to trained Africans than Tanzania, Malawi and Zambia.

27. Sometimes this choice was foreclosed by the precipitous departure of the colonial power, as in the formerly Belgian Congo.

28. This stylized version is more suited to East African countries than the West African ones.

29. There might be a quantum increase in such potential if ongoing research on an anti-trypanosomiasis vaccine and on methods to propagate sterility in male tsetse flies, bears fruit. In the meantime the essential requirement is for sufficiently rapid and dense human settlement in virgin land areas to eliminate and prevent regrowth of the trees and bush which provide a habitat for tsetse.

30. One example is the advocacy for increasing yields and incomes in the Gezira through the mechanization of some of the seasonal cotton-handling activities, in which some seasonal labour bottlenecks presently prevail. If this were done, it would have extremely adverse consequences for migrant labour from poorer areas of Sudan, who now come long distances to relieve these labour shortages, and to whom the seasonal income earning opportunity is vital.

31. These cautionary remarks on tractors should not be interpreted as a blanket recommendation against their use. For certain areas and functions tractors boast a decisive technical superiority, for example in deep tillage of hard pan soils or the construction of conservation works like bench terraces. In such cases consideration should be given to the organization of tractor hire services, which hold the best promise for economic utilization of the machine's services.

32. For a recent treatment of all aspects of the East African integration experience, see Hazelwood (1975).

33. The discussion is limited to these basic needs which are, in the main, supplied by the public sector.

34. It must be emphasized that migration *per se* is not a bad thing. It often represents adjustments in labour allocation which increase efficiency and equity. For a general discussion of such effects of migration in Africa, see Adepoju (1977). What is being addressed in the text is 'excess migration' arising from differences in private and social rewards to migration.

35. These studies are: (i) FAO, *Perspective Study on Agricultural Development in the Sahelian Countries 1975-1990*, Vols. 1-3; (ii) AID, *Proposal for a Long-Term Comprehensive Development Program for the Sahel, Parts I and II*, and (iii) M.I. Centre for Policy Alternatives, *A Framework for Evaluating Long-Term Strategies for the Development of the Sahel-Sudan Regions*, Vols. 1 and 2.

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