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THE POLITICAL ECONOMY OF AGRICULTURAL DEVELOPMENT IN KENYA AND TANZANIA†

This comparative analysis of agricultural and rural development in Tanzania and Kenya begins with a summary of some significant similarities and contrasts between the two countries. Many of Tanzania's policies and the role of President Nyerere were distinctive, but the generally dismal performance of the agricultural sector during the 1970s and 1980s was fairly similar to the experience of most of the 40-plus countries of sub-Saharan Africa. Agricultural and rural development in Kenya, where success has been more conspicuous than failure, is then examined. To a striking degree the contrasting levels of performance appear to be related to the influence of certain "strategic notions" that shaped their respective development strategies. In Kenya those strategic notions appear to have been quite appropriate whereas they seem to have been largely inappropriate and dysfunctional in Tanzania. A final section offers a comparative analysis of the political economy of agricultural development in Kenya and Tanzania.

The differences in strategic notions influenced both agricultural sector policies and macroeconomic policies which in turn had interacting impacts

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on agricultural and rural development in each country. As a minimum, it seems desirable to identify "six I's" that represent significant proximate variables influencing agricultural performance—incentives, inputs, infrastructure, institutions, initiative, and innovations.[1] It will be seen that in Tanzania from the early 1970s until about 1986, sectoral and macro policies tended to have reinforcing negative impacts—systemic effects—on essentially all of the "I's."

Kenya's performance has been more mixed, with notable contrasts between high-potential areas and the country's semi-arid regions that have absorbed much of the growth in rural population in recent decades but with very limited increases in productivity and per capita incomes. During the period which began shortly before Independence in 1963, the former areas have benefitted from good performance by established institutions, institutional innovations such as the Kenya Tea Development Authority, and rapid growth of farm cash incomes resulting from rapid expansion of coffee, tea, and other export crops by Kenya's smallholders, together with investments in rural infrastructure and expanded use of a range of inputs—coffee seedlings, fertilizers, grade cattle, insecticides for controlling ticks, and many others. In the semi-arid regions, however, the policy environment affecting the "six I's" and the physical environment have been much less favorable.

SIMILARITIES AND CONTRASTS BETWEEN KENYA AND TANZANIA

Kenya and Tanzania are similar in their physical environment for agriculture and in some of their key socioeconomic characteristics. As in most of sub-Saharan Africa, irrigation is very limited and rainfed agricultural production predominates. The great diversity of agricultural conditions reflects large variations in altitude, temperature, soil conditions, and in the level and reliability of rainfall. In both countries there is a marked contrast between highland areas with ample rainfall and rich volcanic soils and semi-arid areas with erratic rainfall where drought and serious food shortages are frequent problems.

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[1] The first four "I's" are used as an expositional device in the Food and Agriculture report, *African Agriculture: The Next Twenty-five Years* (1986). William Omamo, a Kenyan agricultural economist and former Minister of Agriculture, added "initiative" as a fifth "I" in his opening statement at an Agricultural Sector Study Workshop of the African Development Bank held in Abidjan February 1–2, 1989. The addition of "innovation" as a sixth "I" is related most obviously to the emphasis on induced innovation in Hayami and Ruttan (1985).

Socioeconomic Characteristics

Tanzania's estimated per capita GNP increased at an annual rate of 0.9 percent between 1965 and 1984 and was $210 in 1984. In Kenya per capita GNP increased at an estimated 2.3 percent over that period; at $300 in 1984 its per capita GNP was considerably above the $220 average for 25 low-income countries in sub-Saharan Africa (World Bank, 1986a, p. 67).

As elsewhere in sub-Saharan Africa, foreign aid for the two countries increased substantially following the severe drought in Africa in 1973–74. Averaging $24 per capita in Tanzania and $19 in Kenya for the 1970–84 period, foreign assistance was on the order of 10 percent of GNP and, of course, represented a much higher share of investment. Its effectiveness has been affected adversely by abrupt shifts in aid policies, including the enthusiasm for integrated rural development and basic needs strategies in the 1970s and a heavy emphasis on policy reform in the 1980s.

The dominance of agriculture in their economies is similar —some 35–40 percent of GDP and 80 percent of foreign exchange receipts at Independence. In Kenya the share of agriculture in the total labor force declined from 86 to 78 percent between 1960 and 1980, mainly due to an increase from 5 to 10 percent in the share of employment in industry (defined to include mining, construction, and public utilities in addition to manufacturing). In Tanzania the estimated decline in agriculture's share of the labor force was only from 89 to 83 percent and was largely due to a rise in the share of government in total employment. High rates of growth of the population of working age compound the problem of transforming the overwhelmingly agrarian structure of the labor force and of economic activity in the two countries. A slowing down of the growth rate of their total labor force cannot be expected in less than two decades because their rates of natural increase are still rising—from 3.8 to 4.0 percent in Kenya and from 3.2 to 3.4 percent in Tanzania between 1965–73 and 1973-84 (Lele and Meyers, 1987, p. 41).

Tanzania's 1985 population of about 22 million was a little larger than Kenya's population of 20 million; because of high rates of natural increase, their populations are projected to reach 36–37 million by the year 2000 (World Bank, 1987, p. 254). Tanzania is one of the African countries where reasonably good agricultural land is still relatively abundant whereas population pressure in rural areas of Kenya is already a problem. The area of arable land per capita in Kenya declined from 1.3 to 0.7 hectares between 1965 and 1985, and congestion in high-potential areas has led to substantial migration into semi-arid areas where land is still available but rainfall is marginal and erratic. In Tanzania the decline over the same period was from 4.0 to 2.3 hectares of arable land per capita (Lele, 1988, p. 156). There is already some population pressure in Tanzania's well endowed areas where early investments in education, infrastructure, and export crops were concentrated.

Historical Factors

Similarities also derive from the fact that both countries were a part of British East Africa and of the East African Community until its collapse in 1977. The common market that had existed since shortly after the end of the First World War, when Britain took over the administration of Tanganyika from Germany under a League of Nations mandate, gave Kenya a head start in developing a manufacturing sector. The British commitment to Kenya was of longer duration and reinforced by a resident European population that was close to 1 percent of the total population on the eve of Independence. European residents were only about 0.3 percent of Tanganyika's population; and British settlers in Tanzania were outnumbered by other nationalities—German, Greek, and Italian (Coleman, 1958, p. 49; Lofchie, 1989, p. 70).

Kenya's European population, which was close-knit and predominantly English, exerted strong influence on British rule of the colony. Many of the settlers' demands had adverse effects on the African population, but the investments in infrastructure and in agricultural research made in response to their demands have been of considerable value to an independent Kenya. Tanzania has faced difficult transportation problems because it inherited road and rail networks that were seriously deficient for such a large country. Tanzania's 1,300 kilometers of paved roads in 1965 were only about 65 percent of the 2,013 kilometers available in Kenya, and the contrast was even greater in terms of gravel or earth roads (Lele, 1988, p. 156). Furthermore, the principal east-west rail line in Tanzania went through large areas of very limited agricultural potential because most of the country's fertile land with reliable rainfall is near the periphery of a "hollow circle."

Agriculture's share in Kenya's gross domestic product declined from 34.3 to 32.6 percent while the share of industry rose from an estimated 12.2 to 15.6 percent between 1967–73 and 1982–84. In Tanzania agriculture's share in GDP actually rose from 40.8 to 51.5 percent over the same period, mainly because of declines in the share of GDP originating in mining and manufacturing (Lele and Meyers, 1987, pp. 7, 9).

Sociocultural and Ideological Factors

Uchendu (1968, p. 231) has argued that, despite the bewildering variety that characterizes African cultures and political arrangements, a common theme runs through traditional societies which he, following Spiro, calls the "primacy of polity." He then goes on to quote Elizabeth Colson's economic interpretation of this primacy of polity:

> Over much of Africa life is conditioned by certain attitudes towards property and persons which are characteristic of a non-

industrial, stable society, in which opportunities and power depend on status within social groups rather than on the control of investment: where, indeed the safest form of investment, and often the only one, is still to be found in the building up of claims against persons . . . . Wealth is often interpreted not in terms of obvious ownership of resources or a higher standard of living but in terms of the number of people against whom one has a claim (Uchendu, 1968, p. 232).

Clearly, those attitudes "of a non-industrial, stable society" have a great deal in common with the "economy of affection" that Hyden (1980, 1983) has described at length. Uchendu emphasizes that it is essential to recognize that in Africa, as in other developing regions, villagers must be "the prime movers of rural change" and that it "courts economic disaster" to impose bureaucratic controls and dictates that deprive peasants of the opportunity to make decisions in their own interest.

The much greater dynamism that has characterized rural Kenya derives in part from the fact that it has been easier for its smallholders to earn cash and do with it what they want. Moreover, the considerable continuity of the policy environment in Kenya has contributed to the predictability and relative freedom from arbitrary actions by government officials that are so important to rational decisionmaking.

In Tanzania, agricultural development has been bedeviled by inappropriate and unstable agricultural policies based on ad hoc decisions. Pratt (1976, p. 182) provides a hint of the emergence of this problem in 1965 by commenting on the government's "declining capacity to take decisions in a careful and considered fashion" because the agenda of the President and his Cabinet were dominated by a series of foreign policy crises. In the following year, however, "Nyerere in effect turned the whole Cabinet into a seminar on development" and "he invited a particularly able team of British experts to review the appropriateness of Tanzania's development policies" (Pratt, 1976, p. 183).

The mode of policymaking associated with Nyerere's preeminent role as political leader and ideological mentor has also made it difficult to arrive at a genuine consensus on policies and to maintain a stable policy environment. Hyden, (1984, p. 107) has labeled this approach to policymaking the "we-must-run-while-others-walk" mode, using an oft-quoted phrase of Nyerere's. The essential features of this mode are a strong urge to do everything at once, a common tendency to make decisions without adequate knowledge of their consequences, and an unwillingness to use the past as a source of guidance for the future.[2] Hyden further suggests that one result of this "prevailing mode of policymaking in Tanzania is that employees in the

[2] In a similar vein, Coulson (1982, p. 328) notes that "deliberately or otherwise Nyerere produced new policies so frequently that it was difficult to judge whether

public sector are compelled to work in a context where public expectations constantly exceed what can actually be attained. . ." (Hyden, 1984, p. 109). Thus the common problem in developing countries of an imbalance between public sector responsibilities and resources has been exceptionally acute in Tanzania.

To conclude these comments on similarities and contrasts, it is useful to turn to a summary comparison of development policy in Kenya and Tanzania by a Kenyan scholar who is a graduate of the University of Dar es Salaam and has considerable knowledge of and sympathy for Tanzania's development strategy:

> The two countries both claim to subscribe to some variant of socialism. In the case of Kenya, African socialism is essentially a rhetorical justification of policies which are basically capitalist . . . Tanzania, on the other hand, espouses an ideology of *ujamaa*, or socialism and self-reliance, which is to be achieved through co-operative work and living in collectivized villages throughout rural Tanzania . . . Tanzania has made the most concentrated attempts at structural transformation and the eradication of sources of extreme inequality (Migot-Adholla, 1984, p. 201).

Migot-Adholla (1984, p. 226) recognizes, however, that "the Tanzanian economy has been undergoing a worsening economic crisis that by 1982 had brought the country to the brink of economic collapse." Nevertheless, he argues that the extent of structural and institutional changes are evidence that Tanzania has gone some distance toward realizing its social goals, notably through government expenditures for education, health, and water in rural areas. For Kenya, he asserts that "government policies for rural development are in large part a continuation and an elaboration of policies established by the colonial government during the closing days of imperial rule" (p. 202). While recognizing that Kenya's strategy has achieved considerable economic success, he suggests that "the political assumptions on which it is based may prove unrealistic in the long term" (p. 227). It is argued later that the inappropriateness of some of Nyerere's strategic notions derived from a deeply dysfunctional fear concerning the growth of rural inequality. But it is also suggested that rural inequality and growth of patronage may indeed give rise to political instability in Kenya.

A REVIEW OF AGRICULTURAL AND RURAL DEVELOPMENT EXPERIENCE IN TANZANIA

During the early period following Independence in 1961, the performance of Tanzania's agricultural sector was impressive. The Arusha Declaration of 1967 was followed by a series of changes in both agricultural

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the old ones were wrong, or merely taking time to settle down."

sector policies and in macroeconomic policies that led to an economic crisis in the 1970s that was intensified in the early 1980s. After discussing the onset of that crisis, an attempt is made to summarize the reasons why the crisis occurred. In addition to the effects of ill-advised macroeconomic policies and certain external factors, such as the high cost of the war that removed Idi Amin from power in Uganda, attention is given to specific agricultural policies that adversely affected agricultural production. In addition, certain ideological and systemic factors seem to have contributed to the unstable policy environment and to the poor performance of agriculture and the economy generally. A review of Tanzania's expansion of rural social services—health care, education, and water supply—gives attention to some significant achievements and shortcomings. Recent changes in macroeconomic and sectoral policies, dating from 1985–86, have had significant positive effects on agriculture's performance.

Early Post-Independence Expansion of Farm Production

Agricultural growth in Tanzania is difficult to quantify. As emphasized by a well-informed student of agricultural development in Tanzania, "No-one knows with any degree of certainty either the level or the trend in per capita food production" (Raikes, 1986, p. 116). Given the slight importance of food imports during the 1960s, however, there can be little doubt that food production, on average, kept pace with population growth. Hence, the impressive growth of export crop production during the 1960s represented a significant net addition to total and per capita farm incomes, particularly farm cash income.

The growth of output of Tanzania's six major export crops between 1960–62 and 1966–68 shown in Table 1 provides a convenient summary indicator of the performance of Tanzanian agriculture during this early period. It has been estimated on the basis of data from urban and rural surveys that production of export crops accounted for about 85 percent of the farm-level value of marketed output in Tanzania in the early 1960s.[3] Production of sisal, the principal plantation crop, declined during that period in response to low world prices (owing to competition from synthetics); and some of the plantation owners showed their distrust of the new government by leaving the country and taking capital with them. All of the other crops (except tea) were grown predominantly by African smallholders who continued an expansion process that had gathered momentum during the 1950s.

[3] These estimates by Hardie Park (reported in Anthony et al., 1979, p. 60) include a comparison with Nigeria where the share of export crops in marketed output was less than half as large as the 85 percent share in Tanzania. The share of export crops in marketed output in Kenya would undoubtedly have been considerably less than in Tanzania but higher than in Nigeria.

Table 1.–Production of Main Export Crops, 1960–68
(Thousand tons)

Crop	1960–62 average	1966–68 average	Growth rate per annum (percent)
Coffee	23.6	48.1	12.5
Cotton	33.5	70.0	13
Sisal	202.3	197.5	−0.5
Cashew nuts	45.1	74.3	9
Tea	4.0	6.4	8
Tobacco	2.2	3.8	10

Source: Andrew Coulson, 1982, *Tanzania: A Political Economy*, Clarendon Press, Oxford, p. 145.

A 1961 World Bank report, *The Economic Development of Tanganyika*, emphasized a distinction between agricultural development based on an "improvement approach" vs. a "transformation approach." The report endorsed a continuation of an improvement approach aimed at gradual but widespread increases of productivity and output among the country's small farmers, but it argued that increasingly emphasis should be on a transformation approach based on large capital expenditure for mechanization and irrigation leading to "a total transformation of the agricultural systems rather than their improvement" (Coulson, 1982, p. 120). This transformation approach was the justification for "the creation of settlement schemes on unoccupied land, where farmers would be given land on condition that they followed rules and regulations that define 'modern' agricultural techniques" (Coulson, 1982, p. 147). Tanzania's Five-Year Plan for 1964–69 set ambitious targets for establishing settlement schemes and for expenditure on irrigation. Out of £28 million to be invested in agriculture during that plan period, £19 million was to be spent on the transformation approach (Coulson, 1982, p. 148).[4]

The expansion of agricultural production in Tanzania during the 1960s, as in sub-Saharan Africa generally, was essentially a result of spontaneous changes in traditional agriculture in response to various disequilibrating factors. The most important appear to have been knowledge of a new crop, population growth leading to increased food requirements and an enlarged

[4] According to Uchendu and Anthony (1974, pp. 41–44), the promotion of "block farms" during that period, as a means of promoting tractor cultivation and even airplane-spraying of cotton, led to a diversion of funds and of extension staff away from the promotion of smallholder production in a costly and unsuccessful effort to modernize cotton farming.

farm work force, and better access to markets—domestic and export. Agricultural change in Geita District in Tanzania, well described by Uchendu and Anthony (1974), offers a good example. Quite rapid expansion of the cultivated area was facilitated by a tse-tse control program that opened up new agricultural land and permitted an influx of farm families from nearby areas that were experiencing population pressure. The growth of farm incomes was mainly a result of a 60 percent increase in cotton production between 1964 and 1967. The popularity of cotton as a cash crop was enhanced by the work of the plant breeders at the Ukiriguru agricultural experiment station who produced varieties resistant to cotton jassid and bacterial blight, thus reducing the risk of a sharp drop in yield in years of heavy incidence of pest or disease. The expansion of cassava production in Geita during that period for sale to other areas in Sukumaland was another important source of increased cash income.

Onset of Economic Crisis in the 1970s

With the exception of tea and tobacco, which continued to expand until the late 1970s, production of export crops in Tanzania has declined since the late 1960s or early 1970s. It is apparent from Table 2 that production of sisal, cashew nuts, and tobacco fell to very low levels in the mid-1980's. In 1962 sisal accounted for 29 percent of total merchandise exports, but in 1978 its share was only 6 percent. Since the latter half of the 1960s coffee and cotton have ranked as the principal agricultural exports, each accounting for some 15 to 20 percent of merchandise exports. Coffee's share rose above 30 percent between 1976 and 1978, but that was because of the sharp rise in world prices; production and exports have been stagnant since the late 1960s. As indicated in Table 2, cotton production had fallen sharply by the mid-1980s to little more than 60 percent of the peak level reached in the late 1960s.

The deteriorating food situation cannot be described satisfactorily because of lack of information about total food production and the volume of sales of maize and other major crops through the parallel market. Official purchases of major food crops declined drastically between 1970/71 and 1974/75, recovered in the late 1970s, and then dropped off again in the early 1980s. Raikes (1986, p. 116) estimates that because the urban population was growing at an annual rate of 8–10 percent, official purchases of food crops in 1985 represented on a per capita basis a mere 15–20 percent of the level of official purchases in 1970.

Although the availability of food in urban areas deteriorated during that period, the decline was less than the reduction in supplies derived from official purchases because of increased reliance on grain imports and increase in unofficial sales of domestic grain through the parallel market. Net imports of maize, rice, and wheat rose erratically from 13 thousand

Table 2.—Production of Major Export Crops, 1966–86
(*Thousand tons*)

Crop	Average 1966/67 + 1967/68 (1)	Average 1971/72 + 1972/73 (2)	Average 1976/77 + 1977/78 (3)	Average 1984/85 + 1985/86 (4)	Column (4) as percent of Column (1)
Cotton	75	71	65	47	63
Coffee	46	49	51	50	109
Sisal	223	169	105	46[a]	21
Tea	7	12	17	16	229
Cashew nuts	79	122	82	38[a]	48
Tobacco	—	14	19	11[a]	—

Source: Andrew Coulson, 1982, *Tanzania: A Political Economy*, Clarendon Press, Oxford, p. 190; for 1984/85 and 1985/86, see Michael Lofchie, 1989, *The Policy Factor: Agricultural Performance in Kenya and Tanzania*, Lynne Rienner, Boulder and London, Tables 4.1–4.5, 4.7.

[a]Average production for 1983 and 1984.

tons in 1966/67 to a peak of nearly 450 thousand tons in 1973/74, and were about 270 and 190 thousand in the next two years. After fluctuating at around 100 thousand tons annually in the late 1970s, grain imports rose sharply again to about 390 thousand tons in 1980/81 and remained above 300 thousand per year through 1984/85. Since 1975/76, a sizable fraction of the grain imports have been obtained as food aid.[5]

A summary statement by a Tanzanian economist captures succinctly the main features of the economic crisis:

> Since the early 1970s, Tanzania has faced difficult economic problems. Food production has not kept pace with population growth and dependence on intermittent food aid has increased. Production of agricultural exports has fallen. Severe shortage of foreign exchange and suppressed and open inflation have characterized the economy in the past decade. Production . . . of the manufacturing industry has decreased. Transport infrastructure and the provision of basic social services have deteriorated. Aggregate domestic saving has decreased and dependence on foreign aid for the

[5] See Raikes (1986, p. 119) for annual figures of cereal for 1966/67 through 1984/85. According to Sharpley (1985, p. 77), between 1973 and 1981, imported cereals accounted for 55 percent of the grain supplies handled by the official grain-marketing board.

functioning of the modern economy is unprecedented (Lipumba, 1986a, pp. 1–2).

Reasons for Tanzania's Economic Crisis

It is difficult to offer a concise summary of the many reasons for Tanzania's economic crisis and the poor performance of the agricultural sector. Much of the debate has focused on whether internal or external factors have been the major causal forces.[6] The official position of the Tanzanian government has been that the problems have been caused primarily by external forces—sharp increases in oil prices in 1973 and 1979, deteriorating terms of trade, the breakdown of the East African Community, the Uganda War, and a number of years of poor weather conditions.

There is no doubt that those external factors contributed to the country's economic problems. But with the deepening of the crisis and the poor performance of the agricultural sector from the early 1970s until 1986, when the food situation began to improve (Economic Research Bureau, 1988), a combination of unfortunate sectoral and macroeconomic policies would have given rise to an economic crisis and difficult food situation even without the exacerbating effects of external factors.

Those sectoral and macroeconomic policies had adverse effects on all of the "six I's" that are the major proximate factors influencing agricultural production—incentives, infrastructure, inputs, institutions, initiative, and innovations. Furthermore, those adverse effects were compounded by frequent policy shifts and changes in institutional arrangements.

The deterioration in the performance of Tanzania's support institutions has been aptly characterized as being due to systemic problems (Moris, 1983). For example, the managers of the parastatals created to handle the marketing and processing of food and export crops were often put into impossible working situations because of a "system of interactions" that included budget crises and severe shortages of foreign exchange which in turn resulted in a failure to maintain, repair, or replace motor vehicles and

[6] Lipumba (1986a) points out that there is also a third view represented by left-wing critics such as Issa Shivji, Michaela von Freyhold, and Andrew Coulson. Those critics contend that, rather than being a real attempt toward socialist transformation, Tanzania's policies were essentially a consolidation of power by a "bureaucratic bourgeoisie" instead of the construction of a state "controlled by the true representatives of workers and peasants under a politically committed vanguard party with a correct proletarian ideology" (Lipumba, 1986a, pp. 4–5). Much earlier, Lionel Cliffe had expressed concern about "the rigor with which the Arusha conditions are applied and the degree of ideological purity within the party" (as quoted by Bienen, 1970, p. xx).

other types of equipment. Acute shortages of fuel and lack of road maintenance contributed to the deterioration of the transport system which had serious effects on the marketing of agricultural products and the distribution of inputs. This poor performance of many institutions was related to the "we-must-run-while-others-walk" approach to policymaking mentioned earlier and to what Moris et al. (1985, p. 188) refers to as "the prevailing modes of implementation." Moris et al. call attention to the tendency of Tanzania's leaders to rely on exhortation, on the setting of overoptimistic targets, on assistance to "pet" schemes, on the deliberate fostering of a crisis atmosphere, and reliance on operations. The significant military connotation of that term was especially evident in the operation to carry out a compulsory program of "villagization."

Policies Affecting the Organization of Agricultural Production. President Nyerere committed the country to socialism in his TANU pamphlet "Ujamaa-the Basis of African Socialism" (Nyerere, 1962).[7] That commitment was made more emphatic in 1967 with the Arusha Declaration and a series of essays by Nyerere (Nyerere, 1968).

In his essay, "Education for Self-Reliance," Nyerere (1968) declared that "people in the rural areas . . . must organize themselves cooperatively . . . . Our village life, as well as our state organization, must be based on the principles of socialism and that equality in work and return which is part of it" (Nyerere, 1968, p. 51). Nyerere was aware of the problem of incentives, noting that "it is not unknown for everyone to do a fair share on a communal project just because everyone does as much as the laziest member, and no more!" (pp. 185–86). Therefore, he stressed the need for a long-term view because achieving socialism and rural development "is not the work of a month or a year; it is the work for ten or twenty years ahead" (p. 186).

In examining the efforts to establish *ujamaa* villages, students of Tanzanian agriculture have identified four categories.[8] The first category is represented by the self-initiated villages such as those included in the Ruvuma Development Association which grew out of efforts that began in the early 1960s. (See Coulson, 1982, pp. 263–71.) The second category consisted of the "signposted" ujamaa villages that were created overnight to enable local officials to demonstrate the growth of ujamaa in their areas. The third category describes villages created in response to inducements that were offered in the form of social services or grants of equipment, often tractors. The final category consists of the villages that were founded

[7] TANU, the Tanganyika African National Union, was merged with Zanzibar's Afro-Shirazi Party in 1977 to form Chama cha Mapinduzi (CCM), the Party of the Revolution.

[8] This discussion is based on Migot-Adholla (1984) who attributes the typology to Philip Raikes.

through coercion in response to a November 1973 TANU decision that all peasants should be enrolled in villages within three years.

The villages established in implementing that TANU decision were known officially as development villages and were quite different from the ujamaa villages associated with the other three categories. First, the emphasis was on resettlement; the great majority of the villages established since 1973 have involved little or no collective production. Second, and unlike the earlier efforts that were more prominent in rhetoric than reality, forced villagization had a direct and widespread impact on Tanzanian agriculture. Within two years half of the total population of Tanzania which had been living in dispersed homesteads, was relocated in ujamaa villages; the rural population in densely settled areas such as the coffee/banana zone on the slopes of Mt. Kilimanjaro were exempted from the requirement to relocate in newly established villages. Migot-Adholla (1984, p. 219) gives this concise summary of the villagization process:

> Overzealous efforts by civil servants occurred during the course of several regional operations in which large numbers of people were summarily rounded up, at short notice, together with their belongings and trucked off to the site of their new village several miles away. In some cases, these moves were accompanied by the destruction of existing homes to insure that those moved would not return.

The idea of compulsory villagization appears to have been popular with Party officials and urban-based politicians.[9] Coulson (1982, p. 255)

[9] Lipumba (personal communication, January 1989) points out that the "Ujamaa system was neither feasible nor desired by peasants" and also notes that "the main criticism of Ujamaa from the left was that it did not start from a correct Marxist class analysis of the Tanzania society." The views expressed by Coulson (1982, p. 345), one of the more important of the left-wing critics, are influenced by the Marxist view that communal work in agriculture will lead to increased production, and he refers to a "useful discussion" by Freyhold of the potential economies of scale of communal production. He also asserts that "probably there could have been no effective local democracy without more emphasis on co-operative *production*" (Coulson, 1982, p. 152; emphasis in original). In her book, von Freyhold (1979) argues that voluntary creation of ujamaa villages based on collective farming and cooperative production of nonfarm good and services is the only acceptable way to realize the benefits of economic specialization because reliance on price and market mechanisms would only perpetuate the "dependency and underdevelopment" of the peasantry. In an epilogue, she gives a vivid account of the problems of "communality" (to use a term introduced by Clark in Johnston and Clark, 1982, p. 182). These are the problems of assigning, coordinating, and monitoring individual responsibilities and rewards that inevitably

suggests that the 1973 TANU decision on villagization was linked to a June 1972 decision to decentralize the government to the regions. The latter decision was carried out with the assistance of McKinsey, an American management consultancy firm that carried out management training programs for civil servants decentralized to the regions. Coulson quotes one of those decentralized civil servants to the effect that creating planned villages was part of their "more development-based management function" and was needed "to reinforce the participatory development."

There has been a lively debate concerning the extent to which villagization contributed to Tanzania's food shortage during the 1973–75 period; a drought in 1973–74 was certainly a significant contributing factor (Amani et al., 1987, p. 74). Raikes (1986, p. 128) argues persuasively, however, that villagization was a disruptive process and had adverse effects that went beyond those instances where villages were poorly sited in relation to soils and water or when main fields were distant or vulnerable to vermin. There are also longer term effects: increased travelling time to and from fields, overcultivation of fields close to the village, and greater distances for collecting firewood and drinking water.

Paternalism and Arbitrary Interventions. The lack of confidence in the capacity of Tanzania's small-scale farmers and the authoritarian and paternalistic attitudes prevalent among the bureacracy are evident in this statement by the civil servant quoted earlier (Coulson, 1982, p. 255): "For we must remember that the problems of the rural peasantry have been based fundamentally on their traditional outlook and unwillingness to accept change." Villagization was followed by the reintroduction of "minimum acreage regulations and other bylaws (such as compulsory weeding under cashew nut trees, or the growing of cassava) designed to benefit the farmers, who were fined or imprisoned if they did not obey them" (Coulson 1982, p. 257).

If Uchendu (1968, p. 232) is right that to rely on centralized directives is courting economic disaster because "it robs the villagers—the prime movers of rural change—of the opportunity to make those economic decisions that generate self-spreading change," the negative effects of such arbitrary interventions must have been considerable. Raikes (1986, pp. 128–29) argues that in Tanzania with "politics in command," party and government officials, with minimal knowledge about agriculture, economics, or the constraints of peasant farming,[10]

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arise when participants contribute their labor and other resources to a common productive activity. von Freyhold makes no attempt to reconcile those problems with the optimism expressed in earlier chapters.

[10] See also the discussion of "The Rise of Rural Comandeerism" by Ellen Hanak (1986, pp. 52–58).

> felt free, indeed obliged, to issue directives, to show their commitment . . . . Apart from the considerable waste of time and/or energy involved in either complying with or evading directives, they appear to have contributed significantly to a decline in morale: a feeling that whatever one does to try to organize one's life sensibly, some clown in office will come along and mess it up.

The point is that coercion "consistently leads to misspecified policies which have to be enforced for that very reason and obstructs criticism and revision of such policies, since the problem is defined beforehand as being one of peasant obstinacy and conservatism" (Raikes, 1986, p. 133). Finally, his analysis suggests that Tanzania's policies have exacerbated the general African problems signalled earlier associated with the primacy of polity and kinship and patronage linkages. Thus he notes the tendency for peasant entrepreneurs in Africa to

> straddle the boundaries between production, trading and politics . . . . The combination of state, parastatal or cooperative monopoly, with pervasive party control over these institutions, tends to increase the relative importance of political and patronage linkages.

Disruption of Agricultural Marketing. Interventions affecting the marketing of food and export crops have also weakened the performance of the agricultural sector. Shortly after Independence a National Agricultural Products Board (NAPB) was set up with a monopoly to purchase grain, but its functions were limited to purchases from cooperative unions or local cooperative societies and sales to grain millers. In 1967 the major grain-milling companies were nationalized and a National Milling Corporation (NMC) was established. In 1973 the NMC took over the activities of the NAPB, and in 1976 the cooperative unions were abolished and the NMC was obliged to take over direct purchasing of grain from producers (Amani et al., 1987, pp. 69–75). Even without the systemic problems discussed earlier, the NMC would have encountered serious problems because of the difficulties that a bureaucratic agency faces in carrying out commercial functions, particularly in purchasing grain from millions of scattered producers and handling retail sales. In fact, it seems likely that one of the reasons for Tanzanian policymakers' fascination with large-scale mechanized state farms is their awareness that it is easier for a bureaucratic agency such as the NMC to purchase the marketable surplus of, say, wheat from a state farm than to purchase the marketable surplus of numerous small-scale producers.

Crop authorities have also been established to handle the marketing of coffee, cotton, and other export crops. Amani et al. (1987, p. 75), in emphasizing that the decline in real prices for agricultural producers during the 1970s applied particularly to export crops, state: "Real producer prices of exports declined, mainly due to the high marketing margins of official marketing agencies and an increasingly overvalued currency." Except for a certain amount of smuggling, for example, illegal sales of coffee in Kenya to finance imports of scarce consumer goods, producers of export crops feel the full disincentive effect of low official prices. To a much greater extent, food producers have been able to offset the disincentive effect of low official prices by sales in parallel markets. It has been estimated that from the 1970s to 1984 about 75 percent of marketed maize and 80 percent of rice sales were in the parallel market whereas most of the wheat (produced mainly on large state farms) is sold through the official marketing channel (Amani et al., 1987, p. 87; Economic Research Bureau, 1988, p. 20). Even so, returns to producers are certainly depressed by the control system because of the rents collected by those who run the risk of handling illicit sales and the difficulty of increasing the efficiency of marketing through channels that are periodically subject to police action and bribes or punishment.

Macroeconomic Policies and the Proliferation of Parastatals. Tanzania's economic crisis was compounded by the effects of ill-advised macroeconomic policies, the proliferation of parastatals, and agricultural pricing policies. Particularly serious were the problems of large budget deficits, rapid inflation, an unwillingness to devalue an increasingly overvalued exchange rate, and the sharp decline in agricultural exports that contributed to an acute scarcity of foreign exchange. The adverse effects of foreign exchange shortages on the availability of incentive goods were exacerbated by policies related to industry and the distribution of consumer goods. A decline in the six major export crops, which accounted for about 80 percent of merchandise exports, was mainly responsible for a decline in the export volume index from 100 in 1973 to 64 in 1980. Per capita exports in 1980 were only about half the level of the early 1970s, and during the period 1976 through 1985, export earnings financed less than half of Tanzania's imports (Sharpley, 1985, p. 74). The main drop in the quantity of Tanzania's exports occurred between 1974 and 1977 prior to a serious deterioration in the international terms of trade after 1977. This meant that Tanzania benefited much less than Kenya from the 1976–77 boom in prices of coffee and some other export crops.

Apart from the Uganda War in 1979, three sets of factors were mainly responsible for the budget deficits and growth of inflation between 1973 and 1981: (1) a sharp increase in industrial investment under the Basic Industries Strategy: the central government's industrial investment went up from 2 percent of total capital expenditures in the early 1970s to over 17 percent just before the Uganda War; (2) recurrent expenditures of the central government and regional administrations increased threefold over the period 1972/73 to 1978/79 (with expenditures on health, education, and water supply increasing more than threefold); and (3) increased provision of large amounts of financial assistance to ailing public corporations and parastatals. Accumulated overdrafts of the ten major agricultural parastatals stood at 5.1 billion shillings in March 1981, equivalent to 37 percent of the total money supply. The National Milling Company, the parastatal responsible for grain marketing, accounted for more than half of that total (Sharpley, 1985, p. 82). In addition to being a major budgetary drain, the inefficiency of the agricultural parastatals seriously depressed real producer prices, especially for export crops. (See Raikes, 1986, pp. 124–25.)

The negative impact of foreign exchange shortages on food production was grossly underestimated because of the false assumption that food production required relatively few tradable inputs. The dependence of the large-scale mechanized production of wheat and rice on inputs that are imported or have a high import content is not surprising; in 1980/81 import requirements for those crops represented a little over 60 percent of their import parity price. For sisal and tea, import requirements were just over 45 percent of their export parity price but the corresponding figures for coffee and cashew nuts were around 10 percent (Sharpley, 1985, p. 78). Rather surprisingly, import requirements for marketed maize were some 45 percent of the import parity price; over half of those import requirements were related to transport costs which were inflated by the policy of "pan-territorial pricing." This policy, justified by the notion of regional equalization, had the effect of subsidizing maize production in the Southern Highlands which emerged as the principal source of official maize purchases. But that naturally involved lower prices and reduced deliveries from areas closer to Dar es Salaam (Raikes, 1986, p. 123). This price distortion no doubt discouraged expanded production of coffee and other higher value crops in the Southern Highlands.

Deteriorating producer incentives resulted initially from disruption of consumer goods distribution in 1970 when all importing, wholesaling, and exporting were socialized. The State Trading Corporation (STC), a centralized parastatal, was given major responsibility for that enormous task. Coulson (1982, p. 292) reports that in 1970 "there were more shortages of consumer goods than at any time since the years immediately after the Second World War, and the performance of STC caused more complaint than any other nationalization, or indeed than any other political move since independence." At about the same time, however, China began building the TAZARA rail link to Zambia relying heavily on a large workforce resident in Tanzania. Under the terms of the loan that financed that large project, the local costs were financed by importing and selling Chinese consumer goods. During the five years that it took to build the railway, the STC was able to purchase fairly large quantities of consumer goods in China which helped to supply shops in rural areas.

In the late 1970s and early 1980s, "virtually all basic household goods, including clothing, soap, edible oil, sugar, salt, matches, batteries, kerosine, corrugated iron sheets, soft drinks, beer and cigarettes had become extremely scarce (or non-existent) in rural areas" (Sharpley, 1985, p. 80). The situation was aggravated by inefficiencies associated with efforts to replace private shops with village cooperatives and measures to reduce the role of private transporters by restricting licenses and their share of imported trucks and spare parts. The fundamental problem, however, was the sharp decline in the availability of imported and domestically manufactured consumer goods due to the acute shortages of foreign exchange and policies that exacerbated the effects of those shortages.

In spite of a large increase in the allocation of investment funds and foreign exchange to the industrial sector as advocated by Tanzania's Basic Industries Strategy, domestic value added in manufacturing declined abruptly after reaching a peak in 1978. As a share of total GDP, value added in manufacturing rose from 3.6 percent in 1961 to 10.1 percent in 1973 when it amounted to almost 900 million shillings; the peak in 1978 was 1,051 million shillings, but by 1983 value added in manufacturing had declined to only two-thirds the level reached in 1973 (all figures in 1966 constant shillings). Moreover, the share of manufacturing in GDP in 1983 was only about half the 1973 level in spite of the fact that fixed capital formation in manufacturing between 1973 and 1980 represented 30.5 percent of total fixed capital formation compared to only 13.7 percent of the total between 1966 and 1973 (Skarstein, 1986, pp. 84–87).

Wangwe (1983, p. 483) cogently argues that the slow growth of manufacturing output since 1973 resulted from "the failure to shift the utilization of foreign exchange away from capital goods imports for capacity expansion in favor of intermediate inputs for capacity utilization." Between 1973 and 1980 the share of intermediate inputs in total imports declined from 32 to 10 percent; imports of machinery rose from 19 percent of the total in 1973 to about 30 percent in 1978 and 1979 and were still 23 percent of total imports in 1980 in spite of sharp increases in the share of petroleum and food in total imports. His summary explanation of that misallocation of resources stresses "the role of foreign finance on the one hand and the weak link between macro-level and micro-level planning on the other" (Wangwe, 1983, pp. 483, 487). The industries being established under the new industrial strategy were inherently capital-intensive, and the heavy dependence on foreign aid to finance that strategy imparted a strong bias toward projects to build new plants in spite of low levels of utilization of existing capacity.

Tanzania's tight budget situation and the preferential treatment of industry also led to a reduction in government expenditure in support of agriculture and a particularly sharp reduction in outlays for transportation. In 1972, when only 2 percent of government expenditure was allocated to industry, the transport sector received 18 percent of the total. In 1980, industry received 11 percent of government expenditure whereas allocations for transport were down to 4–6 percent. The reduction in agriculture's share of government expenditure was from 11 percent in the early 1970s to 7 percent at the end of the decade (Lele and Meyers, 1987, pp. 35–37).

Social Services in Rural Areas

It is widely recognized that the expansion of social services such as primary health care and education in rural areas has been a major achievement in Tanzania. Indeed, a major motivation for the compulsory villagization program of the mid-1970s was that the new villages, which were supposed to include at least 300 families, would provide the opportunity for much improved provision of social services.

Primary Health Care. Tanzania was one of the first countries in Africa to emphasize health policies aimed at expanded coverage of the rural population and cost-effective preventative and promotional activities rather than the common emphasis on curative care and urban-based hospitals. In 1982 health expenditures in Tanzania's rural areas represented 65 percent of the total compared to an average of 25 percent reported by the World Health Organization for less developed countries (Moris et al., 1985, p. 228).

Between Independence and 1980 life expectancy in Tanzania increased from 42 to 52 years, five years above the average for low-income countries in sub-Saharan Africa and equivalent to the average for the region's middle-income countries (Lele, 1984, p. 171). Declines in infant mortality were in large part responsible for the increased life expectancy at birth and for an increase in the population growth rate from 2.7 to 3.5 percent (World Bank, 1987, pp. 254, 256, 258). Although the decline in mortality has been sufficient to give rise to rapid population growth, Tanzania's infant and child mortality rates are still very high. There is also evidence of very high morbidity among children; a national survey of 20 villages carried out in the early 1980s reports that 29 percent of the children suffered from malaria and 34 percent from diarrhea during the preceding month according to their mothers (Collier, Radwan, and Wangwe, 1986, p. 34).

The expansion of rural health facilities and personnel between 1961 and 1980 was remarkable:[11]

	1961	*1980*
Rural health centers	22	239
Dispensaries	975	2,600
Medical assistants	200	1,400

[11] These figures are based on "Country Report on Tanzania," by A.S. Dhalla, reported in *The Joint Swedish/Tanzanian Health Sector Review in Tanzania*, April 1982 (Moris et al., 1985, p. 220).

Rural medical aids	380	2,310
Maternal/child aids/village midwives	400	2,070
Health assistants	150	681

Some 80 percent of the country's 104 districts had a district hospital in 1981. Rural health centers at the divisional level represent the apex of primary health care below the district level but less than half of the divisions had a rural health center. The main focus of the rural health center is on out-patient services and support for preventative services such as maternal/child health clinics. Virtually all wards had out-patient dispensaries, but their facilities were rudimentary. Less than 30 percent of the country's 8,300 villages had a village health post. A number of the rural health centers and dispensaries are administered by voluntary agencies, sometimes with "grants-in-aid" from the government, and frequently they are better supplied with drugs, vaccines, and equipment. In 1978/79, over half of the voluntary agency and government dispensaries did not have a working refrigerator (Moris et al., 1985, pp. 224–28).

Given the rapid expansion of rural health services and the budget and foreign exchange problems that health facilities have faced, major difficulties in achieving satisfactory levels of performance were to be expected. According to a 1980 Health Sector Strategy report quoted by Moris et al. (1985, p. 48), the country's health services system was operating at only a fraction of its capacity because of the high cost of vehicles and fuel and the difficulty of obtaining spare parts and the lack of qualified mechanics for repairs.

Rural Water Supply. Tanzania's ambitious program to provide piped water to the rural population was justified for health reasons as well as convenience and saving on the drudgery and huge amounts of time devoted to hauling water. This expensive program received substantial support from external donors, and between 1973 and 1980 the percentage of the rural population in villages with a water system in place increased from 13 percent to 34 percent. However, many of the water systems have been plagued by maintenance problems; probably less than 20 percent of the rural population is regularly drawing water from improved water sources (Therkildsen, 1986, p. 293).

In his admirable review of Tanzania's experience, Therkildsen (1986) stresses five significant lessons. First, providing rural water supplies as a free service has particularly strong appeal to villagers; it also seemed to fit well with the ideology of the Arusha Declaration. Second, water policy represented an especially clear example of the style of policymaking that Hyden refers to as the "we-must-run-while-others-walk" mode. Conflicts between means and ends were left unresolved until the implementation stage; and the actual allocations in yearly budgets were much below the levels implied by bold policy statements. Third, the bureaucratic and political interest of the government began to fade as competition for limited funds intensified and as awareness grew of the magnitude of the cost of meeting ambitious goals, especially the optimistic goal announced by the Party in 1975 of providing all villages with a good source of water by 1981. Fourth, there was a donor invasion as the withering of high-level interest in water supplies gradually placed donors in a key position as they tripled their contributions in the early 1970s in spite of the "obvious conflict with the Party's self-reliance philosophy" (Therkildsen, 1986, p. 298). The appeals for expanded funding of rural water projects fit well with donors' growing interest at that time in basic needs, women in development, and in aid that involved substantial inputs of materials and technical assistance that could be supplied by the donor.

The fifth and last feature emphasized by Therkildsen is that villagers were treated as passive receivers. In neglecting questions of operation and maintenance, the donors largely ignored the role of the local beneficiaries so that their participation was pretty much restricted to sporadic contributions of self-help labor during construction. Once completed, the operation and maintenance of water systems was the government's responsibility.[12]

By 1982 a crisis had been reached as it became obvious that the government's targets could not be reached, and the government and donors began reconsidering past approaches and drawing some conclusions from the mistakes made. There is a danger that some donors will go to the extreme of terminating all assistance for the water sector while others continue to provide significant support for constructing new rural water schemes. Therkildsen argues that it would be short-sighted to scrap existing schemes that (with satisfactory maintenance) could provide 40 percent of the rural population with access to safe water but equally irrational to construct new schemes when existing ones are not being maintained. His important final conclusion is that "experience shows that local level involvement is absolutely necessary. Improvement of rural water supplies cannot be achieved on behalf of the villagers by the central government, the Party or the donors" (Therkildsen, 1986, p. 305).

Education. Tanzania's experience in enlarging access to education is also mixed.[13] The most striking achievement has been the reduction of illiteracy from an estimated 75 percent in 1962 to 27 percent in 1977 and as low as 10 percent according to some recent surveys (Collier, Radwan,

[12] Therkildsen (1986, p. 300) notes that local participation has been more restricted than implied by the government's ideology because "active village participation [is] to some extent in conflict with the basic interests of the Party and the bureaucracy."

[13] See Moris et al. (1985, pp. 233–71) for a concise and well-informed review of education in Tanzania.

and Wangwe, 1986, p. 33; Lele, 1984, p. 170). The village-level data from the International Labour Organization (ILO) rural survey carried out in the early 1980s corroborates national estimates that the country's Adult Literacy Campaign has been highly successful in reaching adults with no formal schooling (Collier, Radwan, and Wangwe, 1986, pp. 33). An even greater achievement has been an increase in the percentage of children of primary school age enrolled in school from 32 to 87 percent between 1965 and 1984.

Progress in expanding access to secondary education has been much more limited. According to official figures the percentage of children of secondary school age enrolled in school was a mere 2 percent in 1965 and still only 3 percent in 1984. In contrast, the percentage enrolled in secondary school in Kenya rose from 4 percent to 19 percent over the same period (World Bank, 1987, p. 262). A fundamental difference in educational policy, which accounts for that sharp contrast, is examined later.

Less than half of 1 percent of the relevant age group is enrolled in the University of Dar es Salaam or other institutions of higher education. The Sokoine University of Agriculture at Morogoro comprises the former Faculties of Agriculture, Forestry, and Veterinary Science of the University of Dar es Salaam. Its intake capacity in 1982 was 75 students in agriculture, 35 in forestry, and 25 in veterinary science. Those numbers are large in relation to its teaching staff, but they seem small for a country of 22 million that is overwhelmingly dependent on agriculture, livestock, and forestry.[14] It seems probable that this has contributed to a more fundamental deficiency. In Tanzania, as in many other African countries, progress in developing a reasonably effective national agricultural research system has been limited. There are many reasons for this lack of progress, but many of them are related to the inadequate involvement of research scientists at universities, both in training researchers and in the planning and execution of research projects. (See Jahnke, Kirschke, and Lagemann, 1987, pp. 55–57.)

Finally, the communal plots that were supposed to be established by each village were expected to be an effective means of mobilizing local resources to finance rural schooling and other social service activities. In fact, evidence from a 1980 ILO survey of 600 households in 20 villages in 18 districts indicates that communal production has been a very inefficient and regressive means of mobilizing resources. It is inefficient because of the high opportunity cost of the labor resources used in communal production

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[14] Jon Moris (personal communication, September 1988) has suggested that the establishment of some 10 to 12 diploma and certificate colleges (compared to 4 in Kenya) for post-secondary school students has largely offset the adverse effects of the small intake of the agricultural university. It seems doubtful, however, whether the training in those colleges is adequate to meet the need for Tanzanians qualified to become effective in agricultural research and policy analysis.

(Collier, Radwan, and Wangwe, 1986, p. 119). The evidence from the ILO survey indicates that the productivity of labor in Tanzanian agriculture is higher when it is applied to family plots instead of communal production because, as usual for economies that are still predominantly agrarian, diseconomies of scale in peasant agriculture exceed the economies of scale. Furthermore, the implicit tax on the labor applied to communal agriculture is regressive because labor is essentially the only asset owned by the poor, and poor households contribute a larger share of their labor to communal production than the non-poor.[15]

Recent Reforms

Since 1985/86 the economic situation in Tanzania has improved quite dramatically. Favorable weather for crop production was a factor, but the change is mainly the result of a number of reforms in macroeconomic policy together with substantial liberalization of the marketing of agricultural products. Partial trade liberalization which began in July 1984 was a response to

> an extreme shortage of locally produced and imported goods. The economy was in a downward spiral in which scarcity of incentive goods, inputs and transport equipment contributed to further declines in exports, which in turn gave rise to additional erosion in the capacity to import (Economic Research Bureau, 1988, p. 28).

Rapid devaluation and the adoption of a crawling peg (that periodically devalued the Tanzanian shilling to adjust for inflation) reversed the serious overvaluation of the exchange rate. Between March and July 1986 the exchange rate changed from 17 Tanzanian shillings to 40 shillings to the dollar and by July 1987 the rate was 70 shillings to the dollar. The removal of the implicit tax on agriculture resulting from overvaluation was coupled with a decision to offer producers at least 70 percent of world prices. Producer prices of maize and other staple foods were also increased (Amani et al., 1987, p. 93).

The positive effects on producer incentives of devaluation and price adjustments were powerfully reinforced by import liberalization measures "allowing individuals with access to their own foreign exchange to import incentive goods *inter alia* and sell them at market-clearing prices in order

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[15] Collier, Radwan, and Wangwe (1986, pp. 121, 129, 134) report that rural inequality is substantial, mostly intra-village, and associated with a highly skewed distribution of ownership of livestock. They believe that a livestock tax would be a feasible and desirable means of increasing local revenue; Peter Hopcraft (personal communication, February 1989) concurs in the desirability but questions the feasibility of such a tax because of the economic power of those who own large herds.

to increase the supply of incentive goods." This meant a large implicit devaluation of the exchange rate on those imports "which significantly increased profits to owners of foreign exchange and, as a result, reversed capital flight" (Amani et al., 1987, p. 92). The response to this scheme of promoting own-funded imports was greater than expected. In fact, such imports accounted for about a third of total imports in 1985–87 and were responsible for a 50 percent increase in imports from the low point of 1983. The only plausible explanation for a flow of foreign exchange sufficient to maintain such a high level of own-funded imports is that large sums in payment for Tanzanian exports and services (e.g., payments by tourists) by-pass the official foreign exchange system. Since such transactions are illegal, they also by-pass normal tax channels, and the actual composition of such transactions remains unknown. Inasmuch as exchange control enforcement was not working "and such funds were flowing out of the country anyway, encouraging a system whereby they are used to fund imports has a definite pragmatic justification" (Economic Research Bureau, 1988, p. 30). That recent report of Tanzania's Economic Research Bureau (1988, pp. 31–32) also concludes on a pragmatic note:

> Simply to clamp down on liberalized trade would run the very real risk of choking off useful imports without gaining access to the 'unofficial' foreign exchange . . . . It would probably be best for the government to operate a simpler system . . . with sufficient flexibility to ensure an increasing flow of goods, but with sufficient workable control mechanisms to implement public policy priorities.

AGRICULTURAL AND RURAL DEVELOPMENT IN KENYA: AREAS OF SUCCESS AND FAILURE

The considerable dynamism of a substantial part of Kenya's rural economy has been the result of a relatively favorable policy environment. That environment and the associated continuity of policy and institutions have had positive effects on all of the "six I's"—incentives, infrastructure, inputs, institutions, initiative, and innovations. The principal shortcoming has been the contrast between the impressive growth of output and farm cash incomes in the high potential areas and the much more limited progress in areas of medium potential.

The problems that have to be confronted to evolve more effective policies for the (medium potential) semi-arid farming areas receive attention following a review of the expansion of agricultural output in the high potential areas. This section concludes with a brief examination of rural social services in Kenya which includes comparisons with Tanzania. Discussion of the reasons why Kenya pursued agricultural policies favorable to the agricultural sector is deferred to a final section where an attempt is made to explain why policymakers in the two countries chose such very different policies.

Continuity and Reorientation in Kenya's Agriculture

Considerable continuity of agricultural policy has been maintained over three-quarters of a century in spite of two World Wars, the Mau Mau Emergency of the 1950s, and then the rapid and smooth achievement of Independence in 1963. Until the 1950s, commercial agriculture was dominated by a few thousand large European farms and plantations. Since then, commercial as well as subsistence production has increasingly come to be dominated by small and very small African farms. As recently as 1958 over 80 percent of gross marketed agricultural production came from large farms that were exclusively European. By 1981, 54 percent of marketed output was from small farms, and much of the 46 percent from the large-farm sector was from African-owned large farms (Migot-Adholla, 1984, p. 208).

Several factors seem to account for the smooth transition from colonial rule to an independent regime, in spite of the violence and bitter feelings of the Mau Mau period. Mau Mau "was a land rebellion, a violent uprising of Africans, mainly Kikuyu, against European colonial authority *and* against landed Kikuyu 'loyalists' and European settlers" (Miller, 1984, p. 22). The violence began in 1951. In the following year the colonial government declared a State of Emergency, called in British troops, and arrested Jomo Kenyatta and other nationalist leaders. Kenyatta had returned to Kenya in 1946 as the undisputed leader of the nationalist movement. His long absence in Europe and his detention between 1952 and 1959 meant that he was not tainted by the struggle within the Kikuyu community between Mau Mau activists and the loyalists who had fared relatively well under the colonial regime.

Between 1959 and 1963 events in Kenya moved swiftly toward Independence. A 1959 decision to abandon the racial allocation of land opened up the European Highlands to African ownership. The British government agreed to provide funds for the purchase of land from Europeans, many of whom were not prepared to remain in an independent Kenya. African and especially Kikuyu grievances over land had been at the root of the Mau Mau uprising, and it was important for the new government formed in 1963 with Kenyatta as prime minister (later president) to be able to distribute land under both "high density" and "low density" settlement schemes. A so-called Million Acre Scheme, the most important of those schemes, was started in 1961 and completed in 1971 with the settlement of about 35,000 families on 470,000 hectares of land (House and Killick, 1981, pp. 167–69; Maitha, 1976, p. 57; Smith, 1976, pp. 138–43).[16] Many of the European

[16] Some students of Kenyan agriculture have been critical of the settlement

farms in the mixed farming sector were transferred intact to influential African owners. Although the mixed farming sector was the center of European settler activity and of the settlement schemes, its contribution to marketed output and agricultural exports was considerably less than the combined output of coffee and tea plantations in the high-potential areas and sisal plantations and beef ranches in drier areas.

Kenyatta and other key leaders in Kenya attached much importance to a smooth transition and to the potential benefits of stability and continuity. This conciliatory attitude was expressed clearly by Kenyatta in a famous speech at the time of Independence to an audience made up mainly of European settlers:

> The Government of an independent Kenya will not be a gangster Government. Those who have been panicky . . . can now rest assured that the future African Government . . . will not deprive them of their property or rights of ownership. We will encourage investors . . . to come to Kenya . . . to bring prosperity to this country (Hazelwood, 1979, p. 13).

An independent Kenya derived a number of benefits from the smooth transition from colonialism that tended to maximize the positive legacy while minimizing disruption and the negative effects of colonial rule. One important aspect was the extent to which the rapid increases in production of coffee, tea, pyrethrum, and dairy production were based on knowledge acquired during the colonial period. Migot-Adholla (1984, p. 204) observes: "The expansion in small farm production of these [export] crops benefited from many years of research that had been conducted for settler farmers in the highlands." Trial-and-error learning by settler farmers was also an important source of knowledge about crop varieties, agronomic practices, and techniques of pest and disease control required for success under Kenya's environmental conditions. The on-the-job learning by many Kenyans who became highly competent civil servants was also facilitated by a smooth process of Africanization. Good working relations prevailed between the Kenyans and a number of able and experienced British civil servants from the colonial era, including a number who later worked in Kenya as staff members of the Commonwealth Development Corporation or the World Bank. Particularly noteworthy was the role of British technical officers who helped to devise and launch an institutional innovation—the Kenya Tea Development Authority (KTDA)—that made possible the successful

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schemes because land transfer absorbed a large part of the resources available for agricultural development (e.g., Heyer, 1976, p. 20). Some Kenyans and outsiders have also criticized the settlement program (and the Swynnerton Plan) for establishing the "alien" principle of private property, thereby pushing Kenya along the capitalist path.

development of smallholder tea production.[17] The continuity provided over a quarter of a century by some of Kenya's able and dedicated civil servants, some of whom moved on to cabinet level positions, is also to be noted.[18]

Finally, the pragmatism of Kenyatta and of the policies adopted at Independence have served the country well. Thus there has been a lesser tendency than elsewhere in Africa to extend governmental activities into productive and commercial spheres, although a grain marketing board and a number of other parastatals have survived since the colonial period. But in general there has been considerable willingness to emphasize government's facilitating role and to rely on economic analysis of constraints and opportunities so that policies are aimed realistically at "validating changes due to underlying economic forces" (Collier and Lal, 1986, p. 74).[19]

Smallholder Production in Areas of High Potential

Growth of agricultural output was inevitably an important factor in the very respectable growth of per capita GDP in Kenya between 1965 and 1985—an annual rate of increase of 1.9 percent in spite of a population growth rate of about 4.0 percent over the period (World Bank, 1987, pp. 202, 254). Rapid growth of agricultural exports was a particularly dynamic component of the rise in GDP and of the growth of farm cash income among Kenya's small-scale farmers.

During the years 1967–73 agriculture accounted for 75 percent of total exports in Kenya. In Tanzania, agriculture's share was 78 percent and rose to 80 percent in the 1979–81 period. In that later period agriculture's share

[17] Howell, Hewitt, and Anthony (1988, p. 191) single out the contributions of Graham Gamble in developing the "two leaves and a bud" plucking regime and S.D. Hughes, the Chief Accountant at KTDA in the 1960s, who developed the computerized system that made it possible to make regular monthly payments to individual growers. David Leonard (personal communication, January 1989) points out that innovations in the 1970s under Karanja, the Kenyan general manager, and Vora, the Chief Accountant who was a Kenyan Asian, were equally important.

[18] Mwai Kibaki, Philip Ndwega, and Harris Mule are economists who have provided continuity and made particularly significant contributions to macroeconomic management and development planning.

[19] Collier and Lal (1986, p. 143) argue persuasively, however, that "the coverage of the minimum wage legislation was precisely counter to economic rationale." That is, the minimum wage legislation was applied in urban areas with a resulting loss of employment and efficiency; but owing to the importance of monopsony power on the plantation labor market, "there was a clear case on the grounds of employment generation, efficiency, and equity" for minimum wages in the plantation sector which in fact was exempted from the minimum wage legislation.

of agriculture in Kenya's total exports had declined to 57 percent, mainly because of a large expansion in Kenya's exports of petroleum products.[20]

Swynnerton Plan. In 1954 the impressive expansion of export crops by Kenya's smallholders began with the launching of "A Plan to Intensify the Development of African Agriculture in Kenya," commonly referred to as the Swynnerton Plan. It provided for the consolidation of scattered land fragments into single units and the official registration of these units. It was both "a counterinsurgency document and a radical departure on the colonial government's agrarian policy" (Chege, 1987, p. 101). The plan was aimed at giving farmers security of tenure and incentive to improve their holdings by adopting farm plans or layouts that would maintain soil fertility, avoid soil erosion, and achieve a dramatic increase in farm incomes.

The counterinsurgency aspect of the plan was especially pertinent to Central Province, the center of the Mau-Mau rebellion. The aim was to raise cash incomes for some 600,000 African farm units in Central Province and other high potential areas from "a mere £5 to £20 per family, to £100 a year or more" (Smith, 1976, p. 126). This was to be achieved by the radical departure of encouraging and assisting African farmers to grow coffee, tea, and other high-value cash crops. Prior to about 1950 it was not possible for an African farmer to obtain a licence to grow Arabica coffee.[21] This was ostensibly because of fear that the high reputation of Kenya coffee would be spoiled, but the vested interest of European settlers in having an ample supply of cheap labor was undoubtedly the main motivation for that restriction on an alternative source of cash income. And the very idea of smallholder production of tea was radical. Until the 1950s it had been axiomatic that quality tea for export could only be produced as a plantation crop. Finally, the plan provided for the introduction of exotic cattle that were crosses between highly productive European dairy breeds and indigeneous Zebu that provided a measure of disease resistance. This was also a radical departure; it acknowledged that African farmers could acquire the skills required for rearing exotic cattle under difficult conditions and that soil conservation had to be promoted as an instrument for achieving higher cash incomes, not as an end in itself. A planted grass fallow (*ley*) would not only play a key role in maintaining fertility and preventing soil erosion, but with the introduction of exotic cattle would also yield a substantial cash

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[20] The refinery was based on imports of crude petroleum so that its contribution to domestic value added and to the country's net export earnings was small. In fact, the growth of tourism has undoubtedly been much more significant in enlarging Kenya's net receipts of foreign exchange even though tourism also has a much higher import content than coffee, tea, and other export crops.

[21] That restriction did not apply to all of Kenya. Coffee was introduced to smallholders in Kisii District in the 1930s, but its spread was very limited until the 1950s (Uchendu and Anthony, 1975, p. 92).

return.

This phased development of cash crops was carried out in areas where research and experience had already demonstrated that selected crops could be grown successfully. Planting material was distributed by nurseries, a strengthened extension service provided technical assistance, and marketing was facilitated by establishing cooperative societies, marketing boards, and processing plants. In the case of tea, "the performance of a number of small, subsidised and closely-watched pilot schemes in Central Province encouraged the Department of Agriculture to make the large leap into what is now an industry of 145,000 smallholders providing green leaf to 39 factories operating without subsidy" (Howell, Hewitt, and Anthony, 1988, p. 189). A Special Crops Development Authority set up in 1960 with loan finance from the Colonial (later Commonwealth) Development Corporation became the now famous KTDA in 1964.[22] The establishment of growers' committees, which eventually are to assume ownership of the tea factories (built by KTDA but managed initially by local tea companies), helped to ensure that the parastatal was accountable to its clients. And the "tea roads" built by KTDA to facilitate the collection of leaf from growers for speedy delivery to factories made a contribution to development that went well beyond the expansion of tea production.

Between 1951/52 and 1959/60 production of Arabica coffee by African growers increased from a mere 83 tons to 4,607 tons produced by 105,000 families (Johnston, 1964, p. 172). By 1966 smallholder production, which reached 28,500 tons in that year, had overtaken estate production (Kenya, 1974, p. 64).

The Dynamic Role of Kenya's Smallholders. Rapid expansion of coffee and tea production have continued to be major sources of the growth of farm cash incomes and foreign exchange receipts. By 1971 coffee exports of £19.5 million and tea exports of £12.2 million accounted for 30 percent of total exports. As a result of the combined effect of the 1976–77 boom in coffee prices and substantial increase in coffee output and dramatic increase in tea production, coffee exports exceeded £200 million and tea exports reached £71.8 million in 1977 out of total exports valued at £490.8 million (Hazelwood, 1979, p. 109). Over the entire period 1970 to 1985 rapid expansion of exports by Kenya's smallholders was the most dynamic factor accounting for continuing expansion of both crops. As indicated in the following tabulation of coffee and tea exports in Kenya and Tanzania showing average annual percentage growth in volume, 1970–85, smallholder exports of tea in Tanzania also increased rapidly, but the rate of increase in total tea exports was much less than in Kenya because Tan-

[22] A World Bank monograph, *Control, Accountability and Incentives in a Successful Development Institution*, by Lamb and Muller examines the reasons for KTDA's success as a parastatal.

zania's smallholder production remained a relatively small fraction of total tea production (Lele, 1988, p. 148):

	Coffee		Tea	
	Total	Smallholder	Total	Smallholder
Kenya	3.8	6.0	7.5	13.5
Tanzania	.8	2.3	1.9	13.7

Equally impressive has been the rapid increase in the number of smallholders engaged in producing coffee, tea, and other cash/export products. This was especially true of Central Province where the proportion of small-farm households producing coffee increased from 16 to 45 percent between 1960 and 1974 and the proportion growing tea rose from 3 to 18 percent (Livingstone, 1986, p. 170).

Kenya has achieved rapid growth in coffee and tea exports by substantially enlarging its share of world exports—from 1.2 to 2.3 percent of total coffee exports and from 2.6 to 9.0 percent of world tea exports between 1961–63 and 1983–85. Tanzania registered a significant increase in its share of world coffee exports from 0.9 percent in 1961–63 to 1.4 percent in 1971–73 and a doubling of its share of tea exports from .6 to 1.2 percent over the same period. But between 1971–73 and 1983–85 its share of world tea exports rose only slightly to 1.3 percent and its share of total coffee exports declined to 1.2 percent (Lele, 1988, pp. 150–51).

As previously noted, accumulated knowledge about growing coffee, tea, pyrethrum, and other cash crops under Kenya conditions was of critical importance in achieving rapid growth of output. There was also a pent-up desire on the part of African farmers to undertake production of coffee and exotic cattle that had long been restricted to European farmers.

On the basis of a study of agricultural change in Kenya's Kisii District, Uchendu and Anthony (1975, pp. 89–92) stress the cumulative character of the innovation process as reflected in the efficient sequence in which innovations were introduced and adopted and the characteristics of the individual innovations which made them self-spreading. Thus the introduction of pyrethrum into the Kisii highlands in 1952 was so profitable that it was able to provide the capital required for investment in tea beginning in 1957. And cash receipts for tea and pyrethrum made possible investments in exotic cattle beginning in 1963. Among the traits that tend to make innovations self-spreading, Uchendu and Anthony stress profitability, divisibility, and low risk. Divisibility—whether an innovation can be adopted incrementally in small units—reduces the risk of adoption, although the availability of tested knowledge and its diffusion by extension staff and in short courses at Kenya's farmer training centers were also key factors. Exotic cattle, for example, demanded a new level of technical competence in managing rotational grazing, purchases of feed concentrates, regular spraying against ticks, a stockproof enclosure, and the provision of wells for watering stock.

The Land Reform Debate. There has been continuing controversy over the land reform that was a key feature of the Swynnerton Plan. Roger Swynnerton, Leslie Brown, and other agriculturalists who played a key role in the initial design of "the plan to intensify the development of African agriculture" placed great stress on the contribution of land registration and consolidation (Brown, 1968, p. 44). Similarly, the *Development Plan 1974–1978* (Kenya, 1974, p. 59) stated: "One of the requisites of successful farming is a system of land tenure which encourages investment in the land and enables it to be used as a negotiable asset." On the other hand, Judith Heyer (1976), Okoth-Ogendo (1976), and others are skeptical of the benefits of the land reform program.[23] Heyer (1976, p. 11) asserts "that there is little to show that the production increases of the 1950s and 1960s were attributable in any way to the land reform programme" and that it "had the major disadvantage of leaving large numbers of people landless and unemployed."

Michael Chege argues that for a test to support the view put forth by Heyer and others, it would have to "demonstrate that agricultural changes in Central Province would have occurred in the *way they did or better* without any reform in land ownership patterns" (1987, p. 107; emphasis in original). He acknowledges that there are major examples of successful, market-oriented smallholder agriculture in Africa based on traditional land tenure. He emphasizes, however, that the overall viability of an agrarian system and "the emergence of a relatively stable, democratic, capitalist regime depends on the extent to which dominant classes embrace commercial agriculture, liquidating its precapitalist moorings in the process."[24]

Relative Priorities for Cash/Export and Food Crops. Chege also challenges cogently "academic populists" who criticize Kenya's agricultural strategy because of its effects on income distribution and welfare and its emphasis on cash/export crops.[25] With respect to the wellbeing of the rural people, he cites evidence that contradicts the view that involvement in the

[23] Field research by Shipton (1985) among the Luo in South Nyanza District indicates that government control of land remains minimal, adjustments to private titles have been difficult, and new unregistered transactions are concentrating holdings. He acknowledges that there may be valid reasons for instituting private property in some of Kenya's densely settled areas, but its potential value as collateral for credit has not been a valid reason.

[24] He invokes Barrington Moore's well-known 1966 book, *The Social Origins of Dictatorship and Democracy*, in support of this view.

[25] Colin Leys, who had earlier espoused dependency theory, challenges that theory and the closely related poverty-oriented, basic needs approach (that is also pertinent to academic populism) in these terms:

The most important shortcoming of dependency theory is that it *im-*

cash-crop economy has adverse effects on the nutritional status of the farm population.[26] A more general criticism leveled against export crops is that government agencies emphasize export crops and neglect food production for local consumption. But clearly, "*the choice over what to grow should be left to individual smallholders*" (Little and Horowitz, 1987, p. 255; emphasis in original). The overwhelming majority of Kenya's smallholders seem to make that decision independent of government programs and in response to price signals that are not influenced unduly by policies that distort relative prices of farm products either directly or via the exchange rate.[27]

Neglect of government-funded research and other support services for food crops has generally been a more serious consequence of giving undue priority to export crops. Farm families in Kenya's high potential areas have benefited from innovations affecting subsistence food production as well as cash crops; and the distinction between subsistence and cash crops becomes blurred as the domestic commercial market expands. Production of milk for sale has become an increasingly important source of farm cash income for many smallholders, especially in Central Province where approximately half of all farm units keep cattle. Milk yields are so much higher with exotic cattle, which now account for about 80 percent of all cattle in the province, that the rise in subsistence consumption of milk by farm families has nearly matched the increase in sales (Chege, 1987, p. 105).

During the colonial period, research on maize received much less at-

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> *plies* that there is an alternative, and preferable, kind of development of which the dependent economies are capable, but which their dependency prevents them from achieving—when this alternative does not in fact exist as an available historical option (Leys, 1982, p. 104; emphasis in the original).

[26] A recent IFPRI study by Kennedy and Cogill (1987) addresses this issue on the basis of a survey in a sugar-growing area in Southwestern Kenya; earlier research had suggested that growing sugar is the commercial activity most likely to have adverse nutritional effects on children. The IFPRI study concludes that sugar production has a very positive effect on household income which in turn positively affects household consumption; but "this benefit at the household level does not appear to influence the preschoolers' nutritional status" (p. 58). As the study emphasizes, the positive effects of higher income could be increased by well-designed health interventions.

[27] Little and Horowitz (1987) cite a Kenya example of farmers being pressured to curtail their production of food crops to give priority to cash crops, but that applied to tenants on an irrigation scheme subject to tight control over production (see Moris and Thom, 1987, p. 156).

tention than research on export crops (and wheat). It was not until 1955 that a research officer was appointed to work exclusively on maize. Impressive progress has been made since then in developing synthetic and hybrid varieties of maize that spread rapidly among smallholders in agroclimatic zones where the new varieties had a significant yield advantage over the local varieties. On the basis of a survey of the diffusion of the new varieties in western Kenya, John Gerhardt found that hybrid maize was adopted at a somewhat more rapid rate than by American farmers thirty years earlier. A medium maturity hybrid adapted to conditions in Central Province did not become available until 1970, but the rate of diffusion was even more rapid than in western Kenya (Gerhardt, 1975). This success in diffusing hybrid maize among smallholders is remarkable because of the need to replace hybrid seed each year. A well-managed commercial seed company established to produce grass seed for European farmers in the highlands, now a parastatal, has done an impressive job in organizing the production and distribution of hybrid seed to village shopkeepers who have also provided timely distribution of fertilizer. The very limited success in a zone in western Kenya with lower altitude and rainfall is easily explained: the yield advantage of the hybrids was too small to make their adoption a profitable innovation.

Shortcomings, Failures, and Slow Learning

Development of feasible and profitable innovations adapted to regions outside high-potential areas has become a major challenge because "Kenya's rapid population growth and limited supplies of arable land pose the central dilemma for the agricultural sector's future" (World Bank, 1986b, p. 176). In addition, there are political and equity problems related to substantial regional inequalities.[28]

Development in Central Province has obviously benefited greatly from the fact that by 1974–75 some 45 percent of smallholders in the province were growing coffee and 18 and 8 percent respectively were producing tea or pyrethrum (mostly in separate zones so that those figures tend to be additive). Only two provinces, Rift Valley and Nyanza, come at all close in terms of the number of smallholders growing high-value export crops. In Western Province, only about 20 percent were growing coffee and another 20 percent cotton, and cotton has been much less profitable for farmers than coffee, tea, or pyrethrum. (See Livingstone, 1986, p. 183). Central

[28] Provincial figures on per capita income give a partial indication of the extent of regional inequalities. The sharpest contrasts are between Western and Northeastern provinces, where per capita income in 1976 was only £33 and £18, respectively, compared to £96 per capita in Central Province (Bigsten, 1981, p. 182).

Province has also been favored in terms of government outlays per capita for education, health, and roads (Bigsten, 1981, p. 184).

Sugar Production and Agricultural Development in Western Kenya. The most significant production achievement outside Central Province and other high-potential areas such as Kisii District has been the tremendous expansion of sugar production from 655 thousand tons in 1965/66 to 3.9 million tons in 1984/85 (Lofchie, 1989, Table 4.6). Moreover, close to half of the total output in 1984 came from smallholder outgrowers compared to just over 7 percent of the total in 1971 (Lele and Meyers, 1986, p. IV-1). Kenya's sugar industry, however, has been plagued with numerous problems. Because of the capital-intensive nature of the sugar industry, it is costly to create additional income streams and employment through expanded sugar production. The highly fluctuating and unpredictable nature of international sugar prices have added to the difficulty of formulating sound policies. Nonetheless, the rapid expansion of sugar production has been a significant source of increased agricultural income in areas of western Kenya where alternative sources of income and employment are limited.

There is considerable scope for increasing the efficiency of sugar production in Kenya. At present there are large differences in cane yields and efficiency between areas served by different sugar factories that is related to management as well as differences in their physical environment. Despite continuing problems, it is noteworthy that the annual rate of increase in sugar production in Kenya of 11.4 percent between 1966/67 and 1984/85 was much higher than the 2.8 percent rate achieved in Tanzania, where little has been done to promote production by smallholder-outgrowers (Lofchie, 1989; Lele and Meyers, 1986, p. IV-5).

Policies for Arid and Semi-Arid Lands (ASALs). A striking feature of Kenya's agricultural economy is that some 80 percent of the country's population live on the 20 percent of the land area with adequate and reliable rainfall. In addition to high-potential areas such as Central Province and Kisii District, this includes some densely populated farming areas in western Kenya that are currently not very productive. Although annual rainfall is adequate in most years, it is erratic and not well distributed. Furthermore, much of Kenya's poorly drained land is located in western Kenya. It is estimated that as much as a million hectares of high- and medium-potential land in Kenya are impeded. A 1978 paper on agricultural strategy for Kenya by the late Hans Ruthenberg argues that drainage of valley bottom-land offers a cost-effective way of expanding agricultural production (Livingstone, 1986, p. 194).

The other 80 percent of Kenya's land area is either arid or semi-arid. Although those areas are for the most part sparsely populated, some of the semi-arid agricultural areas are experiencing population growth above the national average because of in-migration (International Workshop, 1988;

Livingstone, 1986, p. 186).[29]

The pattern of population growth in Kenya's semi-arid areas is illustrated by experience in Machakos District. In 1932, almost 90 percent of the district's population was concentrated on 25 percent of the land area, where it was about equally divided between high-potential hill areas with ample and reliable rainfall and medium-potential areas adjacent to the high-potential areas. The population growth rate for the district increased from 2.5 percent in the 1932–48 period to 2.8 percent between 1948 and 1963 and to 3.5 percent in the 1963–69 period. This growth has been distributed unevenly. In Machakos's high-potential zone, there was a decline from an annual rate of 2.8 percent in the 1932–48 period to 1.6 percent in the 1963–69 period because of outmigration resulting from increasing saturation of population. But in the less favored areas with low and erratic rainfall, but where land is still available, population grew by nearly 14 percent per year in the 1963–69 period because of in-migration (Lynam, 1978, chap. 2).

A major theme of Livingstone's 1986 book, *Rural Development, Employment and Incomes in Kenya*, is that the country's rural economy has had a "sponge effect" because of its capacity "to absorb increased population as a result of the interaction between divisibility of holdings, intensification of farm output through yield increases, higher valued cash crops and livestock activities, and the development of non-farm activities" (p. xix). With continued rapid population growth, however, this sponge will become saturated, leading to rapid expansion of landless poor, of overspill into marginal areas, and increased pressure on occupations in the marginal informal sector.

Projections by Shah and Willekens (1978) that trace Kenya's population and labor force growth until 2024 are particularly useful in pointing up the implications for the labor force absorption problem because they include a breakdown between rural and urban location. According to their most likely estimates of changes in mortality and fertility between 1969 and 1999, Kenya's population would increase sixfold from 11 million in 1969 to 64 million in 2024. They project, on the basis of fairly optimistic assumptions about the growth of nonfarm employment, that the rural labor force would decline from 87 percent of the total in 1969 to 65 percent in 2024. Despite that decline in agriculture's share and a *sixteenfold* increase in the active population in urban areas, the rural labor force would increase fourfold over that 55-year period (Shah and Willekens, 1978, pp. 29, 38).

It was not until the 1970s that Kenya's arid or semi-arid lands (ASALs) began to receive serious attention. This coincided with an emphasis on

[29] The paragraphs that follow draw heavily on the report by Emery Roe and David Lewis on the workshop, "Development in the Arid and Semi-Arid Areas of Kenya," convened at Cornell University in January 1988 (International Workshop, 1988).

poverty-oriented, basic needs strategies. Not surprisingly, "the ASAL districts have been treated as development hardship cases in need of special attention"; a number of donor-funded programs in those areas have reinforced the notion that such areas should "be helped to catch up with the rest of the country" (International Workshop, 1988, p. 1). When ASAL development is approached solely in terms of incremental projects, they are at a disadvantage relative to development opportunities in current high potential areas with superior economic infrastructure and the population density required to achieve economies of scale in construction and maintenance of infrastructure.[30] Given the prospect of having to generate productive employment for a rural workforce likely to increase fourfold over a 55-year period ending in 2024, it would seem that Kenya can ill afford *not* to make determined efforts to develop the undeveloped potential of some portion of the 80 percent of its land area represented by the ASALs. Moreover, because of the increase in population densities in Kenya's high-potential areas over the past half century, many of those areas are probably reaching a point of diminishing returns on further investments whereas the production possibilities in the ASALs have not yet been tapped to any significant degree. A significant but politically difficult exception concerns some of the large mixed farms in high-potential areas where land is being underutilized.

Clearly, fostering development of Kenya's semi-arid and arid zones poses an extremely difficult challenge. The ASALs are highly diverse, and the constraints and opportunities for various food crops and types of livestock and for improving the conservation or provision of water differ enormously from area to area. Experience with water-conserving technologies in ASAL areas of other countries indicates that there is considerable scope for substantial increases in productivity in utilizing the resource potential of Kenya's arid and, especially, its semi-arid lands. There is also evidence

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[30] In the Kenyan context, Livingstone (1986, p. 190) quotes with approval Tidrick's view that "the production and employment potential of marginal areas appears to be very modest" and adds his own view that "it would be desirable actually to reverse some of the migration which has already taken place were that feasible." Concerning the general issue of research and development priorities for marginal and fragile environments, Farrington (1988) notes the divergence of views between a 1986 paper by Mellor and a 1985 article by Chambers and Ghildyal. Mellor argues that food aid from the United States and the Economic Community provides an opportunity to reduce population pressures in such areas and suggests that their populations should be induced to move to better-endowed areas where the potential returns to agricultural research are high. Chambers and Ghildyal, however, "question Mellor's basic premise that research in well-endowed areas can in practice be managed to generate in the short- or medium-term adequate labour absorption capacity to make a significant impact on populations in resource-poor areas" (Farrington, 1988, p. 270).

of a slow but cumulative learning process in Kenya. It is now recognized, for example, that the increasingly complex nature of production activities in the ASALs makes it difficult for conventional single-focus programs to be effective. The report of the International Workshop (1988, p. 8) notes:

> Improved animal production requires veterinary services, favorable prices, and market outlets; water supply development often leads to rising livestock numbers, environmental stress, and resource degradation; sedentarization sets in train a series of environmental consequences, infrastructural needs, and production ramifications.

The report's observation that there is need for "an unusually broad planning perspective" is illustrated by the importance attached to improvements in transport and communication infrastructure, better management and utilization of the natural resource base, and the need to strengthen and develop local institutions.

Particular emphasis is placed on the government's decentralization initiative. To be successful, District Development Committees must strike a balance between tapping local knowledge and drawing upon professional expertise and research. There is also a need for better coordination of district level staff to facilitate linkages between animal production, veterinary services, agriculture, and forestry. A recently initiated program to promote Rural Trade and Production Centers also has an important role in guiding the establishment of rural infrastructure important for farm and nonfarm activities.

Learning from past experience is also evident in the reduced emphasis on investments in irrigation facilities. An important sessional paper, "Economic Management for Renewed Growth" (Kenya, 1986), reports that irrigation "construction costs and subsidies have averaged 25 percent of MALD's [Ministry of Agriculture and Livestock] budget for the past four years." Kenya's most ambitious irrigation project, the Bura Irrigation Settlement Project on the Tana River, "has turned out to be a failure in virtually every sense" (Lele and Meyers, 1986, p. V-1). The 1977 estimate of an investment cost of $13,700 per hectare was one of the highest in the world, but costs escalated to $33,000 per hectare and the project has had a negative rate of return. The 1986 sessional paper states further that: "Large-scale pumped irrigation has not been a cost-effective way to provide jobs and incomes for rural families" (Kenya, 1986, pp. 82–83). Noting that the gravity-fed Mwea-Tebere Scheme is the only large scheme that has had a positive rate of return, the paper states that some gravity-fed schemes will be investigated but priority will be given to the consolidation and rehabilitation of existing schemes. The budget for small-scale irrigation, however, is to be raised gradually from £213,000 in 1985/86 to £2 million by 2000. This will include drainage of water-logged lands, valley bottom development, and reclamation through flood control as well as irrigation.

Higher priority will be given to livestock, crop production, and measures to improve soil and moisture conservation and utilization, including agroforestry. Improvements in soil and water management, including not only terracing but techniques such as trash lines, infiltration zones, and windbreaks, are showing promise in reducing erosion and enabling farmers to make better use of available moisture. Research on drought-resistant crops and varieties also has an important contribution to make, although there are many unanswered questions. For example, a relatively high priority has been given to continuing efforts to improve short-season, drought-evading varieties of Katumani maize. But many specialists argue cogently that priority should be given to sorghum which has greater capacity to withstand periods of drought. Success in sorghum breeding for human consumption, however, will require simultaneous attention to questions of consumer acceptance and ways of adapting maize grinders for producing sorghum flour.

Livestock, Animal Draft Power, and Cotton. In Kenya, as elsewhere in sub-Saharan Africa, livestock projects have encountered major problems related to attempts to introduce technologies ill-suited to Africa's physical and cultural environment. In addition, animal-powered and other simple, inexpensive items of farm equipment were neglected because of the erroneous expectation that African farmers could shift directly from the hand hoe and machete to tractors. A major study of mechanization in sub-Saharan Africa clarified the ways in which the profitability of investments in animal draft power is determined by the evolution of farming systems (Pingali et al., 1987). One important finding is that in general animal draft power "becomes attractive only when farming intensities increase, usually as a consequence of population growth [because] in the shift to annual cultivation [from forest- and bush-fallow systems] the demand for labor per unit of output increases faster than the supply of labor" (Pingali et al., 1987, p. 25). Little attention is given, however, to the potential contribution of improvements in tillage techniques and equipment in improving moisture utilization in semi-arid regions and in easing labor bottlenecks. Some research has been carried out in Kenya to identify implements better suited to conserving moisture than the ubiquitous moldboard plow, but there has been little involvement of farmers in such R&D. It is noteworthy, however, that the sessional paper (Kenya, 1986, p. 82) does give attention to efforts to promote wider and more effective use of animal-powered equipment.

Cotton is not a major crop in Kenya, but there is almost certainly a significant potential for enlarged production of cotton in Kenya's semi-arid regions. In 1970/71 cotton production in Kenya was a mere 5,000 tons compared to 76,000 tons in Tanzania (Lofchie, 1989, Table 4.5). Because cotton is grown in high-risk environments in sub-Saharan Africa, Lele, van de Walle, and Gbetibouo (1989, p. 57) argue that a "vertically integrated" research-production-marketing system is a necessity. It seems clear that the disastrous decline in cotton production in Tanzania between 1970 and 1985 at an annual rate of 3.6 percent was a consequence of institutional instability as well as weak incentives. Over that same period cotton production in Kenya expanded at an annual rate of 4.2 percent; but that was from a very low base and in spite of mediocre performance by Kenya's Cotton Lint and Seed Marketing Board. The very impressive growth of cotton production in Cameroon at an annual rate of 8.2 percent between 1970 and 1985 seems to demonstrate the advantages in the case of cotton of efficient vertical integration of research and extension, distribution of seed and other inputs, processing, and marketing (Lele, van de Walle, and Gbetibouo, 1989, pp. 10, 44, 57–63). It is uncertain, however, whether policymakers in Kenya (or Tanzania) would be willing to accept the institutional formula that seems to have been effective in fostering cotton production in francophone countries.

Rural Social Services and "Harambee" Self-Help Activities: Health. Rural health programs in Kenya have not received as much international attention as Tanzania's health program, although Kenya has also given substantial attention to preventive and promotive health services and efforts to achieve broader coverage of the population.[31] A priority concern in Kenya has been programs that "aim at reducing maternal, prenatal, infant and child mortality and morbidity and include the promotion of family planning" (Kenya, 1979, p. 136).

Statistics on infant mortality in developing countries are only rough estimates, but it appears that the differential between Kenya and Tanzania has widened. Thus it is estimated that between 1955–60 and 1980–85, Kenya's infant mortality rate declined from 130 to 80 per thousand whereas the decline in Tanzania was from 150 to 115 per thousand. And the increase in the differential for child mortality is believed to have widened somewhat more. Kenya's estimated child mortality (one-year olds dying before age five) during the 1980–85 period was 52 per thousand, only about half the level in 1955–60, but in Tanzania the estimate of 87 per thousand was about 70 percent as high as estimated child mortality in 1955–60 (Ross et al., 1988, pp. 228, 230).

Population Growth and Family Planning. Substantial reductions in

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[31] Estimates for Kenya for the years 1968–70 and 1979–82 indicate that around 6 percent of the total government budget was allocated to health, about the same percentage as reported for Tanzania for the 1973–77 period (Ross et al., 1988, pp. 45–46). Lele and Meyers (1987, pp. 36–37) report, however, that Tanzania's budget crisis has led to significant reductions in the health budget since the late 1970s; in recent years the share of government expenditure allocated to health in Kenya has been higher than in Tanzania and the inflation-adjusted level of expenditure has probably been considerably higher.

infant and child mortality have been the major reasons why Kenya's crude death rate had already declined to 21 per thousand in 1965 and registered a further decline to 13 per thousand in 1985. Those declines were associated with an increase in the crude birth rate from 51 to 54 per thousand, thus implying that Kenya's rate of natural increase rose from 3.0 to 4.1 percent between 1965 and 1985 (World Bank, 1987, p. 256). Despite an early start, family planning efforts in Kenya have not yet been sufficiently effective to forestall an increase in "natural fertility" as a result of a reduction in the average interval between births. That reduction in birth intervals has resulted from a weakening of traditional practices such as postpartum sexual abstinence and prolonged and intensive breast-feeding (which significantly reduces the chance of conception). Recent survey data for Kenya indicate an increase in current use of contraceptives among exposed women between 1977–78 and 1984 from 9 to 19 percent; but the increase in the percentage of women using the more reliable modern contraceptives was only from 6 to 9 percent (Frank, 1987, p. 185).

It remains to be seen whether Kenya and other countries in sub-Saharan Africa can be expected to follow the pattern seen in Asia (and much of Latin America) in which remarkably rapid declines in mortality rates have been followed after a lag by similarly rapid reductions in fertility. Some demographers, most notably the Caldwells (1988), argue that the persistence of high fertility in tropical Africa cannot be explained simply by differences in their stage of economic development. They argue that as a result of prevailing family structures and attitudes toward fertility that are essentially religious in nature, there is much less demand in Africa for limiting family size. In their view, even in those cases in which contraceptive use has increased, this has mainly been as a substitute for traditional means of birth spacing. The Caldwells also argue that political leadership for family planning has been weak in sub-Saharan Africa, partly because of doubt whether the population would heed appeals to have fewer children but also because local politicians are also likely to believe "that low and controlled fertility is un-African and strikes at the roots of the religion and culture" (Caldwell and Caldwell, 1988, p. 25).

On the basis of many years of research related to population policy and family planning programs in developing countries, especially in Asia, Ronald Freedman (1987, p. 59) offers cogent reasons why an "aura of gloom" based on "the perceived barrier of cultural constraints" may lead to an unduly negative view of prospects for the spread of family planning. To be sure, there are "deeply rooted and persistent elements of culture that may inhibit family planning programs" and such "elements must be understood to determine what is possible, difficult, or impossible in a particular country at a specific time." But he suggests (p. 59) that we should remember that

> [i]n every case, without exception I believe, a deep gloom pervaded the early stages with regard to the prospects for development and demographic change in those LDCs that have since had fertility declines.

Freedman notes that even for Japan many observers projected a dismal future. The prevalent view in Taiwan as late as 1961 was that its peasant farmers were deeply traditional and that "Chinese culture made it unlikely that a family planning program would be effective, except with a few educated and 'Westernized' people" (Freedman, 1987, p. 59).[32] In spite of the initial skepticism and concern that initiating a family planning program would entail high political risks, a small pilot study followed by a large experimental program were carried out. The information obtained made it possible "to adapt the family planning program to the cultural reality by selecting the appropriate target group for program action"; the implementation of a well-conceived, step-by-step program, resulted in the proportion of illiterate women in Taiwan practicing family planning increasing from 19 to 78 percent in just 11 years (Freedman, 1987, pp. 61, 69).

There is now considerable evidence to support the view that the demand for family planning is influenced strongly by the relationship between the potential supply of *surviving* children and parents' demand for children. That is, as child survival prospects improve, a threshold is reached when parents become aware of a "problem" of unwanted children because the potential supply exceeds the desired number. (See, for example, Easterlin, Wongboonsin, and Ahmed, 1988.) Thus the effectiveness of action to further improve the survival prospects for infants and small children, coupled with continuing efforts to increase parental awareness of the implications of the improved survival prospects, will undoubtedly be key factors influencing the success of future efforts to slow population growth in Kenya and elsewhere in sub-Saharan Africa.

Education. The principal contrast between educational development in Kenya and Tanzania is the much greater expansion of secondary education in Kenya with the mushrooming of locally financed *harambee* (self-help) schools. Both countries have devoted an extremely large proportion of government expenditure to education. Since the late 1970s Kenya's share has been rising to over 20 percent of total expenditure whereas the share in Tanzania has declined from about 17 percent in 1972 to 13 or 14 percent in the early 1980s (Lele and Meyers, 1987, pp. 36–37). Kenya's much greater expansion of secondary education—an increase in enrollment from 4 to 19

[32] In 1949 the author published his first journal article, a gloomy prognosis on Japan's "Race Between Food and Population," that illustrates Freedman's observation. I also encountered the skepticism prevailing in Taiwan in the late 1950s in a meeting with a delegation of parliamentarians visiting Stanford University.

percent of the relevant age group between 1965 and 1984 compared to an increase from 3 to 4 percent in Tanzania—reflects fundamental differences in educational philosophy and contrasting attitudes toward equality and economic success.

It is noteworthy that in 1977 when there were 477 government-aided secondary schools with a total enrollment of 128,000, there were 1,042 unaided secondary schools with an enrollment of about 192 thousand (Kenya, 1979, p. 157). The dividing line between "aided" and "unaided" is not fixed. The aided category includes maintained schools which receive full government support and assisted schools that receive only partial support, for example, salaries for teachers.

In many instances, harambee schools were part of a strategy of "preemptive expansion" in which schools built with local finance "were filled with students, and were presented for government support" (Court, 1986, p. 287). Court suggests further that as private demand for education has been encouraged and accommodated, "a political rationale displaced the economic one" (Court, 1984, pp. 183–84). This reflects Court's view, which is similar to the philosophy of manpower planning in Tanzania, that decisions on educational expansion should be guided by "a deliberate policy designed to meet urgent manpower needs" (Court, 1986, pp. 287–88).

THE POLITICAL ECONOMY OF AGRICULTURAL AND RURAL DEVELOPMENT IN KENYA AND TANZANIA

This concluding section focuses on why Kenya and Tanzania chose such different approaches to development. It is clear that over the past quarter-century the record of rural development in Kenya is much more impressive than that in Tanzania. The issue raised by Migot-Adholla (1984, p. 227) in questioning whether "the political assumptions on which it is based may prove unrealistic" needs to be addressed because of emerging trends that give rise to questions about long-term political stability in Kenya.

After examining the contrasting attitudes toward equality in the two countries and the influence of class interests on their agricultural policies, some recent developments that bear on future prospects are discussed. Interactions between agricultural development and rural nonfarm activities, the liberalization of food marketing, and rural population pressure are singled out for attention.

Contrasting Attitudes Toward Equality and Economic Success

It was asserted in the introduction that the contrasting outcomes in Kenya and Tanzania were influenced strongly by certain "strategic notions" that shaped the actions of their policymakers. Among those strategic notions, which are less sweeping than an ideology and more concrete than a "mindset" but akin to both, the very different strategic notions held by policymakers in Tanzania and Kenya with respect to equality and economic success appear to go far toward explaining their contrasting development strategies. In his comparative analysis of education in Tanzania and Kenya, Court (1984, p. 269) emphasizes that Tanzania's educational philosophy was influenced greatly by its "ideological response to inequality"; and that its official socialist ideology "denies the need for rewards and status differences, and has, as its goal, the achievement of widespread equality of material conditions." Some time prior to the Arusha Declaration of 1967 Nyerere had declared,

> We have to work towards a position where each person realizes that his rights in society—above the basic needs of every human being—must come second to the overriding need of human dignity for all; and we have to establish the kind of social organization which reduces personal temptations above that level to a minimum (Court, 1984, p. 270).

A 1976 statement by Nyerere makes it clear that he views inequality as being determined in a zero-sum game:

> At any one time there is a certain amount of wealth produced in the world. If one group of people grab an unfair share of it, there is less for the others . . . . The objective must be the eradication of poverty, and the establishment of a minimum standard of living for all people. This will involve its converse, a ceiling on wealth for individuals and nations (Latham, 1988, p. i).

Court, Latham, Pratt and many others commend that commitment to equality. Court (1984, p. 269) notes with approval that "Tanzania is unique in Africa as a country where the elite has reduced and limited its own rewards and opportunities for personal profit." (See also Pratt, 1976, pp. 247–48.)

The contrast between the two countries is striking. Court (1984, p. 278) notes that in Tanzania "the leadership code prevents the excesses of conspicuous consumption and conflict of interest that characterize their counterparts in Kenya." In Kenya the political leaders and policymakers were not much concerned about being accused of conspicuous consumption or conflict of interest. A famous 1965 *Sessional Paper on the Application of African Socialism in Kenya* states,

> To make the economy as a whole grow as fast as possible, development money should be invested where it will yield the largest increase in new output. This approach will clearly favour the development of areas having abundant natural resources, good land, and rainfall, transport and power facilities, and people receptive to and active in development (Migot-Adholla, 1984, p. 211).

The desire to unleash the talent and energy of "people receptive to and active in development" was given force in an official government policy that explicitly permitted civil servants to engage in private business activities. This important and controversial policy and its origins have been summed up in these terms:

> The acute scarcity of top-level African managers encouraged the government to permit civil servants to engage in private enterprise. This has been widely criticized as inducing inefficiency and corruption in the public sector which is undoubtedly the case. However, it has perhaps prevented the emergence of a bureaucratic bourgeoisie with a class interest in inhibiting enterprise (Collier and Lal, 1986, p. 168).

That concise statement poses several issues. First, did Kenya's pragmatic policy of encouraging civil servants to engage in business foster economic growth in spite of its effects in inducing corruption and neglect of official responsibilities due to moonlighting? Second, has the resulting inequality jeopardized political stability? And finally, does economic growth benefit significantly from policies that prevent "the emergence of a bureaucratic bourgeoisie with a class interest in inhibiting enterprise"?

The experience of the past two decades seems to indicate that there was greater justification for Kenya's pragmatic policy of permitting civil servants to "straddle" the public and private sectors, in spite of the exacerbation of income inequality, than might have been anticipated. This is in part because of the positive benefits that seem to have been realized from unleashing the energies and entrepreneurial capacity of civil servants, a group that included such a large fraction of the country's population with higher education and managerial experience. Furthermore, this proved to be a practical way of ensuring that Asian entrepreneurs, who were often "silent partners" in firms established by African civil servants or politicians, continued to make significant contributions to the development process.

Although education was confined to a very small group at Independence, the combination of official policy and vigorous self-help action by local communities have brought about a rapid expansion of opportunities for education in Kenya. Kenya's implicit "ideology of education" represents a response to the problems of social inequality; the

> educational system must be part of a process that justifies the legitimacy of those differential rewards . . . . In Kenya it is assumed that inequalities are an inevitable and necessary accompaniment to rapid economic growth; and, in consequence, educational policy has emphasized the meritocratic nature of selection procedures, and the ethos of equal opportunity, so as to secure the

acquiescence of the nonselected (Court, 1984, pp. 283, 290).[33]

Another well-informed observer offers a very different interpretation of the problem of social inequality. He declares that in Kenya,

> the masses have seen the elite as people to be emulated, not chastised. In fact, farmers, rather than resenting the elite, have tended to look on them as examples of what can be attained. Much of the wealth has been amassed in a single generation, and there is hope that one's children can do as well (Miller, 1984, p. 149).

But how can one account for the fact that Kenya's elite pursued policies that were generally favorable to the agricultural sector? And why were policies adopted in Tanzania that affected the farm population adversely in spite of official rhetoric stressing the critical importance of agricultural and rural development?

Class Interests and Agricultural Development

In October 1982 President Nyerere reiterated his views concerning the fundamental importance of agriculture:

> Because of the importance of agriculture in our development, one would expect that agriculture and the needs of the agricultural producers would be the beginning, and the central reference point, of all our economic planning. Instead, we have treated agriculture as if it was something peripheral, or just another activity in the country . . . . We must now stop this neglect of agriculture. We must now give it the central place in all our development planning. For agriculture is indeed the foundation of all our progress (Collier, Radwan, and Wangwe, 1986, p. 127).

Perhaps the clearest evidence of Tanzania's "neglect of agriculture" is provided by the ratios of prices received by its producers to the international prices of coffee and other export products. Between 1972 and 1986, the Tanzanian smallholder price for coffee, cotton, and tobacco averaged less

[33] Court (1986, pp. 287–88) has doubts about "academic qualifications as the touchstone of educational merit" because "examination results are a relatively poor predictor of employment performance." However, Knight and Sabot (1987), in a study of earnings and productivity of urban workers in Kenya and Tanzania, offer persuasive support for their conclusion that differences in the quality of presecondary and secondary education and in the quantity of secondary education have been an important factor in the growing divergence of productivity and wages. It seems likely that the higher level of cognitive skill that they found among Kenya's urban labor, a difference that would be equally or more in evidence among the rural population, would be even more significant in contributing to the greater dynamism of Kenya's rural economy.

than half of the world price. Coffee prices for Kenya's smallholders averaged about 90 percent of the world price; the ratio for smallholder tea prices was lower but still averaged .67. Those ratios are based on nominal exchange rates (Lele, 1988, p. 169). The contrast is even sharper when the ratios are computed on the basis of "real effective exchange rates" to allow for the differential effect of the rates of inflation in the countries that are their principal trading partners.[33] Particularly during the 1980–85 period, when the ratio of coffee prices for Tanzanian producers to international prices was about .5 based on the nominal exchange rate, the ratios were on the order of .25 using real effective exchange rates. But in Kenya the price ratios were equally favorable throughout 1972–86 when computed with nominal or real effective exchange rates because of the extent to which currency overvaluation was avoided.

Certainly a part of the explanation for the discrepancy between rhetoric and outcome in the treatment of agriculture in Tanzania is the emergence of a bureaucratic class in Tanzania that has been the dominant element in the domestic elite and which has had a class interest hostile to private enterprise. To be sure, the hostility toward farmers was supposedly confined to a "kulak" class seen as the main threat to rural equality. However, there seems to have been a negative attitude toward peasant farmers generally. Among some leaders that attitude was reinforced by Marxist views concerning the inefficiency of small-scale farmers because of an exaggerated view of economies of scale in agriculture together with the tendency to equate economic efficiency with modernity.

Why did the new elite that emerged in Kenya represent a capitalist class rather than the sort of bureaucratic class that has so typically been the dominant elite in sub-Saharan Africa? Holmquist (1984, p. 174) has rightly emphasized that "Colonial rule was bureaucratic rule." Stein (1985, p. 114) adds with specific reference to Tanzania: "In agriculture, the activities of the colonial authorities set a pattern of state-peasant relations that was later emulated by the Government after independence." The colonial experience also ensured that members of the emerging African elite were most conscious of "the bad side of capitalism and it is no coincidence that Africans by and large see it as the main source of evil" (Hyden, 1980, p. 220).

It has been further stressed that the role of a "rural petty bourgeoisie" in Tanzania "was limited due to the very poverty of the country itself and a colonial policy that had stifled the development of capitalist social relations" (Holmquist, 1984, p. 176). The number of registered local manufacturing companies in Tanzania rose from only 137 in 1962 to a peak of

[33] The calculations were based on current trade shares as weights, but it is reported that the results are similar when constant weights (1970–72 averages) are used (Lele, 1988, p. 168).

238 in 1966 but declined to 131 in 1967 after nationalization and the new leadership code which made it illegal for government officials to own businesses. Stein (1985, p. 114) also points out that "Most private capital was in the hands of the largely Asian commercial or merchant class." Historical animosities between Africans and Asians insured that the influence of the latter would be limited in the post-Independence period. It is also noteworthy that the 1963 Cabinet in Tanganyika included only one businessman, and he was also a schoolmaster; in Kenya more than a third of the Cabinet consisted of businessmen (Stein, 1985, p. 117).[34]

Ndulu (1986) has emphasized the general tendency in sub-Saharan Africa for the public sector to grow very rapidly and to expand into the productive and commercial spheres. In Tanzania, the share of parastatals in wage employment in Tanzania increased from 5 percent in the early 1960s to 33 percent in 1972–73; the increase over that period in the share of the public sector in employment in Kenya was only from 16 to 18 percent (Hawkins, 1986, p. 298). Ndulu (1986, pp. 86, 87) has stressed that this "expansion and diversification of activities of the public sector have seriously overtaxed management capacities [and] overcentralization of the state and the expansion of its activities have diluted its ability to focus on priority areas."

Those adverse effects on overall economic progress do not alter the fact that a bureaucratic ruling class has had a vested interest in enlarging its control over agriculture and other economic sectors. Without the option of pursuing entrepreneurial rewards in the private sector, the only path open to the ambitious was to move into more important government or parastatal jobs with greater rewards in power and perquisites.[35] A comparative

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[34] Coulson (1984, p. 108) also emphasizes that the origins of TANU's leaders encouraged the belief that the welfare of the nation depended on the state rather than private enterprise to generate wealth and prosperity:

> The nationalist politicians (whose roots were in the cooperatives, the unions, among the civil servants and clerks of the African Association or who joined the Party as paid officials on leaving school) were ambitious but their instinct was not to invest to expand their capital and control of markets; . . . when faced with problems they instinctively turned to the state for help.

[35] Stein (1985, p. 121) offers this cynical view:

> In Tanzania, the state, under the guise of socialism, has claimed to be the agent of modernization and development. This has justified intervention in economic affairs for surplus extraction. The origins of the prominence of the ideology of socialism is probably genuinely connected to the desire of some members of the bureaucratic class to adopt poli-

analysis of self-help activities in Tanzania and Kenya by Holmquist notes that "socialist direction in Tanzania has primarily meant the expansion of both bureaucratic power and numbers in rural areas" and that "Tanzania's bureaucrats have been more successful in muzzling local initiative than their counterparts in Kenya" (Holmquist, 1984, pp. 187, 184).[36]

According to Holmquist, Kenya's bureaucrats have had only limited success in stifling self-help activities because of the more powerful position of the country's rural petty bourgeoisie. He points out "that the independent and free-wheeling character of the rural petty bourgeoisie in Kenya prompted President Kenyatta to encourage and almost mandate their role in self-help" (Holmquist, 1984, p. 177). Moreover, harambee activities have been institutionalized. The 1986 Sessional Paper *Economic Management for Renewed Growth* not only emphasizes that they "have made a major contribution to development," but goes on to propose "a desirable innovation: the use of harambee to support the recurrent costs of projects" (Kenya, 1986, p. 29).

Kenya's elite has had a strong self-interest in a prosperous agricultural economy because many of its members acquired large farms in the former European Highlands or developed and enlarged farms with profitable export crops in Central Province and to some extent in other regions as well. Thus Leonard (1984, p. 165) has emphasized that, unlike the Tanzanian ruling class, Kenya's elite

> have strong direct agricultural interests. Although they also used an overvalued foreign exchange rate to subsidize urban consumer imports and to finance industrial expansion, their own stake in the farm sector made their extraction of surplus much more modest.

(At the time that Leonard was writing, Kenya was acting to reduce its overvaluation whereas the situation was continuing to deteriorate in Tanzania.)

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cies more in consonance with the interests of direct producers. However, the adoption of the slogans of socialism on a wider basis is linked to the proclivity of any ruling class that does not want to rule by naked coercion to legitimize its activities.

[36] Holmquist (1984, p. 193) goes on to emphasize that after 1967 self-help activity fell off, noting that

> [t]his experience should once again give pause to those who believe that a large and modern bureaucracy is necessarily an instrument for peasant welfare. It may be the very opposite—a structure for surplus appropriation that takes more than it gives, while tending to preclude peasant participation, local organization, mass skill development, and the use of local resources and technology.

Other writers have also singled out Kenya and the Ivory Coast as being exceptional among the countries of sub-Saharan Africa in the extent to which their elite have had interests and an understanding of agriculture that has encouraged them to pursue policies relatively favorable to the agricultural sector. Bates (1989) has stressed the significance of this aspect of the political economy of Kenya's post-Independence history as it relates to the political power of those with a direct interest in cash crop production and the creation of institutions and the choice of economic policies. Thus, as Bates emphasizes in his concluding chapter, the country came to Independence under a government that favored accumulation rather than the redistribution of wealth and had a keen appreciation of the special importance of export agriculture in that process.

Recent Developments and Future Prospects

Kenyatta was much less inclined than Nyerere to get directly involved in the policymaking process of the Ministries responsible for economic policy and agricultural development. Bates (1989) suggests that emphasis on development-oriented policies may have weakened since President Daniel arap Moi succeeded Kenyatta in 1978. There are indications that "highly personalized bureaucratic politics" and patron-client ties have become more important.[37]

The situation in Tanzania is still in flux. The impact of the policy reforms that began in 1984 appears to have been positive, although favorable weather conditions have helped. Given the past commitment to a highly interventionist role, the extent to which agricultural markets have been liberalized is surprising. Skepticism has also been expressed about the prospects for significant policy reform in Tanzania, noting particularly a "lack of consensus at the top levels of leadership which has caused the relative paralysis of the policy sphere" (Hanak, 1986, p. 87).

It has been noted that "the growth of parallel markets and corruption has, in effect, given impetus to some adjustments, eroding state control over markets" (Ndulu, 1986, p. 84). A member of the Economics Department of the University of Dar es Salaam, Ndulu observes that it may not be all that difficult to reduce or eliminate food subsidies "when consumers are already purchasing more than 70 percent of their supplies from parallel markets at prices often more than double the official rate..." (p. 85). In more general terms he argues (1986, p. 85):

[37] Throughout most of the period since Independence, "highly personalized bureaucratic politics" have probably been more in evidence in Tanzania than Kenya. (The quoted phrase is from Nelson, 1984, p. 994.) Tanzania's Party has had a more important role than government ministries in making policy decisions—or failing to make crucial decisions.

> A more favorable attitude toward economic reform in sub-Saharan Africa has resulted not only from external economic pressures, but also from perceptions of the growing costs of ineffective state control over the economy and of the detrimental effects of economic deterioration on various interest groups.

The emergence of groups of policy analysts in Tanzania at the University and in government is an encouraging development. They are examining Tanzania's economic problems seriously, systematically, with professional competence, and careful attention to evidence on the consequences of alternative policies. This offers promise that the policy process may be moving away from what has been referred to as "platform policymaking," that is for a political leader to announce a new policy on the spur of the moment without careful analysis of its feasibility or consequences.

Lessons from China. In a valuable analysis of China's post-1978 reforms, Dwight Perkins (1988, p. 602) emphasizes the importance of a learning process as the country's leaders had come to "share a common perception of the nature of the problem":

> Central planning led to a misallocation of both investment goods and of current inputs and outputs. Excessive control from the center, together with restrictions on the use of material incentives of any kind, dampened the energies and enthusiasm of workers, managers, and farmers alike.

China's reform process has made much greater progress in the countryside than in the urban industrial centers. "Most people in developing countries are suspicious of market forces," Perkins (1988, p. 625–26) observes, "and in China this suspicion is reinforced by Marxist ideology that views market forces as chaotic." As he further observes, "A decline in bureaucratic control means a decline in bureaucrats' power. If the new system makes bureaucratic skills built up over decades of practice obsolete, those being made obsolete will fight reform for that reason as well." It is because reforms that expand the role of the market have effects on power and vested interests, that one of Ndulu's conclusions is so well taken. He stresses that in addition to the need for better training of those responsible for economic management in Africa, "efforts should be directed at encouraging policy analyses and research in independent research institutions, including universities" (Ndulu, 1986, p. 93).

Hyden (1983, p. 212) has also called attention to lessons for sub-Saharan Africa to be derived from China's experience:

> The 'modernization' program that is now being pursued [in China] is a belated recognition of the fact that in order to complete the basis for future socialism, the application of capitalist methods are necessary.

The fundamental advantage of capitalist methods is that they replace bureaucratic controls with the impersonal forces of the market. For those productive and commercial activities in which competition provides a spur to efficiency and curbs the inclination of private firms to exploit a monopoly or monopsony position by extracting excessive profits, exchange techniques of social control have a major advantage over the hierarchical techniques that are of necessity used by government agencies or parastatals. Perkins (1988, p. 603) breathes some life into that distinction:

> Enterprise managers in the bureaucratic system are simply lower-level bureaucrats fighting with each other and with higher level bureaucrats to get a larger share of the goods and other forms of support that are in the higher-level bureaucrats' hands to give out. In a true market system, on the other hand, enterprise managers must succeed or fail on the basis of their ability to lower their own production costs or to market more of what they produce at a higher price.

Interactions Between Agricultural Development and Rural Nonfarm Activities. Many factors account for the greater dynamism of Kenya's economy during the past two decades as compared to Tanzania. The lesser hold of the government bureaucracy over the economy has certainly been a key factor. One consequence already emphasized is that agricultural producers have faced much more attractive incentives in terms of the prices received for their products and the attractiveness of the array of goods and services available for purchase. (See Lele, 1988, pp. 167–72; Sharpley, 1981; and Ellis, 1983.)

A recent analysis of small-scale manufacturing in Kenya by Kilby (1987), makes it clear that rural enterprises (defined as nonfarm firms in rural areas and in towns of less than 20,000) and the microenterprises of the urban informal sector have been the most dynamic elements in Kenya's economic growth. This supports other evidence that positive interactions between agricultural development—especially the growth of farm cash income—and growth of nonfarm firms fueled that growth process. Hyden (1986, p. 69) goes so far as to suggest:

> The differences between Kenya and Tanzania's economic performances since independence are less likely to be the result of their ideological approaches to development than the ability of the former to develop creative linkages between town and countryside.

The strength of the entrepreneurial rural petty bourgeoisie in Kenya was important in obtaining a policy environment that favored those "creative linkages between town and countryside." And Kilby (1987, p. 28) notes that there have been improvements in that policy environment since about 1980. The government's official support for small enterprises has taken on substance. Police harassment and the use of bulldozers to clear areas of concentration of microenterprises and local taxation of such firms have been reduced. Reform of the foreign trade regime has improved both the availability and the price of raw materials and spare parts required by the informal sector and rural enterprises (Kilby, 1987, pp. 28–29).

Liberalization of Food Marketing. Marketing boards such as Kenya's NCPB and Tanzania's NMC face inherently difficult problems. Without the discipline of competition, such organizations must rely on bureaucratic regulations to limit graft and corruption with an inevitable increase in administrative costs and loss of flexibility. The reduced flexibility compared to a marketing system of competing traders and independent cooperatives is especially great because of the need to obtain a marketable surplus from several million dispersed small farmers and to meet the fluctuating food needs of people in rural areas as well as provisioning urban centers. The alternatives, such as Tanzania's policy of relying on large-scale state farms for wheat and to some extent for rice to supply the grain marketing board, have a very high opportunity cost because the requirements for capital and foreign exchange are so large.

It is for such reasons that many economists have stressed the potential advantages of liberalizing food marketing in Kenya, Tanzania, and many other African countries. (See especially, Jones, 1972, ch. 10, and Jones, 1987.) There is, however, strong resistance to such action. In East Africa, concern that with liberalization Asian traders would dominate the food trade as before Independence is a frequently expressed reason for continuing the statutory monopoly of a grain marketing board. There is also a reluctance to dismantle an organization which in the case of Kenya's NCPB has been able to do a very creditable job of distributing food to alleviate famine conditions during the periodic droughts that are an increasingly serious problem with the rapid growth of population in the country's semi-arid regions. Perhaps most important of all, however, is the fact that marketing boards provide a good means of distributing political patronage.

One reason for speculating that Kenya's economic performance with respect to agricultural and rural development may deteriorate while the performance of Tanzania's rural economy may improve is the possibility that Tanzania may be more successful in liberalizing food marketing. The failure of Tanzania's NMC has been so obvious that there is greater recognition of the need for reforms. In addition, Bates argues that in Kenya inefficiency and patronage may become more serious obstacles to economic growth. He emphasizes that strong regional forces are impelling the government toward policies of economic redistribution and in particular shifting resources from Central Province to the West. A new farm credit program was used in the 1979/80 food crisis for patronage in western Kenya. Funds were channeled through the Cooperative Bank of Kenya to local cooperatives that fought hard to be given a monopoly of grain purchasing in their localities, justified by the usual argument that farmers would not be able to evade repaying their loans if forced to market through the local cooperative.[38]

At the time of the serious 1984/85 drought many new local purchasing centers were set up in rural areas. The rationale was to assure farmers easier access to buyers, but the patronage value of the new centers to local politicians is apparent in the way that job creation and costs at the centers were inflated. That practice was fought by the professionals in the NCPB, but it is significant that purchasing centers in Nandi, Moi's home district, were successful in resisting the pressure to cut their costs. The political sensitivity of grain marketing is underscored in the observation by Bates (1989) that "the Moi government, like any government in Kenya, had therefore abundantly to provision, and to be seen to be provisioning, the capital city."

Rural Population Pressure. Growing population pressure on land resources will unquestionably be a more serious problem in Kenya than in Tanzania. Kenya's population is projected to grow at a rate of 4.0 percent between 1985 and 2000 compared to a 3.5 percent rate for Tanzania. More important, there is much less good agricultural land available in Kenya. Growing population pressure in high-potential farming areas is already causing an influx into areas of marginal and erratic rainfall.

Slow progress is being made, as was noted earlier, in evolving better adapted and more productive technologies for Kenya's semi-arid regions that are being called upon to support a rapidly increasing population. But rainfall is so erratic in these areas that drought and the threat of famine will continue to be serious problems. Liberalization of food marketing is likely to increase hardship from serious droughts unless famine relief measures, such as rural works programs that can be quickly and productively expanded when crops fail, are devised that are feasible given the available capacity for planning and administering such programs.

It is not yet possible to be optimistic about the outlook for slowing population growth. In Tanzania, in spite of the considerable attention to rural health programs little attention has been given to family planning; it is estimated that as recently as 1984 only about 1 percent of married women of child-bearing age were practicing contraception. Kenya was the first country in sub-Saharan Africa to introduce an official family planning program, but progress has been slow. It is estimated that the percentage of married women of child-bearing age using contraception increased from 6 percent in 1970 to 17 percent in 1984; but that is still very low compared

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[38] The NCPB fought that demand, claiming that the coops were not competent to completely replace the Board and its licensed buying agents. The coops won at first, but the Board managed to get that decision reversed because of the slow performance of the coops in purchasing maize supplies that were urgently needed (Bates, 1989).

to levels realized in countries that have reduced their population growth rates significantly (World Bank, 1987, p. 256).

On the positive side is Kenya's established tradition of making effective use of competent policy research and policy analysis to provide guidance for policymakers. Sessional Paper No. 1 of 1986 is impressive as a government document that "takes a more fundamental and long-term approach than previous mid-term reviews," noting that "this opportunity must be seized now, before the pressure of population growth overwhelms the economy's capacity to produce and provide for its people" (Kenya, 1986, Preamble).

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