# AGRICULTURAL DEVELOPMENT IN KENYA SINCE 1967



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## ABSTRACT

The agricultural sector of Kenya's economy and the structure of its production units are briefly described. Also discussed are production patterns of the major agricultural commodities during recent years and development of smallholder tea and hybrid corn production. Changes in agricultural prices, production, and trade are compared. Some inferences are made relating to agricultural policies and the development of agricultural production.



**KEYWORDS**: Kenya; East Africa; Agricultural production; Agricultural policy; Agricultural trade; Agricultural development.



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## SUMMARY

Agriculture has developed in Kenya under the stable economic and political conditions the country has maintained since it became independent in 1963. Some 80 percent of the country's 14 million people are dependent on the agricultural economy. The high rate of population growth means that progress in agricultural development is important for continued national growth.

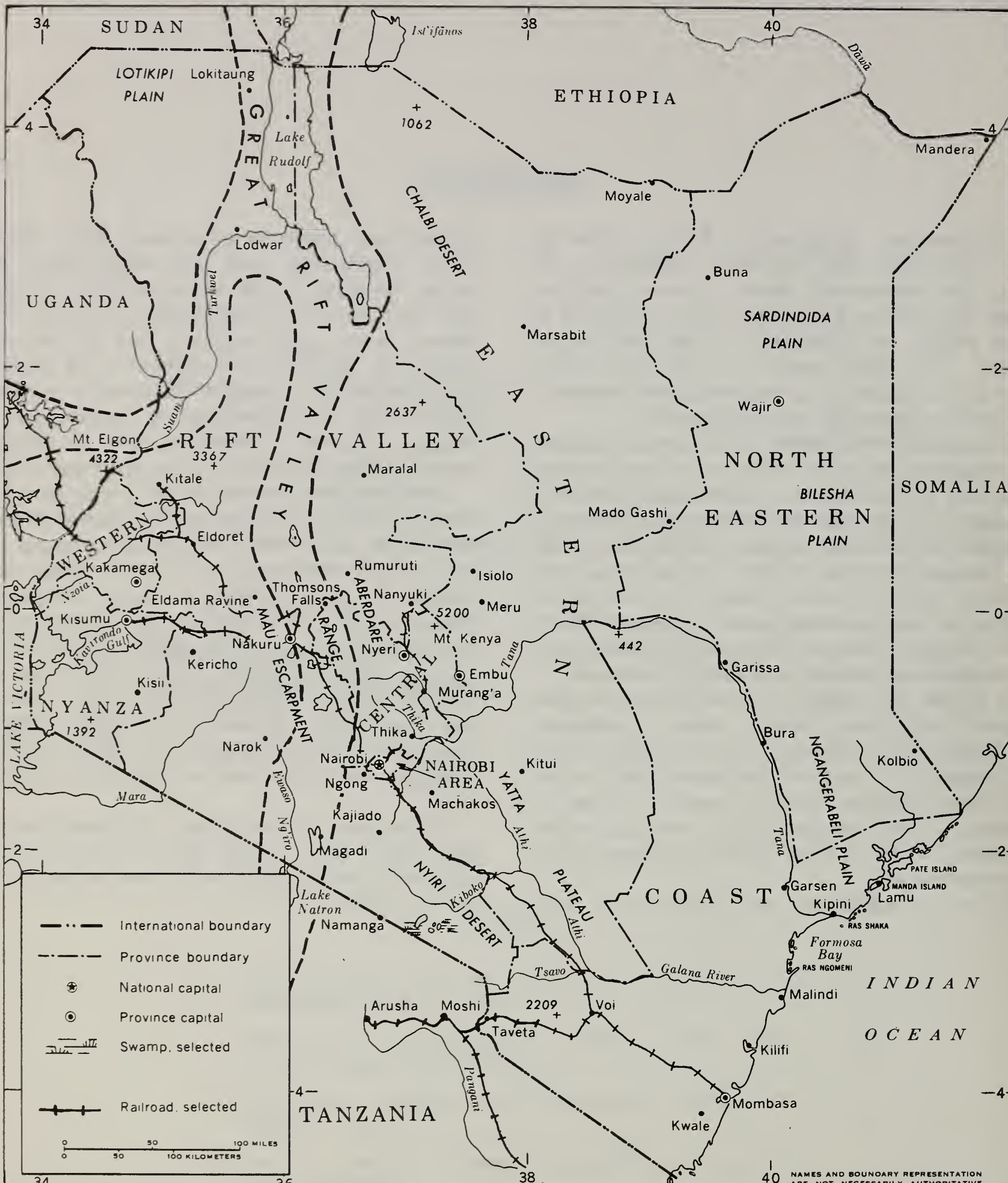
Agricultural development is difficult in Kenya, for it requires the transformation of people from subsistence agriculture into scientifically oriented agriculture. A high standard of farm management is required to make the needed contribution to the gross domestic product (GDP). Of the total land area of 57 million hectares, only 6.84 million are classified as high-potential agricultural land. Many of the Kenyan farmers are small-holders, with most farms being between 0.2 and 12 hectares.

The major agricultural commodities are coffee, tea, beef, milk, corn, sugar, wheat, pyrethrum, sisal, barley, rice, cashews, and pineapples. From 1967 through 1975, agricultural production, at constant prices, increased about 3.9 percent a year, on the average. But food production rose only about 2.5 percent, while the population increased about 3.3 percent a year.

Tea, rice, sugarcane, and pineapples have shown large production increases since 1967, but wheat production, and beef marketings to the major slaughter plants, have decreased. Growth in corn and pyrethrum production has been fair. In several cases, price increases and production can be related, but price movements do not explain all instances of increasing or decreasing production. Corn output has shown strong responses to price change, although rainfall is also an important factor in determining the size of the corn crop.

Public policy has restrained some agricultural prices. During 1967-75, corn and wheat prices rose more than did those of other major crops, except for sisal. The grain prices, however, had a delayed reaction to the international price increases that began in 1972. In Kenya, the big increases did not come until January 1975. While hybrid corn production has responded well to price increases, gains in wheat production will require more than price incentives. Research and other supporting programs will be necessary, as will a program of bringing new land into cultivation in large-scale units.

Agricultural imports have increased very rapidly since 1967, much faster than agricultural exports. Major imports have been sugar, fats and oils, and wheat.




# KENYA

Spot heights in meters

U.S. DEPARTMENT OF AGRICULTURE NEG. ERS 8922-72(9) ECONOMIC RESEARCH SERVICE

# AGRICULTURAL DEVELOPMENT IN KENYA SINCE 1967

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## THE ECONOMY

Kenya's economy has been guided by what may be called the pragmatic approach. That ideology has not served as a dominant criterion for actions to be taken has probably allowed the Government flexibility in its economic policy. External assistance and investments have been continually encouraged.

The economy of Kenya may be described as mixed in that investment, pricing, and other decisions are made by both the private and the public sectors. Kenya's economy has demonstrated remarkable stability since the country's independence in 1963. Adaptation and development of the infrastructure left by the colonial administration have been exceptionally successful.

It has been mainly through this stability that Kenya has been able to attract outside investment and continuing assistance and make them effective in the country's economic growth.

Kenya's economy is heavily reliant on external trade, and until recently, the inflow of investment and other funds has usually offset the negative trade balance.

From 1967 through 1973, the gross domestic product grew 10.3 percent a year in current prices and 6.6 percent in constant prices. In 1974, it rose 15.2 percent in current prices, but only 3.6 percent in constant (1964) prices. In 1975, the increase was again about 3.6 percent in constant prices. This depressed performance was partly due to the combination of inflation and recession in the economies of Kenya's trading partners.

Because of high import costs for petroleum and inflated costs for other imports, Kenya's balance-of-payments deficit became severe in 1974 and has continued. In July 1975, the International Monetary Fund (IMF) approved a new Extended Fund Facility resource of 67.2 million Special Drawing Rights for Kenya.

In October 1975, the Kenya shilling was devalued from 7.14 KSh's to the dollar to 8.16 KSh's to the dollar. An objective is that this should encourage renewed growth and development of agriculture, and inhibit uneconomic types of manufacturing and construction.

## THE AGRICULTURAL SECTOR

Agriculture plays a key role in Kenya's economic development. It presently generates about 30 percent of the GDP. It has made the country generally self-sufficient in food, although since 1971 the value of agricultural imports has grown very rapidly.

Agriculture provides employment or economic activity to a large proportion of the population, and it also generates a large percentage of the nation's exports. In 1973, 68 percent of the value of exports to countries outside East Africa came from the agricultural sector, and about 63 percent of total exports (including those to East Africa) were agricultural.

Agricultural product in the monetary sector during 1967-73 increased 9.8 percent a year in current prices—nearly the same as the growth rate for total GDP. But production in the monetary sector in 1973 was less than half—47 percent—of the estimated value of total agricultural product. The value of total agricultural product grew about 7.6 percent a year in current prices during 1967-73, and as a share of the GDP, it declined from about 35 to

30 percent. In 1974, agricultural production in current prices increased by 14 percent over 1973, but this was mainly because of high export prices for coffee, tea, and sisal.

While a decline in agriculture as a proportion of the GDP has been a common pattern as economies develop, growth in Kenyan agriculture probably did not reach its potential during the 1967-73 period. Agricultural exports did increase rapidly, at nearly 12 percent a year, but the value of agricultural imports increased much faster at about 32 percent a year. At the beginning of the period, agricultural imports were valued at only 4 percent of domestic agricultural product while at the end of period they were valued at nearly 10 percent of the agricultural product.

Capital formation in agriculture in 1967-73 grew at the same rate as agricultural product—7.6 percent a year—and at the end of the period it was equivalent to 8 percent of the value of agricultural product. In contrast, overall capital formation grew 16.3 percent a year, and at the end of the period, it averaged almost 25 percent of the GDP. In general, investment to modernize agriculture is likely to be more difficult than other investments, and it apparently has not received priority in Kenya. The proportion of total capital formation taking place in agriculture declined from 13.3 percent in 1967 to only 9.1 percent in 1973. From 1964 to 1973, the Government's annual fixed investment in agriculture reportedly declined from 28 to 14 percent of the total. Additional and appropriate investment in agriculture is probably called for, as such investment is likely to yield favorable returns.

The IMF has reported that manufacturing has been emphasized by the Kenyan Government, that agricultural investment has been neglected, and that some agricultural commodity prices to producers have been kept low. Although the Government has been exhorting people to "go back to the land," the economic reality has not favored agriculture. The investment in manufacturing and construction has led to increased imports of capital and intermediate goods.

### Employment in Agriculture

Kenya's population, which is increasing at a very rapid rate of 3.3 percent a year, was estimated to be nearly 14 million in 1975. In 1970, about 80 percent of the population was rural.[1] Of the total population, 40 percent was economically active, and of the economically active population, about 80 percent was in agriculture. Some 32 percent of the wage employment is in agriculture.

With the growth and change in the economy, the rate of migration from rural to urban areas has increased. This is especially true for young men who may not be able to secure land or who are not remuneratively employed, but who have gained some education. Employment on farms may not seem very attractive or offer hope for betterment. Although employment opportunities in urban areas are limited, the potential benefits from employment are very high. Part of this is due to the much greater provision of modern public services to workers in urban areas and to subsidies on food in urban areas.

As a result of the migration from rural areas, labor shortages are experienced on farms while at the same time many people in urban areas are unemployed. Labor shortages have been reported in the production of coffee, cotton, sugar, and tea, especially for tea picking.

It is difficult to bring people from the subsistence agricultural sector into the modern agricultural sector, where employment can be more rewarding. Kenya's neighbor, Tanzania, now has a policy for agricultural development based on a belief that if there is to be rapid progress, people have to be settled in villages. Then, it is said, extension education can work effectively. Uganda, another neighbor, is also taking more direct steps to mobilize unemployed people. One aspect involves an attempt to get better utilization of land through land allocation by Government.

The Kenyan Government has been making land available to many, and has recently indicated that future investments will be more concerned with employment-generating benefits than previously. The achievement of a satisfactory employment rate is a most important condition for continued national stability and economic progress.

In early 1975, a number of steps were taken to make agriculture more attractive. Agricultural producer prices, as well as retail food prices, were increased considerably in January. Then in May, minimum wages for farmworkers were increased by 100 percent. Wage levels for other groups were also increased but by lesser amounts. Wage levels of Government employees, for example, were increased by about 5 percent.

### Land

Agricultural production in Kenya is highly dependent on limited areas of good land and is subject to high variability in rainfall.

Of Kenya's approximately 57 million hectares of land area, only 12 percent, or about 6.84 million hectares, are classed as high-potential agricultural land. This land receives 857.5 millimeters or more of rainfall in a year, on average. Medium-potential land makes up 5.5 percent, or about 3.14 million

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[1] *Production Yearbook 1974,* Food and Agriculture Organization of the United Nations, Rome.

hectares. The 74 percent classed as low-potential agricultural land has an annual rainfall of 612.5 millimeters or less. The remaining 8.5 percent of the land area is reserved for public use. A number of irrigation schemes have been developed, but only a small area is irrigated so far. The area in irrigated rice, about 7,000 hectares, has not changed much in recent years.

### Resource Conservation

About 4 percent of Kenya's total land area is in forests and woodlands. As in many other developing countries, the trees are being cut faster than they are being grown. This is particularly serious in relatively dry areas and in hilly areas. Water and soil losses are very substantial, and they increase where the ecology is harmed by removal of vegetation. Forest or tree management is very difficult in areas populated by poor people, however, as the wood resource is important to those with little cash or other resources.

Because of harmful denudation of some areas by charcoal cutters, a ban on exports of charcoal is a recurring issue in Kenya.

The Government is undertaking its second forestry plantation project, which will provide for the establishment and further development of some 160,000 hectares. Loans from the World Bank will cover about 36 percent of total project costs.

### Agricultural Holdings

With the phasing out of the large European farms, agricultural production units in Kenya are predominately small, generally ranging between 0.2 and 12 hectares. Typically, large farms are owned jointly by groups of African families, while some are owned by individual Africans. About 200 European farmers reportedly own some 325,000 hectares.[2]

A large proportion of the hybrid corn is now grown on small-scale farms. Small holders are also predominant in the production of pyrethrum. About 100,000 families are involved, with many pyrethrum plots being 1/8 to 1/2 hectare in size.[3] In tea, small-holder production has increased rapidly, with small holders accounting for 59 percent of total tea acreage in 1974. During the last 3 years, many large coffee estates have been transferred from foreign to African ownership. In 1974, coffee estates covered 27,000 hectares, while coffee on small holdings was up to 54,000 hectares, accounting for 67 percent of the total coffee area.[4]

Some 511,480 hectares of former European-owned farms were resettled between 1963 and 1974. In 1971, the subdivision of farms to individuals was discontinued. Since then, farms have been kept intact and managed by personnel from the Settlement Fund Trustees on behalf of the group membership of each farm.

In a few districts, farming continues to be carried out predominantly on large-scale holdings. These farms run from 20 to 20,000 hectares. In 1973, there were 3,165 large farms on 2,657,700 hectares. Of this, 1,810,700 hectares were uncultivated meadows and pastureland.

The World Bank has agreed to provide assistance to group farms in the large-farm sector. Over a 4-year period, $15 million in loans will be provided to increase the marketed output of wheat, corn, milk, and coffee by $10 million. Some 90 large-scale mixed farms in the Rift Valley Province and 36 coffee estates in the Central Province will be assisted. The number of group farm owners affected is estimated at 13,000. Credit, management, and technical assistance is to be made available to these farmers by the Kenyan Government.

### Agricultural Production

Total agricultural output has been increasing in Kenya, but in recent years food production has tended to increase at a rate slower than the population growth rate. From 1967 to 1975, total agricultural production, in constant prices, increased an average of 3.9 percent a year. Crop production rose an average of 5.3 percent annually, but food production gained only 2.5 percent.[5] In 1975, total agricultural production was virtually unchanged from 1974.

Tea, rice, sugarcane, and pineapples had large production increases during 1967-74. Sugar production increased by about 9.3 percent a year from 1967 through 1975. Consumption during 1967-73 had been increasing at nearly 11 percent per year, and reached nearly 220,000 metric tons in 1974. But in 1975, a decline occurred when retail sugar prices were increased by 46 percent or to about 22 cents a pound. In September 1975, imported sugar was reported to cost about 25 cents a pound. In recent years, sugar has been the highest valued import. For 1976, total consumption is estimated at 210,000 metric tons and imports may be 40,000 metric tons.

Over the 1967-75 period, growth was fair for corn and pyrethrum production, with renewed growth for these items, as well as for sisal, evident since 1970. Coffee production showed good growth, but it has been slowing down since 1970. However, new plantings are no longer prohibited and renewed production increases can be expected, particularly if prices hold at generally favorable lev-

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[2]The Ministry of Lands, Kenya, 1975

[3]U.S. Agricultural Attache, Nairobi.

[4]*Coffee Production in Africa*, U.S. Dept. of Agr., Foreign Agricultural Service, FAS M-266, Sept. 1975.

[5]ERS indices.

els. The Coffee Board has announced no plans to expand the overall coffee area.

During 1967-71, baconer hog production showed good growth, wheat and cotton had fair growth rates, but beef production showed only a very slight gain. Since 1971, however, cotton and wheat production, and beef deliveries to the Kenya Meat Commission, have declined.

### Production and price patterns

In several cases, price increases for Kenya's agricultural products appear to be directly related to production increases. However, it is also apparent that price movements do not explain all instances of increasing or decreasing production.

Coffee, which has received consistent and good price increases, especially since 1972 has also had generally good growth in production. During 1971-75, the same was true for corn, but during 1967-70, when prices were lowered, production also decreased. Of course, weather, particularly rainfall patterns, has also influenced variations in corn production.

Tea showed consistently good production gains during 1967-74, but not until 1974 did the price rise above the 1967 level. The tea development program, discussed below, is considered to have had a large impact on production.

Milk prices rose rapidly from 1969 to 1972. Deliveries of milk to the Kenya Cooperative Creameries showed good increases, 7.3 percent a year, from 1970 to 1973, but have since declined. The producer price, although increased in 1976, no longer appears attractive, and particularly so for the feeding of grains or concentrates.

Sisal had large price increases from 1972 through 1974. Production showed renewed growth from 1970 to 1974, but both production and prices were down in 1975. Production was down primarily because of overharvesting in 1974 to take advantage of the very high world prices.

Beef cattle have received consistent price boosts since 1967, and since 1970 deliveries to the Kenya Meat Commission have declined. However, it is estimated that total beef production in the country has been increasing. Private butchers, with lower operating costs and greater cattle-buying flexibility, have been outbidding the Meat Commission for slaughter stock. Prices for lower grade beef increased slowly during 1967-71, and then rose rapidly through 1975.

The modest growth in pyrethrum production during 1967-75 was accompanied by slight price increases. Cotton has had persistent and increasing price boosts, but has had stagnation or losses in production since 1969.

During 1967-75, corn and wheat prices showed greater variation and increased more than did the prices for other major crops, except for sisal, which experienced very severe price fluctuations. Both grains experienced price lows in 1970. The Wheat Board did not increase prices much until after 1972. Corn prices, on the other hand, were increased slightly from 1970 to 1972. In contrast to large price declines for wheat and corn during 1967-70, large increases occurred during 1972-75, but these were delayed compared to world market price increases. In Kenya, the big increases did not come until January 1975, when wheat prices were increased by 50.6 percent and corn prices by 63.8 percent. Compared with 1970 lows, these were increases of 146 percent for wheat and 163 percent for corn.

Large variations in corn prices are probably in considerable part a reflection of the large changes in domestic (and since 1972, also in international) supply and demand for this crop.

During poor crops years (mostly associated with low rainfall), the supply of corn held by the Maize and Produce Board becomes the major and most reliable food source in the country. During such years, deliveries to the Board can be expected to be low. A relatively high buying and selling price by the Board during such years helps it to manage the tight corn supplies, and hopefully avoid importing.

In a good crop year, the demand for corn from the Board for food use is down and deliveries to the Board are relatively large. A relatively low price by the Board during a good year assists in equating supply and demand. This simple case would not hold during years when a good export market exists, as was the case in 1972 through 1975.

Corn imports were required in 1971, and the necessity to increase prices became very clear. The Government showed great faith in the responsiveness of the many corn producers to price increases. The accepted and official answer to the corn shortage of 1971 was to increase prices. Special campaigns to increase inputs and services to assist producers were not considered necessary. But corn production has benefited from public programs such as hybrid seed breeding, agronomy, and fertilizer experiments and demonstrations. And a reasonably stable, reliable, and accessible market has been provided through the Maize and Produce Board.

Wheat is best suited to large-scale production, so this crop has been greatly affected by the subdivision of former large European farms. Wheat continues to be the major crop produced on large farms, where 121,000 hectares were in wheat in 1970. On small farms and settlement schemes, only 5,500 hectares were in wheat, in contrast to the 995,700 hectares in corn. Until very recently, the large farm area in wheat had been declining from the high of 139,800 hectares in 1968. Wheat imports have become costly and wheat production has not clearly shown the upward trend seen in corn production. Former Masai pastoral grazing areas are being planted to wheat in the Rift Valley Province.

### Development of corn production

Kenya began its corn-breeding and extension program in 1958 with the help of external assistance. U.S. aid began in 1963.[6] Experiments were conducted to determine the effects of various cultural and management practices on yields. In 1963, hybrid seed was first offered to farmers and about 160 hectares were planted, almost all by large-scale farmers.

By 1966, a hybrid was developed which yielded about 176 bushels per hectare (71.4 bushels per acre) in tests, which compared with yields of 31 bushels per hectare before the program began. In 1967, new seed was available for all who wanted it and over 100,000 hectares were planted to hybrids—about 46,000 hectares were on small holdings. The hectarage planted to hybrid corn has increased rapidly, particularly among small-scale farmers.

By 1973, about 318,000 hectares were planted to hybrids, with small-scale farms accounting for 83 percent. During 1967-73, small holder acreage of hybrid corn increased about 40 percent a year, while total area under hybrids increased 29 percent annually. Large-scale farm acreage in hybrid corn increased by 9.8 percent. In 1975, about 400,000 hectares were in hybrids and this was estimated by the Ministry of Agriculture as being about 33 percent of the relatively static total planted corn area.

A field extension program by the Ministry of Agriculture and a private distribution system for seed made important contributions to the corn development program. Demonstration plots were established on small holdings by cooperating farmers. The Food and Agriculture Organization of the United Nations assisted with these plots.

### Tea

Development of tea production in Kenya is an example of successful agricultural development in Africa. The virgin forest land of Kenya is well-suited to tea, and a high-quality product is produced. Tea was first planted in Kenya in 1903. Large-scale, commercial production began about 1925. After World War II, estate plantings expanded rapidly. These estates were part of the "scheduled" areas of commercial agriculture reserved for Europeans.

[6] *Agricultural Research, U.S. Dept. of Agr., Agr. Res. Serv.* Nov. 1967.

In 1952, small-holder tea production was started in Nyeri. In 1955, when the colonial Government initiated its land reform program, a systematic consolidation and registration of holdings was undertaken. Land on which small-holders grow tea as owner-occupiers is land consolidated under this program. An attempt to have African farmers grow tea on pooled land reportedly failed.

The share of tea acreage held by small holders rose from about 6 percent in 1960 to 19 percent in 1964, when small-holder tea development was placed under the newly formed Kenya Tea Development Authority. That organization has overall responsibility for tea nurseries, planting supervision, buying and marketing of the green leaf, and processing. High-level Government support is given, and external financial assistance has been obtained. Tea collection and factory access roads have been built. Through tea, many small holders became commercial agricultural producers for the first time.

By 1974, 59 percent of the total tea area of 58,574 hectares was on small-holder farms. Small-holder tea growers numbered some 90,130. Yields on these farms are considerably lower than those on estates, and although land of the required soil type and rainfall is reported to be strictly limited, further expansion is being officially encouraged and planned by the Kenya Tea Development Authority.

In 1973, 51,472 metric tons of tea were exported at an f.o.b. value of about $47.5 million. Tea has been the second highest valued export, next to coffee, for many years, and in 1975 a new export record of 52,627 metric tons valued at $55.7 million was reached.

## Fertilizer

Kenya's fertilizer imports rose an average of 11.3 percent a year during 1967-73. Expenditures on fertilizer, increasing an average of 17 percent annually, rose more rapidly than did usage. While fertilizer expenditures did not increase much faster than the value of agricultural production in the monetary sector, they rose faster than did the value of total agricultural production.

Kenya used an estimated 140,000 metric tons of fertilizer in the 1975 season, which was considerably below the trend line, probably because of high prices. In 1972, the Government subsidy on fertilizer was reduced from a 1971 level of about $2.8 million—an amount equivalent to about 30 percent of the c.i.f. value of 1971 fertilizer imports.

Fertilizer services and prices have not been favorable to small farmers, and more competition among suppliers has been recommended. The Government has announced that from August 1975, prices would be lowered between 25 and 40 percent. Consumption on farms is expected to increase to 180,000 metric tons in 1976.

An agreement has been signed by the Government to have a fertilizer plant built in Mombasa by a U.S. firm at a cost of $54 million. Its annual planned capacity will reportedly be 240,000 metric tons.

## AGRICULTURAL POLICY

With a few exceptions, the Kenyan Government participates indirectly in the country's agricultural production. Through its statutory boards, the Government is involved to various degrees in the marketing and processing of many agricultural commodities. The Ministry of Agriculture is directly involved in the marketing of livestock from the drier rangelands to markets in the more developed areas. Another case of a more direct involvement of Government is in irrigation development. The National Irrigation Board, a statutory body answerable to the Ministry of Agriculture, manages the main irrigation schemes.

Kenyan agriculture has required a transition from the colonial pattern. This process of Africanizing the agricultural base has been difficult, largely because the experience of most African farmers was entirely within subsistence agriculture. Government officials recognized that the agricultural sector was clearly in no positon to develop and fulfill its required role in an expanding economy without public and private assistance from outside the sector, and from foreign aid. The Government has recently stated its intention to renew its priority for agriculture, including an increase in investments to agriculture.

In Kenya, food crop production for the domestic market has not generally been encouraged by the probability of a large return. One reason is that food production for sale was not a big item in the market economy of Kenya until the mid-1960's, when the rapid expansion of the urban population began. As mentioned above, the Government now has a policy of maintaining a large reserve of corn. A reserve will provide a basis for increased stability in food and feed supplies, and should help greatly to avoid the need to import corn. A corn reserve also enables the Government to prevent famine with more certainty than previously. Some parts of the country are subject to drought and food shortages nearly every year.

Food commodity pricing has presented some questions for policymakers. During excellent corn growing years of the late 1960's, surplus corn was produced, but world corn prices were relatively low and it was necessary for the Government to subsidize exports. In subsequent years, producer prices were reduced. However, during one or two poor corn-growing years that followed, it became necessary to import corn.

Corn prices were increased in 1971, and thereafter, given satisfactory weather, the country was able to produce enough corn for domestic needs, as well as some for export in the relatively high-priced export markets of 1973-75. In the case of wheat, Kenya has been a relatively high-cost producer. In 1971, imported wheat delivered to Nairobi was lower in price than the domestic wheat. A case was made for not encouraging "high-cost" domestic wheat production at that time. In the manufacturing sector, however, high import duties were placed on competing imports. Strong urban political forces were a factor in the Government's downward pressure on food prices.

## TRADE AND DEVELOPMENT

Kenya's economy is highly dependent on a high rate of external trade for good productivity and growth. Imports in 1974 totaled well over KSh's 7 billion, or about $1.0 billion. Exports and re-exports amounted to more than KSh's 4 billion, or about $560 million. Coffee continued to be the major export, worth over $100 million. Other high valued exports included tea, sisal, pyrethrum, hides and skins, and meat and meat preparations. Kenya's main trading partners include Great Britain, West Germany, Japan, and the United States.

Agricultural exports have increased faster than the total value of agricultural product. During 1967-73, the value of agricultural exports increased an average of 11.8 percent a year, in contrast to the 7.6-percent gain for total agricultural production and the 9.8-percent increase for production in the monetary sector. At the beginning of the period, agricultural exports were valued at 71 percent of total exports, compared with about 68 percent at the end of this period. Total exports rose an average of 12.2 percent a year during the period.

The value of agricultural imports grew at an average rate of nearly 32 percent a year, increasing from about 5 percent of total imports at the beginning of the period to nearly 10 percent at the end of the period. The ratio of total imports to total exports did not change much. Agricultural imports increased much faster than total imports, which grew 13.8 percent a year. Agricultural imports were valued at only 15 percent of agricultural exports in 1967-69, in contrast to 29 percent during 1971-73. This gap in the agricultural sector could likely be filled to a large extent by an increase in production to reduce agricultural imports and/or increase exports. Increased agricultural production should not have been limited by a constraint in demand, including foreign demand.

A large part of the rapid increase in agricultural imports occurred after 1971. Major imports have been sugar, fats and oils, and wheat. In 1973, sugar accounted for 31 percent of the agricultural import value, fats and oils for 21 percent, and wheat for 17 percent. Projects are underway to expand sugar and wheat production in the next few years.

Kenya's economy is highly dependent on strong foreign markets for its products. When Kenya's trading partners are in recession and/or suffer from inflation, it is virtually guaranteed that these conditions will also be extended to Kenya.

A recent specific commodity example of an international trading problem is meat. World trade in meat, particularly beef, was severely contracted in 1974 and 1975. The EEC banned beef imports. This had negative effects on Kenya's commercial beef industry.

Kenya is one of the 41 most seriously affected nations, as classified by the United Nations. According to economic indicators reported by the American Embassy, Nairobi, import and export price indexes show an 18.5-percent deterioration in the terms of trade, between 1973 and 1974, dropping from an index of 92 in 1973 to 75 in 1974 (1964=100). Given the difficult economic situation, the Government has taken more control of the economy to limit the negative balances of payments and trade which occurred in 1974 and 1975. But this means some of the stimulus to growth from market incentives is reduced. It puts a greater burden on the Government to provide conditions for growth, and therefore probably leads to an increased overall role of Government. The need for economic defensive action thus may be a major contributing factor leading to more Government direction and less market orientation in the Kenya economy.

Table 1--Gross product, trade, and capital formation, total and agricultural, Kenya, 1967-73

| Item | Unit | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 1/ |
|---|---|---|---|---|---|---|---|---|
| Gross domestic product, monetary and nonmonetary, at factor cost | Mil. KĿ. 2/ | 405.8 | 442.5 | 476.3 | 521.6 | 575.0 | 652.2 | 731.1 |
| Gross product in agriculture | do. | 141.4 | 145.9 | 153.3 | 164.3 | 170.1 | 200.9 | 218.9 |
| Nonmonetary | do. | 85.2 | 85.1 | 89.0 | 92.0 | 97.3 | 112.0 | 116.7 |
| Monetary | do. | 56.2 | 60.8 | 64.3 | 72.3 | 72.8 | 88.9 | 102.2 |
| Agricultural product as a percentage of GDP | Percent | 34.8 | 33.0 | 32.2 | 31.5 | 29.6 | 30.8 | 29.9 |
| Imports from outside East Africa | Mil. KĿ. 2/ | 106.6 | 114.8 | 116.9 | 142.0 | 184.1 | 177.6 | 205.8 |
| Agricultural | do. | 5.8 | 6.4 | 5.9 | 8.2 | 15.7 | 17.5 | 21.5 |
| Exports to outside East Africa | do. | 53.5 | 57.8 | 63.3 | 71.6 | 73.2 | 90.6 | 122.6 |
| Agricultural | do. | 37.9 | 41.8 | 44.5 | 49.5 | 47.2 | 63.2 | 83.8 |
| Capital formation: | | | | | | | | |
| All sectors | do. | 82.2 | 89.5 | 93.7 | 112.7 | 144.2 | 160.4 | 181.5 |
| In agriculture | do. | 10.9 | 12.0 | 12.2 | 14.3 | 14.0 | 16.5 | 16.4 |
| As a percentage of total | Percent | 13.3 | 11.9 | 13.0 | 12.6 | 9.7 | 10.3 | 9.1 |

1/ Provisional.
2/ 1 KĿ. = 20 KShs. 1 KĿ. = US$2.80 prior to Oct. 27, 1975, and $2.42 as of Oct. 27, 1975.

Source: Statistical Abstract, 1974, Kenya.

Table 2--Estimated area planted to selected crops, Kenya, selected years, 1967-1974/75

| Crop | Large farms | | | | | | | Small farms, 1/ 1969/70 | Large and small farms, 1970 | Total area estimates, 1974/75 |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | | | |
| | 1,000 hectares | | | | | | | | | |
| Corn | 58 | 52 | 56 | 59 | 66 | 77 | 76 | 996 | 1,055 | 1,040 |
| Wheat | 133 | 140 | 137 | 121 | 93 | 89 | 84 | 6 | 127 | 105 |
| Sugarcane | 22 | 27 | 26 | 26 | 28 | 27 | 27 | | | 51 |
| Coffee | 29 | 28 | 28 | 30 | 28 | 29 | 29 | 63 | 92 | 81 |
| Tea | 21 | 21 | 22 | 24 | 24 | 24 | 26 | 20 | 43 | 59 |
| Sisal | 103 | 84 | 86 | 85 | 82 | 68 | 74 | | 85 | 74 |
| Pyrethrum | 5 | 5 | 3 | 3 | 4 | 4 | 3 | 15 | 19 | 40 |
| Beans | | | | | | | | 323 | | |
| Bananas | | | | | | | | 75 | | |
| Cotton | | | | | | | | 66 | | 71 |
| English potatoes | | | | | | | | 38 | | |
| Sweetpotatoes | | | | | | | | 23 | | |
| Cashew nuts | | | | | | | | 34 | | |
| Sorghum | | | | | | | | 141 | | |
| Peas | | | | | | | | 141 | | |
| Millet | | | | | | | | 94 | | |
| Cassava | | | | | | | | 77 | | |
| Barley | | | | | | | | | | 32 |
| Rice | | | | | | | | | | 7 |

1/ Small farms and settlement schemes. The following districts are not included: Nakuru, Laikipia, Uasin Gishu, Trans Nzoia, Baringo, West Poket, Lamu, and Tana River. The first four have predominately large farms, and crop areas are included under large farms.

Source: Statistical Abstract, 1974, Kenya; U.S. agricultural attache, Nairobi; and FAO Production Yearbook, 1974.

Table 3--Production of major agricultural commodities, Kenya, 1967-75

| Commodity | Unit | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 1/ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Thousands | | | | |
| Coffee, clean | Metric tons | 39 | 48 | 54 | 60 | 60 | 62 | 71 | 70 | 66 |
| Tea | do. | 23 | 30 | 36 | 41 | 36 | 53 | 57 | 53 | 57 |
| Beef 2/ | Head | 216 | 184 | 185 | 198 | 210 | 198 | 154 | 159 | 75 |
| Milk 3/ | Metric tons | | | | 238 | 226 | 277 | 289 | 258 | 260 |
| Corn 4/ | do. | 249 | 353 | 280 | 206 | 257 | 373 | 352 | 365 | 467 |
| Sugar, raw | do. | 64 | 103 | 125 | 133 | 127 | 94 | 150 | 175 | 172 |
| Wheat | do. | 162 | 216 | 242 | 222 | 206 | 164 | 150 | 156 | 158 |
| Pyrethrum flowers | do. | 10 | 11 | 7 | 6 | 10 | 14 | 11 | 14 | 15 |
| Sisal, dried | do. | 52 | 49 | 50 | 44 | 45 | 41 | 58 | 86 | 44 |
| Barley | do. | 7 | 8 | 11 | 16 | 18 | 25 | 31 | 34 | 32 |
| Rice, paddy | do. | 16 | 19 | 23 | 29 | 32 | 34 | 36 | 33 | 32 |
| Cashews, in shell | do. | 12 | 12 | 18 | 14 | 15 | 21 | 10 | 21 | 16 |
| Pineapples | do. | 30 | 35 | 35 | 35 | 44 | 37 | 48 | 44 | 73 |
| Hogs, baconers 5/ | Head | 33 | 41 | 41 | 50 | 43 | 39 | 34 | 35 | 40 |
| Seed cotton | Metric tons | 13 | 14 | 17 | 14 | 17 | 17 | 15 | 15 | 15 |

1/ Preliminary.
2/ To Kenya Meat Commission only.
3/ To Kenya Cooperative Creameries only.
4/ Commercial marketings only.
5/ To Uplands bacon factory only.

Source: Statistical Abstract, 1974, Kenya, and U.S. agricultural attache, Nairobi.

Table 4--Producer prices, selected agricultural commodities, Kenya, 1967-76

| Commodity | Unit | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 1/ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | KShs 2/ | | | | |
| Corn | 100 kg. | 35.26 | 30.80 | 27.55 | 27.50 | 33.33 | 38.89 | 38.89 | 44.44 | 72.22 | 72.22 |
| Wheat | do. | 56.78 | 56.26 | 54.51 | 45.10 | 50.61 | 50.61 | 57.26 | 77.77 | 111.11 | 111.11 |
| Beef (cold dressed weight) | | | | | | | | | | | |
| Choice | Kg. | 3.23 | 3.08 | 3.41 | 3.49 | 4.06 | 4.43 | 4.77 | 5.30 | 5.85 | |
| Fair average quality | do. | 3.01 | 2.86 | 3.30 | 3.32 | 3.76 | 4.08 | 4.42 | 5.00 | 5.50 | |
| Standard | do. | 2.66 | 2.53 | 2.75 | 2.73 | 2.85 | 3.02 | 3.46 | 4.20 | 4.85 | 4.85 |
| Commercial | do. | 2.31 | 2.31 | 2.40 | 2.38 | 2.47 | 2.63 | 3.00 | 3.70 | 4.25 | 4.25 |
| Milk | Liter | 0.57 | 0.59 | 0.52 | 0.53 | 0.69 | 0.77 | 0.77 | 0.77 | 0.825 | 0.935 |
| Sugarcane | | | | | | | | | | | |
| Coast Province | 100 kg. | | | | | 4.525 | 5.00 | 5.00 | 6.00 | 9.00 | 10.00 |
| Other areas | do. | | | | | 4.525 | 5.20 | 5.20 | 6.20 | 9.20 | 10.50 |
| Coffee, clean | do. | 583 | 640 | 630 | 748 | 636 | 779 | 910 | 950 | | |
| Tea | do. | 783 | 585 | 619 | 674 | 650 | 601 | 593 | 886 | | |
| Pyrethrum extract | do. | 39,684 | 34,440 | 32,519 | 31,025 | 35,700 | 39,618 | 38,721 | 40,500 | | |
| Sisal | do. | 107.80 | 92.60 | 90.02 | 78.09 | 67.78 | 90.37 | 242.93 | 394.00 | | |
| Hogs, baconers | Kg. | 4.05 | 4.41 | 4.04 | 3.55 | 3.70 | 4.18 | 4.26 | 5.25 | | |
| Seed cotton, Grade I | 100 kg. | 95.00 | 98.00 | 97.52 | 99.18 | 104.77 | 115.46 | 121.55 | 156.00 | 200.00 | 250.00 |

1/ Preliminary.
2/ US$1 = KShs 7.14 prior to Oct. 27, 1975. US$1 = KShs 8.25 as of Oct. 27, 1975.

Source: Statistical Abstract, 1974, Kenya, and U.S. agricultural attache, Nairobi.

Table 5--Average retail prices of selected agricultural products included in the cost of living index, Nairobi, 1967-76

| Product | Unit | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 1/ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | KShs 2/ | | | | | |
| Bread, white | 1/2 kg. loaf | 0.83 | 0.83 | 0.83 | 0.85 | 0.85 | 0.85 | 0.95 | 1.20 | 1.40 | 1.40 |
| Tea, Green Label | 1/2 kg. | 5.68 | 5.68 | 5.98 | 6.02 | 6.44 | 6.44 | 7.06 | 7.06 | 7.09 | 7.09 |
| Sugar | 1 kg. | 1.54 | 1.54 | 1.55 | 1.55 | 1.65 | 1.85 | 1.85 | 2.40 | 3.50 | 4.50 |
| Milk, green tetra pack | 1/2 liter | 0.70 | 0.70 | 0.70 | 0.75 | 0.75 | 0.80 | 0.80 | 0.80 | 0.82 | 0.95 |
| Beef, sirloin, high grade | 1 kg. | 9.87 | 9.87 | 10.82 | 11.76 | 11.00 | 11.00 | 12.28 | 12.60 | 13.33 | |
| Beef, low grade | do. | 4.56 | 4.56 | 5.27 | 5.34 | 5.87 | 5.84 | 6.40 | 6.40 | 7.40 | 7.40 |
| Mutton, leg, "A" grade | do. | 9.47 | 9.47 | 9.24 | 9.98 | 7.40 | 8.65 | 12.95 | 16.00 | 16.50 | 16.50 |
| Potatoes | do. | 0.44 | 0.73 | 0.50 | 0.50 | 0.59 | 0.50 | 0.85 | 1.06 | 1.18 | 1.18 |
| Eggs, grade I | Dozen | 4.36 | 4.10 | 4.16 | 4.16 | 4.13 | 4.00 | 4.24 | 5.30 | 5.86 | 5.86 |
| Cornmeal, grade I, unsifted | 1 kg. | 0.77 | 0.77 | 0.55 | 0.55 | 0.55 | 0.70 | 0.70 | 0.95 | 1.40 | 1.40 |
| Wheat flour | do. | 1.32 | 1.32 | 1.35 | 1.33 | 1.33 | 1.35 | 1.35 | 2.00 | 2.51 | 2.51 |
| Rice, local, grade II | do. | 2.20 | 1.76 | 1.75 | 1.65 | 1.65 | 1.65 | 1.65 | 2.20 | 2.81 | 2.81 |
| Beans, mixed | do. | 1.10 | 1.10 | 1.14 | 1.37 | 1.61 | 1.62 | 1.60 | 2.47 | 2.74 | 2.74 |

1/ Preliminary.
2/ US$1 = KShs 7.14 prior to Oct. 27, 1975. US$1 = KShs 8.25 after Oct. 27, 1975.

Source: Statistical Abstract, 1974, Kenya, and U.S. agricultural attache, Nairobi.

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