The Economic Development of UGANDA

Report of a Mission Organized by the International Bank for Reconstruction and Development
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REPORT OF A MISSION
ORGANIZED BY THE
International Bank for
Reconstruction and Development
AT THE REQUEST OF THE
GOVERNMENTS OF UGANDA
AND THE UNITED KINGDOM

This report, coming at a time when
Uganda, having achieved independence, is a
particularly opportune study of the econo-
mic challenges now facing the country and
its people. It is intended as a guideline to an
economic program, the details of which are
to be worked out by Uganda itself.

Uganda is a country very dependent on
two agricultural export crops: coffee and
cotton for its income. As such, it is highly
vulnerable to the vicissitudes of international
trade in these two commodities. To lessen
its dependence on these crops, the mission
therefore recommends a number of steps
needed to diversify the agricultural econ-
omy. These involve the encouragement of the pro-
duction and marketing of other crops, such
as tea, sugar, and tobacco, and the improve-
ment of the livestock herds and their intro-
duction into the market economy.
THE ECONOMIC DEVELOPMENT OF Uganda
Report of a Mission Organized by the
International Bank for Reconstruction and Development
at the Request of
the Government of Uganda
THE ECONOMIC DEVELOPMENT
OF UGANDA

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This is the report of an economic survey mission to Uganda which was organized by the International Bank for Reconstruction and Development at the request of the Governments of Uganda and of the United Kingdom, the protecting power. The task of the mission, as agreed by the two Governments and the Bank, was to present practical recommendations, with supporting analysis and suggestions as to specific actions to be taken, which could serve as the basis for a development program covering the period 1961/62-1965/66.

The mission consisted of nine members representing five different nationalities. Two members were provided from the staff of the Bank. The United Nations Educational, Scientific and Cultural Organization (UNESCO) assisted in recruiting the education specialist and the World Health Organization (WHO) the specialist in health problems.

After a briefing session in Washington, conferences in London, and specialist discussions for various mission members at the different specialized agencies of the United Nations in Paris, Geneva and Rome, the full mission arrived in Uganda in late September 1960 and remained there until mid-December. After leaving Uganda, the mission reassembled at the Bank's headquarters in Washington in January 1961 to prepare its report. In July 1961 the Mission Chief and the Chief Economist returned to Uganda for further consultations and additional discussions were also held with the U.K. Government, UNESCO and FAO.

The mission received the fullest cooperation from the Uganda Government. His Excellency the Governor met with mission members on several occasions, and the Ministers and their staff made themselves freely available and were unfailingly helpful. A special word of gratitude is due to the Minister of Finance, Mr. C. G. F. F. Melmoth, C. M. G., and his staff, who were responsible for the coordination of the mission's activities within Uganda and without whose untiring assistance and wisdom the task of the mission would have been immeasurably more difficult. Likewise, the mission gratefully acknowledges the special effort
made by the Government Statistical Office in the preparation and interpretation of statistical data.

While in Uganda, the mission members traveled extensively throughout the country visiting all the provinces and districts where conferences were held with members of the provincial and district teams, with representatives of the local governments and with a large number of private individuals of varying interests. The mission had the honor of meeting His Highness, the Kabaka of Buganda, and also met with members of His Highness' Government. In Entebbe and Kampala the mission had the opportunity to talk with elected members of the Legislative Council and with other political leaders. Discussions were also held with the leading officials of the autonomous parastatal organizations, with private industrial, commercial and banking interests, with chambers of commerce and with officials and leaders of cooperative unions and societies.

While in East Africa, members of the mission visited the East Africa High Commission in Nairobi, Kenya, and conferred with various of its departments and services. In London, the mission had conversations at the Colonial Office, the Bank of England, the Colonial Development Corporation, the Commonwealth Development Finance Corporation and elsewhere.

In the report which follows, the first part contains the General Report. Since this includes a general analysis of the economy and across-the-board recommendations for the implementation of a five-year development program and a summary discussion of the mission's proposals within each of the major sectors of the economy, the General Report could be read by itself as a self-contained study. For those seeking further details on each of the sectors, however, there follows a series of individual chapters covering these. The second part outlines a proposed program for agriculture, the dominant sector in the economy and the one in which the mission feels a major emphasis should be placed in the coming years. Next follows the third part in which programs in other sectors are discussed—mining, manufacturing, the tourist trade, transport, communications, electric power, education and manpower, health, housing and community development. Finally, there are a series of annexes which contain supple-
mentary information not included in the main body of the report and a number of statistical tables of general interest.

In transmitting the report to the Governments of Uganda and of the United Kingdom, the President of the Bank noted that, since the Executive Directors and the management customarily do not review the recommendations of missions in detail, the report as transmitted represented the views of the mission rather than positive recommendations of the Bank. The letter of transmittal added, however, that the Bank believed that the findings of the report deserved the most careful consideration and discussion. Similarly, while other international agencies were given an opportunity to comment on the portions of the report of particular interest to them, responsibility for the recommendations of the report is to be regarded as that of the mission alone.
CURRENCY

The currency of Uganda, Tanganyika and Kenya is the East African Shilling, which is at par with the United Kingdom Shilling (= 14 US cents).
The East African Shilling is divided into 100 cents.
The pound (£) is equal to 20 Shillings and is used as a unit of account.

STATISTICAL CONVENTIONS

Figures are rounded to the last significant figure shown. Due to rounding, components in a table may not always add exactly to the total indicated.

CONVERSION FACTORS

Cotton: the Uganda bale is 400 lbs. or 0.837 bales of 478 lbs., the usual international standard.
Coffee: 1 bag of 60 kilos = 132.3 lbs.
16.9 bags = 1 ton (2,240 lbs).

GLOSSARY

In the major African language groups in Uganda words are inflected by adding prefixes.
For most of the Bantu languages spoken in the interlacustrine areas in the south of the country, the prefixes used in this report are illustrated in the following examples:
S
tem word "-Ganda": A Muganda is an individual member of the Kiganda people, the Baganda, who inhabit Buganda and speak Luganda.
Other similarly inflected stem words are: -Nyoro, -Gisu, -Soga.
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THE ECONOMIC DEVELOPMENT OF Uganda
Uganda is gaining self-government and independence at a decisive moment in its economic history. A series of forces have converged to confront the country and its people with the need to make fundamental economic choices that will determine whether a basis for a rising standard of living is established or whether per capita incomes under the pressure of increasing population actually decline.

In spite of the great effort to build an industrial base and modernize, Uganda is far from the point where the increase in capital and skill becomes automatic. The economy is still mostly dependent on a fairly primitive peasant agriculture. The size of the domestic product of Uganda is overwhelmingly determined by two factors: the incomes of the cotton and coffee producers and the level of public expenditures on recurrent and capital account. Other economic activities, even if taken together, still have no more than marginal importance in the total. Cotton and coffee incomes have in fact been a more decisive factor in the economy than the level of public expenditures. They were responsible for a period of remarkable economic prosperity in the early 1950's and they also have determined the recent slowdown in growth. The government sector expanded when incomes in the cotton and coffee sector expanded and began to stabilize after the former contracted. It was only due to the substantial reserve funds accumulated during the boom years that public expenditures could be maintained for some time after the contraction in the cotton and coffee incomes. But the point has now been reached when the full impact of the reduced cotton and coffee incomes on the level of public revenues and expenditures is being felt. The financing of public expenditures has thus become difficult again.

Both the rise and decline in cotton and coffee incomes were mainly the result of price changes in the world market. There is hardly any reason to expect a material improvement in world prices for either cotton or coffee in the near future. Barring unforeseeable events, the international coffee position, in particular, is characterized by a formidable surplus on the supply side and further price declines are likely. Available price projections until the mid-1960's, in fact, strongly point in this direction. Uganda has recently joined the International Coffee Agreement which imposes restrictions on the quantity of coffee Uganda may export. The outlook for cotton is less pessimistic. The international price for the type of cotton grown in
Uganda is generally expected to remain at about the present level until 1965/66. (Projections of any economic variable and particularly the prices of the international staple commodities are, of course, subject to a rather wide margin of error. “Unforeseeable events” may occur and modify what otherwise might have been normal prices.)

Taking all these considerations into account, one cannot escape the conclusion that there is little hope for a new windfall that would easily and rapidly result in a rise in incomes in Uganda over the five years, 1961/62-1965/66. The exceptionally favorable world market conditions that Uganda enjoyed for most of the period since World War II have vanished and Uganda is now faced again with the harsh fact that future increases in the standard of living must depend on hard work in raising output. The job is now more difficult than before World War II because the present rapid rate of increase of population of 2\(\frac{1}{2}\) percent a year means that it takes a greater rate of increase of output than before the war just to keep per capita incomes stable. The outlook in the next few years for coffee underlines the need for Uganda further to diversify her export products. Deliberate attention must be paid to stimulating those sectors of the economy that afford growth prospects. The limited funds now available make it imperative that every cent be wisely disbursed on a well thought out system of priorities, if the necessary basis is to be laid for a better life for the people of Uganda.
PART I

THE GENERAL REPORT
The Country

Strangers approaching Uganda by air usually feel a lift of the spirit when they catch a glimpse for the first time of the rich greenness of the fertile north shore of Lake Victoria. Uganda lies on the equator in the eastern third of the continent about where the heart of the continent should be, and its shape is not unlike that of a heart. The whole of Uganda is in the upper basin of the Nile, and the Nile in fact begins its 3,800 mile-long course to the Mediterranean Sea here. The nearest seaport, Mombasa on the Indian Ocean, is over 800 miles by rail from Kampala, the main city.

Uganda measures 91,134 square miles, which is about the size of Ghana and comparable to the area of Great Britain and Northern Ireland. About 16,400 square miles are open water and swamps. The innumerable rivers of the Uganda Plateau are usually sluggish vegetation-covered and swampy, some draining in opposite directions at the same time.

Most of Uganda is a plateau at just under 4,000 feet above sea level. The formation of the great rift valleys of Africa resulted in the shallow lakes of Victoria and Kyoga through a warping of the plateau, the string of lakes in the western rift valley and the snow-covered Ruwenzori Mountains of the west which rise to over 16,000 feet. In the east there are a number of volcanic mountains, with Mount Elgon dominating. The plateau drops away toward the north with a difference of 1,700 feet between the level of the Nile where it begins flowing out of Lake Victoria to the point where it crosses the northern border into the Sudan.

The altitude provides much of the country, despite its location astride the equator, with a generally pleasant climate. This has aptly been described as like a perpetual European summer with a hot sun, cool breezes and showers of rain. Except in the northern lower areas where the climate is hot and dry, the temperature over most of Uganda varies between a mean minimum of 60° F., and a mean maximum of 85° F. Daily ranges seldom exceed 15° F.
Except in a limited area in the extreme northeast, the annual rainfall exceeds 30 inches. Over much of the country it averages 40-50 inches and its wettest regions touch 60 inches a year. While the total rainfall is thus adequate for plant growth, its distribution is uneven and sometimes hurts crops. Heavy rains fall at two distinct periods in the year, the first in April-May and the second in September-October. Between the heavy rains, conditions approaching drought are occasionally experienced. June to August constitute the principal dry months in the south; November to March in the north.

The near central position of Uganda in the African continent, with contrasting conditions on every side, has made the country a meeting place of most types of tropical African flora and fauna.

The People

Uganda is also a meeting place of peoples. The three main groups of Eastern Africa—Bantu, Nilotic and Nilo-Hamitic—all meet in Uganda. Although there has been much mixture of races and cultures already, there is still a fairly clear division that runs across Uganda between the Bantu-speaking hoe-agriculture peoples generally to the south of the central lakes and the Nilo-Hamitic-speaking cattle people in the northeast, and the Nilotic-speaking people in the north. There is also a small group of Sudanic-speaking people west of the Nile in the north and a Hamitic-related pastoral class, the Bahima in Western Uganda. About 10 percent of the population are recent immigrants from other African countries, mostly Ruanda-Urundi but also from Kenya, Tanganyika, Congo and Sudan. In the last eighty years there have also been added representatives of the peoples of the Indian sub-continent and of Europe—both relatively small in numbers but important in economic and political function.

A population census was taken in Uganda in 1959 and it found a total population of 6.5 million. Of this total, 1.9 million were in Buganda, 1.9 million in Eastern Province, 1.5 million in Western Province and 1.2 million in Northern Province. The population density for Uganda as a whole is 86 persons per square mile; but it varies considerably between provinces and districts. The population is mainly concentrated in two bands lying at an angle to each other with the apex at Mount Elgon, one band running along the shore of Lake Victoria, the other running north of the Victoria Nile (see map facing p. 8). The districts of Bugisu and Bukedi in the Eastern Province and Kigezi in the west are the most densely populated areas
(between 200-300 persons per square mile), followed by Mengo (Buganda) which includes the main urban area of Uganda and Busoga (Eastern Province). There are only about 16 persons per square mile in the north and northeast. While land shortage is no problem for the country as a whole, the most densely populated areas are beginning to feel population pressure. Traditional attachment to the land occupied, combined with the rigidity of tribal boundaries, retard local migration and tend to prevent a more even distribution and utilization of the land. In these areas, to increase yields per acre is rapidly becoming a necessity.

There is some evidence that population actually decreased in the last decade of the 1800's and the first two decades of the twentieth century from war and famine and from the new diseases (plague, cholera, smallpox, sleeping sickness) which accompanied the opening up of Uganda to the modern world. Since the 1920's, there have been no more actual famines or large-scale epidemics. The early censuses were unreliable and it is impossible to have an accurate idea of what population then really was. The first reliable census was in 1948 and it showed a population of 4.9 million.

Population growth between 1948 and 1959 was 31.8 percent, or roughly 2.5 percent a year. This is higher than that still believed to prevail in neighboring Kenya and Tanganyika. An important part of the difference in rate is due to the continuing African immigration into Uganda while there is very little emigration. The natural rate of increase, alone, is probably around 2.2 percent. The figure used for population forecasts after the 1948 census was 1.5 percent. The increase from this, or a population doubling in 47 years, to 2.2 percent, or a population doubling in 32 years, is largely due to a fall in infant mortality. Birth rates remain high and it is to be expected that death rates will continue to fall since infant mortality rates are still comparatively high and, consequently, the rate of population growth will increase further.

Of the total of 6.5 million inhabitants, 6.4 million or 98.5 percent are of African origin. The rest consist of 73,000 Asians, mostly Indo-Pakistanis, 11,000 Europeans and a small number of other ethnic groups. The Europeans typically are administrators and missionaries, the Asians, businessmen, and the Africans, farmers. There are more African shopkeepers than Asian but the Asians handle a very large proportion of total retail trade and dominate the marketing of agricultural produce although the African cooperatives in recent years have begun to take an increasing share. Import and wholesale trade is
shared between Europeans and Asians. Asians own most of the smaller factories and some of the largest. Most of the doctors, lawyers and accountants in private practice are Asian. Many of the skilled and clerical workers in private industry and government are Asians. Nearly all Africans whatever else they do also have a farm. The farm provides most Africans with their food and beer, their shelter and their security. It provides them a money income from sale of crops or livestock. Food is grown for subsistence by women and is usually sold only in the vicinity of towns. An increasing number of Africans have been trained as administrators and are entering the civil service; a few have chosen learned professions. There are substantial differences in income among the provinces. In 1959, cash income per head in Buganda was £19, in Eastern Province, £10 and in Western and Northern Provinces, £5. The variations between districts within each province are comparatively smaller.

The political center of the country is Entebbe on Lake Victoria with a population of 11,000. Over the last few years, however, parts of the administration have moved to Kampala where an impressive modern building for the legislative council has recently been completed. Kampala is the largest city in Uganda with a population of 47,000 within its boundaries and 68,000 in the surrounding urbanized areas. It is the business center of the country. Kampala is also the seat of Makerere College, a university college of East Africa. The surrounding province of Buganda is the best developed agricultural area of Uganda. Population grew most rapidly here between the censuses of 1948 and 1959, in large part from the immigration of laborers from outside Uganda and from the Northern Province who came in to work for the Baganda landowners or for the non-African estates here.

Jinja (population 30,000), the second largest city in Uganda, is the country's industrial center. Situated near the Owen Falls hydroelectric power station, the town and its surrounding areas are the site of the copper smelting works, a cotton ginnery, a tobacco factory, a plywood factory, textile works and a brewery. There are a number of smaller towns spread over the country which have mainly developed as trading centers for both the export and the import trade.

But these trading and administrative centers are not the result of what one might call organic growth; instead, they have been established by the British administration according to need as seen by the administrators. The African population, by and large, has traditionally avoided living in towns or even villages and has preferred to build
their houses widely spread over the area occupied by the tribe to which they belong. Even including the small trading centers, less than 4 percent of the Africans live in an environment remotely urban. In fact, one of the distinguishing characteristics of Uganda is the absence of villages. This, of course, has had important social, political and economic consequences. In particular, it has restricted rather than promoted division of labor in the broadest sense of the term. With almost every family a self-sufficient unit, there is little incentive to enter into trade relations with other units and, to the extent that domestic trade does take place, it is largely on a barter basis. The absence of even small population agglomerations also retarded the emergence of specialized artisans, such as blacksmiths, carpenters, bakers, etc., who would exchange their products or their services for food or cash. A further consequence of this pattern of social organization is the lack of regular and intensive contact among the people. The exchange of ideas and opinions, elsewhere taking place in the community centers, the markets, etc., is kept to a minimum in Uganda and so are the incentives and the encouragement which such social contacts create to improve one's standard of living.

Most people in Uganda consequently still live within the context of a tribal society with all that implies of advantages and disadvantages for economic development. It means, for example, that the strong local loyalties may aid in the carrying out of self-help projects, the education of a promising youngster, or the building of the cooperative movement. The deep sense of family responsibility to look after needy members avoids the need to burden the state prematurely with costly social services. The respect for elders and acceptance of their counsel, if not carried to the point of impeding the learning of new ways, makes for social stability in a period of rapid change. The tribal pattern also has its disadvantages in this context. It may make creation and efficient functioning of necessary larger units of government more difficult. The high standard of loyalty and morality within the family and the tribe may not be applied to outsiders. In some areas, the special need to have cattle for tribal status may lead to over-grazing and erosion. The still strong traditional elements in the lives of the people of Uganda are thus an important factor that must be taken into consideration as an essential factor conditioning economic policy. At the same time, it should be recognized that one of the characteristics of the people of Uganda noted even by the earliest visitors was their mental alertness. This accessibility to new ideas persists and has grown stronger.
History and Government

It is hardly surprising that tradition still is important in Uganda. It is only one hundred years since Speke and Grant, the first British explorers to visit Uganda, reached the court of Mutesa I, the Kabaka of Buganda, in 1862. They had been preceded some 20 years previously by Arab traders. Otherwise, the then indigenous populations had had no contact with the outside world—in marked contrast, for example, with the populations on the coast of West Africa or even with those on the immediate coastal areas of East Africa.

Coming from the north and the south, European and Egyptian contacts were stepped up in the 1870's. By 1880, both the Protestant Church Missionary Society and the Catholic White Fathers' Mission had been established in Buganda. At the same time, Arab traders had made considerable conversions to Islam. During the 1880's, there was a good deal of conflict between adherents of these religions and with and among the various pagan and animistic elements.

In the meantime, control of the British sphere of influence in East Africa had been assigned by Royal Charter to the Imperial East Africa Company. When the 1890 Anglo-German Agreement confirmed the inclusion of present-day Uganda in the British sphere, Captain (later Lord) Lugard was sent to establish the Company's influence in this area. Lugard used Buganda as his base of operations. Because of conflicts and the great expenses involved, the British Government took over from the Company, and a Protectorate was formally established over Buganda in 1894. In 1896, the Protectorate was extended to the Kingdoms of Bunyoro, Toro and Ankole, and to Busoga. An Agreement regularizing the affairs of Buganda was signed in 1900, and later agreements were signed with Toro, Ankole and Bunyoro. The constitutional framework of the country was settled by the Uganda Order-in-Council of 1902, and the entire area became a British Protectorate.

The old forms of government were in essence retained in the kingdoms and other areas with well-defined existing governmental authorities, while in the less well-organized areas a system of rule through chiefs was introduced or built up. This has led to the current governmental arrangements under which the country is divided into Northern, Eastern and Western Provinces and Buganda. These, in turn, are divided into 17 districts. Three of these in the Western Province are the Kingdoms of Ankole, Toro and Bunyoro. In 1921
an Executive and a Legislative Council for all of Uganda were established and the first African member was appointed in 1945.

There has been a growing interest in political affairs among a section of the African population, particularly since World War II. The first countrywide elections were held in early 1961 and the party with the majority of elected members nominated the majority of the members of the Council of Ministers.

The relevance of a number of the mission's recommendations on economic matters will depend to a considerable extent on political developments. We have assumed in general that within the period contemplated by this report, 1961/62-1965/66, Uganda will progress to full independence. Indeed, we have conceived of our task largely as the preparation of a set of recommendations for a self-governing or independent Ugandan Government capable of carrying through a development program. We have also assumed that, as a minimum, Uganda will continue to adhere to the East African common market and continue to avail itself of East African common services. The mission believes that its recommendations follow from a sound appraisal of Uganda's resources and what may be done with them. But it would be idle to deny that the relevance of these recommendations will be affected by what governmental changes occur over the next five years.

The government of a self-governing or independent Uganda, in coping with its responsibilities, will have certain real advantages. It will also confront serious difficulties. Self-government and independence can, and frequently do, bring a release of enthusiasm and energy that can be turned to good advantage in stimulating economic development. In directing this effort, moreover, Uganda can, if it wishes, escape from a number of limitations that have been faced by the Protectorate Government. At the same time, in its early years, the Government will not only, and inevitably, be politically inexperienced, but it will be heavily dependent on an expatriate civil service. If the Government is to exercise the responsibilities that inevitably fall on public authority at an early stage of development, it must do what is necessary to retain the services of a large number of expatriate officials. Furthermore, if Uganda is to continue to rely on traditional sources of capital and enterprise for the development of commerce and industry, the various communities that have had so much to do with these economic sectors must be assured that they have a place in the new dispensation.

Government and administration in Uganda have been organized
on a dualistic basis. The Governor and Council, the Provincial and District Commissioners and their subordinates constituted the “steel frame” of a civil service government that made it possible to hold the country together as a unit and to carry out policies on a national basis. On the other side were the local governments organized on a predominantly tribal basis and closely tied by interest, tradition and sentiment to a particular area. These local governments participated in the provision of various public services, particularly education and public health, assisted in the maintenance of law and order, and were increasingly important in securing local cooperation in the execution of various national policies. Their activities were supported in part by the collection of a local graduated tax (based partly on income and partly on property) and, in part, by subventions from the central government.

The stimulation of progress toward an independent and democratic Uganda presented the Protectorate and U.K. Governments with a certain inescapable dilemma. The development of Uganda as a political unit with a central government capable of administering national policies would appear to be favored by the maintenance of the authority of Provincial and District Commissioners, District Officers and others owing responsibility to the center. On the other hand, the local governments, which are “the government” for the average man, have been built around the tribal structure. The development of democratic attitudes and practices usually proceeds from the “grass roots”, which argued for giving increasing responsibility to local governments. The danger was that, in so doing, not democracy, but local particularism and tribalism would be encouraged. There can be a great difference between what the people at the moment want and democracy in the sense of control of governmental processes by the majority of the people. In other countries the answer to this dilemma has been the growth of national political parties that have in time proved capable of merging local attachments into a larger loyalty. The development of such parties in Uganda was slow and, although there are now political parties having national coverage, local and tribal affiliation and loyalty are still very strong.

The situation in Uganda has been complicated by the very great variation in size, strength and competence of the different local authorities. In certain primitive areas the local governments were very much a Protectorate creation, nurtured and coddled into a semblance of an administrative entity. In others they have had a strong basis in local custom and tradition. In Bunyoro, Toro and Ankole, as
we have stated, the local government is headed by an hereditary chief or king and his council. And in Buganda the authority of the Kiganda Government covers one of the four provinces of Uganda.

The special position of Buganda, recognized by the Agreement that dates back to 1900, has been underscored by the appointment of a Resident rather than a Provincial Commissioner. Although only a little more than half of the 1,900,000 people in Buganda are Baganda, the authority of the Kabaka and his government is recognized throughout the Province. Furthermore, the services performed by this government have been substantially more extensive than those of any other local government in Uganda. Per capita incomes are larger in Buganda than elsewhere, the average level of education higher, both the capital of Uganda and its chief city are located in Buganda; it lies at the center of the rail and road network; in every respect it is the first province of Uganda. The Kabaka, tracing his lineage back many generations, with his long-established system of government, also gives this province a cohesion lacking in other provinces.

The central constitutional problem has been how to fit Buganda into a larger Uganda. Difficulties between Buganda and the Protectorate Government early in the 1950's, though they had many aspects, centered in the opposition of the Kabaka and his government to anything smacking of absorption into a larger whole. These difficulties and later experience indicated that, desirable as a unitary government might be for developmental and other reasons, opposition in Buganda to a unitary constitutional solution was deep and abiding.

The solution to the constitutional problem proposed by the Relationships Commission under the chairmanship of the Earl of Munster was to establish a federal relationship between Buganda and the central government. The Commission proposed that Buganda should have exclusive power over the Kabakaship and other traditional institutions while the central government is to have exclusive power over foreign affairs, armed forces, etc. Residuary powers were to be shared, subject to the central legislature’s overriding power in the last resort. The other Kingdoms (Toro, Ankole and Bunyoro) were to have a semi-federal relationship with the position of the rulers and other traditional institutions entrenched in the constitution, but otherwise the kingdoms would fit into the pattern of local government in Uganda. For the rest, Uganda would be a single state, but with a

devolution of local services to the local governments. On the basis of these recommendations, a constitutional conference was held in London. Agreement was reached on October 9, 1961, that Uganda would achieve full internal self-government by March 1962 and attain independence on October 9, 1962.

In East Africa the existence of a common currency, a common market within which the movement of goods, labor and capital is unimpeded by significant administrative barriers, and the provision of transportation, communication and other services on an East African basis has linked Uganda, Kenya, Tanganyika and, for some purposes, Zanzibar, into a fairly closely integrated economic whole. The degree of integration, moreover, tends to increase as each territory further specializes in the crops and products best suited to its resource endowment. Inevitable differences of opinion over the equitable sharing of costs and benefits have, under the rule of colonial government, been manageable. Reconciliation of these differences will undoubtedly become more difficult as the territories move toward independence. It is to be hoped that an independent Uganda will recognize the economic advantages of continued participation in common services and the common market. Undoubtedly, both the probability of continuance and the advantages involved in the maintenance of these arrangements would be enhanced by a movement toward some kind of political link among these territories.
CHAPTER 2  THE ECONOMY
AND ITS PROBLEMS

THE STRUCTURE OF THE ECONOMY

The Dominance of Agriculture

The modern development of Uganda began within the lifetime of many people still living in the country today and is essentially a process of this century.¹ Uganda was one of the last countries to be opened up to the world economy. Until the railway from the ocean reached Lake Victoria in 1901, ivory, the only export, had to be carried nearly 1,000 miles on the heads of men on a roundabout route through Tanganyika to the sea. With the coming of the railway and the extension of civilized government to most of Uganda at about the same time, her people were brought into touch with the modern world.

Over the last 60 years, Uganda's economic growth has been unspectacular but steady. Uganda remains an agricultural country: two-thirds of gross domestic product is derived from farming and over 90 percent of all exports are produced from the land. Agriculture is still in large part subsistence farming (mostly done by women with hoes) with a growing, but as yet smaller, proportion of total output produced for the market: three-fifths of the area under cultivation are used to produce food for the consumption of the cultivator and her family. But, in terms of money value, production for the market has already surpassed the imputed value of subsistence output. In 1960 the value of subsistence output was estimated at over £40 million, while total sales of agricultural products amounted to just under £50 million. The bulk of cash crops are produced for export while a small but growing proportion is food sold in the towns and in the richer export crop areas.

Economic expansion has largely depended on farmers growing cash crops in addition to the food they eat. The growing of cotton for sale

¹The historical analysis in this chapter makes generous use of C. C. Wrigley, Crops and Wealth in Uganda, East African Studies No. 12, East African Institute of Social Research, Kampala, Uganda, 1959.
was begun in Buganda in 1903 by the Uganda Company formed under the inspiration of the Church Missionary Society; it spread subsequently to the Eastern Province and more recently to the Northern Province where it is still spreading. Cotton exports grew from 240 bales in 1905/06 to 13,000 bales in 1910/11, 37,000 bales in 1919/20, 204,000 bales in 1928/29 and a peak of 402,000 bales in 1937/38.

Beginning in 1907, a number of European-owned plantations were established, first in rubber and then mainly coffee. The collapse of coffee prices in 1920-22 ruined many of the planters and gave economic support to the political decision that Uganda would develop primarily on the basis of peasant agriculture. Plantations remained as a valuable element of the economy but were not to become the principal basis. Subsequently, Asians introduced a valuable new crop, sugar, and created sugar estates out of the wreckage of some of the coffee plantations.

During the 1920's, coffee-growing was taken up by the African farmers in Buganda and Bugisu, where cultivation spread during the 1930's and then very rapidly after World War II. Coffee displaced cotton in many areas so that, although cotton was moving into new areas, postwar cotton output, while increasing, has not yet reached again the 402,000 bales of 1937/38. Since 1955, coffee has in some years surpassed cotton in export value.

Cotton and coffee are by far the most important cash crops and are the most important determinants of the size of the national income. Together they account for over 80 percent of Uganda's export earnings. The cotton grown is a good quality, medium and long staple, which enjoys a good market, mainly in India. With the exception of a small quantity of Arabica, produced in the eastern district of Bugisu, Uganda coffee is of the lower grade Robusta type. Coffee is predominantly grown by Africans; cotton exclusively so. Other cash products include sugar, sisal, groundnuts, tobacco, tea and livestock. Earnings from these have grown substantially during the last decade and have just caught up with cotton and coffee. About £25 million was earned by cotton and coffee growers in 1960; all other farming for money earnings yielded about an equal amount. Fishing has gradually grown in importance, earning about £2.14 million in 1959 or twice as much as some six years previously. With the limited, but nevertheless real, progress in these sectors, diversification in agriculture has thus made only a modest beginning.

Among the factors responsible for the spread of cash crops in Uganda has been guidance from the Government through local chiefs,
the need for money income to pay taxes and the growing desire for the commodities that could be bought with money. Asian traders were the chief agent in introducing the products of Europe and Asia into Uganda by carrying their goods to the local inhabitants throughout the country and in awakening the incentive to earn money in order to buy the needed textiles, soap and lamps.

While most farmers are still essentially subsistence peasants with cash crops as a subsidiary activity, a new group has begun to emerge, particularly in Buganda, of professional large-scale farmers who employ large numbers of migrant laborers mainly from northern Uganda and Ruanda-Urundi.

Less than 1 percent of the total land area of the country is owned by non-Africans and they are not allowed, except in very exceptional circumstances, to acquire more (see map facing page 18). This racial barrier has restricted the increase of output of sugar, which is a plantation crop in Uganda, and to a lesser extent the spread of tea cultivation. As in most of Africa, the tenure arrangements for the rest of the land—outside of Buganda—are nearly entirely traditional in character and are gradually becoming a drag on the transformation of peasant cultivation into modern farming methods.

Agricultural Prices and Marketing

In the light of the dominance of cotton and coffee in the economy of Uganda, it is not at all surprising that the Government has had to concern itself with the impact of the fluctuations in the world market prices of these crops on the growers and the economy generally. The government entry in this field of policy occurred during World War II. Under the usual wartime arrangements during the latter part of the war, and for some years afterward, the coffee and cotton crops were bought in bulk by some of the Allied wartime supply agencies. To make this possible the Uganda Government had to control marketing and consequently gained control of the prices paid to growers. As a measure of inducing production the growers were paid guaranteed prices. As world market prices rose, local prices fell behind and by 1948 very substantial surplus funds (approximately £10 million) had accumulated. Marketing arrangements were then reorganized and the cotton and coffee price assistance funds were established. Out of wartime profits, £3.9 million were put into the cotton fund, £0.5 million into the coffee fund, while a sum of £6 million was earmarked for various public development projects.
This reorganization, however, involved no change in the basic price philosophy: the Government continued to guarantee the growers fixed prices for their crops through the Lint and Coffee Marketing Boards. The difference between total export proceeds and payments to growers, after deduction of the marketing costs and export taxes, was credited to the two price assistance funds. Underlying this policy was the conviction of the authorities, particularly in the late 1940's and early 1950's, that cotton and coffee prices had reached abnormally high levels which sooner or later would call for downward adjustments. Setting aside part of the export earnings during the period of high prices, so the argument ran, would enable the Government to support cotton and coffee incomes during the expected lean years. The balances thus accumulated in the Cotton and Coffee Price Assistance Funds rose impressively. Despite considerable transfers to the central government over the years for direct budget support, these balances reached a peak in mid-1954, totaling £37 million.

From then on, however, substantial reductions occurred. First, when the expected decline in world market prices materialized, the Marketing Board's Funds were drawn on for price support and this led to marketing board deficits in 1955, 1958, 1959 and 1960. Second, additional allocations to the Government's capital budget since 1954 constituted a further drain on the Funds. As a result, the estimated combined balances at the end of the crop year on October 31, 1961, were about £16 million (excluding a £5 million interest-free loan to the Government's Capital Development Fund which by this date had been almost exhausted). This amount, formally earmarked for cotton and coffee price assistance purposes, represents the bulk of the country's financial reserves.

In addition to creaming off part of the export proceeds through the method described, the Government levied an export tax on the two key commodities. From 1948 to 1958 the proportion of the taxes collected varied between 15 percent and 20 percent of total cotton and coffee export proceeds. In 1959, the proportion dropped to 13 percent and in 1960 below 12 percent.

Table 1 discloses the combined effect of the export tax and the price policy pursued on growers' incomes since 1948. In that year, growers received 41 percent of the total proceeds from cotton and coffee exports marketed through the Marketing Board arrangements. By 1951, their share had fallen to the lowest point in the postwar period, about one-third. However, it rose in the following years to 64 percent and 73 percent in 1957 and 1959, respectively. In 1959,
The export tax withdrew £4.3 million from the growers, but the Marketing Board paid out £2.9 million more to growers than its receipts, so that there was a net withdrawal from growers' incomes of only £800,000. In 1960, the net withdrawal was only £200,000.

The basic justification for the export tax can hardly be questioned. In view of the very high cotton and coffee prices that prevailed, the predominant position of these two crops in the Uganda economy, and the fact that Africans are exempt from the income tax, the Government had no choice but to tap this tax source. But it is also true that the export tax introduced an element of inequality: cotton and coffee growers became subject to a rather heavy tax burden while the producers of other crops and livestock pay no comparable tax. Further, the uneven rates applied for cotton and coffee respectively contributed to make coffee production considerably more profitable than cotton growing (see Chapter 6).

### TABLE 1: Cotton and Coffee Export Proceeds,*

<table>
<thead>
<tr>
<th>Years Ending October 31</th>
<th>Total Proceeds</th>
<th>Export Tax</th>
<th>Marketing Costs</th>
<th>Marketing Boards' Surplus</th>
<th>Payments to Growers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in £ million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1948</td>
<td>9.0</td>
<td>1.5</td>
<td>2.0</td>
<td>1.8</td>
<td>3.7</td>
</tr>
<tr>
<td>1951</td>
<td>10.0</td>
<td>7.8</td>
<td>3.5</td>
<td>15.3</td>
<td>13.4</td>
</tr>
<tr>
<td>1954</td>
<td>30.8</td>
<td>5.3</td>
<td>4.7</td>
<td>2.0</td>
<td>18.8</td>
</tr>
<tr>
<td>1957</td>
<td>36.6</td>
<td>6.1</td>
<td>6.3</td>
<td>0.6</td>
<td>23.6</td>
</tr>
<tr>
<td>1959</td>
<td>32.7</td>
<td>4.3</td>
<td>7.6</td>
<td>-2.9</td>
<td>23.7</td>
</tr>
<tr>
<td>1960</td>
<td>29.8</td>
<td>3.5</td>
<td>8.2</td>
<td>-3.3</td>
<td>21.4</td>
</tr>
</tbody>
</table>

* Those elements in the figures in this table which are attributable to coffee cover the peasant growers' crop, excluding Arabica, and exclude the estate coffee which is marketed outside of the Marketing Board's arrangements.

* Includes cost of marketing, ginning, curing, bagging and transport to Mombasa, and a small bonus paid on production to African local governments. The estimate of marketing costs for 1959 and 1960 covers the costs of the Marketing Board adjusted to take account of coffee marketed by Associations of Growers.


The evolution of the policy of centrally administered prices has also given rise to a number of problems. As we have seen, provision
of a guaranteed price was the basic motive for its introduction. Although prices to growers were kept very much lower than prevailing high world market prices for much of the period since the end of World War II (see Table 1 and Charts 2 and 3 on pages 155 and 156) and although the remaining balances in the Price Assistance Funds are still relatively high, the Funds would be exhausted very quickly if 1961 prices to growers were maintained irrespective of the currently declining trends in the world market. Therefore, quite apart from equity and other considerations, a redefinition of the price policy and the marketing arrangements for cotton and coffee has become imperative.

Prices are also set on an East African basis by agreement of the governments for tobacco and sugar, but there is no marketing board arrangement. All East African output is consumed in East Africa with protection from imports. There is consequently no need for a price fund. The main problem here is the need for a re-examination of the policy to ensure that the interests of the consumers are as fully considered as those of the producers.

Industry, Power and Mining

An important broadening of the economy has also occurred since World War II. The high prices for Uganda's exports in the late 1940's and early 1950's enabled the Government to obtain funds through export taxes and Marketing Board arrangements and so help to finance a number of new industries. Among the enterprises so established were textile and cement factories and copper mining and refining facilities. The large Owen Falls hydro-power project was opened in 1954 and a basic electric power grid built in the southern part of Uganda. The transmission lines are still being extended and will reach the west and north in the coming few years.

Industrialization is nevertheless still in its initial stages. The small size of the home market has been a dominant limiting factor. There are a number of small plants engaged in the processing of the two major agricultural products, cotton and coffee, a textile factory using domestically grown cotton, a cement factory, two breweries, sawmills, two sugar refineries and a few small soap factories, a small number of backyard furniture makers and other hand craftsmen. With a few exceptions, the existing modern industrial establishments in the country have been promoted and largely financed by the Government.
through an autonomous public parastatal body, the Uganda Development Corporation (UDC) and by the owners of the two sugar estates. The UDC has energetically explored a wide range of industrial possibilities. The birth and growth of small backyard enterprises is still slow because of the slow pace of development of indigenous small entrepreneurs. The labor force is still quite distinct in character from that of industrialized countries. Wage labor, like the cash crops, has been grafted on the subsistence economy. Most workers are only temporarily in industry and leave their families back home on the farm to take care of their own food and shelter needs in the interim.

Mining is not an important activity as compared to some other African countries. The copper mine at Kilembe in the Western Province was started in 1956 and production reached 14,500 tons of blister copper in 1959, adding £3.5 million to the country's export earnings. Present prospects for a significant further expansion appear slim. The exploitation of some of the known phosphate deposits may also become feasible. Uganda also mines and exports small amounts of wolfram, tin, gold and lead, but there is little prospect of any of these minerals becoming a major economic factor.

Tourism

Uganda is well endowed with tourist attractions: the wild game in the two large national parks, Murchison Falls and Queen Elizabeth, mountaineering, sailing, good fishing, and a pleasant and sunny climate astride the equator at a relatively high altitude. Tourist earnings at present are estimated at something over £500,000. But the number of foreign tourists visiting the country and the total amount of tourist earnings have increased rapidly in recent years.

Transport and Communications

Improved communications have bound the country closer together and brought more and more of it into contact with the world. The transport and communications system (see map facing page 306) is now well developed in relation to the present needs of the economy. The road network, one of the best in Africa, consists of about 13,000 miles, of which almost one-fourth are main roads. At present, the main roads more than take care of traffic requirements, although the secondary and local road system is inadequate in some areas. The
railway, administered for the three East African territories by the East African Railways and Harbours Administration (EARHA) connects Uganda with the seaport of Mombasa. In 1956, the railway was extended to Kasese in the Western Province to serve the new copper mine at Kilembe. A branch line, partly under construction, partly in the planning stage, will provide a connection to the important cotton-growing areas of the Northern Province (see map facing page 306). Steamer services are available on the lakes and the River Nile and a local airway system connects the more important towns in Uganda and the other East African territories and carries tourists to the national parks. Internationally, a modern and well-equipped airport at Entebbe provides up-to-date passenger and freight services.

Money and Banking

The East African shilling is the monetary unit in the whole of East Africa: it has provided a safe currency tied to sterling and has been an important link to the London capital and money market and the sterling area. The East African Currency Board is the sole issuer of notes and coins. Until 1955, the currency was backed 100 percent by sterling assets. The Board was then empowered to invest up to £20 million, or about one-third of the currency issue, in local securities of the East African governments.

The banking system is relatively well developed. Commercial banking facilities are offered by seven private banks, all of which are subsidiaries of foreign banks (three British, one British-French, two Indian, one Dutch). These banks mainly finance export and import trade, but the volume of loans for purely domestic purposes has also grown.

There are two government-owned savings institutions, the Post Office Savings Bank and the Uganda Credit and Savings Bank. The Uganda Post Office Savings Bank is a part of the postal system under the East African High Commission. The Uganda Credit and Savings Bank was set up in 1950 by the Uganda Government to finance African enterprise.

The Human Resources

Of the 3.7 million of population which is 16 years of age and over, the bulk are on farms, working for themselves or their families. There are only 240,000 people working outside of peasant agriculture
and domestic service. Of these, 225,000 are Africans, 10,000 Asians and under 5,000 Europeans. The latter two groups furnish most of the key skilled, technical, managerial and administrative personnel needed for the running and development of the economy. The Africans are just beginning to move into these categories and they do the bulk of the unskilled work. A very high proportion of the unskilled African labor are, in fact, migrants from outside Uganda—from Ruanda-Urundi, Tanganyika and Kenya. A major expansion of education and health services was initiated during the 1950's, but beneficial results in additional trained people and a general widening of outlook are only now beginning to appear.

Employment in the public services totals 102,000 demonstrating the importance of this sector. The largest single elements here are local government, 37 percent of the total, construction 16 percent, central government administration 14 percent, education and medical services 10 percent, transport and communications 7 percent, and all other 16 percent. In the private sector, of the 126,000 African employees, 33 percent are working on estates and plantations, 19 percent in manufacturing, 12 percent in construction, 9 percent in private education and medical services, 7 percent in commerce, 4 percent in cotton ginning and coffee curing, and 16 percent in all other.

Uganda is seriously short of trained senior administrators and technicians for government posts. At the end of June 1961 there were 1,700 Europeans on the super-scale (top administrators), A (professional), B (semi-professional), and C and allied scales (technical and supervisory) under the jurisdiction of the Public Service Commission; of these, about 1,250 were career officers and the others were serving on contract. There were about the same number of local people in the career service, of which 810 were Africans and 450 Asians. The local people are still mostly in lower grades—there are none in the super-scale, for example. (The total for Africans is somewhat misleading since it does not include African teaching staff on scales comparable to those of Scale B and Scale C. There were 40 African graduate teachers and some 400 African technical teachers in the teaching service.)

Since the Europeans in the main do not regard Uganda as their home, local people must be trained to replace them. The closer the date of independence the greater the need for "localization" of the civil service. The skills needed can be acquired only through higher education and experience, and Uganda will have difficulty in supplying them for many years to come. The hard fact, therefore, is that
with independence and the desire of many expatriate officials to leave, the problem will be one of retaining a sufficient number of these key personnel to prevent the standards and efficiency of government service from deteriorating. The initial program started in 1958 was to fill 25 percent of the posts on the A and B salary scales with local officers by 1962. This pace has been accelerated, and every effort should be made to accelerate even more. Based on the number of Africans now being trained, it should be possible to have three-fourths of the career service manned by local people by 1965/66. A large number of expatriate civil service officers will nevertheless still be needed for many years, particularly in specialized staff. The big problem may be to avoid losing key staff too rapidly in the next few years.

If the transition is skillfully handled and the present high standards of administration are maintained, the civil service will be an invaluable asset in the development of Uganda. The U.K. Government has agreed to bear the "inducement" element in the pay of the expatriates, and this will help Uganda keep the people it needs and help the country to pay the differential cost of expatriate salaries.

As the civil service becomes localized, however, Uganda will be left with a difficult and continuing problem. The existing civil service structure of salaries has been related to the salary structure in the United Kingdom, plus an inducement element to get people to leave their homes to come to Africa. But a basic government salary structure that is appropriate to a country like the United Kingdom with a per capita gross national product of £450, is hardly right for a country where the gross domestic product is £23 per head. At present, the shortage of qualified people in Uganda for civil service jobs probably still justifies high government salaries in most cases. As the number of qualified people rises this will be no longer true and there will tend to develop (a) a large discrepancy in income between the privileged elite who succeed in getting government jobs, and equally qualified people outside, and (b) a large number of educated, dissatisfied unemployed who refuse to take any lower-paid alternative employment as being beneath them, but hold on in the hope of eventually getting into government jobs. This situation seems already to be beginning to appear among the primary school leavers who have the training for junior clerical jobs but for whom there are no vacancies and who refuse to accept the only available employment, work on the land. While it will be many years before there is an adequate number of educated local people to fill the higher posts in the civil service, at some point this problem will eventually arise.
RECENT DEVELOPMENTS AND THE PRESENT POSITION OF THE ECONOMY

**Total Per Capita Incomes**

Uganda's per capita gross domestic product at present is estimated as being in the neighborhood of £23 which is higher than Tanganyika's but lower than Kenya's. The per capita income of Africans in Kenya is probably not much different from that of Uganda, which helps explain why Africans from the poorer sections of Kenya go to work in the richer sections of Uganda. While Uganda's per capita income is roughly the same as that of India, on the whole Uganda is free from the misery which may be found in some other countries which are overcrowded.

The over-all growth of the economy in recent years is illustrated in Table 2, which shows the gross domestic product, a measure of all the production in the country.² This table brings out some of the characteristics of the economy mentioned above: the predominance of agriculture, the high proportion of subsistence income, the lesser importance of the other sectors.

Gross domestic product grew by over 20 percent over the six years 1954-60. This is equivalent to about 3 percent annually on the average, or more than the estimated yearly increase of population of about 2.5 percent. The gross domestic product figures in the table are expressed in pounds at current prices; no price indices exist which could serve as reliable deflators of the series and so make possible a more accurate estimate of real product. But it is probably true that domestic prices for commodities bought by Africans have declined;² cotton and coffee export prices have dropped by about one-third, while prices of the major imported consumer goods in 1960 were somewhat above the 1954-1955 level. Taking into account these domestic and international price trends, the gross domestic product in 1960 may be estimated at about one-quarter above the 1954 level at constant prices. Consequently, real per capita output probably grew by an annual average rate of over one percent. While this rise does not imply that

² The lack of reliable balance of payments statistics prevents the computation of gross national product estimates for the time being.
³ For example, the seasonally-adjusted index of retail prices in African markets for Kampala alone declined from 107 in June 1956 (January 1957=100) to 94 in December 1960.
### TABLE 2: Gross Domestic Product at Factor Cost

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<td></td>
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<td><strong>Total GDP</strong></td>
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<td>141.6</td>
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<td>41.0</td>
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\(^a\) Estimated.  
\(^b\) Forecast.

**SOURCE:** Uganda Government Statistical Office.
a corresponding increase in purchasing power took place, it does reflect the country's economic progress in terms of physical output. Most of the growth took place, however, in the earlier part of the six-year period while in the last part of the period and in 1961 it is likely that real per capita income has declined. This is, of course, an ominous development.

Because population growth has speeded up, at least in the last ten years, the same rate of growth in total production as earlier now means a much slower rate of growth in per capita standard of living. In the early 1950's the especially rapid advance in GDP from the boom prices for cotton and coffee was more than sufficient to offset the greater population increase; since 1957, however, this has no longer been true.

The key to the difference between the early 1950's and recent years is that the earning power of Uganda's exports, on which real per capita income also depends, has declined. Cotton export prices reached a peak in 1950/51, then fell drastically to 1953 and have dropped slightly since. Coffee export prices reached their peak in 1954 and have been receding most of the time since then. During the forties and fifties the Government was able to siphon off from these high prices funds to build up most of Uganda's modern economy outside of agriculture and to finance a big expansion in government spending, particularly on social services. But the decline in the prices of coffee especially since 1957 has offset the rise of coffee and other output and consequently the monetary GDP estimates have scarcely changed since 1957. In more technical terms, the terms of trade, the quantity of imports a given volume of exports will buy, worsened for Uganda by over 30 percent between 1952-54 and 1957-60. This deterioration in the prices at which Uganda sells compared to the prices at which Uganda buys has kept per capita standard of living from growing in the latter period in spite of the increase in the country's output of the commodities sold abroad.

Exports, Imports and Interterritorial Trade

Uganda's dependence on her exports is thus clear. Apart from the two main cash crops, cotton and coffee, which accounted for over four-fifths of the total export earnings of £41.6 million in 1960, copper

*The value of Uganda's exports is recorded at the point of export outside of East Africa (usually Mombasa). Consequently, the actual proceeds of exports received by Uganda are overstated by the cost of shipment from Uganda to the port at which they are loaded for shipment overseas.
took third place with earnings of £3.5 million, followed by various animal feeding stuffs which earned £1.7 million.

Export volumes (see Chart 1, opposite page) have climbed steadily and substantially since 1950 with the exception of two minor interruptions in 1953 and 1956, caused in both cases by adverse climatic conditions. For the period as a whole, export volume has doubled. This rise was largely brought about by a rapid expansion of the exports of coffee since 1954. Cotton, which had held the first place in Uganda’s exports for many years, experienced little volume rise over the period.

In contrast to the rapidly growing export volume, values were subject to violent fluctuations (see Chart 1). These, of course, resulted from massive price changes in the world markets for cotton and coffee. Their combined effect produced peak export earnings between 1950 and 1952, followed by a sharp reduction in 1953. In the following years, a recovery in value of total exports began, caused almost entirely by expanded export volumes until the 1952 level was almost reached again in 1957. Chart 1 shows the role played by the movements of coffee prices particularly in initiating the downturn in value of exports after 1957.

The composition of imports is typical for a country in Uganda’s stage of development. Two-thirds consist of machinery, transport equipment and various manufactured products, the rest of chemicals, fuels and certain food items. No price fluctuations comparable to those on the export side occurred on the import side; volumes and values moved fairly parallel. Total imports from overseas reached a postwar peak in 1955 (£34 million) although this was an abnormal year because the phasing of shipping at Mombasa was ended and a backlog of demand was filled. In 1956, imports from overseas were £28 million and since then they declined to about £26 million in 1960. Clearly, this reduction is a consequence of the fall in Uganda’s purchasing power abroad as a result of the price declines in its crops.

While, because of the absence of customs controls, movements of goods and services between Uganda and her two neighbors, Kenya and Tanganyika, are not recorded systematically, fairly reliable estimates exist. As long as the economic position of the three territories remained closely similar, trade within East Africa consisted almost exclusively of certain food items from temporary surplus areas to areas where climatic conditions had led to shortages. During the 1950’s, however, regional specialization began in some lines of production. This established the basis for a growing volume of interterritorial trade.
CHART I

EXPORTS (VALUE AND VOLUME) TO COUNTRIES OUTSIDE EAST AFRICA
(INDEX, 1954 = 100)

YEARLY

VALUE

VOLUME

and at the same time produced changes in the trade balance among the territories. Exports from Uganda to Kenya and Tanganyika totaled £4.3 million in 1950, while imports reached only £1.4 million, leaving a nominal trade surplus in Uganda's favor of £2.9 million. Interterritorial trade statistics through 1958 included the value of certain local taxes whose proceeds were remitted by the country of origin of the goods to the consuming country; if these are excluded from the statistics of trade (see Annex I) the actual surplus was only about £1.3 million. Between 1950 and 1960, Uganda's exports to, and imports from, Tanganyika expanded so that Uganda continued in 1960 to have a trade surplus with Tanganyika of about the same magnitude as in 1950. Trade with Kenya, however, moved in a different direction. Uganda's exports grew, but imports grew more rapidly. From this resulted not only a trade deficit exclusive of local taxes with Kenya but with East Africa as a whole, estimated at about £1.3 million for 1959. In 1960, however, due to an increase in sugar and textile exports to Kenya, Uganda had a small positive balance in her trade with East Africa, with exports of £6.7 million and imports of £6.6 million.

An examination of the trends in Uganda's foreign trade and payments with the rest of the world brings to light one more relevant fact: a substantial outflow of private capital from Uganda that must have taken place for a number of years. Both statistical and non-statistical evidence suggest a rather high amount of private capital exports, although it is impossible to express it in exact quantitative terms. The balance of payments is difficult to compile largely because of the common market arrangements with Kenya and Tanganyika noted above. But the attempt made in Annex I to present the balance of payments picture nevertheless allows the conclusion that a large part of the difference between known incoming and outgoing payments can only be explained by private capital exports. Official and private sources estimate an annual loss perhaps of the order of £5 million since about 1954. The most likely explanation stems from the fact that investment opportunities in Uganda are limited for the non-African community because of their inability to acquire land. It is only natural as a result that some portion of their savings is invested outside Uganda where these limitations may not apply. Non-economic factors such as tensions between the various communities in Uganda and, more recently, the uncertainties created by the approaching independence and the Congo crisis, also played their part, and resulted in an even higher outflow of funds in 1960.
Government Revenues and Expenditures

The combined budgets of the central and the local governments currently are equivalent to more than one-quarter of the country's monetary domestic product. Even if the Government achieves no surpluses and incurs no deficits, the sheer size of the governmental transactions makes the public authorities an important factor in determining aggregate money income.

But the relationship between the domestic product and the level of government expenditures is not a one-way street. A sharp and persistent expansion in domestic income from the end of World War II to the mid-1950's gave rise to an expansion of the annual government expenditures paralleled probably in few countries. In 1945, total Protectorate Government expenditures were £3.6 million; in 1950 £8.0 million. Between 1950 and 1953, recurrent and non-recurrent expenditures combined rose from £8 million to £17.5 million (see Table 3) or from being equal to 11 percent of domestic income to 17½ percent. In other words, public expenditures doubled in only three years. Over the entire period 1945-1959/60, government spending increased by five times. The budgets of the local authorities experienced a similar expansionary movement. Compared with expenditures of about £1 million in 1950, they spent £4.5 million in fiscal 1959/60 (excluding transfer from the central government).

But the impact of the drop in export prices since the mid-1950's has clearly left its mark on the fiscal position of the Protectorate Government especially. While the recurrent budget yielded a surplus every year between 1950 and 1956/57, such surpluses gradually diminished. In fiscal 1957/58 and 1958/59, they were replaced by modest deficits. In 1959/60 a surplus was again achieved, partly because of higher revenues, partly because of a substantial reduction in the level of expenditures, the first such reduction in a decade. The non-recurrent budget traditionally showed a deficit, but again Table 3 reveals its growth over the years, particularly since 1957/58. In 1959/60 non-recurrent expenditures, although at a reduced level, exceeded receipts by the unusually high amount of over £4 million. Taking recurrent and non-recurrent budgets together, the Protectorate Government achieved surpluses between 1950 and 1954, followed by annual deficits, the one for 1960/61 reaching about £4 million, and one of more than £5 million being in prospect for 1961/62.

These deficits certainly mitigated the impact of the falling cotton and coffee prices on the economy. Deficit financing under the cir-
TABLE 3: Protectorate Government: Revenues and Expenditures

(in £ million)

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<th>Non-Revenue</th>
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<th>Receipts</th>
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a Since mid-1954, the fiscal year starts on July 1 instead of on January 1.
b September 1961 estimate of final figures.
c September 1961 revision of Budget in light of 1960/61 actuals and supplementary estimates.
d Figures in parentheses are on a new basis which excludes from both revenue and expenditures self-financing items such as fees of court or office, and the reimbursement by the U.K. of special inducement allowances for expatriate officers.


...cumstances was feasible because the surplus Revenue Balances of the Current Budget accumulated and invested abroad during the budget surplus years could be drawn on. At the end of 1960/61 fiscal year, only £1.5 million was left in the Capital Development Fund (the remnant of a £5 million interest-free loan from the Lint Price Assistance Fund). The capital and development budget must now find new sources of finance. The Revenue Balances at a level of about £6.5 million still provide an emergency reserve but obviously cannot be used as a regular source of funds. The Currency Board system makes impossible any attempt to avoid facts by trying to finance the deficit through inflation so the Government can only run deficits to the extent that it can borrow from people in East Africa or draw on external sources to cover them.
During some of the years of high world market prices the export tax on cotton and coffee yielded over £8 million a year; the first £4 million of the proceeds from this tax were allocated to the recurrent budget, the remainder helping to finance public capital expenditures. In 1959/60, export taxes still brought in £4 million; in 1960/61 they brought in an estimated £2.6 million and prospects for the immediate future are that £2.3 million a year is all that is likely. It goes without saying that the Government will find it extremely difficult to offset this revenue loss. This causes particularly grave problems for the non-recurrent budget as the public investment program in the past was financed to a very large extent by the proceeds from the export taxes.

Another aspect of the fiscal picture, uncovered by the receding of the high export prices, is the distribution of public expenditures between the various sectors of the economy. The period 1947-1959, characterized by rapidly rising public expenditures, can be divided into two distinct phases. Between 1947 and 1951, the country embarked on a substantial industrialization program. Improvement of the economic infrastructure and establishment of the basic industrial services was the keynote. During that phase, a host of projects were conceived such as the hydroelectric power plant at Owen Falls, the development of copper mining and refining at Kasenye, the extension of the railway from Kampala in the center of the country to Kasenye in the west, the expansion and improvement of the road system, the setting up of the Uganda Development Corporation, the establishment of a textile factory and of cement works as well as a number of smaller projects. Although not all of these schemes were completed or construction even started during this period, the process of their initiation was nevertheless started in those early postwar years.

Another change in the Government's expenditure policy took place with a change in Governors in 1951. Heavy emphasis was now placed on the improvement of the social services and this continued with his successor, who, however, also emphasized expenditures on law and order. Table 4 illustrates this shift in emphasis very clearly. While most of the sectoral expenditures occupy much the same relative place now as they did 10-13 years ago, the educational spending program was greatly expanded, and during 1955/56-1959/60 absorbed more than 18 percent of total central government expenditures compared with a mere 8.8 percent during 1947-50. In addition, well over one-third of the heavily increased local government budgets also was devoted to the financing of social and educational projects. Only a few countries
in the world, developed and underdeveloped, at present spend a greater proportion of per capita incomes or total public expenditures on educational services than Uganda. In total, all public expenditures on social services at present amount to almost one-third of the total budget and roughly 10 percent of the monetary domestic product.

**TABLE 4: Distribution of Protectorate Government Recurrent and Non-recurrent Expenditures, 1947-60**

(Average expenditures as percent of total)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Administration, law and order, defense</td>
<td>20.2</td>
<td>16.2</td>
<td>21.5</td>
</tr>
<tr>
<td>Public debt, pensions and passages</td>
<td>8.7</td>
<td>7.8</td>
<td>7.4</td>
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<tr>
<td>Economic services</td>
<td>14.5</td>
<td>15.8</td>
<td>15.5</td>
</tr>
<tr>
<td>Social services</td>
<td>20.2</td>
<td>23.9</td>
<td>30.3</td>
</tr>
<tr>
<td>Of which: Education</td>
<td>8.8</td>
<td>13.7</td>
<td>18.3</td>
</tr>
<tr>
<td>Health</td>
<td>9.1</td>
<td>6.7</td>
<td>8.8</td>
</tr>
<tr>
<td>Community services (road, urban development)</td>
<td>13.3</td>
<td>14.9</td>
<td>14.5</td>
</tr>
<tr>
<td>Service departments and miscellaneous</td>
<td>23.1</td>
<td>21.4</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** Calculated from Uganda Protectorate, 1960 Statistical Abstract.

While falling export prices have led to declines in government receipts from export taxes, and while the growth of money incomes has slowed down, an accelerated growth of population has given rise to growing needs, so that the best use of government revenues becomes imperative. At the same time, the vigorous promotion of economic growth is at this stage an essential part of successful self-government.

In addition to the problem of allocating funds between sectors in such a way as to achieve the best results in aiding production, the Uganda Government faces the necessity of bringing about an over-all balance between expenditures and receipts. As mentioned above, with the fall in world market prices of the country's exports, most of the Government's reserve funds have been used up. As a result, an attempt was made beginning in 1959 to halt the previous rapid rise in government current expenditures, to increase current revenues by changing the tax structure and to find new ways of financing capital and development programs. The 1960/61 and 1961/62 budgets, however,
saw another jump in expenditures largely due to salary increases which were in large part unavoidable and the reappearance of sizeable deficits.

Public and Private Investment

Total gross investment, both private and public, reached a peak in 1957 when it totaled £29 million or one-fifth of the gross domestic product. Since then, a reduction has occurred and in 1959 investment in the amount of only £21 million was undertaken, and its share of the domestic product fell to 14 percent. These figures include estimates of investment in coffee and tea plantations and peasant coffee farms. There is no doubt that in addition some other capital formation has taken place which has involved little or no monetary expenditure. Typical examples are the building of improvement of a house by a peasant for his family. Investments such as these, although not recorded statistically, nevertheless represent real capital formation and contribute to the improvement of the standard of living.

The rate of investment, even at the recent level of around 14 percent of domestic product, compares favorably with many underdeveloped countries and helps to explain why Uganda was able to continue to increase output in the face of the severe drop in export prices. The reason why the increase in output that did occur was not greater is to be found in the structure of capital formation. The largest part of capital expenditures went on buildings. In 1959, for instance, out of the £21 million devoted to capital investment, probably close to one-half was spent on buildings and roads, £5.5 million on industrial equipment and £1.3 million on vehicles. Moreover, by far the largest part of investment was to provide schools, hospitals, government quarters and special government housing. A relatively small amount of total investment was of the type that ordinarily produces immediate and quick increases in the productive capacity of the economy. Again, this is not to argue that investments in administrative and other infrastructure, in the widest sense of the term, were not necessary. But it is equally true that, to take an example, the construction of a factory produces a widening of the production potential of the economy that is more direct and immediate than that from an additional hospital.

As we shall argue in Chapter 3, the development potential in Uganda still lies largely in agriculture—there are no easy-to-develop highly profitable minerals and the scope for industrialization is still
limited. The return to investment in agriculture for the most part is bound to be low since knowledge of the best techniques to use in the difficult tropical environment is still imperfect, the existing institutions, such as land tenure systems, inhibit effort, and productivity depends on the willingness and capacity of hundreds of thousands of peasants still living in a traditional society to adopt new methods of work. In brief, the yield from investment in Uganda has been low and is likely to remain so for some time to come.

Still another aspect of the country's investment pattern deserves attention. Close to 60 percent of capital formation in 1959 was undertaken by the public sector, either by the central or the local governments, the various "parastatal" bodies (autonomous public corporations) or the East Africa High Commission. The remainder represented private investment. A somewhat similar ratio has probably prevailed throughout most of the postwar period. In the immediate future, private investment in itself can hardly be expected to bring about a satisfactory rate of capital formation. Even if the circumstances which have been found responsible for the capital flight were to disappear, the mission is of the opinion that the Government would probably still face the task of undertaking and financing directly or indirectly the major part of the investment program.
The central economic task before Uganda is to marshal the full weight of her human and material resources both to meet the difficult economic problems now facing her and to accelerate the pace of improvement of the standard of living of her people. This is not easy to do. One cannot expect any new windfall in export prices in the next five years. In fact, the expectation is quite the reverse. No great rich reserves of easily exploitable minerals have been discovered. There is, in short, no painless way to achieve big results in a short time.

The mission is convinced, however, that if the people of Uganda want a higher and growing standard of living and are willing to make the effort necessary they can certainly achieve it. Unlike the position in many African countries, there are great possibilities for increasing agricultural production in Uganda: soil, rainfall, and climate are good. In the progress that has been made in the last 60 years alone the people of Uganda have demonstrated their ability to adjust to new conditions. While the number who have been able fully to take advantage of the new economic opportunities is still small, their success in breaking the way augurs well for the future. One of the most encouraging signs in this connection is the popular enthusiasm for education which has already begun to have a profound effect on the capabilities and attitudes of the new generation. Thanks to the investment of the postwar windfall earnings there is a good infrastructure of transport, communications, and power so that these do not constitute a limitation on the growth of the rest of the economy, as is too often true elsewhere.

It must be emphasized, however, that development is not just a matter of knowing the right approach to technical and economic problems. It is also a painful process: it entails giving up some immediate gains for the sake of greater gains later on; it means a disruption of the old ways of doing things and a break with existing institutions and relationships. The most important factor in the process of growth is the speed with which people adapt themselves.
—rather than things—to changing conditions. A bulldozer can move trees and earth but not ideas and habits. Development will not take place unless enough people and their leaders are prepared to make the changes in their habits, attitudes and thinking necessary to achieve the end.

Self-government will not automatically result in a higher standard of living. Self-government is accompanied, unfortunately, by many problems and difficulties, but it also can result in awakening and releasing the initiative and energy of the mass of the people. It provides an opportunity for giving impetus to development but the opportunity must be seized to be realized. In an economy like that of Uganda that is largely the sum of the efforts of over a million small peasant farmers such an activation of the latent powers of the people can have great economic significance.

The overwhelming majority of the people of Uganda are African in origin so that it is only natural and proper that the bulk of the policies of the Government must be directed to help them to improve their standard of living. At the same time, the contribution which the other races living in Uganda have made and can continue to make to the country must be recognized. In the past, the other races have been the catalyst that started the process of change in the previously static society. They are still the indispensable key personnel in most of the modern economy on which the livelihood of hundreds of thousands of their African fellow-countrymen depend. Governmental policies must, therefore, be such that they will encourage the economic development of the Ugandan of African origin while not discouraging the Ugandan of Asian or European origin. If Uganda is to grow and prosper, the energies and talents of every citizen, of whatever origin, must be utilized. Uganda will want to draw as much capital and other help as possible from outside in competition with many other countries that offer many advantages. In this competition, the greatest attraction any country can offer is a record of fair treatment of existing investment and effort within its borders. In fact, the successful creation of a feeling of stability and security in the next few years should result in a stopping of capital export and eventually a repatriation of capital and give a decided fillip to the economy.

The Strategy

The next five years can be decisive years for the economic development of Uganda if opportunities for action are fully grasped and
effort is applied efficiently with a minimum of waste. To achieve this effectively, an integrated program is necessary which allocates resources as much as possible to those uses that will result in the highest returns to the economy. The mission's recommendations are intended to provide the basis for such a development program over the five years, 1961/62-1965/66. Even if these recommendations are followed, we cannot promise that there will be immediate spectacular results. But with reasonable luck, the rate of growth should accelerate and gross domestic product should increase on the average by 3-4 percent a year, or at a rate higher than the rate of increase in population, thus permitting improvement again in the average standard of living. If the program is carried out successfully, we would expect the rate of growth to accelerate even further by the end of the period and after to around 5 percent a year.

The main principles governing the kind of program that we believe Uganda should adopt are as follows:

a. The major emphasis should be on increasing production—the direct wealth-producing activities. As we discussed in Chapter 2, the increases in government expenditures, with an increasing proportion of the budget in the social services, have outrun revenues. Before a further major increase can be made in social services, the national income and government revenue must be increased as rapidly as possible so Uganda can afford to do more.

b. While holding the line on most social service expenditures by making some modifications in approach it would be possible to provide more education and more health benefits without significantly increasing costs. A special effort, however, needs to be made to produce the high-level trained people in which Uganda is particularly short.

c. Capital expenditures on administrative overhead (government buildings, residences for officials, etc.) should be kept to the minimum necessary level.

d. The Government should continue to encourage the orderly evolution, which is already well under way, of the traditional subsistence way-of-life into a modern monetary economy.

e. Government policies should be consistently directed (i) to secure a better organization and financing and a more efficient execution of the development effort; (ii) to give more encour-
amendment to private investment and to a more economic use of resources in the rest of the economy; and (iii) to set prices for all public utility services provided to the public at a level high enough to ensure at a minimum that each pays its way.

Based on these principles we recommend that the Government take a number of concrete steps to accelerate economic growth. (A summary of the main elements of the program is presented in Chapter 5, while in the subsequent chapters of the report we give the complete statement of the mission's recommendations in each sector and of the reasons supporting them.) We recommend that everything that is administratively and economically feasible be done in the next five years to increase output in manufacturing, mining and agriculture—the commodity-producing sectors. The mission endorses the initiative and energy of the Uganda Development Corporation in pushing investment in industry to the economic limits. We also endorse the Government's policy of encouraging African entrepreneurs and fostering backyard industry and have some suggestions on possible additional measures to help. We approve the recent changes in tax policy to encourage investment in mining and industry. We also support action to learn more about the mineral potential of Uganda. We underline the importance of encouraging the present investors in Uganda and suggest some inducements for new investors.

It is quite obvious, however, that in spite of doing everything possible in manufacturing and mining, the main opportunities for economic growth in Uganda in the next five years are in agriculture. With the outlook as uncertain as it is in coffee, the weight of effort in agriculture must be put on increasing output of cotton, for which the competitive position is comparatively favorable, and in encouraging the offtake of marketable livestock and other diversification. To achieve this, we propose that the Government should concentrate on "investing in success", in other words, concentrate funds and technical assistance in aiding those farmers who show interest in and respond to measures to increase output. Included in this program are credit and subsidy proposals to provide more working capital for farmers, investment in helping the raising and the marketing of livestock, extension service activities, training and research. At the same time, the Government should encourage and aid in the process of transformation of land tenure from a system suited to a simple, and traditional, subsistence economy to one more in keeping with a developing market economy.
In the mission's judgment the infrastructure of basic services is well-equipped to meet the needs of the economy. We endorse the program to extend the railways to the north and the electric power grid to the north and west. Otherwise, in this field we make some suggestions on policy and on improvement in institutional arrangements. We also recommend that new investment only be made to keep pace with growth in the rest of the economy.

The determination of the optimum distribution between what is commonly called productive and non-productive public expenditures is a problem of the first order. Put in a more accurate way, the problem is one of establishing the proper allocation of funds between the quicker-yielding investments in the commodity-producing sector and in the slower-yielding investments in the social services which, properly handled, build up the human capital of the country and so produce an economic return in the long run. In determining these priorities, political as well as economic realities must be kept in mind and balanced against each other. But it must be remembered that vigorous promotion of economic growth is at this stage an essential part of successful self-government.

Although Uganda is devoting a very high proportion of her resources to the social services, we do not recommend any appreciable change in the absolute level of expenditures. We believe that the time is ripe for a shift in the emphasis in health to preventive medicine so that much more can be accomplished in improving the health of the people with no great change in costs. We are also proposing a reorientation in the housing field to multiply the effectiveness of expenditure and action to meet the acute needs of the Kampala urban area. Similarly in education, we have recommended changes designed to secure a further increase in primary education without a corresponding increase in costs. Primary education is one of the main means of helping the mass of people acquire the skills and attitudes fundamental to the process of growth as well as to running a modern state.

A strategic factor in Uganda's needs is the short supply of trained high-level manpower to replace expatriate personnel in the public services and to make possible an expansion of the economy. The key personnel on whom Uganda must rely to fill posts are already in school; if action is not taken now to ensure that over the next generation they get the necessary training, it will be too late in a few years to do anything to meet these needs. The mission is sure that a special effort is justified on this account. Additional expenditure in education is therefore proposed, with the prime objective
being to increase the numbers successfully completing secondary and higher studies.

The mission has also had to take into account the problems connected with the financing of essential local services. The Relationships Commission has recommended that the local authorities should assume responsibility for local services formerly performed by the central government.¹ The local authorities would receive extra revenue, but the need would still remain for the central government to help in financing capital expenditures on some part of these services and we take account of this need in our suggested program by providing a substantial cash allocation from the central government to the Local Authorities Loans Fund.

Finally, we recognize that there are also some central government administration capital expenditures that have to be included in the program. For such expenditures, we have used a forecast based on existing plans. Because these expenditures can only remotely be said to contribute to economic development, we have not reviewed the plans on which they are based in any detail.

To meet the problems of the Government's recurrent budget, we are making a number of recommendations on ways of increasing tax revenues and of changes in the tax structure, but we are also recommending that an economic study be made of the tax structure to provide guidance on how it might be reshaped better to meet the needs of economic growth and the evolving political structure. Special provision also needs to be made within the government structure for preparing economic plans and for improving the capability of the Government for carrying them out. As an important part of the institutions needed to facilitate economic growth, we propose the carrying forward of action looking toward the setting up of a central banking system in East Africa.

To repeat, the main theme of our strategy is the recognition of the necessity to raise the national income by concentrating on the most favorable sectors and doing all that can be done there to raise output. On success in the raising of the national income all else depends—the standard of living, the ability to afford better education for the children, better food and better health for the family.

As we have tried to make clear, improvements in policies and in institutions are at least as important as investment and other ex-

penditures in promoting economic growth. The following outline of
the financial implications of our suggestions for the program should
not obscure this point.

The Program

The development program for the public sector—carried out by
central government and by other governmental and parastatal
agencies together with the normal administrative capital invest-
ments of the Government, totals around £52 million over the five-
year period, 1961/62-1965/66 (see Table 5). Such a program would
represent an impressive effort for an economy of the size of
Uganda's: it is equal to more than one-third of Uganda's gross
domestic product in 1961 and almost a half of the gross domestic
product excluding subsistence activities.

In addition to capital investment expenditures, we include in
our program "special recurrent" expenditures to cover those parts
of the programs mainly in agriculture and education, that we regard
as having special developmental significance in the next five years.

Of the total expenditures in the public sector, £33.8 million
would be carried out by the central government itself. The re-
mainder, £18.2 million, is to be carried out by other governmental
and parastatal agencies. The largest part of this latter is the invest-
ment of the two public corporations of the Government, the Uganda
Development Corporation (UDC) and the Uganda Electricity Board
(UEB). Included in the remainder is the investment of local author-
ities in Uganda financed out of their own resources, the East African
Common Services' investments, including for example the railways
and posts, telegraph and telephones, and a few small items covering
activities carried out by U.N. organizations, such as UNICEF.
While the Uganda Government has to concern itself primarily
with finding funds for the items in the central government's pro-
gram, it also has varying degrees of responsibility for the remainder
of the program although, in general, funds for most investments to
be made by agencies other than the central government are already
assured or well in sight. The program in each of the sectors, of
course, would not be spread evenly throughout the period. The
agriculture program, in particular, is heavier in the early years
while the education program is heavier in the later years. (The
details are given in the relevant chapters.)
TABLE 5: Capital and Development Expenditures in the Public Sector, 1961/62-1965/66

<table>
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<tr>
<th></th>
<th>Central Government Program</th>
<th>Other</th>
<th>Total</th>
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</thead>
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<td><strong>COMMODITY-PRODUCING AND TOURISM</strong></td>
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<td>of which:</td>
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<tr>
<td>Agriculture and Veterinary</td>
<td>5.8</td>
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<tr>
<td>Irrigation, water, reclamation</td>
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<td>0.0</td>
<td>0.5</td>
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<td>Forests, game and fisheries</td>
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<td>0.0</td>
<td>0.1</td>
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<td>Tourism and parks</td>
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<td>0.0</td>
<td>0.2</td>
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<tr>
<td>Geological survey, minerals</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
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<tr>
<td>U.D.C.—Industry, agriculture, tourism</td>
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<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>BASIC ECONOMIC OVERHEADS</strong></td>
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<td>of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roads</td>
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<td>Railways</td>
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<td>Airports</td>
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<td>0.4</td>
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<td>P.T. and T.</td>
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<td>Central Services Org.—Research projects</td>
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<td>U.E.B.</td>
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<td><strong>SOCIAL SERVICES</strong></td>
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<td>of which:</td>
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<tr>
<td>Education</td>
<td>5.0</td>
<td>0.0</td>
<td>5.0</td>
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<tr>
<td>Health</td>
<td>2.1</td>
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<td>Housing</td>
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<td>Community Development</td>
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<tr>
<td><strong>LOCAL AUTHORITY AND URBAN SERVICES</strong></td>
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<tr>
<td>of which:</td>
<td></td>
<td></td>
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<tr>
<td>Urban Services</td>
<td>0.4</td>
<td>0.0</td>
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<tr>
<td>Local Authorities Loans Fund</td>
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<tr>
<td>Local Authorities—Own resources</td>
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<td>3.0</td>
<td>3.0</td>
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<td><strong>PUBLIC WORKS, BUILDINGS, CONSTRUCTION</strong></td>
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<td></td>
<td>1.8</td>
<td>0.0</td>
<td>1.8</td>
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<tr>
<td><strong>POLICE, PRISONS, LAW AND ORDER</strong></td>
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<td>2.2</td>
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<tr>
<td><strong>RESERVE (for contingencies—new projects)</strong></td>
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<td></td>
<td>3.0</td>
<td>0.0</td>
<td>3.0</td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>33.8</td>
<td>18.2</td>
<td>52.0</td>
</tr>
</tbody>
</table>

**Note:** Detailed items may not add exactly to totals because of rounding.
Table 6 indicates the percentage allocation of the capital and special development expenditures of the central government program that we suggest, compared to the similar allocations for the three years, 1958/59-1960/61, the period when the economy has been on a kind of plateau. This table brings out clearly the shift in emphasis to the commodity-producing sector that we are strongly recommending. We would also hope that the major part of the unallocated reserve would be used to finance further sound projects in the commodity-producing sector that would be worked out during the course of the five years.

**Table 6: Capital and Development Expenditures of the Central Government, by Sectors.**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Commodity producing and tourism</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Basic economic overheads</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Social Services</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td>Local Authority and Urban Services</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Public works, buildings, police, etc.</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>Unallocated reserve</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Annual Average

| £5.2 million | £5.8 million |

**Recurred Budget**

In addition to financing our recommended capital and development program, the Government will also have the problem of meeting its recurrent budget. We endorse the intensive effort the Government has made, particularly during 1960 and 1961, to economize and get better value for its money. With all that has been done and can still be done, it is still possible that there may be some further increase in the recurrent expenditures during the five years 1961/62-1965/66. But, recurrent expenditures should be paid for out of current revenue. In fact, as economic progress depends on the accumu-
lation of savings by individuals and by the state, the goal should be to achieve tax revenues large enough not only to cover current expenditures but to finance, together with local savings, at least the domestic expenditures of the capital program, leaving external loans and aid to meet the foreign exchange costs.

The 1961/62 budget forecast a deficit in the recurrent budget that was to be met out of the Government’s General Revenue Balance reserve of £6½ million on July 1, 1961. A deficit is forecast even though several items of expenditure that a country would normally have to bear are being financed by the United Kingdom at this time: for example, the United Kingdom is paying about £1 million a year of the costs of the inducement element in the compensation paid to the expatriate civil service and is saving Uganda about £600,000 in defense costs. The latter, Uganda may well decide to assume after independence and there will also be some other additional recurrent expenditures that arise from independence. On the other hand, we are recommending increases in taxation (see Chapter 4) and a tax mission which may result in further tax increases; revenues should also grow from existing taxes with the growth in the economy; we are recommending that some £5.6 million of special development recurrent expenditures be included in the development program. (These expenditures in agriculture, livestock, secondary education, geological survey and community development, although recurrent in form, should have a sufficiently direct impact in increasing the productive capacity of the country to warrant their being included in the development program.) Aside from the impact of defense costs, which it is difficult to forecast, if the necessary strong measures are taken to hold down other recurrent expenditures, then, we believe that Uganda should be able to finance its recurrent budget during the program period 1961/62-1965/66 without completely exhausting the funds that might be available for this from the General Revenue Balance (also see discussion on page 50). We are recommending also that £3 million should be allocated to the development plan directly out of the increase in export tax receipts from the increase in cotton crops resulting from our program and the increase in coffee export tax rates we recommend.

The Financing of the Development Program

An analysis of the present position of the financing needed for the central government’s program is given in Table 7. An automatic
source of finance is the £1.27 million which remains in the Capital Development Fund. There is also a small item of miscellaneous receipts (such as interest on investments) which it has been the practice to credit to the capital budget. Furthermore, we propose in Chapter

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<th>TABLE 7: Sources of Finance for Central Government Program, 1961/62-1965/66</th>
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<td><strong>TOTAL FINANCING NEEDED</strong></td>
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<td>Remainder of Capital Development Fund</td>
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<td><strong>14.70</strong></td>
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<td>Possible Aid from United Kingdom under Legislation Authorized to March 31, 1964:**</td>
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<td>Exchequer Loans</td>
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<td>C. D. and W. Grants</td>
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<td><strong>Total Possible Financing</strong></td>
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10 that the Uganda Development Corporation begin paying dividends to its sole shareholder, the Government, out of its earnings. There is a good probability that UDC will be able to pay £0.5 million during this period without harming its own investment program. The Local Authorities Loans Fund (see Chapter 5) is beginning to receive some repayment of principal and interest on its loans to local authorities, and we estimate some repayment of principal and interest on its loans to local authorities, and we estimate that this should amount to about
£0.25 million during the five years and should be available for further lending by this Fund. The Uganda Government stood the loss on the operations of the western extension of the railway to Kasese for several years after it was built. This money (£0.43 million) is now being repaid by the railway out of the profits on the western extension and the Government has agreed to make it available to help finance the new extension of the railway to the northwest.

The Price Assistance Funds, as was explained in Chapter 2, were accumulated during the period of high prices of coffee and cotton. At the end of the crop year October 31, 1961, these balances were estimated at around £16 million. (This excludes the £5 million interest-free loan to the Government's Capital Development Fund, which has been exhausted and realistically should be written off.) Just under one-third of this total was in the Coffee Price Fund and the rest was in the Cotton Fund. The Funds in the last few years have been used to support the domestic prices paid to coffee and cotton producers and in part at least, to help maintain the level of incomes in Uganda. The mission agrees that these Funds must be used for the benefit of the farmers. It is our belief and recommendation that the best way in which the Funds can be used to this end is to use them to help finance programs which will improve the productivity and raise the standard of living of the farmers. (There is in any case no way to relate individual contributions and benefits: many of the farmers who grew cotton no longer do so and many of the present-day cotton and coffee producers have come in since the early 1950's when the Funds were built up.) It is good economic policy to use part of the Funds in investment that will result in additional output and additional income for the farmers equivalent to a multiple of the money used and allow a permanently higher standard of living. It would be bad economic policy (though tempting politically but short-sighted) to use such money instead to raise prices temporarily above those justified by world market levels. This would result in a temporary increase in the standard of living which then could not be sustained. We therefore suggest that at least £5 million be withdrawn from the Funds to be used to finance the development program, with particular emphasis on helping the farming community. This is admittedly an arbitrary figure: probably as much as £6 million could be expended out of these Funds and still leave a sufficient reserve to meet the Marketing Board's financing needs under our proposals for the Marketing Board's policies (see Chapter 6.) We are suggesting as a planning
figure that only £5 million be used for the program. If it should prove necessary to draw more than £5 million from the Funds in order to finance some development expenditures that do not help farmers directly or indirectly, any amounts used for such projects should be regarded as a loan from the Funds, thus preserving the principle of agricultural dedication intact.

Another source of finance for the central government's program is the increase in export tax receipts, as discussed above; we suggest that a contribution of £3 million might be feasible from this. A further £2.5 million could be borrowed from the East African Currency Board assuming the Currency Board is willing to invest the whole of the present fiduciary issue in Uganda securities (while it allocates an additional amount of its resources to help in the development of the local financial markets and to help the banking system when necessary). This we regard a reasonable line of development. Finally, we include £1.25 million to be raised by public issues in East Africa, as a very rough estimate of the amount that the East African capital market should be able to furnish to Uganda over the five-year period. It is probable that most of this could not be found until the near-end of the period.

The total financing from local sources thus would come to £14.7 million or 43 percent of the total cost of the central government’s program. Of the whole public sector program of £52.0 million, local sources are estimated to provide just over £25 million or 48 percent of the total. This is not an unimpressive effort. But it is not unreasonable to expect a country to provide around half of the cost of its capital and development program. International lenders and international donors of aid prefer to help those who help themselves.

Further financing is possible in the form of aid from the United Kingdom, mainly as Exchequer Loans and Colonial Development and Welfare Grants. The figures listed in Table 7 understate the total amount of aid being given by the United Kingdom to Uganda since they do not include the C.D. and W. Grants and Exchequer Loans given to the East African High Commission services or other East African activities from which Uganda benefits. They also exclude the Exchequer Loans being used by the Uganda Electricity Board to finance the expansion of the electricity grid. Also not taken into account is the substantial help given by the United Kingdom to the recurrent budget in the form of inducement and other allowances to expatriate officers and in the financing of defense, as noted above.
Taking local and United Kingdom finance together, there still would remain a gap of £9.6-13.6 million in the financing available for a development program. We believe that the chances are quite good that Uganda will be able to get some aid from other governments and international organizations if a development program is adopted which these sources regard as adequate, if a vigorous effort is made to carry it out, and if the country is organized to take advantage of the availability of aid (as we recommend in Chapter 4). The gap seems to be quite large but should not be impossible to close with sufficient effort and good management by Uganda and good will abroad.

Our program includes an item of £3 million for contingencies and new economically justifiable projects that might be found during the course of the five years (see Table 5). This also provides a measure of reserve if sufficient funds cannot be found. In our discussion of the Price Assistance Funds we have indicated our belief that there is still some reserve there that might be used in case of need. We also believe that the possibility should be seriously considered of applying the investment income from these Funds to help finance the development program. The Post Office Savings Bank in Uganda has about £1 million invested abroad, part of which might be gradually reinvested in Uganda securities.

The General Revenue Balance had about £6½ million on July 1, 1961. We would suggest that about £3½ million of this should be set aside as a reserve for the obligations connected with independence that Uganda might have to meet during 1961/62-1965/66. These obligations are not included in our program but should be kept in mind in Uganda's financial planning as it would be embarrassing to the Government if no money were available for them on independence. Among these obligations are the capital costs of defense which presumably would not continue to be borne by the United Kingdom Government after independence and the costs of localization of the civil service which entail paying compensation for loss of career and commutation of pensions to the expatriate officers who are replaced by Ugandans. The total cost of this might amount to about £10 million. Of this, the United Kingdom presumably might pay half and the rest would be a charge on Uganda. While the United Kingdom might work out special arrangements to help Uganda find financing for most of this, there would be some immediate expenditure by Uganda in any case. There are also the initial subscriptions required for Uganda's membership in international or-
organizations and the capital costs of setting up a foreign service, and these two items alone are likely to total several million pounds.

At least part of the gap in financing the program may be met by borrowing abroad, but Uganda's capacity to service external debt is not unlimited. At present, the external debt burden of Uganda is quite large, although the direct financial burden on the Government is practically non-existent. The external debt of Uganda essentially consists of a series of debts of the Uganda Electricity Board, some of which were incurred directly by the UEB and some of which the Government of Uganda incurred, passing on the proceeds to the UEB. In any case, these debts are all serviced by the UEB, it being of no consequence in terms of its burden on the budget whether the service is passed through the government budget accounts or not. This total debt, less sinking funds, amounted to an estimated £22.6 million on June 30, 1961.

In addition, Uganda, like the other East African countries, has a contingent liability for the external debt of the East African High Commission and its services. This debt came to £60 million on June 30, 1961. While there is no limitation on Uganda's contingent liability on this debt, the three East African countries have agreed among themselves that they would share equally any actual recourse to them for payment on the debt. In any case, since the monetary gross domestic product of Uganda is just under one-third of the total of East Africa and her exports outside East Africa are more than one-third, the burden on Uganda's economy for earning the foreign exchange for debt service can be taken as roughly one-third.

In sum, the total external debt attributable to Uganda's economy might be taken as something around £43 million or about equivalent to Uganda's total annual exports outside of East Africa. The annual service on the total debt would amount to around 5 percent of current annual export income. Comparing Uganda's debt position to that of other countries, there should still be some margin of debt servicing capacity even without any further increase in external earnings. In working out our suggested development program, the mission has tried to find projects to the extent possible which might promise a fairly quick and sizeable return on the investment. We do expect there would be a substantial increase in gross domestic product and in exports by the end of the five-year period which the program covers. This means that Uganda should be in a position to service additional foreign debt above her present capacity. However, as we point out in Chapter 2, the yield on much
of the investment in Uganda is relatively quite low. A large part of the development expenditures, also, will result in a return only over a long term. On both counts, then, Uganda should attempt to obtain some of the financing needed on a development credit or grant basis.

We are convinced that a development program prepared along the lines that we are recommending is a good investment for Uganda and that a determined effort to secure finance for it should be made and should succeed.
DEVELOPMENT PLANNING

While Uganda has not lacked development plans in the past, the situation the country now faces makes effective planning essential. A financial stringency that may be expected to last for a number of years accentuates the need for careful assessment of development priorities and an economical use of development funds. This stringency, together with growing external sources of funds available for African development, suggests the need for more active cultivation of these sources and the preparation of projects amenable to external financing. An accelerated transition from subsistence production to production for the market requires a re-examination of measures designed to stimulate the contribution to development of the private sector of the economy. These needs can be met effectively only by a substantial strengthening of the staff available for development planning and by ensuring there is a government instrument capable of framing and carrying out the necessary development decisions and policies.

Since 1944 Uganda has had some six different development plans. Some have merely been lists of desirable projects. The development strategy implicit in various plans appears to have reflected the predilection of the incumbent Governors. It is probably fair to say that in none of the development plans has there been the weight of effort on agricultural development that, in the opinion of the mission, it deserves in Uganda.

In recent years, the principal planning instrument has been the Three-Year Expenditure Forecast. This has been presented to the Legislative Council by the Minister of Finance each year, a month or so before the legislative debate on the annual budget. The Forecast estimated the amount of money likely to be available for both recurrent and capital expenditure, set a ceiling to aggregate expenditures, and attempted a provisional allocation among the various ministries and departments. Expenditure priorities were no doubt carefully considered within ministries, but the distribution of proposed expenditures among ministries was the result of a bargaining process.
within the Executive Council in which past allocations lay a heavy hand on future expectations. There was no central staff specifically concerned with the analysis of alternative development proposals.

Since the expenditure forecast was presented to the Legislative Council, there was an opportunity for public participation in shaping expenditure decisions and it is clear that the Government paid a good deal of attention to what was said in Legislative Council. A number of ministries and departments have outside advisory councils, and an Economic Development Committee, established in 1956, advised on matters of economic policy up to March 1961. This Committee, however, was not concerned with development planning, and it had no staff of its own.

There have also been District development plans which are revised sporadically and somewhat casually. These plans vary in quality, but even the best has been little more than a sketch of the economic and governmental characteristics of the District and a statement in broad terms of developmental aims and of work in progress. Altogether it can be said that the Government of Uganda has not been equipped to undertake effective forward planning for the economy as a whole.

Uganda is too small a community to support an independent Planning Commission, nor indeed is there much to be said for independent commissions standing apart from the regular decision-making process of government, preparing elaborate plans that may or may not be put into effect. The essential requirements for effective development planning in Uganda may be summarized as follows:

a. A continuous flow of ideas and schemes from the ministries and departments, and from sources outside the Government, on better uses of existing funds, on productive uses of potential new funds, and on ways and means of stimulating private economic activity.

b. Machinery at the center capable of:
   i. assessing the availability of resources for development and developing new sources of funds,
   ii. recommending priorities for public investment,
   iii. reviewing and recommending public action relating to the private sector, and
   iv. following and evaluating the progress made.

c. Adequate staff work in the fields of statistics and economics to service this machinery.
d. A system of communication between the executive and legislature and between the Government and the public conducive to the open discussion of development issues and capable of marshaling the support of the nation behind a development program. As Uganda moves toward independence, this function will obviously increase in importance.

The principal sources of ideas and schemes for public developmental expenditures have been the regular ministries and departments (with suggestions moving from the center to field offices and vice versa), the independent public or "parastatal" bodies, particularly the Uganda Development Corporation (UDC) and the Uganda Electricity Board (UEB), and special enquiries such as those of the Agricultural Productivity Committee and of the Survey of Roads and Road Transport. There is nothing wrong with these channels and the relative excellence of the ideas generated obviously depends on the caliber of the personnel involved.

If there are deficiencies in the present channels of ideas and suggestions concerning public developmental expenditures, they would appear to arise from a lack of effective liaison with non-governmental sources. In part this may be remedied by the new popularly elected Legislative Council. Political representatives can be expected to be highly vocal exponents of the developmental, as well as other, needs of their constituents. The deficiency partly results from the absence in Uganda, outside commerce and industry, of organized interest groups representing transport, labor, agriculture, and the like, which can be so prolific a source of ideas, proposals, and demands in most developed countries. Pending the emergence of these non-governmental organizations it would seem advisable for the Government to go somewhat further than it has been the practice in Uganda to go, in actively seeking to promote non-governmental discussion and advice concerning development proposals. Elsewhere we will suggest the formation of a Transport Advisory Council representing the users as well as the suppliers of transport (see Chapter 11) and the device of advisory councils, although already used by a number of agencies, may have a wider application. In particular, it should be useful to the Ministry of Economic Development to organize a small advisory committee on economic problems, which could call upon relevant experience in industry, commerce and the academic world. The members of this committee should be appointed as individuals and not as representatives of groups.

The principal weakness in development planning in Uganda, how-
ever, has been in the lack of machinery at the center to assess the
relative priorities of proposals for public development expenditures,
to tap the new and growing external sources of funds available for
African development, and to consider possible changes in public
action needed to stimulate the private sector of the economy.

The question of improving the present assessment of potential
external sources of developmental funds and recommending possible
uses is important but relatively easy to solve. The magnitude of the
resources that may become available to Africa in general and Uganda
in particular is, of course, unknown. But there is every reason to be-
lieve that during the next few years the volume of development funds
and the level of technical assistance from governments, international
agencies, foundations and other sources will sharply increase. The
temptation, particularly for independent governments, to accept as-
sistance regardless of purpose will be great, but should be sharply
resisted. It would serve little purpose to accept a preferred capital
facility if the recurrent costs for maintenance and operation were
beyond the capacity of the recipient. But, recognizing this danger,
there are a number of developmental projects that are both capable
of being financed from external sources and highly desirable. They
are more likely to be useful projects when they form part of a well
considered development program. What is needed is a person or a
unit of government familiar with external sources of grant or loan
assistance and au courtant with the development program.

The mission recommends that a senior officer be in charge of this
assignment. The duties of this unit would be to be familiar with
all potential sources of external assistance; to work closely with the
Planning Staff (discussed below) and with the ministries on projects
that are or should be included in the development program and to
put these projects in a form suitable for submission; to follow up
applications for assistance; and to be the official representative of the
Government in receiving visitors and delegations from lending and
granting agencies and in interpreting to them Uganda's development
requirements. Obviously to be in charge of this post requires a man
of high caliber.

The effective shaping and presentation of development projects
requires competent staff work and should form part of the assignment
of a development planning staff. The nucleus for such a staff already
exists in the Statistical and Economic Planning Branches of the Minis-
try of Economic Development. Both of these units need to be sub-
stantially strengthened if they are to serve as a development planning
staff. There remain the questions whether these two units should func-
tion as one, and where they should be eventually placed in the govern-
ment organization.

The statistical unit has recently been separated from the statistical
services of the East African High Commission and established as a
branch of the Ministry of Economic Development. This change has
involved a substantial increase in its duties and the unit will require
an addition to its present complement of officers if it is to carry out
its new functions, let alone the additional staff work connected with
effective development planning. The Government Statistician esti-
mates that at a minimum, he will require a deputy director, six statisti-
cians, six statistical officers and supporting staff to carry the increased
work load imposed by the separation from the East African service and
to undertake the duties necessary to carry out development planning.
The mission endorses this and suggests that action be taken to build
up the staff to these levels. For reasons of efficiency and economy, we
would also suggest that for some years all government statisticians
should be retained in the employment of the Statistical Branch from
which they would service the various ministries. Thus, for example,
it would be more efficient and economical to have a statistician spe-
cializing in education statistics within the Branch, rather than to have
a single, isolated statistician at the Ministry of Education.

At present, provision is made for an Economic Adviser to the
Government who is also Head of the Economic Planning Branch of
the Ministry of Economic Development. The establishment of this
Branch is one Assistant Secretary (Economics), who is to be in charge
of the external assistance assignment referred to above, and one Econo-
mist. This branch will have to be strengthened if the Adviser is to
participate effectively in a forward planning function. (We are in-
clined to believe that the Branch should concentrate, and be staffed
accordingly, on economic planning, advice and review and have the
more directly operational function of external assistance liaison to
be handled outside the Branch.) At least one additional economist
will be needed. It would also help to strengthen the economic work
if the economists working elsewhere in the Government—principally
for the Agriculture Department and Marketing Boards—were made a
part of the Branch and seconded to these other organizations. Whether
the Economic Planning Branch should be combined with the Statis-
tical Unit into an Economic Development Staff Unit is a debatable
question, which must be considered in terms of its effects on the
efficiency with which both functions are performed. From the stand-
point of statistics, it can be urged that amalgamation would endanger the objectivity and professional competence of the statistical analysis. On the other hand, value of the statistical work and ease of attracting competent personnel might be increased if the work of the Statistician were more closely focused on the relevant problems of public action. From the standpoint of development planning, however, it can equally be urged that amalgamation might make it more difficult to attract general economists with the focus of interests which is required. Amalgamation, moreover, would give rise to a very real danger that one or other of these functions would be neglected, according to the interests of the head of the Unit. However this question is answered, it is clear that these branches must work closely together. On balance, the mission is of the opinion that the present arrangement by which the development planning staff forms two branches of a single Ministry of Economic Development provides a satisfactory compromise.

It is, of course, essential that an economic development staff collaborate with technical people in the various ministries and departments. Proposals for public development spending come principally from these sources, and the people familiar with the technical characteristics of development possibilities are in the ministries and departments. In order, however, to evaluate these proposals and to compare prospective costs and benefits, an effective collaboration of the development staff and departmental personnel is needed early in the planning stage. This sort of collaboration has hitherto been less than effective. It is unlikely to be forthcoming unless, and until, a governmental instrument is created requiring the principal officials of the principal development agencies to undertake a preliminary sifting and evaluation of development proposals prior to recommending a program to the Council of Ministers. The staff work necessary to this sifting and evaluation should be the main responsibility of the development planning staff.

In colonial governments the power necessary to make decisions on development priorities rests only in the office of the Governor. As we have seen, previous development plans in Uganda, insofar as they may be said to have exhibited something of the nature of a development strategy, have reflected the views of the incumbent Governor. As a country progresses in self-government and moves toward independence, the power to shape development plans gradually passes to the Chief Minister or Prime Minister and his colleagues. Ideally, we feel that the proper location of the development planning staff is
in the office of the Chief Minister (or Prime Minister). As the leading political figure in an underdeveloped country seeking development, the shaping of the development plan is a prime responsibility of the Chief Minister. However, we recognize that the Chief Minister may have to devote most of his attention to political affairs and delegate the planning responsibility to one of the ministries. In both Tanzania and Kenya such development staffs as exist are in the Ministries of Finance, and the Minister of Finance is normally chairman of whatever serves as an economic development council. In Uganda, the Statistical Branch and the Economic Planning Branch which, together, must be considered to be the nucleus of a planning staff, are in the Ministry of Economic Development. This system can work providing the Ministry is recognized as the focus of the planning function and given the necessary support by the Chief Minister; providing the Ministry is equipped with the necessary planning staff; and providing the Ministry chairs whatever development committees are established to undertake the preliminary sifting and evaluation of development proposals and policies.

These provisions, together with the evolution so far of the planning organization in Uganda, influence the mission's recommendations. We have already suggested the strengthening of the development planning staff which is located in the Ministry of Economic Development. We recommend further the establishment of a working group representing the planning staff and the Ministry of Finance which would work in consultation with the individual ministries, and on matters affecting all ministries with the meeting of Permanent Secretaries. This working group would prepare recommendations for a Standing Development Committee (SDC) of the Council of Ministers, consisting of the Chief Minister (or Prime Minister) as Chairman and the Ministers of Finance and Economic Development as members, namely, the coordinating ministers who have no special departmental axes to grind. The SDC would call in the other ministers and the chairmen of UDC or UEB for discussions on any matters affecting their fields, as necessary. The SDC would be responsible for deciding upon the final recommendations to the Council of Ministers on development policies and plans and for laying down the policy directives for the preparation of the development plans by the planning staffs. The Permanent Secretary of the Ministry of Economic Development and the Economic Adviser should be in attendance at all meetings of the SDC to give administrative and professional advice as needed.
Assuming that the executive departments of Government are organized for the effective formulation of a development program, there remain the questions, critical to the transformation of a relatively stagnant subsistence economy into a growing community, of the relations of the executive to the political forces in the legislature, and of the Government to the people. Experience in Asia, and elsewhere in Africa, indicates that development programs are successful to the extent they receive enthusiastic popular support.

The Uganda Government has established and scrupulously observes the practice of discussing and voting on all matters of expenditure, as well as other public policies, in the Legislative Council. The issues are clearly stated and the relevant data published well in advance of debate. The supply of statistical material made available to the public is remarkably full for a country in Uganda's stage of development and the stage has been set for a proper ventilation of development issues in an independent Uganda.

The principal difficulty hampering discussion until fairly recently has been the absence of a politically organized opposition in the Legislative Council and in the country, and the lack of an electorate able to comprehend development issues. The first deficiency has already been remedied. As for the latter, with self-government, public understanding of development issues could easily deteriorate unless the Government recognizes that an essential part of the development process is a full and free discussion of public policies based on the dissemination of accurate and relevant information. If this responsibility is recognized, the Government of an independent Uganda should be able to count on a degree of cooperation, an increased sense of participation, and an interest in public issues that will greatly assist its development activities.

PUBLIC FINANCE

Central Government

Perhaps in no other field is the need for public understanding so essential as in public finance. If the assessment the mission has made of the present economic position of Uganda and of the outlook for her major exports is correct, the present difficult financial problems are unlikely to ease in the near future; on the contrary, they may become more severe. Therefore, certain basic action in the shaping of future fiscal policy will be necessary.
First, there is the need for restraint with respect to expenditures. The public since World War II has grown used to a steady expansion of services provided by the Government. Public expenditures have indeed risen at a very rapid pace; the central government alone spent an estimated total of £21.8 million in 1960/61 in recurrent expenditures compared with £12 million in 1951 and £4.5 million in 1947. Forces making for a continued increase in public expenditures over the years ahead will undoubtedly be strong. Nevertheless, the existing situation requires a dampening of the past trend. Fiscal policy should aim at maintaining recurrent expenditures for regular services at about the level they reached in 1960/61. Increases in these should be restricted to inevitable items such as loan charges on foreign debt incurred, upward "creep" as the average seniority of employees rises and recurrent impact of necessary capital investment. The Government, cognizant of the seriousness of the situation, made commendable efforts to curb expenditures by implementing most of the recommendations of the Economy Commission of 1960\(^1\) and by pressing for further departmental savings. The mission fully endorses this approach. The tightness of the recurrent budget makes imperative a continuing close scrutiny of each item of expenditure in order to increase the value of the services secured for each shilling that is spent.

Second, as we point out in Chapter 3, a shift in the emphasis within the pattern of public expenditures is necessary toward the more immediately productive economic services, particularly agriculture.

Third, it is obviously essential for the central government to examine carefully what additional revenues from domestic sources can be obtained. The mission believes that some additional tax revenues could be raised, and our recommendations are outlined below. But shifting resources from private spending to public spending is only justifiable if the purposes on which the latter is spent have higher economic or social priority. We do not believe that Uganda is overtaxed at the present time, although the proportion of government expenditure to the gross domestic product is relatively high. It is quite clear that people in Uganda give a very high priority to public services such as education and health as compared to personal expenditures—a comparison with other countries where individuals place a higher value on personal expenditures would thus not be strictly relevant.

\(^1\) A Commission appointed by the Uganda Government "to review the expenditures of ministries and their constituent departments with a view to advising the respective ministers and the Treasury on ways in which existing policies could be implemented at lower cost."
Government salaries in Uganda are very high in relation to average incomes in the private sector. This disparity was justified, and still largely is, because the scarcity of trained personnel in Uganda entailed their recruitment abroad and the payment of salaries commensurate with those paid in the country of origin. As the number of qualified Ugandans increases, government salaries should come into line with the incomes earned outside government service. It is scarcely likely that such an enormous spread as that existing today between government salaries and the average per capita income would then be justifiable. In the meantime, this longer-term equilibrium should be kept in mind in government salary policy. We believe it would be difficult to justify increasing taxes in order to raise salaries of locally-recruited government civil servants still more. Our tax proposals are based, therefore, on the assumption that they will serve only to help finance the investment program and the maintenance of existing necessary services.

But even without the introduction of new tax measures, certain additional current revenues will accrue to the Government if a development program along the lines suggested by the mission can be carried out successfully. On this basis, we have argued earlier that Uganda's domestic product going into the market sector may rise on the average by approximately 3-4 percent a year over the period 1961/62-1965/66. This will automatically lead to higher tax collections from income tax, customs, excises, etc. If the Government succeeds in implementing our recommendations on cotton growing (see Chapter 6) cotton output and exports should increase substantially and with them the receipts from the cotton export tax. A small addition in income tax receipts will accrue as a result of an upward revision of salaries of the civil service that occurred throughout East Africa in 1961. Government receipts will also benefit moderately from the interterritorial redistribution of income tax, customs and excise duties suggested in the report of the Raisman Commission of 1961.2

In addition to looking for an increase in revenues on the basis of existing taxation, we recommend a number of new fiscal measures intended to increase government revenues and so make it possible to finance recurrent expenditures without exhausting the funds that might be available from the General Revenue Balance. It is difficult to make an accurate estimate of how much all the recommenda-

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tions we make below would add to the Uganda Government's tax revenues. The gains should be high enough to make a sizeable contribution to the recurrent budget during the program period as a whole. With this and the maintenance of the necessary tight control over expenditures, the tax mission we recommend below (see page 68) would be able to devote itself to a study of the tax system and not have to search for additional tax receipts.

Export Taxes

Action should be taken to put the farmers who grow cotton and those who grow coffee on a more equitable footing. Coffee is still more remunerative to the producer than cotton when coffee is at £120 per ton and cotton is 2 shillings per pound, yet at this point coffee is exempt from export tax while cotton still pays. Ideally, the tax system should encourage farmers to allocate their efforts and their land among crops in the way that will contribute most to the income of the country. Without attempting to spell this out in detail as it affects coffee and cotton, it is clear that the brighter future of cotton as compared to coffee would justify a heavier tax on coffee than on cotton. It may be administratively difficult to do this in a relatively short period. Consequently, we propose only that the present inequity between the treatment of coffee and cotton be reduced by lowering the floor price at which coffee export tax begins to apply from the present £120 to perhaps £90 a ton.

The increase in cotton output and cotton export tax that should come from carrying out the mission's recommendations in cotton-growing, together with the change in coffee export tax base, could result in a total yield from all export taxes of about £4 million annually by 1965/66. This is equal to the amount collected in 1959/60 and more than 50 percent higher than the amount collected in 1960/61 and forecast for the years thereafter.

In the past, the proceeds from export taxes, up to £4 million annually, were allocated to the revenue budget, reserving any additional receipts above this for the financing of the capital program. This principle of a contribution from current revenue to investment is worth continuing as we suggested in Chapter 3. If the other tax measures we endorse are applied and expenditures are held down, it should be possible to balance the budget and apply a part of the export tax revenues to the investment program. We endorse, therefore, the proposal of the Minister of Finance that the figure at which ex-
port tax receipts begin to be allocated to development be dropped toward £2.5 million. We estimate that a total of around £3 million, mostly accruing toward 1965/66, might be secured in this way. (This device would also automatically cream off windfall receipts, if boom prices occur again and would thus serve as a useful stabilizing device for an economy such as Uganda's that is so dependent on primary products.)

Personal Income, Poll and Education Taxes

The talks on the constitution of Uganda that occurred in the third quarter of 1961 were concerned in large part with the relationships of the central government to Buganda and the other parts of Uganda. The allocation of powers among the various governmental authorities inevitably involved decisions as to their taxing powers and, to a great extent, political factors were obviously decisive. Consequently, our remarks can only be directed to pointing out the economic considerations that should be taken into account in a recasting of the tax and financial structure following on a political reorganization.

A prime example of the interrelation between political considerations and the structure of fiscal measures has been the racial basis of taxation in Uganda intimately linked as it has been with the distribution of powers between the central government and the African local authorities. It makes no economic sense to discriminate among taxpayers on the basis of the color of their skins, and we recommend that this system be eliminated. Thus, the exemption of Africans from income tax and Europeans and Asians from the local graduated poll tax (or its replacement) should be abolished as should the different African and non-African poll taxes and non-African education tax. Furthermore, the local African education taxes where they still exist should be amalgamated into the local graduated poll tax or its successor. The peculiar Uganda exemption of Africans from income tax arises from a particular construction of the Buganda Agreement with the United Kingdom Government. With self-government, this limitation on the powers of the Uganda Government disappears. We endorse the proposal to replace the various local graduated poll taxes (assessed on Africans on the basis of a mixture of income indicators and property) by a simple local personal tax, graduated according to income up to a maximum tax of Sh. 600/- assessed on everyone.

The rather bewildering complex of taxes applied on a racial basis
would accordingly be replaced by two taxes applicable to all races alike: a local personal graduated tax and a progressive income tax. These suggestions do not imply any diminution of the tax burden but a simplification and reshuffle of the way in which tax revenues are collected and allocated. The gain for the Europeans and Asians from the abolition of the non-African poll tax and the non-African education tax, totaling about £220,000, would be more than offset by the taxes for which they would be liable to local authorities (about £550,000, on the basis of the Sh. 600/- maximum). The poll taxes, education taxes and graduated poll taxes paid by the Africans would be replaced by the local personal tax which would give the local governments an additional amount of revenue equivalent to the £400,000 of African poll tax previously collected by the central government. The central government should take into consideration these increased sources of revenue for the local governments in deciding on the grants it would make to them.

Furthermore, we propose that the Government of Uganda suggest that the income tax in East Africa should be placed on a “pay-as-you-earn” basis as soon as it is administratively feasible. This system is more helpful to both governments and individuals than the present system of paying tax on past income.

Company Income Tax

Under the system of taxation in East Africa, the tax paid on company income is really a tax only on retained profits since the tax paid on that part of the profits paid out as dividends is counted against the individual shareholders’ personal income tax liabilities. In any event, the present company income tax is levied at the rate of Sh. 5/50 in the pound, namely at 27½ percent, a fairly low rate compared with most other countries. In view of the fiscal needs of Uganda, the mission believes that increasing the revenues accruing to the Government from this source would be justified. We are consequently inclined to recommend that Uganda try to obtain agreement from the other East African countries to change the tax laws in such a way as to bring about such an increase in revenue. The change which we would favor would, in effect, transform the present company income tax into a “profits tax”, leaving the rate unchanged but eliminating the deduction by individual shareholders of the taxes paid by the company on dividends. The advantages of this change would be several. First, by increasing individual shareholders’ liabilities, the total amount of
revenue would rise. Second, because there would be no increase in taxes on retained profits, there would be no reduction in the incentive to investment by companies. Finally, because there would be no need to take account of company tax payments when calculating individual tax liabilities, the paperwork would be simplified for the tax authorities, the companies and the shareholders alike. While in the first instance the recommended change would increase the apparent tax burden on individual shareholders, the change would ultimately lead to some revisions in dividend, price and wage policies, so that the weight of the additional tax on dividends would eventually be spread among shareholders, consumers and wage earners.

We also believe that some tax inducement should be provided to encourage new companies to get started in Uganda and to encourage the inflow of foreign investment. We would suggest an income tax (or profits tax) holiday should be allowed for “pioneer industries” to apply to any five of the first eight years of operations of a company obtaining pioneer status. This type of provision has now become much more attractive since the 1961 change in United Kingdom tax law. The latter law now allows a U.K. taxpayer investing abroad to claim double taxation relief for overseas tax that has not in fact been paid because of reliefs given in the country of investment to encourage development. A tax holiday concession, consequently, now should no longer be negated by a corresponding higher tax obligation in the United Kingdom. In this connection, we endorse the action taken in the 1960/61 budget to meet the special problems of the mining industry by giving a special company income tax rate to marginal mining producers.

Other Taxation

In the 1961/62 budget the Government proposed an increase of import duties across the board of around 10 percent, a number of increases in addition on specific items and increases in excise duties on sugar, matches and alcoholic spirits. These are expected to yield around £800,000. Without entering into the merits of each item, the mission endorses the proposal to increase revenues in this way.

As a measure of good transport policy we recommend several tax changes to assure that motor transport bear a fairer share of the cost of roads provided (see Chapter 11). We endorse the Government’s proposal in the 1961/62 budget to increase registration and license fees, particularly on heavier vehicles. We also suggest increased cus-
toms duties on motor vehicles and fuel and lower duties on spare parts. In an underdeveloped country there is also a special case for taxing luxuries. The mission consequently suggests that the Government try to persuade the other East African governments to apply to luxury motor cars a progressive duty or surcharge that goes up steeply with value.

Estate duties, inheritance taxes and gift taxes are not at present levied in Uganda. The main justification for this is to induce people from countries that are subject to such taxes to move assets or their domicile to Uganda. While there is no particular need at the present time to take action to reduce disparities in wealth in Uganda, there is some case for introducing an additional element of taxation on the basis of ability to pay. It appears to us that moderately low rates of gift taxes and death duties beginning at a fairly sizeable figure could be introduced in East Africa and provide an appreciable amount of revenue and still make East Africa a relatively attractive place for people of wealth to settle or invest in.

Local Governments

The local governments, including the Kabaka's government in Buganda, have their own treasuries and their combined budgets have expanded as rapidly as that of the central government. In 1947, for instance, local governments spent £780,000; in 1959/60 total expenditures were £7 million. The two principal sources of revenue of the local governments have been grants and loans from the central government and the proceeds of the graduated poll tax which was introduced in the early 1950's to replace the flat rate tax levied before. Together these accounted for over three-quarters of total receipts. The rest accrued in the form of various local fees, interest on investments, rents, fines and withdrawals from local funds accumulated during past years (see Appendix Table 19). Contributions from the central government have particularly expanded since about 1950 when it became the central government's policy to strengthen the local authorities by transferring part of the responsibility for the provision of social and economic services to them. Thus, while the local governments spent £30,000 on education and £26,000 on health in 1947, by 1959/60 these figures were £2.4 million and £320,000 respectively. Apart from increased financial contributions from the center, it was the introduction of the local graduated poll tax which enabled the local authorities to expand their budgets in this manner.
As a result of the constitutional negotiations conducted in the autumn of 1961, the local governments will undoubtedly have greater revenues and greater responsibilities than in the past. In general, we approve of this change on economic grounds as long as it applies mainly to local services where the establishment of expenditure priorities is best done on a local level and providing the central government's role in the economy is not so weakened that it can no longer be the effective stimulating and coordinating force required for economic growth.

*Overhaul of the Tax System*

Immediate action is necessary to meet the financial needs of the Government over the next few years and our suggestions are designed to help in this and to simplify and remove some anomalies in the present tax system. There is also an urgent need, the mission believes, for a basic economic study of Uganda's entire taxation structure with a view to a possible overhaul of the system. Indeed, the present system in many respects appears to be both highly inequitable and economically anomalous. Any recasting of the tax structure will need to take into account the new political relationships within Uganda and, as a result of the move toward self-government and independence, among the East African territories. Since the form these relationships will take was not known at the time of writing this report, we can only recommend that at the appropriate time a tax mission, which might be obtained from an international agency, be invited to advise the Government on this subject. The ideal time for such a mission to begin its work would be sufficiently ahead of the actual attainment of independence so that it would be equipped to give advice on tax powers and relationships while these are still malleable. In view of the time it takes to organize a suitable mission, negotiations to secure it should begin as soon as possible.

In the meantime, during the necessarily long period, probably measured in years, that it would take for a tax mission to complete its work and for due consideration to be given to its recommendations, the tax revisions in the existing structure that we have proposed are designed to try to meet the needs of the recurrent budget and to remove a few of the most glaring anomalies.

*At the time of writing, the precise constitutional arrangements, and therefore their impact on local government finance, were not known.*
MONEY AND BANKING

Central Bank

Uganda's currency, the East African shilling, has been a valuable instrument in facilitating the movement of trade and people among the East African territories. The East African shilling's tie to sterling has been helpful in Uganda's relationship with her main markets in the sterling area and in her relationship with her main source of outside capital, the London money market. These important advantages should be preserved in whatever changes may be made in the monetary arrangements in Uganda.

The East African Currency Board, which issues the currency used in Uganda, is composed of the permanent secretaries to the Treasuries of Uganda, Tanganyika, Kenya, Zanzibar and Aden, and two personal appointments by the Secretary of State for the Colonies, who have been an Adviser of the Bank of England and the Administrator of the East African High Commission. The East African shilling circulates in the territories just mentioned. The East African shilling is issued by the Board against payment of sterling and is redeemable for sterling at all times. The rate of exchange plus or minus a small commission, is fixed at one East African shilling equals one United Kingdom shilling.

Under this arrangement, any increase in currency in circulation formerly required an increase in the assets of the Board held in sterling. This is no longer necessarily true since the Board has been authorized in recent years to invest part of its assets (now, about £20 million) in local securities of the constituent governments. At the same time, it should be noted that to the extent that the community uses bank deposits rather than currency for money, no automatic increase in sterling assets is necessary. The position in East Africa (excluding Aden) is shown in Table 8. The impact of a capital flight which took place in 1959/60 is indicated by the drop in sterling assets of the commercial banks during the year.

Even though the Board's sterling assets were more than 100 percent of the currency supply with the public, the foreign exchange reserves against the total money and quasi-money supply in East Africa were about 57 percent. A more useful comparison is that these foreign exchange reserves would cover about four months' current international payments of East Africa—a tolerable reserve position. Since Uganda
TABLE 8: Money Supply and Sterling Reserves

<table>
<thead>
<tr>
<th></th>
<th>June 30, 1959</th>
<th>June 30, 1960</th>
</tr>
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<tbody>
<tr>
<td><strong>Money Supply</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency supply with public</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Demand deposits</td>
<td>72</td>
<td>70</td>
</tr>
<tr>
<td>Time and savings deposits</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>154</td>
<td>151</td>
</tr>
<tr>
<td><strong>Sterling Reserves, Outside of Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency Board</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td>Commercial Banks</td>
<td>19</td>
<td>*</td>
</tr>
<tr>
<td>Territorial Post Office Savings Banks</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>77</td>
<td>56</td>
</tr>
</tbody>
</table>

*Less than £500,000.

(and East Africa as a whole) exports roughly half her output produced for sale and imports about half the total of goods sold in the country, the maintenance of adequate foreign exchange reserves against fluctuations in the balance of payments is particularly important.

The question of whether the fiduciary issue of the Currency Board, i.e. the amount invested in local securities, should be increased above the present £20 million should not be answered in the context of the Currency Board alone but in the light of the total sterling reserves available to East Africa. During the coming years, when East Africa will be moving to self-government and independence, maintenance of confidence in the currency will be most important. A further increase in the fiduciary issue invested in long-term local securities during these years is likely, therefore, to be unwise.

The adequacy of the reserves, the Currency Board arrangements and the other financial ties to the sterling area have sheltered Uganda from experiencing balance of payments crises in the usual form of a shortage of foreign exchange reserves. A decline in the export income of Uganda has been directly reflected in domestic income and in expenditure on imports. The Government (and all other institutions and individuals) affected by the decline in domestic income has been thus forced to face directly the issue of a drop in its revenues. It has not been in a position to try to evade the hard facts by offsetting its shortfall in revenue by printing currency unbacked by real resources.
which when spent would result in a balance of payments crisis of an inflow of imports unmatched by exports. This advantage of not disguising the true nature of economic problems should be preserved.

The existing monetary system is inadequate, however, in not making available to Uganda the help in economic development that a properly organized central banking system in East Africa could contribute. The East African Currency Board has begun to carry out some central banking functions in addition to currency issue. It has been aiding in the creation of a market for Uganda Treasury bills; it has acquired the power to rediscount commercial bills. In the latter case, this could aid the marketing of one of Uganda’s main crops. This evolution should be continued and plans begun to establish a central bank.

How a central bank is set up will depend in large part on the political evolution of East Africa. A single Currency Board for the whole of East Africa has been possible because the territories have all been governed as dependencies of the United Kingdom. As the territories become independent, it will be very difficult, if not impossible, to maintain a common monetary system unless there are close political links between them. If the political evolution were such that the existing monetary unit could not be preserved, this would be a substantial handicap to Uganda’s development. While it is impossible to foretell the course of events, we are proceeding on the assumption that there will be a strong enough political tie among the East African countries to make possible the preservation of a common currency. The plans in the monetary field should be worked out on the basis that the central banking system in East Africa should help to unify rather than to divide the territories. The discussion below is based on this premise.

A properly managed central bank can contribute to economic development in many ways. It cannot, however, try to conjure money out of the air without getting the economy into severe difficulties, internally and externally. Furthermore, no country, no matter how large or self-sufficient, has complete freedom in its monetary policies—all countries must to a greater or lesser degree keep fully in mind the impact of their monetary policies on their balance of payments. The smaller the country and the more specialized its exports, the smaller the room it has for maneuver. A central bank cannot provide a government with an easy painless substitute for taxes. It can help in many ways which are slower and less spectacular than this but that over the years will make a substantial contribution to the growth of the country:
a. It would centralize the foreign exchange assets of the Government and semi-governmental organizations. Through rediscount or other measures affecting the liquidity of banks it could aid in the financing of Uganda's exports and reduce the need of the Treasury to hold reserves for this purpose. It would, in short, economize on the need to hold foreign funds.

b. It would move the initiative and responsibility for making monetary and credit policy from the commercial banks to the central bank. The commercial banks, while imbued with a feeling of social responsibility, inevitably must give high priority to their own profit and loss position. The Government is not, and should not be, equipped to maintain that close contact with banking and credit developments that is necessary for policy formulation to take account of all interests.

c. It would take over supervision of the commercial banks from the Administrator General—a function that is bound to become increasingly important as local financial institutions develop.

d. It would play an active and initiating role in stimulating the development of local financial institutions as needed, as well as in helping develop a local securities market.

e. By its contacts with financial markets abroad, the central bank would help in attracting funds and institutions.

The establishment of a sound central bank takes a long time and undue haste is not called for on any economic ground. Only when it is clear that there is a reasonable prospect that the political situation in East Africa will allow the successful establishment of a single central bank or single central banking system for East Africa should this be carried out. In the meantime, Uganda should support the continued evolution of the Currency Board toward providing useful facilities of a central banking nature for East Africa as a whole. We suggest that when the time is right the Government of Uganda discuss the matter with the other East African Governments with a view to a joint invitation to the appropriate international agencies to advise on how a central banking system in East Africa should be set up. The Uganda Government should also insist that the terms of reference of such a commission should include instructions that the proposed system should provide (a) for the broad lines of policy to be made centrally but allowing for territorial variations within this
to meet territorial needs, (b) for a fixed link with sterling, and (c)
for strong economic representation to be an organic part of the bank
with direct participation in the process of policy decision.

Commercial Banking

Uganda is well served by commercial banks. There are now seven
banks in the country (three British, one British-French, two Indian
and one Dutch), which should be a large enough number to secure
an active competition for customers. The fact that the existing banks
are all branches of large international banking institutions and link
Uganda to her main trading partners, has been a source of strength to
the economy on the whole. It has made it possible for the Uganda
banks to have access, in particular, to the resources of the London
money market to meet seasonal needs for funds in Uganda. Representa-
tion in Uganda of banks from the other major financial centers in
continental Europe, North America and Japan should also be en-
couraged. Such representation is a potent means for attracting funds,
investment and trade interests from these areas. After the rapid post-
war rise through 1952 there has been no growth in the total deposits
of the commercial banks in Uganda. Over these years, the banks have
shifted from holding most of their assets abroad to holding them in
loans and investments in Uganda.

The banks have been diligent in opening branches and agencies
wherever sufficient business can be found to justify this. The economy
has not yet developed sufficiently to allow economical operation of
banks in very large areas of Uganda—there are even some districts
without any commercial bank available. One cannot expect com-
mercial banks that have to operate with an eye to their balance sheet
to operate a large number of branches at a loss. On the other hand,
the beneficial effect on the country’s economic development of a more
adequate network of banking services is worth some initial investment,
even if it does not provide an immediate return. The mission there-
fore recommends that the proposed central bank, in consultation with
the commercial banks, work out a program of gradually providing
banking services to those parts of the country that are not now cov-
ered. This might be managed, for example, by each of the major banks
agreeing to undertake to run branches or agencies in one or another
of the unbanked areas at a loss as a part of their contribution to the
economic development of Uganda.

The provision of facilities for internal and external monetary
transfers is adequate in the banked areas. The charges levied by the banks for such transfers are not abnormally high under the circumstances. They should be reviewed from time to time, but it is not likely that the economy will develop sufficiently in the next five to ten years to allow charges for internal transfers to be eliminated.

With the growth of the economy and the greater participation of Africans in the money economy, the role of the banks in financing Africans will grow. The banks should continue actively to pursue their search for ways and means of doing this. The Government's Trade Development Section is also active in educating African traders on how to use banks and in encouraging them to do so. The best way of widening the African clientele of commercial banks, however, is by action outside the banks' own field: specifically, through the creation of adequate collateral for bank credit by carrying out land surveys and land title registration in Buganda, and by the spread of freehold land tenure and title registration in the rest of the country. Some simplification of procedures in Buganda would also be helpful. At present mortgages on mailo land have to be approved by the Buganda Government and, while we understand permission is seldom refused, the need for prior approval represents an additional obstacle to a smooth flow of credit. Simple registration should be a sufficient safeguard.

During the many years that it will necessarily take to complete reform of the land-tenure system in the whole of Uganda, the banks should do as much as possible to help African enterprise in spite of legal obstacles. While the Uganda Credit and Savings Bank will be the main instrument of aid to Africans in this period, the banks might be able to do more in the way of extending credit on the basis of character. In general, the growth of this type of credit depends on the growth of a money-mentality and respect for debt obligations. However, although this is not meant as criticism of bankers as a group and although there are many outstanding individual exceptions, the mission was struck by the way in which the various communities in Uganda tend to keep themselves to themselves in their social life. Such a lack of social interrelationships is particularly hampering to a banker's ability to learn to know and to judge character of potential African borrowers.

* African-owned land in Buganda which differs from regular free-hold in that it is subject to certain restrictions under the Buganda Land Law on transfers to non-Africans.
The Uganda Credit and Savings Bank

The Uganda Credit and Savings Bank is a government-owned institution that was set up to finance African enterprise. It has proven itself to be a useful institution and should become an increasingly valuable instrument of economic development. It should continue to be encouraged by the Government. Quite properly, the Bank is not intended to compete with private banking institutions. Its essential purpose is to provide finance to individuals and enterprises who can use funds productively but who cannot for various legal or institutional reasons qualify for a loan from regular commercial banks. The terms of reference of the Bank and its various funds should be framed so as to define them by this economic function rather than by race as at present. As Uganda develops, more and more Africans will qualify for loans from the other banks. At the same time, it is economically damaging to all Ugandans of whatever racial origin, if production of any kind is held back because the individual concerned is denied financing purely on the basis of racial origin.

The Bank has pursued an energetic program of making banking facilities available as widely as possible. It has shown itself particularly ingenious in encouraging and collecting small savings, its deposits having risen to £1.5 million by the end of June 1961. It started a school savings scheme which over the long run should help as a means of introducing children to the money economy and the banking habit. This scheme has, unfortunately, been discontinued for reasons of economy. Its scheme of “direct transfer” from salaries to savings account is likewise a good idea. Everything possible should be done to encourage the scheme’s further spread to private firms, as one of the useful ways in building the savings habit and providing investment funds for the economy. The Government should also do what it can to encourage savings. For example, a successful crop should be taken advantage of by the government information department to induce farmers to save some of their earnings. We are suggesting in our agriculture chapter that the Government should make an additional allocation of £100,000 to the African Loans Fund of the Bank for credit to small farmers and in our housing proposals we suggest an allocation of £200,000 by the Government to the Bank’s general funds to make possible an expanded program of housing loans. Aside from these programs, the growth in savings deposits, loan repayments, in time the plow-back of profits and possible additional paid-in capital
funds mentioned later on in this section should, except in the case of particular exceptional loan programs, meet most of the needs of the Bank for funds for lending during the next five years.

On the lending side, the Bank has undertaken a variety of programs, none of which has as yet developed into a large amount of lending. This somewhat disappointing record is due mainly to the general obstacles of absence of suitable collateral (because of the land tenure problem), the administrative difficulties and high costs of operating loan programs for people widely scattered in rural areas, and the general low level of development of the monetary economy and monetary habits. To some extent, shortage of staff is also an important factor. The mission's proposals to grant more autonomy to the Bank (see below) would help in recruitment by freeing it from civil service limitations and so making it possible for the Bank to compete more successfully with the commercial banks in securing qualified staff.

The mission is proposing the institution of a new program of supervised agricultural credit to be administered by the Bank (see Chapter 6). The mission believes that the device of lending through a Farmers' Club with collective responsibility for repayment of individual loans has a great potential, if well handled, for aiding farmers in those areas where the supervised credit program is inapplicable. For other lending programs, the mission can only urge the Bank to persevere in maintaining and spreading the use of the many new techniques of lending it has developed. Progress is inevitably slow at first but over time a good deal of progress should be realized. If the mission's recommendations on land tenure and issue of titles are applied, the task of the Bank will be made easier; as a result of these measures, there will be a more widespread availability of suitable collateral for loans. The income tax reform suggested will facilitate joint enterprises with Africans and widen the possibility of Bank lending. Other specific recommendations of the mission should also widen the field of activity of the Bank: the shift in government action to provision of services for urban housing sites should create a demand for Grade II housing loans (see Chapter 13). The program of technical assistance to small industries which we recommend could work in with loan finance from the Bank.

The Government's Capital Development Fund holds a number of loans to cooperative ginneries, grain storage plants, cooperative coffee mills, a hotel, etc. These loans totaled £493,000 in nominal value in 1960, but are not included in the sum of the total assets of the
Capital Development Fund. Despite the essentially banking nature of such loans, they have been administered by the Treasury. Obligations to a government generally can take on a political tinge and are less likely to be repaid. We propose, therefore, that these loans be transferred to the Uganda Credit and Savings Bank as a further capital contribution by the Government. As suggested later on, this, like the present capital contribution, should be taken up by the Government in equity shares.

Savings in the Postal Savings System have been declining slowly but steadily for some years, and amounted to about £2 million in 1960. An important reason for this attrition is the transfer of savings accounts to the Uganda Credit and Savings Bank and the Building Society which are more aggressive in securing savers and provide better service. The mission sees no reason to try to reverse or slow this shift. On the contrary, in those areas where the Uganda Credit and Savings Bank has offices the Post Office should encourage savers to shift to the Bank.

Several major changes are necessary in the present organization of the Bank. It is quite clear that the Bank will have a useful role for many years to come. Its capital structure consequently should be regularized and put on a sound basis. Its capital should be converted from the present interest-free loan from the Government which comes up for renewal from time to time to equity shares. This will avoid the necessity for continued postponement of the beginning of interest payments and recognize that the capital provided by the Government is equity money, which it really is. It also should make it possible at some point to raise additional funds by the sale of equity shares initially to commercial banks and eventually to other private investors. Although we do not foresee the possibility or the desirability of the Bank becoming a wholly privately-owned institution in the next five years, at some time in the future development of Uganda this will become possible and desirable. An easy transition to this will be facilitated by a proper capital structure.

For an institution like the Bank to function effectively in the long run it requires much more autonomy and insulation from the political pressures than it has at present. The mission accordingly recommends that:

a. A portion of the shares should be taken by the proposed new central bank to secure its participation in the Board of Directors also.
b. While the public holdings should continue for some time to be a majority of the shares, any banks, insurance companies or other private investors who are willing to make a contribution to Uganda’s development by buying shares in the Bank, should be encouraged to do so. Such minority shareholders should be given representation on the Board of Directors as their experience and expert knowledge should be most valuable.

**THE GOVERNMENT’S ROLE IN THE ECONOMY**

Government has played an important part in shaping economic development in Uganda. The central and local governments have shared, with the East Africa High Commission, the responsibility for providing the basic economic overhead (infrastructure), the Uganda authorities having the entire responsibility for roads, airfields, water supply, the social services such as health and education, and the normal administrative duties of government, including the maintenance of law and order. Apart from carrying out these functions, which are everywhere regarded as a minimum responsibility of government, the central government in Uganda has played a much larger role in shaping the country’s economic development. Not only the production, but also the marketing, of the principal crops has been subject to a considerable degree of government regulation and supervision. Among the initial justifications was the need to protect peasant farmers from the extortion of middlemen and to assure the maintenance of quality standards. It embraced a rationalization of processing facilities and a stabilization of prices to growers designed to soften the effects of fluctuations in world market prices. Since World War II the Government has also taken an active part in promoting economic development outside the field of agriculture. The Owen Falls electric power station, owned and administered by a public corporation, the Uganda Electricity Board (UEB), was intended to help spark industrial development. The very large reserves acquired by the Marketing Boards during the period of high cotton and coffee prices have permitted the financing not only of an expansion of social services, but also of the Uganda Credit and Savings Bank, which is devoted to financing small farmers and small business enterprises and, most importantly, of the Uganda Development Corporation (UDC), which has become a principal instrument in the country’s development program.

While public authority has had such an important role in shaping economic development, the economy nevertheless still basically de-
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pends on the activity of private individuals, particularly that of over one million peasant farmers. About 60 percent of gross domestic product is generated in agriculture in which peasant farming, both for subsistence and cash, is the major element, but in which private estate cultivation plays a minor, but by no means insignificant, role. The primary processing facilities for cotton and coffee are privately owned. The whole of domestic commerce and all but a small fraction of foreign commerce is in private hands. The commercial banking system is privately and foreign owned. Uganda has the usual complement, for a country in its stage of development, of small-scale manufacturing enterprises, mainly Asian, but with a sprinkling of European and, recently, of African enterprise. Of the 33,000 workers employed in manufacturing and mining in 1960, less than 5,000 were in the public sector, mainly employed by UEB or by UDC and its subsidiaries.

Since the non-governmental part of the economy is so important, what the Government does in helping this sector will have more to do with Uganda's economic development than what it can or will do as a direct participant in economic activity. In this report we discuss proposals concerning tariff protection, tax incentives, mines and factory regulation, research and other aspects of the economic environment which influence investment and can improve enterprise. Currently, most of the private investment and management in Uganda is supplied by the Asian and European communities and from abroad. Recent events in Africa have led to a loss of capital and enterprise from Uganda, as elsewhere. At its present stage of development, Uganda cannot afford such losses. It is an elementary truth that, over the next decade or two, prospects for growth will be greatly influenced by how successfully present sources of private investment and management are sustained, and, until citizens are trained in adequate numbers, on how successful an independent government will be in maintaining a necessary complement of expatriate personnel.

If we may assume that a satisfactory environment for private investment and enterprise will be maintained and improved, and that an adequate flow of expatriate expertise will be available, we wish to focus attention here on a few of the critical problems of public policy that will confront an independent Uganda seeking development. Most of these problems are discussed in detail in the sector reports. Here we wish merely to offer certain generalizations within the context of a discussion of government policy toward the economy.

If the relation of public authority to peasant cultivation in Uganda is described as paternalistic, it needs to be said that, under a system of
production controls, the supply of local foodstuffs has grown at least as rapidly as the population without substantial local shortages in any period; that the output and export of cotton increased rapidly until World War II, after which time its position as an agricultural growth industry was taken by coffee; and that for the period of approximately ten years after World War II the yields from cotton and coffee exports were large enough to finance an ambitious public development program. Paternalism not only did not prevent this growth, but it was, considering Uganda’s stage of development, probably in large part a necessary condition.

There is, however, a reverse side to the coin. The yield of subsistence crops per man—or rather per woman—and per acre, so far as one can tell, has not increased appreciably since early in the century. Furthermore, the share of subsistence production in the total food supply is still overwhelmingly large. Peasant cultivation practices in cotton and coffee have shown no substantial improvement. The increase in output is almost entirely the result of more land and more cultivators. The potential income represented by the large stock of cattle in Uganda is exploited only to a minor extent. The contrast between the efficiency of estate cultivation and the inefficiency of peasant cultivation grows greater rather than less.

The transition from inefficient peasant cultivation, heavily oriented toward subsistence production, to efficient independent farmer cultivation, largely for the market, is a problem throughout Africa and a problem that is not amenable to easy solution. Certainly it will require a substantial amount of direction and time to accomplish. But the mission queries whether the time has not come in Uganda to place less reliance on regulation and more on market incentives. Whenever government, central or local, wishes to accomplish any change in economic behavior now it should try to do so by making the right action profitable and the wrong action costly rather than by making rules backed by court action. Our agricultural program is based on this principal. This view gains urgency as the power of the chiefs reinforced by traditional sanctions declines and gives way to the expertise of civil servants.

Another area in which public policy has significantly shaped the process of development in Uganda, and which an independent government may wish to reconsider, concerns the relation between peasant and estate cultivation. Estate coffee accounts for approximately 6 percent of total coffee output and the percentage is declining. The role of estates in cotton production is negligible. But tea and sugar are overwhelmingly estate crops and opportunities for expansion,
given adequate land, are promising. There seem, moreover, to be possibilities of estate cultivation of cocoa, vanilla, pepper and, perhaps, other crops. Although the Uganda Development Corporation, through its subsidiary, Agricultural Enterprises Ltd. (AEL) has recently embarked on tea production and cattle ranching, the bulk of plantation cultivation is in the hands of privately-owned Asian and European estates. Since the 1920's, the Protectorate Government has followed a firm policy of refusing to sell crown land or to allow Africans to sell their land to non-Africans. An independent government can pursue a more flexible policy. There are large development opportunities in partnership farming, some of which the AEL is already beginning to exploit, in which the partners are estates on the one hand, and peasant outgrowers on the other, that an independent government may wish to consider. These would require some modification of existing policies on land alienation and land tenure if the most effective use of private estates in this is to be achieved.

The Government in recent years has made a considerable effort to stimulate new small business enterprise which primarily means African enterprise, and there seems little doubt that this objective will, and should, receive a high priority in an independent Uganda. African ownership has been brought into cotton and coffee processing, partly through cooperatives. This ownership of processing facilities does not provide a particularly rigorous test of the competence of African enterprise since competition is strictly controlled and processing margins, in effect, guaranteed. African estate cultivation, particularly in Buganda, is by no means negligible, though it must be recognized that frequently the management, both of processing facilities and African estates, is Asian. Nevertheless, it may be said that, in large-scale cultivation and in the processing of the principal export crops, African enterprise has gained a foothold. African entrepreneurs have also been appearing in substantial numbers in small-scale retailing, and there are now more African shopkeepers than Asian. Elsewhere in Africa road transport has shown itself to be a fertile field for local enterprise and experience during the last few years with so-called “pirate taxis” indicates that Uganda is no exception. Finally, Africans are appearing increasingly in small manufacturing of the repair shop variety. The Government has attempted to encourage this nascent enterprise in a number of ways.

Experience in Uganda and elsewhere has indicated that there are two principal ways in which public policy can influence the development of entrepreneurs. One is to provide facilities for the acquisition of basic business skills; a knowledge of at least the rudiments of book-
keeping, purchasing and selling practices, stock management, etc. The other is to assure an environment, including financial help, in which it is easy to start and carry on a business. It by no means follows, however, if these two conditions are provided, that the stock of local entrepreneurs will burgeon. Entrepreneurship is not something that can be taught overnight and whether it appears in adequate quantity depends on influences that spring from sources much deeper in the cultural environment than are represented by current policies of government. This does not mean that the Government should not do what it can both in the short run and to influence the longer-run cultural climate.

A large part of the framework within which the citizens of Uganda earn their livelihood consists of several public corporations and financially self-contained public services, some of which come under the East African High Commission and some under the Uganda Government directly. These entities are responsible for providing many basic services such as electric power, railways, air transport, or for performing a vital development task such as the UDC. The efficient carrying out of their responsibilities is of great importance to the economy. Their relationship to government, which may severely affect how they do their job, is consequently a sensitive one. It is vital that they be given sufficient autonomy so that they are insulated from political pressures which would disturb their economic operation and ability to service the public while, at the same time, their policies must remain consistent with the public interest. The problem is even more difficult in the case of the UDC than in the public utilities, since the activities of the UDC are mainly in the field of competitive enterprise where quick action and flexibility are essential, inefficiency may be quickly penalized by the death of the enterprise, and expansion often consists in creating a new enterprise in a new field. The Government must thus try to steer the difficult course between undue interference with managerial activities and undue abdication of responsibility over an important field of public policy. Many of our recommendations in this report are designed to balance the need for autonomy with the requirement of better policy coordination.

EAST AFRICAN INTERTERRITORIAL RELATIONSHIPS

An assessment of development prospects and a consideration of recommendations for action to accelerate development in Uganda must take into account economic relations with the other East African
territories. Uganda is joined with Tanganyika and Kenya in a common market within which the movement of goods and factors of production are relatively free. Railways and harbors, posts and telegraphs, customs, income and excise tax collections, and a number of other important services are administered by agencies common to the three territories. In certain of these services, Zanzibar is also a participant. The arrangements for common operation have permitted Uganda, along with the others, to enjoy services at a level impossible for a separate territory to sustain. And the common market has facilitated a rate of economic growth for East Africa as a whole, substantially above that in most underdeveloped—and in many developed—countries. Nevertheless, these arrangements have, during the last few years, been subject to serious criticism in Uganda. Doubts have been expressed on the value of participation in the common market; the distribution among the three territories of the cost of certain common services has been called in question; and the limiting effects of the common market on the scope for budgetary and fiscal action have been emphasized. These and similar complaints, particularly from Uganda and Tanganyika, led in 1960 to the appointment of the East African Fiscal Commission which reported in February 1961. The recommendations of this Commission, commonly known as the Raisman Commission, if accepted, will meet a substantial part of Uganda's legitimate objections. At the same time, an independent Uganda will undoubtedly want to review these joint arrangements. In this event, the Government may wish to consider the mission's views on this subject.

A common market, in the words of the Raisman Commission, "consists essentially in the absence of fiscal or other administrative barriers to the movement of goods or factors of production between the territories which make up the common market areas." Such a market implies a common tariff against the outside world since substantial differences would lead to a diversion of imports destined for high rate territories via territories imposing lower rates. In fact, there are slight differences among the rates imposed by the three East African territories but these are not sufficiently large to bring about a distortion in the pattern of trade. The setting of rates is in the hands of individual governments but a rate change takes place only after mutual consultation. This necessity for consultation and accommodation is one of the limitations on a territory's freedom of fiscal action. Free trade between Uganda and Kenya and a common collec-

5 Ibid., page 7, para. 20.
tion of customs has existed since 1917. Tanganyika became part of the common market during the 1920’s but it was only in 1949 that the customs departments of all three territories were amalgamated.

The Common Services

The common services in East Africa likewise developed in stages. Existing and certain new services were consolidated under the control of the East African High Commission in 1947. The High Commission has consisted of the Governors of the three territories sitting in council with the Governor of Kenya ex-officio in the chair. The Commission was advised by a Central Legislative Assembly, but the principal powers of administration were delegated to an Administrator. The primary responsibility of the High Commission has been the administration on an East African basis of a number of common services.

At a conference in June 1961 of government and political leaders from the East African territories and the United Kingdom Government, it was agreed that whatever constitutional changes might take place in the future in East Africa, the common services provided by the East Africa High Commission should continue to be provided on an East African basis by an East African Common Services Organization. Responsibility for the policy of the new Organization is to rest with the East African Common Services Authority consisting of the principal elected Minister responsible to the legislature in each of the territories. Its decisions must be unanimous. The Authority will be supported by four groups, “triumvirates”, each consisting of one Minister from each territory and having authority in its field. These fields are Communications, Finance, Commercial and Industrial Coordination, and Social and Research Services. In policy matters, decisions must be unanimous: in case of disagreement a Minister can have the matter referred to the Authority for decision. There is also to be a legislative body, the Central Legislative Assembly, competent to institute measures relating to matters for which the Organization will be responsible. The Assembly will consist of the members of the Authority, the triumvirates, members elected by the territorial legislatures, together with the Secretary-General and Legal Secretary of the Organization. The principal executive officer of the Organization will be the Secretary-General and will be responsible for giving effect to the decisions of the Authority. If all the territorial legislatures were to approve, the agreement was to go into effect as soon as practicable after Tanganyika achieved independence in December 1961.
The common services, from a financial point of view, are divided into two groups, those that provide their own financing through charges for services—the so-called self-contained services—and those that do not, the non-self-contained services. To the first category belong the East African Railways and Harbours Administration (EARHA); and the Posts and Telecommunications. The East African Airways Corporation, which has a somewhat different relationship to the High Commission, is also self-financing. These three services in 1960 accounted for slightly over £40 million of the approximate total of £45 million of High Commission expenditures. The capital expenditures of EARHA and of Posts and Telecommunications have represented about 15 percent of total gross capital formation in Uganda. Since these services are self-financing, they do not raise problems of the division of costs that have plagued certain of the other services. So far as the mission is aware no question of the value of these services has been raised in Uganda or elsewhere. Although the mission has something to say in Chapter 11 about the relation of these services to economic development in Uganda, they can be dismissed from further consideration here.

The non-self-contained services embrace a wide range of activities including civil aviation and meteorological services, income tax, customs and excise collection; economic and statistical activities, a long series of research and other services and, of course, the general administration of the High Commission itself. These services were financed in small part by fees charged by certain of the services, in larger part by grants from the U.K. Government and, in the main, by the Governments of Kenya, Tanganyika and Uganda (and, in certain cases, Zanzibar) from their own territorial revenues. The costs of each service, after deducting contributions from the United Kingdom, were divided among the three territories in accordance with a specific formula. The most frequent formula was an equal division of costs. Uganda expenditures on the High Commission and its non-self-contained services in 1959/60 amounted to £795,000.

The rationale of the common services presumably rests on two propositions: first, that each territory has a substantial interest in the service being rendered; and, second, that the service can be rendered more effectively on a joint than on a separate basis. Concerning the second proposition there can be little dispute. Each territory is now in process of establishing its own statistical organization and the decision to do so is well taken. But the other services are clearly of a type that can be effectively performed only by a central unit or are services that can be more economically performed by such a unit.
It is the first proposition that has caused and may cause further difficulties. Granted that Uganda receives some benefit from each of the common services to which it contributes, is the benefit received worth the cost in comparison with other types of expenditures? This is a question that tended to be raised when territorial legislatures were called upon to approve of allocations to High Commission common services. The pressure of local claims may in the course of time endanger the future of at least some of the non-self-contained services.

The Raisman Commission attempted to meet this problem in two ways. First, it proposed to eliminate from High Commission administration certain services in which the community of interest is not clear cut. These include the East African Hides and Leather Bureau, the Royal East African Navy and the Desert Locust Survey. Uganda's interest in all three of these services is minimal. Second, the Commission proposed that with respect to the other non-self-contained services in which there is a genuine community of interest, their cost be met out of an allocation of half the proceeds accruing to a revenue pool of the Common Services Organization consisting of 40 percent of the income tax on profits from manufacturing and finance and 6 percent of the revenue from customs and excise duties. The other half of the proceeds is to be divided equally among the three territories. With acceptance of this proposal, the annual decision—and indecision—on whether a particular service is, or is not, to be supported will no longer be up to the individual territories. For Uganda, the operation of the pool will mean a net gain of about £250,000 a year over the amount received under the old system.

Interterritorial Economic Integration

An important role in these common arrangements is played by the East African Currency Board which we discussed earlier in this chapter. When the use of a common currency is considered in conjunction with the common market and the long series of common services, it can be seen that there exists a very substantial degree of economic integration among the East African territories. No exchange difficulties or administrative barriers hamper the flow of goods, or of capital and labor within the area and, with respect to some of the most important of public services, policies are made from an East African rather than a territorial point of view.

Nevertheless, as indicated above, these arrangements were in recent
years called seriously in question in Uganda. There appear to be three principal sources of difficulty. The first arises from policies and practices in the individual territories that run counter to the principles of the common market and, at a minimum, may be said to lessen the advantages that would normally be expected to accrue from participation in a common market. Uganda's chief complaint in this category is against the operations of various Marketing Boards in Kenya that sell in the common market at prices higher than abroad and that, on occasion, hamper the movement of products within the area. The second is a budgetary limitation that has plagued Uganda because of the need under the common market arrangements to have similar taxes in most cases in all three territories. The third, and fundamental, difficulty arises out of a suspicion that common market policies that are obviously favorable to the development of East Africa as a whole may not be favorable to the development of Uganda. It is clear from the concentration of manufacturing in Nairobi that the benefits of the common market have been unevenly distributed, with Kenya the principal beneficiary. But, of course, it does not follow from this that Kenya's gain has been at the expense of Uganda.

Difficulties of this sort are inevitable in any attempt to coordinate activities and policies among two or more separate communities. There is never a complete identity of interest and divergent views on relative benefits and the sharing of costs can only be compromised through negotiation that is frequently difficult and protracted. The formation of a political union makes it much easier to achieve an equitable distribution of costs and benefits through the operation of a unified fiscal system. In the absence of political union, coordination can be achieved only through a difficult process of mutual accommodation. Economic integration in East Africa has, of course, been enormously facilitated by the presence of three British administrations ultimately answerable to the U.K. Government. Mutual accommodation among three independent governments will obviously be a more difficult task. But the task will clearly be easier with the acceptance of the recommendations of the Raisman Commission. The analysis and recommendations of the Commission are addressed to all three difficulties that have concerned Uganda.

The disposal of crops through statutory Marketing Boards is a frequent practice in East Africa. In Uganda, the Marketing Boards are exclusively concerned with export crops. But in Kenya, Marketing Boards sell extensively in East Africa. Beef, bacon and ham,
butter, cheese and ghee, and wheat flour are sold in the common market at prices higher than those derived from sales to the outside world. For only one product, wheat flour, it is clear that the East African price is higher than what would be paid for imports. And in this case it is pointed out in Kenya that Uganda receives some substantial compensation in higher prices for her sugar sales in Kenya than she could hope to receive in the export market. Although for the other products it cannot be maintained that Uganda pays more than she would for imports it is, at the least, clear that the price policies of the Marketing Boards deprive consumers, including those in Uganda, of some of the advantages of competition in a common market. As The Raisman Commission puts it, "all East African buyers have some ground for complaining that they are not receiving the full benefit which should flow from participating in a common market with some of the most efficient agricultural producers in the world."6

The Marketing Boards have also on occasion limited the flow of agricultural crops among the territories. To the extent that these crops are sold through statutory boards, a refusal to purchase from another territory is the equivalent of denying permission to export. Uganda maize has encountered this difficulty.

The principal arguments for a common market depend on the assumption that, within the customs area, economic forces are allowed to determine the location, the level, and the costs and prices of economic activities. To the extent that these forces are limited by the policies and practices of territorial governments these presumed advantages are lessened. The Marketing Boards are by no means the only sources of interference. The public development corporations, in particular the Uganda Development Corporation, and the unilateral determination by territorial governments of drawbacks on duties negotiated in common, also exert a substantial influence. But it is the operation of the Marketing Boards that has particularly disadvantaged Uganda and, on the whole, the activities of these Boards constitute probably the most serious infraction of the principles of the common market.

The remedies proposed by the Raisman Commission for the impairment of the functioning of the common market by these "artificial impediments to trade" are the acceptance of a code of agreed general principles of interterritorial trade, a strengthening

6 Ibid., page 28. para. 96.
of the agencies of trade coordination and a discontinuance of industrial licensing. It is suggested that a code of principles include the following:

"a. prohibitions or limitations on interterritorial trade should not be imposed unilaterally;

b. commodities should not be sold by an Authority in one territory to buyers in another at prices higher than their f.o.b. export prices without the agreement of the buying territory's government;

c. uniformity of internal marketing policies between territories should not be regarded as necessary; the desire of one territory to assist a branch of production which another territory does not wish to assist can often be achieved by direct subsidy where, in the absence of a uniform policy, the raising of the price of the product above equilibrium level is not practicable."

If these principles are accepted and adhered to, this should go far toward meeting the present objections to the impediments to trade imposed by the unilateral action of particular territories.

The Commission considers that the machinery for the coordination of trade policy may be strengthened by regular meetings of the relevant territorial ministers advised by a staff representing an East African view. Industrial licensing has in effect broken down because Uganda and Tanganyika are no longer willing to agree to a protected position for industrial plants that are almost sure to be located in Kenya. It seems probable, moreover, that for every plant that might be attracted to East Africa through the promise of protection from competition, others may be lost because of the existence of this protection for existing plants. The Raisman Commission recommends that industrial licensing be discontinued as soon as practicable and our mission concurs.

Uganda and the Common Market

Adherence to the common market inevitably limits Uganda's freedom of action in the tax field. Until recently this presented no

\(^{7}\text{Ibid., page 63, para. 196.}\)
particular problem. But, with the fall in export prices, the yield of export taxes, one of the principal sources of government revenues, has been sharply curtailed. These taxes, which produced over £7 million in 1956/57, yielded £4.1 million in 1959/60 and are not expected to produce more than £2.4 million in 1961/62. In searching for alternative sources of revenue, the Uganda Government finds itself faced by the tax implications of adherence to the principles and practices of the common market. There can be no sharp differences in customs or excise duties levied by the individual territories without exerting a substantial influence on sources of supply. And although small differences in individual income tax rates and the companies tax can be tolerated, large differences would be likely to produce a shift in residence or business location. Some greater departure from tax uniformity than now exists might well be attempted without disturbing existing sources of supply or revenue. On the other hand, independent action by one territory could lead to independent action by others with the possibility of eventual serious disruption of the common market.

Government spokesmen have described Uganda as being in a "fiscal strait jacket". And, indeed, freedom of action is rather severely circumscribed unless the fiscal problems of Kenya and Tanganyika require action along lines that might be favored by Uganda. But it is difficult to see what can be done about it. To the extent that limitation on action is an inevitable accompaniment of the common market it is one of the disadvantages to be set against the putative advantages of the market. In fact, of course, tax freedom would be considerably circumscribed even without the common market. If similar economic opportunities exist in adjacent territories, no one of them can impose markedly more onerous taxes without risking a shift in economic activity. But without serious damage to the common market it is difficult to see how Uganda can greatly enlarge its scope for independent fiscal action.

The principal issue, however, that has concerned Uganda is whether participation in the common market, which has clearly served the interests of East Africa as a whole, is conducive to the economic development of Uganda. It is by now a commonplace in the economic literature relative to such arrangements that policies favorable to the growth of the area as a whole are not necessarily favorable to each part of the area. In the case of Uganda, various disadvantages attached to participation in the common market are readily visible while certain of the alleged advantages are at best vague and shadowy.
There is no doubt that, over the last few years, the growth of aggregate income in East Africa as a whole has been substantial, that growth rates among the three territories have been very uneven, and that Kenya has greatly prospered while Uganda’s economy has been definitely sluggish. In large part this has been the consequence of changes in the terms of trade. These changes were much more serious for Uganda than for the other territories. According to the Raisman Report, Uganda’s terms of trade deteriorated by 31 percent during the period in question, as against 19 percent for Kenya and 10 percent for Tanganyika. Since Uganda normally exports about 40 percent of its monetary product (as against 25 percent for Kenya), this adverse change in export prices explains a substantial part of Uganda’s poor showing. In physical output, the economy of Uganda has experienced a steady, though relatively slow rate of growth.

There can be little doubt that the satisfactory rate of growth in the aggregate income of East Africa as a whole has been facilitated by the existence of the common market. A market of 22 million people has permitted a rate of industrialization that would have been impossible for the separate territories. The lion’s share of this industrialization has, of course, been in Kenya, and Kenya’s exports to the other two territories have steadily increased. The Raisman Commission estimates that perhaps one-fourth of Kenya’s increase in manufactured products has gone to Tanganyika and Uganda. The common market has permitted establishments of optimum scale in a number of industries, and the absence of barriers to trade among the territories has encouraged expansion of economic activities in favorable locations.

Some light is thrown on the significance for Uganda of participation in the common market by an examination of the volume of Uganda’s export to the common market and what has happened to these exports in recent years. A study of the figures can lead only to the conclusion that Uganda’s exports to the other territories has been a relatively small part of her total exports. In 1960 Uganda’s domestic exports to the world outside of East Africa were slightly over £41 million, while her exports to East Africa totaled £6.7 million: a ratio of roughly 6 to 1. However, Uganda has at least one export, cotton fabrics, that has substantially benefited from the common market.

The Raisman Commission makes a good deal of the favorable “spill over” effects in Uganda and Tanganyika of the rapid rate of growth in Kenya’s income. It is said that these effects are accentu-
ated by the existence of the common market. This statement seems to be a deduction from general principles rather than a proposition demonstrated by evidence. When Uganda's exports are examined product by product, it is difficult to establish the connection between higher incomes in Kenya and increased exports from Uganda. No doubt the situation would be somewhat different were it not for various impediments in Kenya to agricultural imports from Uganda. When one considers the structure of the Uganda economy and the large differences between the character of growth prospects in Uganda and Kenya, it is easy to see why the operations of the common market may well be to the advantage of Kenya and of East Africa as a whole without necessarily conferring much benefit on Uganda. The Uganda economy, as the mission has emphasized, is, at bottom, a subsistence peasant economy on which two important export crops have been superimposed. There is no very large trade in locally produced foodstuffs across territorial boundaries. Production of the principal cash crops and their processing is oriented almost exclusively toward the foreign market rather than toward East Africa. Together, the value of exports of cotton and coffee and of subsistence output accounts for approximately three-fifths of Uganda's domestic product. Apart from the processing of locally produced crops for export, large-scale enterprises, with one or two exceptions, have been established only with substantial public investment. In a sense, their existence represents a denial of the principles of the common market. If, in accordance with common market principles, industrial location were determined exclusively by cost considerations, it is not at all certain that the preferred locations for these plants would have been in Uganda. It is the mission's view that the chief opportunities for economic development in Uganda for some years to come lie in agriculture and our principal recommendations reflect this view. We share the belief of the Economic Development Committee that the best route to eventual industrialization in Uganda lies in increasing agricultural incomes and so providing a large enough market to justify building industrial plants. In the meantime, if agricultural incomes are to attain their potential real value it is important that farm products be exchanged for other goods on the best possible terms. In general, this argues for a movement toward freer trade rather than for increased industrial protection. In this respect, the interests of Kenya and, perhaps, of East Africa as a whole, may differ substantially from those of Uganda.
The "infant industries argument" has considerable validity for an area the size of the common market. It has much less validity for each territory separately. But it is clear that if the industrial advantages of the common market are to be fully exploited there will be increased industrial localization in Kenya. Kenya is the preferred location with respect to most sources of industrial supply and to most external markets. It is also the preferred location with respect to the distribution of the bulk of manufactured products in the East African market. Furthermore, the external economies available in the emerging industrial complexes of Nairobi and Mombasa become more important as these complexes expand. Industrial expansion in Uganda seems more likely to be favored by violating the canons of the common market than by conforming with them.

This does not mean, of course, that Uganda should seek to promote industrialization by erecting barriers against the import of industrial products from the other East African territories. Uganda is too small a market to support establishments of optimum scale in many industries. What it does mean is that industrialization brought about by the existence of the common market will, in the absence of special inducements, inevitably tend to pass Uganda by, at least until wage costs in Kenya so far exceed Uganda as to offset the external economies of locating plants in Nairobi.

As we have indicated above, the current disadvantages of adherence to the common market loom large in Uganda while the alleged advantages seem rather nebulous. Certain of these disadvantages may be temporary; they would appear much less serious, and perhaps disappear altogether, with a substantial improvement in the terms of trade. Furthermore, as the Uganda economy moves away from subsistence agriculture toward production for market, trade with the other territories and, along with trade, opportunities for a more effective division of labor among them, may expand.

At the present time, however, adherence to the common market hurts Uganda specifically in two ways. If a common market protective tariff leads to a shift in Uganda's procurement from foreign sources to one of the other territories, Uganda may have to pay more for the goods in question. Secondly, whether or not the import is more expensive, the Uganda Government loses the import duty. In recent years, with industrialization in East Africa, principally in Kenya, the loss in yield of import duties has, in Uganda, been added to a very large loss in the yield of export duties. Of course the other territories
lose import duties also as import-replacing production is established: but, in Kenya at least, this loss is more than made up by the increased yield of taxes on expanding industrial incomes. Uganda has no such alternative source of revenue.

Against these disadvantages are to be placed such benefits as may accrue to Uganda from the expansion of income in the other territories. According to the Raisman Commission, these benefits are large enough to compensate, and perhaps more than compensate, for any losses Uganda may suffer. In the opinion of that Commission the benefits of the common market are, it is true, unevenly distributed, but all territories gain. For Uganda, we have advanced reasons for believing that, at least in the short-run, this may not be so.

It seems doubtful whether Uganda can share fully the admitted benefits of the common market for East Africa as a whole unless and until political integration permits a fiscal policy for East Africa as a whole. Consequently, there are strong economic reasons, apart from any political considerations that may be deemed to be relevant, why Uganda might look with favor on political integration. But the fact that she has not received an equitable share of these benefits in recent years does not, in our opinion, constitute a strong argument for abandoning the common market, even if political integration were considered undesirable or unlikely.

To abandon the common market would mean erecting customs barriers against the other East African territories that would be costly to maintain and difficult to police against smuggling. The fact that net benefits from the common market may be small at present does not mean that they will continue to be so. As Uganda shifts from a subsistence economy to production for the market, the gains from trade across territorial boundaries must inevitably increase. While the East African market is not very "common" now, it is likely to become more so over time. From the negative point of view, it must be recognized, moreover, that a unilateral attack on the common market, from which Uganda gains little, may put in jeopardy common services from which Uganda gains much. And, finally, a carrying out of the recommendations of the Raisman Commission will correct, in substantial measure, certain serious inequities in present arrangements. The existing unilaterally imposed barriers to trade will be substantially lessened and a contribution will be made to a more equitable sharing of the unevenly distributed gains from trade.

A departure from the common market would give Uganda somewhat greater fiscal freedom and might improve slightly its current
terms of trade. These gains, however, in the opinion of the mission could not possibly outweigh the actual and potential losses that Uganda would be likely to suffer. But a fact of central importance in a consideration of interterritorial economic relations is that Uganda will find it difficult to share equitably in the gains of economic integration without a substantial degree of political integration.
CHAPTER 5  THE SECTOR PROGRAMS

In the preceding chapters we have outlined the major economic problems and factors affecting Uganda's progress and presented our recommendations on the general developmental strategy that should be followed, the institutional and policy changes to be made, and our estimates of the financial implications. In this chapter we present a summary of our discussion and analysis of the various sectors of the economy and our principal sector proposals (see Parts II and III of the report for a more detailed statement of the mission's recommendations in each sector).

In considering our sector proposals it should be remembered good development planning is a process and not a strait jacket. Our proposals are meant to be guidelines to be used to prepare a development program which should be kept under continuous review and periodically revised to meet newly rising problems and take advantage of new opportunities. We are, in sum, presenting the basis on which we believe a development program for Uganda should be shaped and revised from time to time as necessary and not a blueprint to be adhered to under all circumstances.

COMMODITY-PRODUCING SECTORS

Under our program, the relative importance of the commodity-producing sector in the total of public capital and development expenditure would more than double compared to the last few years. As we have stated, this shift in emphasis is, in our judgment, necessary to get the national income growing again at a satisfactory rate.

Agriculture

The major opportunities for the economic development of Uganda in the coming years still lie in agriculture. Thus, while we are making recommendations that every effort be made to increase earnings from manufacturing, mining and the tourist trade, we believe that the greatest gain in national income can come from agricultural development. It is our view that, in the present circumstances, invest-
ment in agriculture will bring greater returns—in terms of expanded output and incomes—than comparable investments in almost any other sector of the economy.

In formulating a suggested program, the mission has taken into account the need to diversify Uganda's exports and particularly to place less reliance on increased coffee production, in view of the world market situation and the restrictions of the International Coffee Agreement and to expand the output of alternative crops. However, the opportunities for diversification and change in patterns of output in the short run are limited; furthermore, decisions affecting the output of tea, coffee and sugar in 1966 have, by and large, already been taken while the introduction of new crops, such as cocoa, will only bear fruit well after 1965/66. Consequently, in view of the need to find a quick yielding source of growth allied with the technical and economic opportunities, the mission's program leans heavily on a substantial increase in cotton output in the short run. We do, however, propose a fuller development of livestock output through disease control and better marketing arrangements as a main means of diversification; for the rest, we also propose increasing the output of some minor crops and tea. Another important element in the program to achieve results in the short run should be to improve the quality of coffee through improved marketing techniques, and to reduce the financial burden arising from withholding coffee under the International Coffee Agreement.

Through this program we believe that the following production goals should be attainable in the five-year period 1961/62-1965/66: cotton, at least 475,000 bales (366,000 in 1960/61); coffee, 145,000 tons (117,000 in 1959/60); sugar, 110,000 tons (93,000 in 1960); tea, 15½ million pounds (10.3 million in 1960); livestock and meat exports to increase to around £500,000 a year (£66,000 in 1960).

In addition, however, we envisage a long-run policy that goes beyond the attainment of these targets, and has as its objective the transformation of the present agricultural structure to one that is better suited to exploit the existing agricultural potential of Uganda. The short-run goals are not inconsistent with the long-run objective and the first steps toward attaining the longer-run objective of transforming the economy are included in the programs outlined for the five-year period, 1961/62-1965/66. In the main, our views are not dissimilar to those of the Agricultural Productivity Committee of 1954. We endorse most of their program, particularly those parts of it related to raising productivity of labor, though our program envisages a much
higher proportion of total public expenditures to be devoted to agriculture than did the program of the Committee.

Uganda has a favorable man/land ratio and, with localized exceptions, there still appears to be no over-all shortage of land. There seems to be a considerable margin for increasing agricultural output through traditional low-yielding methods of cultivation but, if the rate of increase in output is to be stepped up, then the productivity of labor—or output per man-hour—in peasant agriculture must be raised. A first requisite for accomplishing this is the widespread adoption of changes in techniques of production. Research in Uganda and elsewhere has demonstrated that simple changes in such techniques can raise the productivity of labor on the land. Such changes involve "costs" to the growers in the loss of leisure or the sacrifice of non-economic activities and it must be assumed that growers will accept these costs as part of the price of progress. The major problem is one of diffusing knowledge of these techniques and securing their adoption through education and demonstration and through the initial subsidization of the tools and other means whereby these techniques are applied. Thus, the mission's short-term program consists of a large expansion of the extension service (and changes in methods of extension) and a substantial increase in the provision of subsidies and credits. The latter are designed to help the producers secure labor-saving devices, such as oxen and plows, that will enable them to expand their acreage and to obtain spraying and other equipment that will enable them to increase yield per acre or to improve the quality of their crops.

The mission believes there are few investments that are more worthwhile than the expansion of the extension service. However, at present, the possibilities of expanding this service are restricted by the lack of qualified candidates; therefore, the mission recommends that there be a specially tailored training program to suit local requirements and an expansion of the service, including the creation of a new category of field worker, as trained persons become available. These workers would spread information on known techniques of production and teach producers how to change from present techniques. They would also pass on new information as it is produced by the expanded research staff which would be working to establish the means by which labor productivity could be increased through developing varieties of seeds that reduce seasonal labor clashes. We are suggesting for these purposes additional recurrent expenditures totaling
£105,000 during the five years, 1961/62-1965/66, and new capital expenditures of £12,000.

There are other means of spreading knowledge of improved techniques of production which should also be utilized: special courses for officers and cultivators and including agriculture in the regular educational curricula. In addition, the linking of peasant production to estate production can help; outgrowers and partnership schemes will enable estates to provide the management and guidance to enable peasant producers to adopt improved methods of production.

While a better timing of farm operations and simple modifications in cultivation practices can lead to increased output from existing acreage or expanded acreage without “direct” investment, we believe that the desired acceleration of increase in output can only come about if there is a much higher rate of injection of “capital” into the present farming system than at present. We recommend a major subsidy program to help induce producers to use the necessary “capital” as an essential part of the process of changing techniques of production; we also recommend a substantial expansion of the credit program so that there will be a ready availability of credit to those who wish to use it effectively. As far as possible, the subsidy and credit programs are geared to specific programs to increase output: a good part of the subsidies, for example, are “tied” to action for pest control in cotton.

For this part of the program we have allocated £1.9 million for subsidies, £500,000 for a new program of supervised credit, and £100,000 for the continuation and expansion of the existing African Loans Fund administered by the Uganda Credit and Savings Bank. It is possible that not all of this could be effectively utilized during these years, but it should be available for use if all goes well. To move a large number of peasant producers to a higher level of productive techniques will be a formidable task. Substantial investment is well justified and, if carried out successfully, would increase both farm incomes and government tax yields by several times the investment. We would expect that this part of the program would be an important part of the justification for financing some of the development program out of drawings on the Cotton Price Assistance Fund.

In essence, what we are proposing is that this Fund be drawn on not to supplement the cotton producers’ incomes and so largely their consumption, but that it be drawn on to help finance a program to supply them with the minimum amounts of capital equipment and technical assistance that they need to raise their incomes permanently.
to a higher level. The Price Assistance Funds in the past were used to help equip the country with a proper infrastructure; now, we recommend they be used to equip the producers themselves.

The mission believes that the livestock industry of Uganda can yield far greater returns than at present, if there could be an expansion of the present disease control program. This is the key to improving the quality of stock and also to increasing the marketable surplus of meat. The mission has recommended a much expanded program for disease control, including the training and recruiting of needed personnel and the provision of diagnostic and research facilities. We have also recommended allied marketing, stock route improvement and cattle ranching programs. It is our expectation that, as a result of these expenditures totaling about £1.8 million over the five years, Uganda will be producing much more meat for home consumption and be exporting meat products by 1965/66.

There is also some possibility of expanding output outside peasant agriculture through investment by Agricultural Enterprises Limited (AEL), a subsidiary of UDC and by the private tea and sugar estates. Thus far, AEL's direct investment program in tea is still limited, but during 1961-1963, it proposes to invest a further £1.3 million in tea processing and production. The total investment of all tea estates is unknown but it can be placed at around £3 million and it will probably increase by another £1 million in 1961-1962. In the years 1957-1960, the two sugar estates invested £2.3 million in improving their estates and they plan to invest a further £2 million in 1961-1962. The tea, sugar and other estates would increase their investments further if they had the opportunities to do so; the major limitation is the existing land tenure regulations which make expansion of estates difficult or impossible. This is hindering the flow of capital into areas where capital and labor are used most productively to increase output. We recommend the tenancy laws be changed to remove these obstacles— with self-government there need be no fear that the patrimony of the country will be lost to foreigners—and that the estates be encouraged to expand their output through peasant out-grower schemes. We consider that out-grower schemes will be an important part in the long-run transformation of agriculture.

While we believe that output can be boosted in the short run through the program we have recommended, one should not count, in our view, on a dramatic upsurge of production in the next five years. The nature of the agricultural economy, with its thousands of independent, conservative, and backward producers, is such that, even if
capital is made abundant, fast progress cannot be expected. Capital cannot substitute for poor management in a peasant economy where producers are free to make their own decisions, nor is there any formula for transforming ignorance and laziness into wisdom and energy. However, we believe our short-term program will provide producers with the opportunity to increase output. Whether or not they seize this opportunity and utilize it to the full depends on them and on the ability of their national leaders to stimulate them to do so.

Our proposed program is one that would involve modification of existing institutions but no drastic changes in these institutions. Ultimately, however, the mission believes that sustained satisfactory growth can only come from some deep-seated changes in the present institutions. Parts of our five-year program are recommended not only for short-run gains but also as the first stages of a longer-term program designed to transform the present system of agriculture from a tribal subsistence agriculture to one better suited to exploit Uganda's resources. Several fundamental changes are necessary. The first consists of a broadening of perspective and a receptivity to new ideas among farmers, to be brought about both by improved general education and by a more vigorous dissemination of progressive techniques of production. The second is largely completing the change in the tenure system, already begun in some parts of Uganda, whereby peasants are enabled to enclose their holdings, have a permanent proprietary stake in them and so are encouraged permanently to improve their own farms. The third is the development of the cooperative movement so that cooperatives can assume a central role in stimulating production, marketing and providing other services to farmers.

An important part of any forward-looking program in Uganda needs to be adequate provision for applied research—there is still too little knowledge on how to handle most problems in the development of tropical African agriculture. Much of the research on agriculture in East Africa is carried out by the East African common services: in addition, the Empire Cotton Growing Corporation has provided an outstanding service to Uganda in cotton breeding and research. We have needed accordingly only to suggest some additional provision for work on agricultural implements and on some of the crops to develop new quick maturing varieties of groundnuts and simsim, etc., and for obtaining better agricultural statistics. The total cost of these additional research programs would amount to £279,000 in recurrent expenditures during the five-year period and £44,000 in capital
outlays. There would still be a further gap to be filled. Our program has been based on the analysis that the major needs for development in Uganda today are to increase the productivity of labor and to increase the flow of capital into agriculture. While we believe our analysis to be broadly correct, to be certain that the agricultural program continues to evolve effectively, a more detailed economic analysis of agriculture in Uganda also needs to be made in order to identify the major factors limiting production. We recommend that such a study be regarded as a standing priority assignment for the economic adviser in cooperation with the appropriate personnel in the agriculture and livestock departments.

Since the mission does not consider shortage of land to be a general limiting factor, we do not recommend large-scale investment in land clearance, settlement, irrigation or swamp reclamation. In essence, our program is one of increasing the efficiency and productivity of labor; consequently, our program of expenditures inevitably tends to be more one of recurrent expenditures and provision of capital to farmers rather than long-term capital investment in land development. But looking to the future we do believe that some investment of this latter type is justified for the purpose of gaining knowledge and experience. We recommend a small investment in a pilot project in land resettlement in an area that was abandoned because of sleeping sickness half a century ago, in a small pilot project in cooperative farming, in various irrigation experiments and in a step-by-step approach to the development of an irrigation project in Toro by UDC. We suggest the completion of the swamp reclamation project in Kigezi, one area in Uganda where there is pressure on the land, and the carrying out of an economic study of the results before decision is taken on a larger program.

Water Supply

There are two departments involved in providing water supplies in rural areas; the Geological Survey in charge of boreholes, providing water mainly for human needs, and the Water Development Department, in charge of building tanks and dams, providing water mainly for animal consumption. We suggest that financial responsibility for the boreholes be assumed by the local authorities with financial help from the Local Authorities Loans Fund and technical advice by the Geological Survey. This is in line with the general approach of the Relationships Commission and ourselves of trans-
ferring local services to the local governments. We recommend that the Water Development Department's program be continued at a cost of about £250,000 over 1961/62-1965/66 and that the particular investments be allocated on the basis of the economic contribution that particular dams or tanks make to the cattle output of an area. The local authorities should be required to meet the cost of a dam or tank to the extent that it is designed to provide water for human consumption.

Forestry

Forests are not a major economic factor in Uganda but are an important source of construction material and of fuelwood. The Government has prepared an accelerated program for new softwood plantings and improvement of the natural forest to cost about £525,000 over ten years. On present calculations, that part of the program concerned with softwood plantings, at a cost of £280,000, would provide a net yield of about 5½ percent and the other, less than 4 percent. On these yields, the program is not remunerative enough to be included in our suggested development plan. It would be justifiable to finance this project only after financing for the rest of the development program has been assured, and only then if additional low-interest loan or grant funds are available to finance it. The only other justification would be if grant or low-interest loan funds were available for this type of project alone and would not be available for other higher-yielding projects in the rest of the investment program. Barring these possibilities, we have excluded the project from our suggested plan and recommend only that the recent rate of investment of about £25,000 a year be continued.

Fisheries

The fish catch increased rapidly during the 1950's from 10,000 to 60,000 tons a year, largely under the stimulus and guidance of the work of the Fisheries Department. The usual protein deficiency in diets in Uganda has been reduced as a result, and a valuable export to the Congo created. There is still scope for greater catches through providing better access to potential lake fishing areas and increasing credit facilities to fishermen. Consequently, the total capital provision that we recommend as needed for 1961/62-1965/66 is about £100,000, 60 percent of which would be for lake access roads and the remainder
for expanded credit facilities. These two items are accounted for in other parts of our program: the roads in the general road program and the credit facilities in the general provision for greater credit resources for the Uganda Credit and Savings Bank that was discussed in Chapter 4.

**Mining**

A number of small deposits of minerals have been found and worked in the last 35 years but the only mining of any consequence at present is a copper mine and a number of small wolfram producers. The only sizeable development has been the Kilembe copper mine which has been exporting since 1957. A small mine by world standards, its export of £8.5 million of blister copper in 1960 nevertheless made copper the third largest export from Uganda.

The program the mission recommends in mining is composed of three main elements: obtaining more knowledge of the mineral resources of Uganda, keeping the present mineral producers in business, and encouraging the entrance of new investors in this field.

We suggest that Uganda continue a program of geological mapping and not reduce the rate of progress as suggested by the Economy Commission. Such maps provide the basic preliminary knowledge needed to guide mining enterprises in their search for minerals. Uganda has also received a grant from the United Nations Special Fund to carry out an aerial geophysical survey over a part of the country. In order to do the follow-up groundwork on this and maintain the tempo of geological mapping, an expansion of the geological survey staff for a limited period of time will be necessary. This would cost up to £30,000 a year—and we suggest this be done and that an attempt be made to find the necessary personnel and finance from an external technical assistance source, possibly through an extension of the Special Fund project. Still more detailed exploration work will be needed in the next stage. A part of the country would be covered by encouraging the Kilembe organization to apply its search techniques over a larger geologically promising area than is covered by their present license. This might entail an increase of UDC's participation in Kilembe as a means of putting it in funds to do the job.

Essentially, action to help to keep the present mining producers in business would also help attract new potential investors. Because the prospecting, exploration and development stages are hazardous at
best, mining receives special treatment in most countries. The fact that the principal mining activities in Uganda are barely viable would also justify certain helpful action by the Government that does not involve it in any direct costs. It is important to avoid the loss of an enterprise such as Kilembe, both because such a loss would make attraction of other important mining groups more difficult in the future and because it would involve the loss of the specialized knowledge of Uganda minerals which Kilembe has acquired. Accordingly, we recommend an overhaul of the mining regulations to eliminate any needless and costly regulation and we endorse the recent revision of taxation to provide more liberal tax reliefs to mining.

Manufacturing

There has already been a good start in manufacturing. There are several relatively large undertakings already existing or under way in cement, asbestos cement products, textiles, beer, plywood, enameled ware, hollow tile, phosphate fertilizers, and iron and steel. These are largely owned by UDC or by the few other important entrepreneurs in the country, mostly Asian in origin whose fortunes were founded in agriculture or forestry and are now becoming interested in industrial investment. There are also quite a number of small workshops in light industry—in the Kampala area there are some 600 registered under the Factories Ordinance—producing soap, furniture, retreaded tires, window frames, doors, precast concrete blocks, soft drinks, etc. Most of these are run by Asians, who have moved into this backyard industry from trade and use little machinery and employ few workers. A small number of these enterprises are now owned and run by Africans.

The UDC is presently the most important entrepreneur in Uganda and has been a successful one in this most difficult field of fostering development. The mission endorses its investment program, suggests its senior executive staff be strengthened to improve its ability to carry on its growing activities, and recommends that it be given more autonomy from day-to-day government control to enable it to operate with as much freedom as the management of a private concern would be given by its stockholders. The mission also endorses UDC's policy of active search for new projects and its policy of associating as much private investment and management as possible in its activities.

There is a good possibility that UDC will be able to raise addi-
ational funds from private sources or external aid agencies to invest in some of its activities. If so, this, plus the cash generated from profits and depreciation allowances, should finance all the expansion of existing enterprises and new economic possibilities UDC is likely to be able to work out over the next five years and allow the payment of a small dividend out of profits to the Government, the only shareholder. Given the high priority that industrialization deserves in Uganda, payment of dividends is only justified if this does not in any way reduce UDC's potentiality to invest in new economic projects. On this basis, the payment of dividends would be a step forward in underlining the economic autonomy of UDC and improving its chances of raising money outside of Government. We have accordingly allowed for a contribution of £500,000 in dividends from UDC to the government investment program during 1961/62-1965/66, while expecting new investments by UDC in all its enterprises of about £7 million to be financed out of its own cash generation and outside investors.

We endorse the efforts that the Government has been making to encourage new entrepreneurs to establish themselves and to help small businessmen in industry and trade. We suggest that this program be expanded and rounded out: the legal regulations on establishing and running a small business should be simplified, many of the restrictions, such as those on Sunday trading, should be relaxed, and a short guide of the regulations should be prepared to aid new businessmen. We also propose that an organization financed and managed by UDC be set up with general responsibility for all measures to promote small enterprises. This would coordinate and expand existing business training schemes, run a business advice bureau, and set up and run industrial estates. We recommend that a pilot industrial estate should be tried out first with a cost of the order of magnitude of about £100,000. This small business organization would also work closely with the other financial sources available, the Government's African Trade Development Fund, and the Uganda Credit and Savings Bank. On the whole, we think that this organization should not itself acquire and run businesses, but UDC should be authorized to make equity capital available for small enterprises. We have also proposed in Chapter 4 that the UCSB be authorized to help all small entrepreneurs rather than be restricted racially as at present. The amount of new capital investment needed for aid to small business, including the existing and proposed program, that would have to be furnished by UDC out of its own
resources, would depend upon how rapidly new entrepreneurs develop. We have suggested a notional allocation of £250,000 for 1961/62-1965/66 for this purpose.

We have also proposed some tax measures to encourage new investments through providing pioneer industry tax relief and that consideration be given to raising the depreciation allowance rate on industrial buildings and setting a minimum rate for allowances on different classes of equipment.

Some changes in existing policies of UDC might also open up new small business opportunities: for example, if the textile concern would sell yarn or unfinished cloth, the founding of small enterprises using these products would be facilitated. If UDC could gradually lease-off its hotels to managers, who would have to maintain proper standards of service under UDC supervision, rather than run the hotels directly through employees, UDC eventually would be able to dispose of its hotels to private owners.

The creation of a large enough class of successful entrepreneurs is bound to take a long time. We suggest that special measures be taken to encourage the development of African entrepreneurs in our small business program. At the same time, the existing entrepreneurs of Asian origin, who are also needed for the growth of the economy, should be encouraged too. Probably the most important contribution that can be made in this is not in the realm of economic policy at all—that is, the creation and maintenance of a feeling of stability and security for all citizens that will encourage all to work and save for the mutual benefit of Uganda and themselves. We would hope that one result of our recommendation for eliminating the discrepancy in income tax treatment between Ugandans of different racial origin would be to facilitate the formation of mixed concerns. Such concerns could constitute one of the most effective means for the rapid training in business and entrepreneurship of Africans who would thus be working closely with an experienced Asian or European businessman.

Tourism

Uganda has many natural attractions for the tourist and possesses a good set of tourist services. The number of tourists has so far been small: in 1960 about 7,500 arrived directly from outside East Africa, and an additional unknown number visited Uganda after having first visited Kenya and Tanganyika. With the growing
ease of access to Uganda from Europe and America by faster planes and the growing interest in travel in Africa, we expect that tourism should grow rapidly in Uganda. To handle this growth, some investment will be necessary in tourist roads, lodges and rest houses in the National Parks, as well as keeping up the National Parks. While some investment is needed right away, much of it can be geared into the growth in the tourist traffic. We also suggest some increase in promotional publicity abroad, which at this point could be basically considered as investment in the industry, and that a few more holiday amenities be provided in the Entebbe/Kampala area. The total cost to the Government would come to £228,000 (of which £38,000 would be for additional tourist promotion and the rest capital investment) over the 1961/62-1965/66 period on the basis of an increase in the volume of tourist trade of 25 percent a year. UDC may have to invest an additional £150,000 in the construction of two safari lodges by its hotel affiliate.

**BASIC ECONOMIC OVERHEADS**

Under the East African common market arrangements, the rail, water and air services and the posts and telecommunications are handled by self-financing East African services. Electric power is produced and distributed by a Uganda public corporation which is also self-financing. The role of the Uganda Government vis-a-vis the provision of this important part of "infrastructure", is mainly one of policy guidance and only rarely of provision of finance.

**Transport**

The transport network in Uganda is basically good and able to keep up with the growth in the economy with a few significant adjustments to the changing pattern of production. Aside from these, the program we recommend largely consists of suggested improvements in the institutional pattern, in the way transport policy is made and administered, and in some of the important transport policies.

The main seeming change in the existing transport pattern envisaged for 1961/62-1965/66 is really only a continuation of the process begun 60 years ago of bringing cheaper transport facilities to more of Uganda. During the next five years, the plan is to simplify the present complicated route from northwestern Uganda, the
Sudan and northeast Congo (which for some commodities consists of travel by road to the Albert Nile, by boat up the Nile and across Lake Albert to a port, by road to Lake Kyoga, across the lake and up the Victoria Nile by ship to the railhead and so to the sea by rail). This route, with its costly repeated handling of cargo, is to be replaced by an extension of the railway to the northwest to Gulu. The timing of this extension is justified in our view. The output to be handled is growing with the extension of cotton cultivation in these areas; the new railway avoids the need to carry out extensive investment in maintaining the existing ports and water services which will be allowed to run down. This extension, which is to be built most economically by using second-hand light rail replaced elsewhere in the railway system, is to be financed by the Uganda Government through a roll-over of £430,000 of profits from the western extension of the railway to Kasese and which belongs to Uganda because the country bore this much of losses in the early years of this extension.

The total investments in Uganda by the railways during 1961/62-1965/66 will probably be in the neighborhood of £2½ million. Only the £430,000 mentioned above is included in the central government program because, as stated, the railways are part of an East African self-financing service, the East African Railways and Harbours Administration, and the rest of the railways program is financed out of the general resources of the railways system. The Administration has, in judgment of the mission, served Uganda well and the amalgamation of all the railways of East Africa in a single system has been of undoubted benefit to all concerned. This unification of the railways thus makes of interest to Uganda two developments which are outside of its territory but of benefit to it. The railway has a line under construction to connect the central railways of Tanganyika to the Uganda-Kenya system and is contemplating the establishment of a freight-car ferry on Lake Victoria. The connection between the lines, which have different seasonal peaks, would make possible a saving in investment in rolling stock on the Uganda line by switching cars from one line to another as needed. The new freight-car ferry in essence would give the lake ports a direct connection to the railway lines.

The road system on the whole is good and, over-all, could carry much more traffic. The program we approve for roads provides for no extensive construction of new major roads. After 1962/63, the main expenditures would, in fact, have to be on secondary roads.
Such new investment on main roads as our program contemplates would be mainly devoted to the upgrading of those sections where traffic density has grown enough to make a better road more economic, saving enough in maintenance costs and in users' transport cost to offset the additional cost of amortization and interest cost on the investment involved. Since investment in upgrading should only be carried out on these roads where and as it is demanded by the traffic, it is impossible to plan precisely how much investment will be needed over the next five years. The figure we suggest of a capital investment of £6.9 million by the central government for roads for the period 1961/62-1965/66 should not, therefore, be considered as a firm planning figure but as an allocation available for roads to be spent only if traffic densities develop so as to justify it. The actual investment necessary might well prove to be less.

We do expect some decline in central government works, perhaps toward the end of the period. Once the transition from gravel to bitumen has been made on a road, there is a considerable reserve of traffic capacity before further major investments are necessary. Probably during 1961/62-1965/66 the 600 miles of bitumen road as of the end of 1960 will have to be more than doubled. The decline in central government investment may be offset by the need for increase in expenditure by local authorities on improvements in the roads feeding into the main network so that central government grants to local authorities for this purpose will probably have to go up during this period. Hence, we have left unchanged the notional figure for the yearly total capital expenditures over the period as a whole.

The main principle that underlies our policy recommendations in transport is: the efficient development and use of transport facilities requires that users should not be charged less than the proper economic costs of each method of transport and that they then have the right to choose freely among the alternatives. We do not favor any attempts by regulation or other compulsion to divert traffic from the roads to the railways. While it is not possible for us to calculate the exact amount of costs that should be chargeable to road users, our preliminary judgment is that present revenues from special fiscal levies on road users are insufficient to meet the road users' share of road costs. Of course, road users are not the sole beneficiaries of the road system, since roads serve the purposes of government administration, give access to property, etc. On the
other hand, only the excess of import duties paid by road users above the general level of revenue duties should be considered as a special levy for meeting road costs. Consequently, as mentioned in Chapter 4, we recommend some increases in customs duties and fees on motor vehicles and fuel.

Again, in line with our general preference for the use of the market as a device for achieving social ends as against direct regulation and the use of police powers, we advocate allowing more freedom of competition in road passenger transport and less reliance on monopoly bus lines which may maintain a higher standard of comfort than many people would voluntarily pay for at the expense of flexibility and better responsiveness to individual needs.

In air transport, the mission advises against any waste of resources to attempt to develop the airport at Entebbe beyond what is needed to maintain the airport to its present international standard and to keep pace with Uganda's own traffic needs. This, plus the necessary investment at Uganda's other landing strips, would keep capital investment down to about £400,000 over the five-year period. We also suggest a re-examination of the present scale of fees charged at the airport, as we believe some of them are too low at present in relation to what the traffic should reasonably bear and to the actual costs incurred.

For the longer run, the mission suggests several changes in institutional arrangements designed to secure better formation of transport policy in general and more efficiency and economy. First, a system of local road conferences headed by a national Transport Advisory Council (TAC) should be established to formulate a coherent national transport policy while giving a voice to the expression of local needs and desires. Second, the responsibility for transport policy on the national level which is now spread among three ministries, should be brought together into a ministry of transport, communications and works. The proposed TAC would work closely with the ministry. The new ministry would take an active role in seeing that the central government's grants to the local authorities for road maintenance and development of the secondary roads are properly spent. The present system of lump-sum grants and no control can no longer be afforded. Finally, the representatives of Uganda should endeavor to get the proposed new Communications Triumvirate of Ministers in the East African Common Services Organization to take an active interest in coordination of transport policy among the various means. The Triumvirate,
we hope, will avoid the present system of transport problems being discussed in separate compartments.

**Posts and Telecommunications**

The East African Posts and Telecommunications Administration which handles the postal, telephone and telegraph system is another self-financing service of the East African Common Services Organization. It does not enter into the capital budget of the Uganda Government and we do not have any recommendations as to its investment program in Uganda, which will probably total £800,000, 1961/62-1965/66. Our only major policy recommendation is that the postal services consider the feasibility of a drastic improvement in service to take over the large internal traffic in letters which are now handled by private means. We suggest, consequently, that consideration be given to reducing internal postal rates, establishing more postal agencies in small trading centers, and introducing some form of hand delivery.

**Broadcasting**

The mission considers broadcasting an essential service and one that can be very valuable in mass education and economic development. For this reason, we endorse the plan to set up a 50 KW medium-wave transmitter, short-wave transmitters, and other necessary equipment and buildings and to introduce some commercially-sponsored programs to earn revenue. The capital cost during 1961/62-1962/63 would be in the order of £200,000 and is to be financed by C. D. & W. We also believe that a reorganization of the service into an independent, autonomous, public corporation is overdue. It is even more important in a country such as Uganda where there are few newspapers than in a developed country that broadcasting be independent of politics.

**Power**

The existing hydroelectric power capacity at Owen Falls amounts to 120 MW and there is room to increase to 150 MW by adding two units. The maximum demand, including power sold to Kenya, is still only around half of installed capacity. Barring any unforeseeable increase in load over the next five years, we do not believe
there will be any need for substantial investment in generating capacity during this time. The main need for funds is to extend and fill in the transmission network to tap potential consumers. A program of this sort totaling around £5 million is contemplated and financing has already been arranged from World Bank and U. K. Exchequer loans. These funds, plus the generation of cash from internal sources, should be sufficient to meet the financial needs of the Uganda Electricity Board (UEB), the parastatal organization responsible for electricity supply. Parallel with our approach to the other public corporations we endorse the recent measures taken to safeguard the autonomy of the UEB.

SOCIAL SERVICES

We project investments in the social services at about the same level as in the past, but reduce somewhat their relative weight in the total, and thus change the priorities within that total in accordance with the priorities we discussed in Chapter 3.

Education

Growth in the stock of useful skills and knowledge possessed by the people of a country is at least as important for a rise in the standard of living as growth in the stock of plant and machinery. The mission's program is to give top priority to increasing secondary and higher education to produce the key personnel which a developing and independent Uganda will need and to lay the groundwork for a further expansion in education across-the-board in the future.

Under the existing distribution of population in Uganda very few African children live and go to school in towns. The program of the mission is consequently directed to the non-urban schools where the main needs and the main hopes for the future lie.

Among the basic skills needed is literacy. The big rise in primary school education during the 1950's should begin to show results in this decade, but the bulk of the people are still illiterate in any language and probably well over 90 percent are illiterate in English, the official language. Primary school enrollment could be raised by about 100,000 (or by more than 25 percent over the 1960 figure when 43 percent of the African children were in government-aided schools) by 1965 without a large increase in costs. This would entail
applying the pupil-teacher ratio of 40 to 1 more rigorously, by combining schools where necessary, spreading the system of biennial entry, and introducing composite classes, etc.

Additional capital and recurrent expenditure would be necessary to carry out the priority program for the remainder of the school system in order to train as many students as possible, given the present number of students in the school “pipeline”. The number of pupils in the rural areas in the seventh and eighth years of school under our program would double from 25,000 to 50,000 and would become a part of the primary school system, replacing the present system of separate junior secondary schools. In the secondary schools, enrollment would be almost trebled from 3,700 to 10,000, partly by straight expansion, partly by converting existing technical schools, for whose output there is insufficient opportunity, into secondary modern schools, and partly by special assistance to “unaided” schools. The post-secondary or sixth form in Uganda would expand from 217 to 637 enrollment.

An expansion in teacher supply will be needed for the seventh and eighth grades during 1961/62-1965/66 and we recommend new investment in teachers’ colleges for this purpose. In the secondary schools, the increase we have recommended can only be achieved by 1965/66 by recruiting additional teachers from abroad as well as expanding the training of Ugandan secondary school teachers in and outside of Uganda to the utmost. We recommend that Uganda take full advantage of the U. S. and UNESCO programs for supplying such teachers.

In trade and technical training we are recommending that manual and technical instruction be integrated into the general educational system and we also propose some reorganization of the training done in the remaining existing technical schools and the Kampala Technical Institute (KTI) to secure successful entry by their graduates into the economy. There would be some additional cost for expanding KTI and for bursaries as well as for organizing industrial education for adults.

The total cost of the mission’s program, 1961/62-1965/66, would amount to £2,400,000 in capital expenditures and about £2,600,000 in special recurrent expenditures for the increased costs of the expansion in schooling above the first six grades. (We also expect that other recurrent expenditures in education might creep higher by about £100,000 a year.) This total of £5 million we include in our proposed development program of high priority investment and development expenditures.
potatoes each occupied 700,000 acres, 400,000 acres were under ground-nuts, and about 200,000 acres were planted to sesame. The other food crops were of minor significance. The largest acreage under cash crops was that of cotton—about 1 million acres—while 460,000 acres were under Robusta coffee and 35,000 acres were planted to Arabica coffee. There were 37,700 acres of sugar, 16,000 acres of tobacco and 17,000 acres of tea.

There is no way of knowing exactly the value of agricultural output produced for direct consumption, rather than for the market, but it is estimated to be in the region of 25 percent of the value of all

**TABLE 10: Estimated Acreage Under Crops—African Growers**

<table>
<thead>
<tr>
<th>Crop Type</th>
<th>1939</th>
<th>1949</th>
<th>1957</th>
<th>1958</th>
<th>1959</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millet*</td>
<td>995</td>
<td>1,627</td>
<td>1,841</td>
<td>1,905</td>
<td>1,982</td>
<td>1,846</td>
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<tr>
<td>Plantains</td>
<td>1,084</td>
<td>845</td>
<td>1,290</td>
<td>1,540</td>
<td>1,898</td>
<td>1,546</td>
</tr>
<tr>
<td>Cotton</td>
<td>1,268</td>
<td>1,628</td>
<td>1,617</td>
<td>2,014</td>
<td>1,565</td>
<td>1,516</td>
</tr>
<tr>
<td>Cassava</td>
<td>404</td>
<td>494</td>
<td>528</td>
<td>667</td>
<td>676</td>
<td>606</td>
</tr>
<tr>
<td>Sweet Potatoes</td>
<td>562</td>
<td>494</td>
<td>529</td>
<td>563</td>
<td>712</td>
<td>599</td>
</tr>
<tr>
<td>Mixed Beans</td>
<td>384</td>
<td>476</td>
<td>508</td>
<td>526</td>
<td>576</td>
<td>577</td>
</tr>
<tr>
<td>Coffee †</td>
<td>20</td>
<td>35</td>
<td>153</td>
<td>408</td>
<td>436</td>
<td>463</td>
</tr>
<tr>
<td>Arabica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robusta</td>
<td>55</td>
<td>125</td>
<td>204</td>
<td>254</td>
<td>235</td>
<td>498</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>154</td>
<td>392</td>
<td>411</td>
<td>447</td>
<td>427</td>
<td>428</td>
</tr>
<tr>
<td>Maize</td>
<td>117</td>
<td>315</td>
<td>358</td>
<td>440</td>
<td>560</td>
<td>340</td>
</tr>
<tr>
<td>Sisal</td>
<td>226</td>
<td>264</td>
<td>228</td>
<td>245</td>
<td>235</td>
<td>244</td>
</tr>
<tr>
<td>Peas b</td>
<td>115</td>
<td>249</td>
<td>188</td>
<td>196</td>
<td>276</td>
<td>212</td>
</tr>
<tr>
<td>Sugar</td>
<td>15 e</td>
<td>27 f</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td>Tea</td>
<td>3 g</td>
<td>6 f</td>
<td>13</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Tobacco c</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>14</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Other Crops d</td>
<td>n.a.</td>
<td>n.a.</td>
<td>31</td>
<td>29</td>
<td>29</td>
<td>36</td>
</tr>
</tbody>
</table>

**Note:** Crop acreage figures are subject to a great deal of error. Cotton acreage estimate at over 1,500,000 acres in 1960 is certainly too high, for example.

* Includes sorghum, finger millet and bullrush millet.

b Includes pigeon and field peas.

c Includes fire-cured, flue-cured and air-cured.

d Includes soya beans, chillies, grams, onions, rice, wheat and sisal. 1957 excludes sisal; 1960 excludes chillies and wheat.

e 1938.

f 1950.

**Sources:** Revised Crop Acreage Estimates 1945-56; Uganda Statistical Abstract, 1960; Department of Agriculture Annual Reports.
goods and services produced in the country, or roughly equivalent to a third of the value of output produced for the market. In terms of volume of output, expenditure of energy and acreage used, these subsistence crops produced for direct consumption are several times more important than the crops produced for the market. In any event, a high proportion of the land and labor in agriculture do not produce a marketable surplus. Unless there is an increase in the production for the market, and a reduction in the proportion of resources going into production for direct farm consumption, the rate of monetization of the economy will be slow, the level of disposable incomes will be low and producers will have little opportunity to raise their levels of living. The mission's proposed marketing program and program for cooperative development (see below) takes this into account.

The available data as presented in Table 10 indicates that in the 1950's the average acreage under food production expanded at about the same rate as that of population growth. The mission expects that this will continue during the five years, 1961/62-1965/66. We expect that Uganda will continue to be self-sufficient in most respects, though there will be limited imports of special products such as wheat. However, we expect the quality of certain fruit and vegetable products will begin to improve as a result of our recommended research program.

The estimated acreage under cotton probably remained fairly constant during the 1950's, while there was a threefold increase in that under coffee and a substantial expansion of tobacco, tea and sugar acreage. These acreage figures reflect the trend in output of the cash crops; they tend to reinforce the view that the major changes in output of cotton, coffee and tobacco (the peasant crops) have been associated with changes in cultivated acreage (and weather) rather than with higher yields per acre.

An outstanding characteristic of the pattern of output is that the greater part of the output that does enter the economy consists of two export crops: coffee and cotton. In 1960 these two crops accounted for an estimated 55 percent of all production entering the market and 81 percent of Uganda's exports outside of East Africa. Experience has indicated that this dependence on two crops can have unhappy consequences; in addition, as a member of the International Coffee Agreement, Uganda must restrict its exports of coffee to traditional markets, so limiting opportunities for growth through expanding coffee sales. The mission's proposed program takes these characteristics of output into account and aims at mixing and diversifying production,
The capacity of the University College (Makerere) in Uganda and of the Royal Technical College in Nairobi should be sufficient on present plans to handle the output of Uganda schools through 1965/66. After that, further expansion will be necessary and plans will need to be made before 1965/66. In order that overseas training be best utilized for the benefit of the student and Uganda, we recommend that the standing Selection Committee should be authorized to coordinate the selection of students proceeding overseas on fellowships whether granted by the central or local governments or by other agencies over which public authorities have rights of supervision. We also believe that scholarship holders have an obligation to return to the type of employment for which the training overseas was intended to equip them and that the Government is entitled to take measures to ensure this.

Health

The health of the people of Uganda has improved greatly over the last 40 years but is still far from ideal. The infant death rate, which is a sensitive index of the health situation, is probably about half of what it was in the 1920's. Most of the gain so far has come from curative medicine. The big gain that can be achieved in the immediate future is from preventive medicine. What is needed now is concentration on education in health habits and an improvement in sanitation and health practices that will keep people from becoming sick. Healthful living must become a way of life.

For the five years, 1961/62-1965/66, our proposed program consequently emphasizes increased expenditures primarily for gradual conversion of the existing dispensaries into health centers (adding preventive medicine and health education to the curative work), more effort in health education, sanitation and control of insects and other carriers of diseases. We also suggest some improvement in the existing hospital system and the building up of base hospitals. On present output of doctors, it is possible that, with some withdrawal of expatriates, there will be no net addition or even an actual decrease in the existing force of doctors by 1965/66. An important part of our program, accordingly, is that action be begun now to double the present output of doctors to around 20 a year by 1968. This would mean beginning with doubling the intake of the pre-medical course in 1962 and providing the necessary facilities to carry on from there.
Under our program, capital expenditures for the first two years will go forward, as in the Government’s capital budget forecast, at an average of £680,000 annually, largely in order to complete the big New Mulago Hospital in Kampala, and which is mostly financed by a C.D. & W. grant, and then should drop to £260,000 a year in the last three years. Recurrent expenditures are to rise by about £200,000 in 1965/66 over 1960/61 levels. Against the additional recurrent expenditures, the mission proposes certain savings and specific new revenues which together could reduce this total somewhat. The most important proposals are that a small charge be reimposed (as was done some years ago) on every new admission to service at the dispensaries and hospitals, and gradually turning over part of the cost of the operation of the dispensaries and the curative side of the health centers to local governments. This is possible because there is no longer any need to induce people to learn the value of modern medicine; now, it is more important to economize on the services of doctors and other medical personnel by eliminating patients who are only interested in the dispensary as a social center. At present, Buganda is already operating its own dispensaries. The mission proposes, in line with the Munster Commission’s recommendations, that the same system be applied to the other provinces with the central government easing the financial transition over the five-year period. As the fees charged at the dispensaries are gradually adjusted to costs, the actual burden the local governments would have to meet would be kept well within bounds.

How decentralization of health services can be achieved will be materially influenced by political and administrative development in the immediate future. We have reason to believe that, as Uganda moves toward independence, there will in any case be a tendency to greater decentralization. With increasing responsibility being vested in the hands of local authorities for the administration of dispensaries and public health legislation, and possibly even regional health boards for the management of district hospitals, health education and the like, we would endorse the wisdom of decentralization. If this were to occur, we also envisage a change in the character of the Ministry of Health which, in such circumstances, would relinquish much of its administrative responsibility for health services, becoming to a great degree an advisory organization. At the same time, of course, we presume that the Ministry would retain in full its present inspectorial duties under the law. If the foregoing forecast of developments turns out to be accurate, there is everything to be said for developing the
sanitation and health education services on a basis of delegation to regional organizations, though not necessarily to provinces as known today (because it is understood that these may disappear).

**Housing**

Uganda does not have a housing problem in the true sense of the term—it does have the beginnings of an urban development problem in the Kampala urban area. Most of the African workers in Kampala are transients from the provinces other than Buganda or from abroad who are interested in saving as much of their wages as possible and then returning home. They are consequently unwilling to spend anything more for housing than is necessary to provide minimum shelter from the weather. The remainder of the workers from Buganda, who hold the higher skilled jobs and are permanent workers, usually live on small holdings on the outskirts of town and commute daily to work. The main problem arises from the fact that as Kampala has grown, the area closest to town, the Kibuga, has grown up helter-skelter; large numbers of houses have been hastily erected by the migrants in a quite haphazard fashion on small plots of land obtained from original occupants who have subdivided their properties. There are no adequate arrangements for water supply, sanitation, public safety, lighting, etc., or even for the circulation of foot traffic. A complete reorganization is now becoming urgently needed to clear up the situation, to reduce the health and public safety hazards and make possible orderly growth for the future.

The Kabaka's government, which has jurisdiction over the Kibuga, has devised a plan for the area's reorganization which might require about £400,000 during 1961/62-1965/66. The mission endorses the many excellent provisions of the plan and would hope that it go ahead forthwith. We suggest some changes, however, in the method by which the basic structure of drainage and water supply systems would be planned and provided. The mission is prepared to endorse the proposal that the central government make available a loan of £200,000 for the water supply scheme from the Local Authorities Loans Fund. Of the remaining capital expenses of £200,000 contained in the existing estimate, we endorse the proposal that the central government provide £100,000 as a grant and believe that help to the Kabaka's government in financing the remaining £100,000 from the Local Authorities Loans Fund may also be justified.

The central government should get out of the business, into which
it embarked for a few years, of providing subsidized African housing—a program which in effect has subsidized higher-income urban dwellers at the expense of the rural taxpayers. It should turn over the existing estates to the municipalities to run, and write off the investment. No government can afford to build housing and provide the necessary subsidies to keep it going for more than a fortunate few. The bulk of the labor force are not at this stage willing to pay economic rents for the standard of housing that public authorities inevitably feel they would have to provide. However, the Government should help those workers who are permanently resident in the urban areas to help themselves in building their own houses with their own labor through a special program. The Government should aid the municipalities in laying out minimum basic services through loans from the Local Authorities Loans Fund. The Government would provide technical assistance to the owner-builders and would facilitate the provision of loans to them from the Uganda Credit and Savings Bank for this purpose.

Finally, the mission endorses the recommendations of the Salaries Commission that government servants be charged economic rents for the houses specially provided for them. On this basis, the Government would be able to dispose of many of these houses to private owners in the main centers. The credit facilities of the Uganda Credit and Savings Bank should be made available to help in this. As the Civil Service becomes more local, the Government should, within the next ten years, be able to get out of the housing business in the main towns, although in outlying districts it may have to continue to provide satisfactory housing for its employees.

Community Development

Community development essentially involves an approach to the problems of development through getting people to do something for themselves, rather than have things entirely done for them. So far in Uganda, the full benefit of community development has not been attained for a number of reasons—traditional heavy dependence on authority, slow growth of the kind of nationalist movement that would capture the imagination of people and set going a movement of advance by self-help. Among the major activities of community development in recent years have been the organization of a growing women’s clubs movement that has a most useful program of family self-help and education on how to bring up families. There is also a program
of communal self-help, supported by capital grants which reached about £30,000 a year in 1960/61. Such self-help projects include, for example, road-making, spring protection, and some school-building. The value of total assets built in this way is, of course, a multiple of the government investment. Community development also has a number of educational facilities which are utilized both by the public and by a number of governmental and non-governmental bodies for their own staff.

The mission believes that community development is potentially a valuable and economically efficient instrument of development which can produce great results at little cost. We recommend that the program of community development should be maintained and prepare itself to be ready for a “break-through” when the stimulus of self-government and independence give new aspirations and a new energy to the people of Uganda for the development of their national life. We consequently suggest maintaining recurrent and capital expenditures in this field at about the current level for 1961/62 and that they might be increased considerably in the last four years, 1962/63-1965/66. We recommend, therefore, that there be a notional allocation of £250,000 of capital expenditures and £110,000 of special recurrent expenditures (additional to the present level) for the whole period 1961/62-1965/66 to be utilized fully if the circumstances do prove favorable.

LOCAL AND URBAN SERVICES

The Relationships Commission has recommended a reorganization of the system of government for urban areas. It has suggested the organization of the larger towns into “municipalities” having their own elected governments and with jurisdiction over all persons living in their areas, thus eliminating the present system of the rural district councils having control over Africans living within the towns. The smaller urban areas would be organized as “towns” and be a lower tier of authority in the district council areas. The municipalities would take over from the central government responsibility for water supply, sewerage, streets, lighting and other urban services. For economic and financial reasons, this proposed reform is most desirable and we endorse it.

In the 1961/62 capital budget of the central government, under the heading of Local Government there was a total of £209,000 for roads and drains, street lighting, markets, town yards and garages, anti-malarial works, sewerage, urban and peri-urban development, prisons, etc., for various towns and other local authorities. Under the Works heading there was also a total of £204,000 for urban water supplies in various areas and £2,000 for sewerage in Kabale. Under the recommendations of the Relationships Commission, the central government would continue to help the municipalities and other local authorities meet their responsibilities, but this would be done by a system of grants from the central government to help meet the recurrent expenditures and loans from the Local Authorities Loans Fund for the capital expenditures.

As it is not likely that the transition to the new system could be accomplished early in the fiscal year 1961/62, we are including the 1961/62 items for urban services in our suggested program. After 1961/62, the central government's contribution to the financing needs of these services should be met out of the Local Authorities Loans Fund. We have also suggested that the provision of urban services for the housing estates, which the central government should turn over to the municipalities, might also be financed by loans from the Local Authorities Loans Fund.

The local authorities in the rural areas, under our recommendations, would also take over full financial responsibility for boreholes and we suggest that local authorities might secure financial help from the Local Authorities Loans Fund for the purpose.

Local Authorities Loans Fund

The Local Authorities Loans Fund on June 30, 1961, had a total capital of just over £1 million, all of which, except for £165,000, was committed on loans to urban authorities, African authorities (i.e., local authorities outside of urban areas) and the Kampala Water Board. With the greatly enhanced financial responsibilities of local authorities recommended by the Relationships Commission and by the mission, this Fund will need to be greatly enlarged. An increase in its resources was needed in any case, particularly for lending to the African local authorities. The latter had been able to finance a sizeable portion of their investment in 1958/59-1960/61 by drawing down their surplus balances that were built up in the boom of the 1950's. These balances are nearing or have already reached exhaustion. We
are proposing, therefore, that the central government allocate £4 million to the Local Authorities Loans Fund for the 1961/62-1965/66 period to be available to meet the various needs that we have mentioned. This £4 million would include the loan repayments of principal and interest which have been totaling about £35,000 a year and are increasing. These repayments should be plowed back into the Fund for relending. Under our recommendations, the Local Authorities Loans Fund would become a main source of finance for capital development by local authorities. The Fund should be administered as a development authority for local authority services and used as an instrument of economic development on the local level.

GENERAL ADMINISTRATION

In our program we show a sum of £4 million for capital expenditures connected with the general administrative activities of the Government. Of this amount, £1.8 million is for public works, building and construction and includes the personnel overhead costs of the Ministry of Works which are allocable to capital investment, the costs (estimated at over £300,000) for the electrification of government buildings in Lira, Gulu, Masindi, Hoima, Fort Portal and Kabale to take advantage of the expanded network of the UEB; and other miscellaneous items. The remaining £2.2 million is to cover capital outlays in connection with the police, prisons, and other agencies of law and order. Because these outlays are on non-economic or political items on which we have no competence to advise, we can in no way endorse them, but merely note them as a forecast of likely levels of spending. We do feel, however, that a strenuous attempt should be made to reduce such items if possible and to keep both capital and recurrent expenditures in this field under control in order to maximize the resources going into economic activities.
CHAPTER 6  CROP PRODUCTION

There are approximately 35 million acres in Uganda available for agricultural production. There is no comprehensive or detailed knowledge of the production potential of most of this area. Uganda is one of the few countries of Africa that has had a Soil Survey and an Ecological Survey has been completed of all Districts except Karamoja and even there the field work had been completed by 1961 and the compilation of data was under way. Similarly, a study of the farming systems had also been completed by 1961 and was due for publication. There is also a good deal of climatic data available and much information on the suitability of areas for specific crops. However, the present system of land classification (as shown in Table 9) is based on a combination of land allocation by tenurial arrangements and availability of land, and there is no detailed information as to the economic potential of the country. The mission accordingly recommends that the Government assemble the data already available on Uganda's physical resources and thereafter request outside assistance to determine the most appropriate way in which a land use evaluation could be undertaken.

<table>
<thead>
<tr>
<th>Table 9: Land Classification in Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Square Miles</strong></td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Government forest reserves</td>
</tr>
<tr>
<td>National parks and game reserves</td>
</tr>
<tr>
<td>Sleeping sickness areas</td>
</tr>
<tr>
<td>Townships</td>
</tr>
<tr>
<td>Alienated to non-Africans</td>
</tr>
<tr>
<td>Allotted to individual Africans</td>
</tr>
<tr>
<td>All other land</td>
</tr>
<tr>
<td><strong>Total land area</strong></td>
</tr>
<tr>
<td><strong>Open water and swamp</strong></td>
</tr>
<tr>
<td><strong>Total for Uganda</strong></td>
</tr>
</tbody>
</table>
The pattern of agricultural output in Uganda varies according to climatic and physical conditions and marketing opportunities. Tradition also influences output though, since the turn of the century, the Government and others have introduced new cash crops such as cotton, tea and sugar cane. Certain staples, such as cassava, maize and sweet potatoes, are grown in most parts of the country; the major regional difference in the production of staples is between the predominantly plantain and banana-growing areas of the south and the grain-producing areas in the north and east. The principal cash crops, cotton and coffee, are grown in the heavier rainfall areas of the southern and central parts of the country, with cotton production extending both north and east into the areas where rainfall is somewhat erratic. Tobacco, tea and sugar are produced in limited quantities in the central and western parts of the country. (See maps, opposite pages.)

It is estimated that there are between 1.0 and 1.5 million African families in agriculture in Uganda. The basic production unit is the small-scale family holding. There are 340,000 acres, or 0.6 percent of the area of Uganda, alienated to non-Africans. These grow sugar, tea and coffee on estates which make an important contribution to the economy. Small-scale African producers thus occupy nearly all the available 35,000,000 acres of land, the potential of which is not fully known but most of which appears to be relatively well endowed for agricultural production. Only some 15 percent of this area is actually cultivated at one time. Consequently, the mission takes the view that land shortage is not a limiting factor in increasing production in Uganda. Unlike many Asian countries, labor is not under-employed (nor does output appear to be curtailed) because of the shortage of land, though the institutional arrangements that govern the use of land might restrict output. We believe that the major drawback to increasing output of the peasant is the low productivity of labor and the main need in the agricultural sector is for means whereby labor productivity can be raised.

Available data on acreage and production must be treated with caution and the mission proposes that a statistical survey be made to improve the quality of these data, and to add much needed information to that now presented by the various departments concerned with agriculture (see Annex II). The order of magnitude of acreage under different crops can be gauged from the estimate that in 1959 finger millet and plantains (and bananas) each accounted for about 1,250,000 acres of land under cultivation, while sorghum, cassava and sweet
MEAN ANNUAL RAINFALL
MAIN CASH CROPS
Research

Research on agricultural problems in Uganda has been of a high standard, and part of the future pest control program would be based on research findings of the past. However, the mission finds that, while the facilities provided for research are excellent, it is not possible under present conditions for either the Government or the country to obtain the maximum benefit from the expenditure which has been incurred, owing to the extreme shortage of senior research officers. For periods as long as two years, some of the principal research posts have remained vacant either because expatriate scientific officers could not be found to fill them on the terms offered or because the Government deferred the recruitment of these officers in view of financial stringency. In consequence, research at the main stations has been slowed while a large number of problems affecting the prosperity of the country's main industry await solution.

The mission considers the filling of the vacancies of one chemist, three botanists and one agronomist a matter of necessity and of urgency in the best interests of the country. Now that salary scales have been revised upwards, service in Uganda may prove more attractive than did the old scales to qualified expatriate scientists. Whatever their reaction, the emoluments and conditions of service offered must be sufficient to attract such candidates, since some years must elapse before qualified Ugandans are available in sufficient numbers to occupy the most senior research posts. The mission also recommends that additional research posts for an entomologist and horticulturist be created. In all, we recommend the addition to the research staff of seven officers more than those employed in 1960/61. The estimated additional annual cost of these research officers would rise to about £13,000 by 1965/66 and would total about £55,000 during the five-year period.¹

¹ The filling of the foregoing vacancies in already approved research establishments and the creation of the additional appointments will necessitate the recruitment of additional staff of lower status, such as research assistants; however, the number of assistants who can be recruited during the next five years will be restricted by the number of students of school certificate standard who pass through the departmental certificate and diploma courses. Since this number will be inadequate to provide all extension and research requirements of assistants during this period, such new recruits as become available will have to be divided between these sections according to the most urgent needs. No estimate of cost is being made for assistants for the research division: the cost of the total number considered likely to be available for all divisions has been shown under the extension services.
The mission also recommends the establishment of two additional small research units. The first, to investigate problems of Arabica coffee, has already been approved and its estimates, amounting to £36,900 for capital and £11,000 for annual recurrent costs, are included in the Government's Three-Year Forecast ending in 1962/63. The other would be a new tea research station. The mission understands that the Tea Research Institute of East Africa and the Uganda Tea Board have under consideration the establishment of a tea research substation of the former body in Western Province. The Institute may bear the entire recurrent cost and provide the staff, and half the capital cost, said to be £15,000, but the land would have to be provided—possibly by the Toro local government. The mission regards the establishment of this research substation as of very material importance to the tea-growing community. It recommends that such expenditure and facilities as the central and local governments may be asked by the other contributors to the project to provide should be made available immediately. According to the mission's present information, the Government would need to provide £7,500 in capital expenditure, together with some 200 acres of Crown land.

Apart from the work on coffee and tea at the new research stations, there are many other important subjects of investigation to be carried out by the recommended augmented research staff, including work on producing varieties of food crops so seasonal labor peaks which may clash with crops remaining unpicked can be minimized, on suitable equipment such as simple multi-crop seed drills, hybridization and pest and disease control. In addition to these crop production problems, the mission recommends that much more investigation be done on fertilizer use and its interactions in the main crops.

The mission believes that this research program should contribute to raising the output of healthful foodstuffs and improve the nutritional balance of food consumption of the people. There is a great deal of malnutrition in Uganda which could be easily avoided by increasing the production of the proper foods and changing eating habits accordingly. It should also facilitate production of export crops through easing the burden on labor. Large rewards have been reaped from research in the past, and we believe much more remains to be reaped.

Uganda is a small country and many of the problems with which it is confronted are common to the other countries of East Africa; the mission urges the Government to continue to support the programs of research carried out under the High Commission services. There should be the closest possible cooperation with these services and the
primarily through development of the livestock industry, and we also suggest several programs for expanding the size of the internal market.

It is our assumption that enough agricultural producers will cooperate, if provided with substantial inducements and guidance, to raise the output of cash crops other than coffee. We expect those gains in output to come from two sources: the first from investment in a program aimed at a general rise in productivity through a widespread diffusion of better techniques of production, disease control and allied price and marketing policies; second, through particular projects for individual crops, and also for fisheries and for livestock. While these programs overlap, they are considered separately.

RAISING PRODUCTIVITY

Most peasant agriculture in Uganda has certain common characteristics. There is little specialization of production; producers tend to grow their own staple foods and superimpose production for the market on their domestic requirements. Organization of production is simple, but there are frequent clashes in labor requirements for harvesting and planting of different crops. Methods of cultivation are primitive and generally are based on a modified form of shifting cultivation; neither fertilizers nor manure is used. Despite the relatively large livestock population, animals are seldom used to provide draft power nor are they integrated into farming systems; tractors and machine equipment are virtually nonexistent. Cultivation is still largely by hand-hoe and much of this is done by women. The extent and size of farm operations is frequently dependent on the physical strength of the cultivators.

There is little division of labor other than by sex, though in some areas migrant laborers are employed to help with cotton and coffee harvesting; labor is generally provided on a communal basis of mutual help. Tribal or clan obligations frequently take precedence over economic considerations; these obligations often result in poor timing of farm operations. Many producers appear to have a high preference for leisure over money incomes, and responses to increased prices vary: in some areas response is positive, in others the reaction still may be one of indifference.

The level of money investment in most production units appears to be low; whatever capital formation takes place appears to be through land clearance and direct application of labor to the land.
There is little irrigation in Uganda, and little appears to be needed at this time. Cash outlays on insecticides for pest control are extremely limited. Yields of almost all crops appear to be very low.

There are many variations and exceptions to this rather general description, particularly the emergence, limited as yet, of a class of progressive farmers who are adopting new techniques of production and becoming commercially oriented. Furthermore, certain areas of the country, such as Buganda, Busoga and Bugisu, appear to have a more highly developed agriculture than elsewhere. However, this broad and generalized picture highlights the two most evident obstacles to raising productivity: the low level of resource management and the lack of capital. The mission's program for raising the general level of productivity lays great emphasis on these two aspects of the problem; while each is considered separately it must be clearly recognized that the two are interrelated and any program to improve technical management must be accompanied by the provision of the means by which improved techniques can be applied.

Im*provement of Management

In the mission's view, there are three fundamental needs for improving management in Uganda: expanded and continuing agricultural research to resolve certain problems which are hampering development; expansion of the existing extension service to lead farmers to make fuller application of known techniques of production; and greater emphasis on agricultural education and training at various levels in the country.

The main limitation on expansion of all these services is the shortage of skilled or trained manpower. While the mission's proposed program is modest we believe it to be realistic within the strictures imposed by the lack of trained persons, the time required to train persons and the availability of persons for training. For the foreseeable future the expansion of research work will have to depend on expatriate workers, while additions to the extension service will hinge in large part on the training of Ugandans of various grades.

While training programs should be related to meeting these and other special needs in the short term, the mission's recommendations concerning education, the nature of research to be undertaken and the reorientation of the extension service should also be considered to be elements in a longer-term program aimed at transforming agriculture in Uganda.
other research units in East Africa, notably the Empire Cotton Growing Corporation. As far as possible, the research carried out in Uganda and East Africa should take full advantage of the basic research being conducted in other parts of the world. In general, the policy should be to emphasize research in Uganda that will produce results in a comparatively few years while, at the same time, keeping in touch with, and benefiting from, the longer-term research in which more developed countries are investing.

**Extension**

The function of the field extension service of the Agricultural Department is to secure the adoption in everyday farming practice of all known ways and means by which the cultivator can obtain the maximum return from his labor. The service is the direct link between the research laboratory and the experimental farm on the one hand, and the practical cultivator on the other. On its efficiency depends greatly both the degree and the rate of agricultural development.

A contributing factor to the slow rate of introduction of many well-proven ways of agricultural improvement in the past has been held to be the method of approach of the extension service to it. Too small a technical personnel, many of them inadequately trained, tried to spread their activities too widely and, in trying to accomplish too much, failed to achieve what a more narrow approach might have succeeded in doing. Recently departmental policy has replaced the mass approach by one of concentration of extension effort on progressive farmers willing to follow departmental advice and teaching, with the object of building up a class of master farmers who will be recognized as leaders in their respective areas and whose farming methods will serve as practical demonstrations to their less progressive neighbors. The mission agrees with this approach until such time as more extension personnel are available.

In addition to an expansion of the service and greater concentration on more progressive producers, we recommend that the orientation of the extension service should be changed. It is our view that extension workers have to devote too much time to administrative work and that, in many instances they are not well versed in the art of extension. We must stress that extension work is developmental, educational work, not routine administration. Added clerical staff would help to relieve field officers of this latter burden. Without a change in approach to extension methods, it is possible that much of the ex-
pected benefit from the recommended additional expenditure for expanding the service might be lost. We therefore recommend most strongly that the Government seek technical assistance from a competent and experienced outside agency to help orient the extension service to a more effective approach toward its task. We also recommend that greater efforts be made to bring extension workers of all grades into direct association with research workers and others through conferences, meetings and short courses.

The existing categories of agricultural extension staff and their qualifications are:

*Agricultural Officer:* Until 1958 all were expatriates of agricultural degree status, followed by post-graduate study in tropical agriculture. As qualified men become available, expatriates are now being replaced by Africans trained abroad or possessing the Makerere College degree followed by one year's postgraduate study in England.

*Field Officer (Assistant Agricultural Officer):* Expatriates and Makerere College diplomates—the former will be replaced as Ugandan Agricultural Assistants—are promoted after special diploma training.

*Agricultural Assistants:* Holders of the agricultural certificate of the departmental farm institutes.

The extension service is organized on a provincial basis and staff is assigned as follows:

- One Assistant Director or Senior Agricultural Officer per province.
- One Agricultural Officer per district.
- One Field Officer or Assistant Agricultural Officer per county.
- One Agricultural Assistant per sub-county.

While this distribution serves as a general standard, strict adherence to it is not always possible. Thus, a very large county may require more than one Field Officer and a heavily populated sub-county one Agricultural Assistant per parish, i.e., several per sub-county, as well as extra Field Officers. The mission has taken account of such variations as well as the availability of personnel and candidates for training when considering the optimum size of the departmental staff required to build up the extension services to an effective level for accomplishing the task before them during the coming five years.
Based on our estimates of requirements and taking into account current and expected vacancies, the mission recommends the following expansion of services between 1961/62 and 1965/66:

a. The appointment of 9 additional Agricultural Officers. By 1965/66 these posts should be filled by Ugandans currently in training in the United Kingdom or at Makerere.

b. The appointment of 70 additional Field Officers (Assistant Agricultural Officers) as they complete the diploma courses recommended under the training program.

c. The appointment of 112 additional Agricultural Assistants as they complete their training courses.

The mission considers these estimates to be minimal requirements for the above categories; they take into account estimates of the numbers of trained persons who are expected to be available in these years. If more qualified persons were available we would recommend that the staff be expanded further. If our recommendations regarding training are implemented, and if enough candidates are forthcoming (discussed below) we expect that these requirements can be met by 1965/66 with the exception of those of the Agricultural Assistants. However, we expect that there will be no problems in filling this category after 1966 when the flow through the secondary schools and special training school should accelerate.

We estimate that the additional staff proposed would entail an additional salaries and wages bill totaling about £105,000 by 1965/66. During the entire five-year period, the total additional recurrent cost incurred by the increased staff would amount to more than £300,000.

In addition to the above established grades of personnel, the mission recommends the creation of a new category of Field Worker to perform limited, but valuable, services until more and better qualified workers are available. These workers would be similar to those employed in many countries where agricultural departments find considerable benefit, particularly in extension work but also on departmental farms, in the employment of a grade of personnel of lower status, lower technical qualifications and less pay than the Agricultural Assistant. The designation of such personnel is variable—demonstrator, field assistant, muqaddam, supervisor, fieldman. They would be expected to be competent to perform a variety of essential services which at present take the time of more highly qualified and higher-salaried staff who could be employed to better advantage in services
requiring higher technical knowledge and skill. Operations expected to be well within their competence would include the layout of demonstration plots on cultivators' fields, demonstration of the use of farm implements and the use of oxen in cultivation, the training of oxen for work, demonstration of the spraying of crops against pests and diseases, the supervision of labor on experimental and other departmental farms.

The mission considers this form of service to be of importance in connection with its pest control and mixed farming programs. We also consider that these lower qualified workers will help fill in the gaps in shortage of staff until better qualified workers are available. We recommend that a minimum of 60 such persons be employed by 1965/66; if training capacity permits (see below), more should be trained. The addition to the payroll would total about £11,000 a year by 1965/66 but, since only a limited number of field workers would actually qualify prior to that year, the total additional recurrent expenditures for this purpose would amount to only £20,000 during the five-year period.

**Education and Training**

The expansion of the agricultural services, on which we place such emphasis for increasing agricultural output, depends in large measure on the flow of trained persons coming through a variety of educational and training institutes. In addition, in a country that is primarily agricultural, there is need for training of persons who will be concerned with agriculture but will not necessarily be in government positions. At present, these institutes and training programs cannot meet the requirements for development.

Seventeen posts were vacant on July 1, 1961, in the present sanctioned establishment of Assistant Agricultural Officers in the Agricultural Department, and the mission considers that an additional 53 posts will be needed within the next five years. In addition, out of the 121 posts of Assistant Agricultural Officer filled on July 1, 1961, perhaps as many as 70 posts, at present filled by expatriates, may be expected to be filled by local personnel in a few years. Thus the need can be foreseen now of a total of about 140 additional local Field Officers.

**Higher Education.** The major source for higher education in agriculture in Uganda is Makerere College. The first class of students for the Bachelor of Science degree in agriculture was due to pass out
in 1961. This College could fill an important role in the Africanization of the senior agricultural services, if circumstances were favorable. Its agricultural graduates are qualified for immediate direct appointment as Agricultural Officers in the Agricultural Department. The College has a capacity for admitting 24 students annually to its faculty of agriculture. Since Makerere is an East African institution, Uganda can expect only a share—possibly eight—of that total. In practice, however, the college capacity is not being utilized in full, as sufficient candidates of adequate educational standard and good personality do not offer themselves for this faculty. In consequence, the current classes in agriculture consist of 11 Uganda students in all. Clearly Makerere College cannot meet the need outlined in the preceding paragraph, and a further source of supply of qualified candidates must be provided. The mission thus recommends that the courses now offered at the existing Farm Institutes be modified to meet these requirements.

In 1957 the Farm Institute, Bukalasa, which is the principal agricultural education center in the country and formerly gave one-year courses for teachers and others, was upgraded for teaching purposes to admit a greater number of students annually and to provide a three-years' certificate course in agriculture. Another central farm institute of similar standing was opened at Arapai in the following year. These steps were necessary as neither the number of students qualifying in agriculture nor the standard of the technical education provided was adequate to meet requirements. Bukalasa and Arapai have a combined capacity for the admission of at least 120 students annually to the certificate courses. The classes are not being filled to capacity at present because of the low standards of education of applicants for admission. Among those admitted the casualty rate in examinations is high. For these reasons, coupled with the off-take for veterinary training at the end of the second year, the number of those successfully completing the present three years' certificate course is much below departmental requirements.

In order to meet the urgent departmental needs for better qualified technical staff, the Agricultural Department proposes to improve the training at Bukalasa. These changes would involve the upgrading of the course to a four-year diploma course, so providing a limited alternative to Makerere. Changes of this kind would involve a temporary reduction in the two-year course for agricultural certificates now given at the institute. These changes would require an expansion of facilities involving capital expenditures of £12,000 and additional recurrent expenditures of £25,000 by 1965/66. The mission endorses these proposals and recommends that they be given immediate effect.
If sufficient students of Cambridge School Certificate standard to fill these classes apply for admission in future years, it is estimated that when all classes are in full operation, the two institutes can produce annually some 40 students for veterinary training, 50 certificate holders for appointment as Agricultural Assistants and 20 selected students for further diploma training. An output of these proportions would meet all needs of both the Agricultural and the Veterinary Departments for Assistant Agricultural Officers and Agricultural Assistants within a few years. It also would make available men of these qualifications required by sister departments and outside agencies.

It must be emphasized, however, that though the mission's calculations are based on ultimate outputs of these dimensions, it may not prove possible to attain them in full immediately. The adequacy of applicants of Cambridge School Certificate standard for the certificate courses in agriculture and veterinary science is the key to the future. The mission agrees with the decision to admit only applicants of that standard to the certificate courses in future, in view of the disappointing experience with students of lower initial education. Currently, however, the total annual output of students of Cambridge School Certificate qualification is unequal to the growing over-all demand, but it is hoped that the expansion of secondary school education (see Chapter 12) will rectify this shortcoming. Unless this can be done and unless agricultural training becomes more popular among students of this standard, progress in agricultural education, and with it agricultural development, may be hampered seriously. In the interim, however, part of this gap, in the absence of suitably qualified persons, can be filled by the lower grade fieldmen.

New Course for Fieldmen. The mission has referred to the need for this category of worker and recommends that a suitable course be instituted as soon as possible to train field workers. Trainees would be required to have received eight years of general education and the training itself would be for one year. The course would be essentially practical in nature with only sufficient theory to enable students to understand practice. If the proposal to hold the diploma course at Bukalasa alone is put into effect and if students desiring veterinary training transfer to the Veterinary Training Institute at the end of the first year of the certificate course as proposed, instead of the second year as at present, there should be ample accommodation at the Arapai farm institute for a training course of this nature as from 1962/63. Alternatively, it could be held at a district farm institute,
though it would seem preferable to reserve the latter for short courses for practical cultivators and, in any case, Arapai is much better provided with the necessary equipment for training. Little expenditure should be involved, apart from the usual allowances for trainees which should amount to less than £3,000 in a full year or, allowing for a progressive buildup during the early years, to about £10,000 during the five-year period.

Short Courses. The provision of short-course instruction of different types, intensities and durations to meet the needs of practical cultivators and others interested in agriculture is an important function of the Agricultural Department. This is being met in Uganda at farm institutes and specialized departmental centers where courses ranging from a few days to three months, according to requirements and the nature of the subject under instruction, are provided. These courses are popular and well attended.

Existing facilities are in process of expansion by the establishment of eight district farm institutes—two in each of the four provinces. Not all these centers were complete at the time of the mission's visit and the mission endorses the program for their completion. Courses at them should provide greater flexibility than those which are possible at the larger central institutes. Where the programs are for women, for example, it should be made possible for housewives to attend for a few days and, if necessary, to return for subsequent periods, since few housewives can spend several weeks at a time away from their homes.

The mission attaches great importance to the provision of instruction, such as these institutes and the specialized departmental centers can afford, in helping to train cultivators in modern farm practice and management, and so to forward the aim of establishing a community of progressive farmers. They also can provide an invaluable service, not available elsewhere, in training men for employment in specialized lines on estate farms and by outside agencies. In at least one direction—the training of men at Special Development Centre, Namelele, in the driving, operation and maintenance of tractors and their equipment for cultivation—such a service is being provided. The mission does not doubt that institutions of this kind will enlarge the range of their instruction in future as the need arises and as fresh discoveries of research and experiment show the way.

Farm Schools and the Education System. For students who desire to take up farming as a career, courses of instruction are available at a
number of farm schools. At least six exist in the Eastern and Northern Provinces. The results from these schools have been disappointing and this experience is consistent with that at similar schools in similar circumstances elsewhere. Most schools encourage the group system of training and subsequent employment. Few groups have made a success. Some misused the money provided; in others, cattle which had been donated, disappeared. Doubtless, some serious difficulties had to be overcome, notably that of obtaining land, owing to the suspicious attitude of the local community who sometimes see in the project an attempt to get permanent possession of the land. Both because of the disappointing record and the shortage of staff and funds for other purposes, we recommend that the farm schools be abolished.

Training of young farmers can best be effected on the farm particularly if supplemented by short courses in schools or institutes. We are also suggesting in our chapter on education (see Chapter 12) that more emphasis be placed on including agricultural subjects in the curriculum of primary schools. In rural areas there should be a close liaison between the agricultural extension staff and the primary school. Tradition and custom die hard in the African adult cultivator: innate suspicion is difficult to overcome. In the enlightenment of youth must hope be largely centered for development in the future. It is appropriate, therefore, that elementary agriculture should find a place in the normal curriculum of schools of the level attended by rural youth, so many of whom are destined to live on the land and to win their livelihood from it. Particularly is this so in Uganda which is so essentially agricultural, so backward in agricultural development, and with a population so overwhelmingly rural. At some point the organization of youth agricultural clubs which have been a potent force for agricultural development in some countries might be considered.

Agricultural Instruction for Women. The mission considers that much more emphasis than at present should be placed on the provision of agricultural instruction, including the nutritional aspects, for rural women, in view of the major role which women play in Uganda in food crop production. This could probably be best provided in general by the institution of widespread short courses of four to five days at a time, which is as long a period as an average woman can be absent continuously from her home. As we have noted, women are admitted now to the ordinary short courses at the central farm institutes and a number of women actually attend. However, we recommend that a
type of course should be devised for women only, of shorter duration, linking food crop production with nutritional needs and provided at centers in each district. As a beginning the eight new district farm institutes should specialize in these short courses for women as one of their major functions. It is realized that some are being used for the purpose already. Where departmental facilities do not exist, it may be possible to utilize other outside institutions, such as women’s clubs, which are under the guidance of the Community Development Department (see Chapter 13). A few agricultural officers give occasional lectures at these clubs already. The field establishment of the Agricultural Department includes two female officers who can assist greatly in establishing and running these courses on the most useful lines. In the years ahead most women will continue their traditional role of tilling the land and producing the family’s food crops. A little knowledge of modern cultivation methods could ease the physical effort which a woman now has to exert, while simultaneously giving a larger return for her labor.

An elementary knowledge of nutrition and dietary needs possessed by a housewife could improve the quality of the foods produced and with it the health of her family. The dissemination of such knowledge should be accorded a high priority in the Community Development program (see Chapter 13). No course of instruction of this nature for community workers is now available. We suggest that a course of six to twelve months’ duration should be provided on these lines at farm institutes for girls of primary school-leaving age and qualification. The importance of granting certificates to women who complete such a course was impressed on the mission. A certificate gives the holder considerable prestige among her community and enhances her influence in conveying to other women what she herself has learned.

Capital

Better management and higher levels of productivity of labor can only be attained if producers have a far greater supply of capital than at present. The mission believes that there is a pressing need to infuse capital into the peasant economy to provide simple tools and other equipment. Few peasants can afford to purchase equipment and at present the average peasant does not have the ready cash nor collateral of an acceptable type to borrow from commercial banks. We recommend two programs to accelerate the inflow of capital into peasant
agriculture: a subsidy program and an enlarged credit program. The subsidy program would be an outright "grant" program meeting part or most of the cost of an item to induce producers to purchase equipment, and would be handled by the Department of Agriculture. The credit program would be an expansion of the existing program, as well as one that would incorporate a greater degree of supervision than hitherto. Initially, the responsibility for this latter program would also rest with the Department of Agriculture, though in the long run the mission believes it will best be handled by the Cooperative Department.

**Subsidies**

It is extremely difficult to get cultivators to adopt a new practice or to use a new implement or process of which they have no experience and African farmers are no exception. In order to give initial encouragement to cultivators to raise their standards of cultivation and hence their productivity, and to improve the quality of their farm produce for marketing and so to obtain a higher price for it (until the advantages of doing so are better realized), the mission recommends that the Government should subsidize the major part of the cost of the more expensive equipment required. Within this category fall various implements of cultivation, processing equipment for coffee, carts for the movement of farmyard manure in a system of mixed farming and for the transport of farm produce in general, wire for the fencing of land and covered cattle kraals, for mixed farming, insecticides for the control of cotton and coffee pests and couch grass in arable land.

The recommendations we make for all these various types of subsidies would entail expenditures of £1,999,000 during the five-year period, 1961/62-1965/66 (see Table 11). The rate of subsidy for each item varies and is discussed in relation to the relevant crops later in this chapter.

Where subsidies are related to equipment they should be considered to be a reduction in price for that equipment. They should not be disbursed in cash but should be viewed as an inducement to producers to purchase equipment at reduced prices. Subsidies relating to insecticides come under special consideration and are treated in more detail in the sections on cotton and coffee.

The size of this program is based on the best judgment available of estimated needs and the response to such a program. However, it must be recognized that, as it is a departure from current practices,
there are many unknown factors involved. If the program meets with a good response it may be necessary to expand some elements in it. On the other hand, if producers respond slowly to the program it may be necessary to stretch out the program beyond 1965/66. Furthermore,

**TABLE 11: Proposed Program of Subsidies, 1961/62-1965/66**

<table>
<thead>
<tr>
<th>Item</th>
<th>Total Costs (£ '000)</th>
<th>Percentage Subsidized</th>
<th>Amount of Subsidy (£ '000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plows</td>
<td>75.0</td>
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<tr>
<td>Cultivators (Weeders)</td>
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<td>Carts*</td>
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<td>Seed Drills</td>
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<td>Barbed Wire</td>
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<td>Coffee Trays</td>
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<td></td>
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<tr>
<td>Power Hullers</td>
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<tr>
<td>Pulpers</td>
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<td>Cattle Kraals, mixed farming</td>
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<td>All above</td>
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<td>50</td>
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<td>DDT Pump Sprayers, for cotton</td>
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<td>DDT Insecticide, for cotton</td>
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<td>Malathion Insecticide for Arabica coffee</td>
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<td>Dalapon, for weed control</td>
<td>38.5</td>
<td>50</td>
<td>19.3</td>
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<td>GRAND TOTAL</td>
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* Includes local small and large carts and imported carts.

the subsidy program must be considered as an adjunct to a credit program: if there is an increased demand for credit for producers to take advantage of the subsidies, then the credit program should be coordinated with the subsidy program. Although the mission is well aware of the difficulties which may accompany a subsidy program of this magnitude, we feel that the country’s agriculture at this stage needs large-scale infusion of capital and that the most effective method is a massive subsidy program. However, we view our subsidy proposals as in the nature of a crash program, designed to encourage
cultivators to accept and make use of more modern production devices. Hence, we do not advocate that the Government should continue the subsidies indefinitely. Rather, we envisage a gradual reduction of the annual amount of subsidization once the cultivators have adopted the production methods which the program is intended to promote. Such a reduction may not be possible, however, during the next five years.

**Agricultural Credit**

In the past, the Uganda Credit and Savings Bank (UCSB) has been the principal vehicle for making agricultural loans to small farmers. However, this source of credit is unsatisfactory for peasant cultivators in a number of respects. The UCSB requires registrable land as collateral, and the average cultivator outside Buganda does not possess title to land; the value of the collateral required is at least double the amount of the loan; it is costly to the UCSB to administer a large number of small loans, and while the UCSB prefers a minimum of Sh.1,000/-, a lowering of that limit to Sh.500/- has been agreed for loans from the African Loans Fund or from the ICA funds which are administered by the UCSB (see below). The UCSB is short of inspectors and recruitment of suitably qualified staff is most difficult. To make economic use of the inspectorate staff, applications are collected until sufficient have been received from a district to enable a worthwhile safari to be undertaken. Separate journeys to each individual applicant would be far too costly.

Two other sources of credit exist for cultivators, both of them managed by the Uganda Credit and Savings Bank as agent. An African Loans Fund was established by the Government in 1954 with a capital of £150,000, which was increased in 1957 to £300,000. Security for loans is more easily met: the Fund requires a 50 percent guarantee from the local government of the district in which the borrower resides; for the balance, a mortgage is executed on any possessions the borrower can offer. In 1956, the United States International Cooperation Administration provided £100,000 to set up a Revolving Loan Fund which by the end of June 1961 had been increased to £150,000. A further sum of £80,000, made available by the same organization by the end of June 1961, was applied to supplement the African Loans Fund. The finances of both funds are already largely loaned out or committed. The mission considers that the African Loans Fund could
be increased advantageously by £100,000 for loans in those districts which are willing to grant the 50 percent guarantee.

The mission believes that there should be an expansion of the general agricultural credit program, and that there should also be a reorientation of lending policies. In 1960, the Government received advice from two outside consultants on how such an expanded credit program might be operated. One recommended that any such program should be a supervised credit program administered by the Agricultural Department. The other suggested that the program should be placed in the hands of the cooperative movement and that special provision should be made for the training of managers of societies to handle such a program.

The mission considers that each of these proposals has its merits and defects, but that neither fulfills requirements adequately. The Agricultural Department works in close touch with cultivators, and is in a better position than any other to know not only the individual but the nature and extent of his requirements for agricultural development. The administration of debt collection, however, is not the function of agricultural extension personnel. It diverts them from the discharge of their proper technical duties and, even without it, the existing staff is insufficient in numbers, in the opinion of the mission, for the adequate discharge of those duties. Finally, the association of the staff with the collection of loans, if it necessitates pressure, is harmful to the harmonious relations required for the success of propaganda dealing with agricultural development and, even if not requiring pressure, is best left to others.

While agreeing that under conditions existing in Uganda the cooperative organization is the proper agency to administer agricultural credit and that the linking of the grant of credit with the disposal of farm produce provides the best security for loans, the mission considers that the Department of Cooperative Development requires extensive reorganization before it is in a position to undertake that function. In another section of this report proposals to that end are made, and we outline a pilot project to initiate a credit program under the aegis of the Cooperative Department.

At present the Agricultural Department is the best equipped organization to deal with applications for assistance on a limited scale, and to follow up in the utilization of loans so as to ensure that they are applied to the specific objects for which they have been made. The mission recommends that as a temporary measure only, until the
Department of Cooperative Development is suitably reorganized and adequately equipped to take over, and until a detailed agricultural credit scheme of wider applicability is evolved, a supervised credit scheme for progressive farmers at low rates of interest should be initiated and assigned to the Agricultural Department for administration using the UCSB to handle the financial aspects of the task.

It seems unlikely, with its staff at the current level, that the Agricultural Department can be expected to organize and supervise more than 5,000 new progressive farmers each year—or a total of 25,000 in the last year of a five-year period—even if a greater number should desire to participate. On this basis a minimum initial provision of £100,000 should be made. The amount would have to be increased progressively each year as the number of progressive cultivators in the scheme increased. The total sum ultimately required on a basis of annual provision could be decreased considerably if a revolving fund were created. It is recommended that such a fund be instituted, that initially it should amount to £100,000, and that it should be increased to a maximum of £250,000 as and when required. This program is in accordance with the present views of the Agricultural Department, but the mission feels that the maximum proposed may not prove sufficient in the later years of the five-year period. Accordingly, a flexible approach should be adopted: as more staff becomes available and as the impact of the incentive of the subsidy program and the cooperative credit program becomes felt, additional funds may be required and, to this end, standby reserves of a further £250,000 should be held ready for such a contingency. Part of this latter amount might be lent through the cooperative movement if by then it were apparent that the suitable organization had been established.

In the operation of the credit program, the mission feels that some matters should receive the special consideration of the Government. For the maintenance of good relations between the Department and the cultivator, we view with misgivings the participation of the departmental staff in the collection of loans which, we think, should be left to sub-county chiefs and the district administrations. Discontinuance of the requirement of a 50 percent guarantee by the African local government for the repayment of each loan, and the issue of loans merely on the character, integrity and farming ability of the borrower, as known to the local area advisory committee, could lead to financial losses in the absence of any security, even though the loans are made only to progressive cultivators. Initially at least,
until experience is gained, credit might be restricted to the actual provision of capital equipment and goods only; loans for recurrent expenditure are more difficult to control. The administration of such a program will not be easy, particularly in a time of political transition, such as the present, when the relationships of the citizens to the chief and district administration are subject to rapid and erratic changes.

**Technical Change**

The credit and subsidy program we recommend, together with the proposed measures to improve management, should assist in three important technical changes: the use of oxen for cultivation, the introduction of mixed farming and the spread of measures for crop protection. The first two of these changes will be innovations, and are part of the longer-term transformation of production systems in Uganda. Crop protection measures, on the other hand, will give quick returns without anything other than a modification of present production systems.

**Ox Cultivation.** Productivity of labor could be raised by introducing tractors, but experience has shown that this type of mechanization is uneconomic for most individual holdings of the scale most common in Uganda. We suggest, however, that the Special Development Section continue to provide services where needed and that research in the use of tractors be continued and that they be tested in conjunction with the cooperative farming (see Chapter 8). We also recommend that there be continued work on the mechanization of harvesting to ensure that the larger crops, secured through mechanical cultivation, are actually harvested. In the interim, we believe that the spread of ox-drawn cultivation will be of great benefit to the economy.

The use of the ox-drawn plow in the cultivation of the soil was introduced to Uganda some 40 years ago. It has been practiced on departmental farms, and has been emphasized in all courses of instruction for departmental staff, and has been the subject of demonstration and propaganda in all the intervening years. Yet the current number of plows in use in the country is estimated at only 84,000 and 70 percent of the cropped area is believed to be still cultivated by the traditional hand hoe. For all practical purposes it can be said that oxen and the plow find no place in Uganda cultivation outside the districts of Teso and those bordering it. In Teso itself, some 51,000
plows are in use and the proportion of plows to taxpayers (cultiva-
tors) is about 1 to 2. In Karamoja, a district largely pastoral with
only a small area under food crops, ox cultivation is the accepted
method of land preparation for cropping.

Whatever be the reasons for the slow progress in spreading ox
cultivation hitherto, it is becoming increasingly important that they
be overcome. The woman is still the normal instrument of cultivation
over most of the country, and the hand hoe her implement. The re-
striction on expanding cultivation imposed by limitations of physical
strength and drudgery is itself evident. Furthermore, with the growing
enlightenment of the people, she will not continue in this role to the
same extent. Already it is said that the standard of cultivation is fall-
ing, that women devote less time than formerly to cultivation of the
land and more to social visits and functions. This change of interests
may be expected to increase.

For the encouragement of ox cultivation, mainly in the Eastern
and Northern Provinces, the Government is at present financing a
three-years' scheme, 1960/61 to 1962/63, amounting to £18,500 by
the provision of a number of oxen demonstration units. The mission
considers it of great importance to agricultural development that an
all-out effort be now made by departmental propaganda and demon-
stration, credit facilities and subsidies for agricultural implements,
where necessary, to secure the wider adoption of this system of culti-
vation, not only in these provinces but in all regions of the country
suitable for it. In view also of the well-known difficulties and preju-
dices to be overcome, a period of three years is insufficient. The mission
therefore recommends that the scheme be extended for three addi-
tional years to cover the five years, 1961/62-1965/66, during which a
sum of at least £50,000 should be provided (including the unspent por-
tion of the £18,500 already approved) so that the scheme may be pur-
sued more intensively, over a wider area, and using publicity, visual
aids and all other means by which ox cultivation may be popularized.
The minimum target should be the doubling within five years of the
present area cultivated by oxen.

Simultaneously, it is considered necessary that financial assistance
should be afforded to the cultivator for the purchase of implements
and of oxen, if the latter are not already possessed. Availability of
adequate credit on terms which the cultivator can satisfy is the chief
essential. Initially subsidies to cover part of the cost of implements
can be a measure of considerable encouragement. We have already
suggested that £75,000 worth of plows should become available dur-
ing the five-year period (see Table 11) and that 50 percent of the cost should be subsidized. It would depend on experience whether all the 5,000 plows that might be purchased should be subsidized at an equal rate or whether there should be a declining scale of subsidy.

**Mixed Farming.** The problem of maintaining fertility and hence crop yields under a system of continuous land use has been under investigation for at least 40 years. Although deficiencies of basic elements of plant foods are common, it would seem that the soils of much of the cultivated area of Uganda are fertile. Due probably to lack of certain micro nutrients in the soils, and for other reasons, not yet understood, the application of chemical fertilizers which in most countries help to make good such shortages, has not so far given the same response here. Much more investigation into the place of fertilizers in agricultural production is still required, but, on the basis of existing knowledge and under conditions of cultivation and cropping at present practiced advice on fertilizer use has to be restricted to special cases.

Research workers have been convinced for some time that in Uganda the physical structure of the soil, rather than its chemical status, determines its fertility. Research has shown the value of "resting" periods in building up soil structure and has indicated that the best way of maintaining soil fertility is to include in the crop rotation a period of "rest" under grass. This has been followed by investigations into the best grass or mixture of grass and legume for the purpose, the optimum crop/resting-period ratio, the value of farmyard manure and the place of livestock in the rotation.

Though many answers have still to be found, present knowledge is ample to give all-out support to a project for the general adoption of a rotation which integrates livestock-rearing with crop production to the mutual advantage of both. Cultivators are advised by the Agricultural Department to adopt a six-year rotation consisting of three years of consecutive cropping followed by three years' rest. The crops will vary according to locality and the land will generally be double-cropped: during the whole resting period the land will be planted to grass and will be grazed by cattle.

Resting the land between periods of cropping is a common feature of peasant agriculture. The period of rest is variable: it may extend to some years if there is no land scarcity, or it may not be possible at all in densely populated areas. During the period of rest the land is usually left to nature to be covered by spontaneous growth of grasses
and weeds. Nowhere, however, is the keeping of livestock for purposes of mixed farming practiced. Cattle may be kept as a matter of prestige or for dowries, but they have no connection with crop production.

All possible support should be given to any measure likely to further the adoption of this (to Uganda) new system of land use, in view of its great importance to agricultural development. There are great obstacles to surmount, since mixed farming is an innovation of which the people have no experience and, like all such innovations, will be viewed with suspicion. It necessitates the enclosure of the land for cattle grazing and the provision of adequate water supplies: normally the land should be permanently fenced, but the cultivator holds it only by customary right and not by right of ownership and he may well hesitate. Alternatively, movable hurdles may be used, but either costs money which the average peasant cultivator does not possess—even the cheapest wire fence with bush posts cost Sh 1/- per running yard. In some regions, land enclosure will not be tolerated by the local people owing to their views on land tenure; presumably herding of cattle during grazing would be the only solution.

The mission sees no clear way of overcoming these difficulties rapidly. Pressure could possibly be brought to bear by an independent government determined to push agricultural development. Obviously a revision of the land tenure system and the grant of individual land ownership could alter the position. Both these measures, however, lie in the future. Meantime, a valuable example can be set by progressive farmers willing to adopt a mixed farming system. They should be assisted liberally by subsidy and loan in obtaining the necessary materials and equipment, in providing cattle kraals, if required, for the collection of cattle dung for application to the land, and in any other necessary facility. Provision for these items has been included in the subsidy and credit estimates (see Table 11). We suggest that 50,000 £2½ rolls of barbed wire be subsidized over the five-year period, at a 50 percent rate, giving a total cost of £62,500 over the entire period. In addition, we suggest that 5,000 cattle kraals be subsidized and, at £50 a kraal and a subsidy rate of 50 percent, the total cost in subsidies over the period would amount to £125,000.

Crop Protection. Cotton and coffee suffer from certain insect pests which cause heavy annual reductions in yield and consequent serious loss to both the grower and to the Government. Research has now shown that the more serious pests can be controlled by insecticidal
sprays, thereby materially increasing the cultivator's income and Government's revenue. The mission attaches the utmost importance to expanding cotton spraying as a means of increasing output. Past experience has amply demonstrated the difficulty of getting the peasant cultivator to introduce a new practice into his normal farming routine. During 1959 and 1960, the Government subsidized spraying operations by cultivators in order to demonstrate the advantages of spraying and to popularize its practice. The mission entirely supports this action, but feels that the magnitude of the financial benefits which have been shown to result from spraying in these cases warrants financial encouragement on a much larger scale than that already given or contemplated in order to secure its rapid adoption by the cultivator. Our recommendations in this connection are included in the sections that deal with cotton and coffee. The costs of crop protection constitute the greater part of our subsidy program (see Table II).

We do not minimize the difficulties in introducing changes in techniques of production, but if development is to proceed then there must be changes of the kind mentioned above. Their cumulative effect should be to raise the average level of productivity of labor, and lay the basis for sustained increase in output per man-hour.

The Ministry of Agriculture like the other ministries has evolved from the previous Colonial Secretariat pattern of organization. As this evolution proceeds we would suggest that serious consideration be given to adopting a functional organization rather than a division by subject matter. This we believe would contribute to maximum effectiveness and efficient use of scarce personnel. Ideally, the Ministry should have a small policy and planning advisory unit headed by an agricultural economist, and three main branches covering research, regulatory functions and all extension work. We would suggest that Uganda might find it profitable to secure the advice of the United Nations Food and Agricultural Organization on how such a proposed reorganization could be developed and implemented.

MAJOR CROPS

The Future Relative Roles of Coffee and Cotton in the Economy

The mission estimates that in 1960 about two-thirds of the value of all agricultural commodities that entered the market were exported outside of East Africa, while of the remaining third, two parts were consumed internally and the remaining part was sold in the common
market territories of Kenya and Tanganyika. Cotton and coffee dominate the entire agricultural economy, with the value of these two crops being more than half of the value of all marketed output. Between 1951 and 1960, the combined value of the exports of these two commodities was never less than 75 percent of the total value of all exports, and was as high as 89 percent in 1951 and 1952, dropping to 77 percent in 1960. There was, however, a shift in the proportions contributed by each crop: raw cotton exports fell from over 60 percent of the value of all exports in 1951 and 1952 to less than 40 percent in 1957-1960. Conversely coffee exports increased in importance, rising from less than 30 percent of the value of all exports in 1951-1952 to over 40 percent in 1957-1960.

While production of coffee and cotton is vital to Uganda, the country is a small-scale producer, even though it is among the top half dozen coffee producers in the world. Uganda coffee—almost 95 percent of which is Robusta—represents around 4 percent of the world's marketable surplus and is only approximately 5 percent of the size of the stocks Brazil is presently withholding from the world market. The output of cotton—60-70 percent of which is long-staple cotton and the remainder 1½ inch staple length—is well below 1 percent of the world's production of all cotton, less than 5 percent of U.S. stocks of cotton, and about 5 percent of the world's production of long-staple cotton. Thus, Uganda is in no position to exert much influence on the world price through unilateral action; this is particularly true in the case of coffee where world production is some 20 percent larger than annual consumption and where the main markets are the U.S. and the U.K. where Uganda has no particular advantage over competitive producers other than a small margin under imperial preference in exporting to the U.K. Traditionally, India and Western Europe have been Uganda's main market for cotton and, while trade connections and the short ocean haul gives Uganda certain advantages in India, the world surplus of cotton and the competitive state of the cotton market make it impossible for Uganda to influence prices on her own account. However, Uganda has well-established markets in India as well as elsewhere and as the country is a low-cost producer the mission expects Uganda to expand her cotton markets.

While Uganda has a relatively minor share of the world's markets, the value of exports of cotton and coffee has provided the mainstay of economic growth in Uganda and the mission believes they will continue to do so. However, likely future trends suggest that it would be wise policy to shift some relative emphasis from coffee to cotton.
We foresee no increase in the world price of coffee, though we expect a possible slight rise in the price of cotton. In the normal course of events the value of exports might have been sustained, despite a fall in prices, by the increased volume of coffee production, which is still increasing rapidly. However, as Uganda has joined the International Coffee Agreement, under which the rate of growth of exports must be restrained, this course cannot be followed. Furthermore, in view of the extremely competitive state of the world market, Uganda might have difficulty in retaining its present share of the market unless the quality of its coffee is improved. Thus, the major growth will have to come from increased cotton production, while the increase in coffee production will have to be dampened and the quality of coffee will have to be improved, so that Uganda can retain its share of the world market. Increased cotton sales are expected because of Uganda's strong competitive position as a low-cost producer.

There is an element of competition in use of land and labor for cotton and coffee. Coffee has supplanted cotton in Buganda, the most promising area of cotton production, while cotton production rose in the Eastern and Northern Provinces. The mission believes that, if cotton production is to be increased, then the downward trend in cotton production in those areas where cotton and coffee compete must be reversed and output must be raised in other areas.

Encouraging cotton production in lieu of coffee will be difficult. The subsidy program outlined earlier and the cotton pest control program described below will provide means whereby production can be raised, but if resources are to be diverted from coffee to cotton then the advantages of growing coffee rather than cotton will have to be diminished. These advantages are pronounced. First, an acre of coffee is estimated to need 80 man-days of work per year compared with 140 for cotton. Second, the average net rate of return (after deducting all inputs except family labor) from an acre of coffee—even with low yields and prevailing prices—is estimated to be two to three times greater than that from cotton.

There are, however, certain variables in the prices received by growers which can be adjusted to diminish the gap. In addition, a change in the marketing system of coffee can place a greater premium on quality. This will result in the rejection of inferior-grade coffee rather than the purchase of all coffees at a fixed price, irrespective of quality. The result will lower the return paid to coffee growers.

The origins of the present system of pricing of the two major export commodities lie in the war years and the immediate postwar
years. During the war years, coffee and cotton were sold under bulk agreements to the United Kingdom Ministry of Food and the Ministry of Supply and to the Government of India: the Uganda Government established a market control system whereby it purchased all the cotton and coffee and resold it; in so doing, it fixed the internal prices of these two commodities. Prices paid to the producers were not necessarily in line with those received. In the postwar years, the Government continued with its policies of fixed prices; however, while world prices rose, internal prices were held down (see Charts 2 and 3). The motives for restraining the price to producers appear to have been twofold: the fear of inflation because of the shortage of consumer goods in Uganda in the immediate postwar years, and the wish to accumulate a fund to be used for internal price stabilization purposes if export prices were to fall. By 1953, close to £30 million had been accumulated as a stand-by reserve in the cotton and coffee Price Assistance Funds.

Despite the increased supply of consumer goods, the Government continued its policy of holding down internal prices even though world prices rose during the boom in commodity prices associated with the war in Korea. Since 1953 price policy for the major export crops has been formulated in conjunction with the use of Price Assistance Funds. The policy has been a variable one: initially price stability and export equalization was the goal of policy and the funds were used as a means of guaranteeing fixed forward prices of both cotton and coffee irrespective of world price fluctuations and trends. However, the policy of having fixed seasonal prices for coffee encountered a serious setback in 1955 when world prices fell sharply after the initial price was established in Uganda. The Price Assistance Funds were drawn down £4½ million (see Chart 4) to meet losses on exports. Subsequently, policy was changed to permit greater flexibility and fixed seasonal prices were abandoned. Guaranteed prices were continued but these could now be altered three times a season.

The policy for cotton has also been based on guaranteeing growers fixed prices; however, this was a more cautious policy than for coffee and it provided a guaranteed minimum preplanting price and, where necessary, a modified preharvesting price, though the latter could not be below the former. It has been an ad hoc pricing system that offers a fixed price to growers forecasting the state of the world market by the time the crop is to be harvested. The differential in preplanting and preharvesting prices has been wide on occasion, e.g., in 1957/58 preplanting prices were 52 cents (East African) a pound
while preharvesting prices were 58 cents a pound; in 1960/61 they were 46 cents and 55 cents respectively. The existence of this gap has meant, of course, that a rise in prices over the year could not influence producers' planting decisions in the season concerned, though the higher price might well encourage them to market more than they might otherwise market; i.e., they might pick a higher proportion of their crop than otherwise.

While the emphasis in price policy has been to have "stable" prices, the Price Assistance Funds have also been used to bolster growers' incomes. Thus, in 1958 and 1959, as world cotton prices fell, internal prices were raised above world levels to maintain growers' disposable incomes by drawing on the funds; this was a departure from earlier policy where the funds were used to make up the differential between projected prices and the fixed internal prices. It has involved a deliberate drawing down of the funds, not for price stabilization but rather for income stabilization. Growers' prices have been raised above projected prices as it has been felt that over-all disposable income in the country would fall without such subsidies. Such a policy need not conflict with the use of administered prices designed to encourage an expansion of production and a rational use of resources, provided the subsidies involved are recognized as such, and the ratio between world prices for coffee and cotton is reflected and this policy does not become a built-in feature of the pricing mechanism. However, the mission cannot endorse the policy of using price subsidies to maintain producers' income, since consistently high support prices can only lead to a continuing drain on reserves. Furthermore, the Government is now committed to abide by the spirit of the International Coffee Agreement to restrain coffee exports, and there is thus an obvious conflict in maintaining local prices of coffee to maintain growers' incomes but at the same time discouraging production; this points up the present impasse in using funds both for price support and income support.

If prices are to be used to influence resource use in line with market opportunities, price policy on these two major crops must be adjusted to encourage cotton expansion, slow down the increase in coffee production and improve the quality of coffee. In addition, adjustments should be made to minimize the costs of retaining coffee under the International Coffee Agreement. As we have pointed out, coffee and cotton compete in many areas, and the relationship of cotton prices to coffee prices must be made more attractive than it has been.

Export duties on cotton and coffee are a component in their price
ANNUAL AVERAGE PRICES OF COTTON PER LB., 1946-1960

U.S. MIDDLING 1 INCH, c.i.f. LIVERPOOL*

Uganda cotton, long staple, c.i.f. LIVERPOOL**

Seed cotton, price to growers, BP52 variety

* Prior to January 1957, series is 15/16" Middling
** Uganda, BP52
ANNUAL AVERAGE PRICES OF COFFEE PER LB., 1946-1960

PORT. WEST AFRICA, AMBRIZ NO.2AA, c.i.f. NEW YORK

UGANDA NATIVE #10, c.i.f. NEW YORK

KIBOKO COFFEE PRICE TO GROWERS

*Ambon type, 1947 and 1948
structure. As a first step in modifying the disparity in prices between coffee and cotton, the mission recommends changes in the coffee duty. Over the past seven years, cotton growers have paid £21 million in export taxes while coffee growers have paid £14 million (see Table 12). In 1960, when cotton and coffee growers had almost the same income, coffee growers paid £700,000 in duty while cotton growers paid £2.85 million. This is largely because of the method of fixing duties. The export duty on Robusta coffee only becomes operative when the price of Robusta coffee reaches £120 a ton f.o.b. Mombasa. If the price of coffee falls below £120 a ton there is no duty, and for every rise of £3 a ton thereafter there is a duty of £1. Cotton duty, on the other hand, commences at a very low level (50 cents East African per pound f.o.r. Uganda) and is based on a flat increase of one or two or three East African cents per pound for every 10 cents increase in the price of lint f.o.r. Uganda until the price of 120 cents per pound is reached. After that, the duty is increased by 2 cents per pound for every increase of 10 cents per pound in the value.

It is the mission’s view that the average price of Ugandan Robusta coffee over the next five years will probably range between prices equivalent to £116 to £132 a ton f.o.b. Kilindini. Thus, under the present system of taxing exports, coffee growers will pay a maximum of £4 a ton and if, as appears likely, the price of coffee is at the lower end of the scale, they will probably pay no tax at all. Their taxes will range from less than 1 percent to 3 percent of the export value of the crop. Cotton growers, on the other hand, will continue to pay taxes even if prices fall sharply. Under the present system of fixing duties, the mission estimates that taxes will be the equivalent of 10 cents on each pound of raw cotton (three pounds of raw cotton are roughly equivalent to one pound of lint cotton) or close to 20 percent of the estimated price of raw cotton.

It would be desirable to redress the balance and increase relative returns to cotton growers by reducing cotton duties (including the local tax on cotton) and increasing duties on coffee. Because of revenue considerations, the duty has to be retained on cotton, probably at its present rate. The mission recommends, however, that there be a change in the level at which duties on coffee are applied. We suggest that duty commence at £90 a ton rather than £120 a ton. This will reduce the returns to growers, and might act as a disincentive to increased coffee planting and improve the position of cotton vis-a-vis coffee.

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<td>-0.4</td>
<td>-3.1</td>
<td>10.5</td>
</tr>
<tr>
<td>1958</td>
<td>-2.6</td>
<td>-1.3</td>
<td>-3.9</td>
<td>10.1</td>
</tr>
<tr>
<td>1959</td>
<td>-2.3</td>
<td>+0.4</td>
<td>-1.9</td>
<td>12.0</td>
</tr>
<tr>
<td>1960</td>
<td>-0.7</td>
<td>+3.0</td>
<td>+2.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Total</td>
<td>-14.3</td>
<td>+6.1</td>
<td>-8.2</td>
<td>72.1</td>
</tr>
</tbody>
</table>

a Year ends on October 31.

Where identifiable, interest on Marketing Board funds has been added before calculating the subsidy (+) or impost (-) effect on growers.

* Excludes estates and Bugisu Arabica.


As a further step in increasing the competitive position of cotton, the mission recommends that growers be paid prices for their products more in keeping with world prices for the specific quality of cotton they produce. At present all growers are paid the same price for their cotton with a small differential, depending on the variety planted, and a larger differential, depending on whether the cotton is stained or clean cotton. However, certain lints command premiums on the world markets (see Table 15). Most premium lints are grown in Buganda where cotton has been displaced by coffee. Other cotton
NET WITHDRAWALS FROM AND ADDITIONS TO THE PRICE ASSISTANCE FUNDS

(MILLIONS OF £)

YEAR ENDING OCTOBER 31


WITHDRAWALS

ADDITIONS TO RESERVES

COTTON

COFFEE
TABLE 13: Average Cotton Prices Received by Marketing Board, by Selected Zonal Sources of Origin, 1956/57-1959/60
(f.o.b. in cents per lb.)

<table>
<thead>
<tr>
<th>Province and Zone</th>
<th>1956/57</th>
<th>1957/58</th>
<th>1958/59</th>
<th>1959/60</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buganda:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mengo</td>
<td>291.77</td>
<td>242.50</td>
<td>189.70</td>
<td>236.64</td>
</tr>
<tr>
<td>Masaka</td>
<td>242.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mubende</td>
<td></td>
<td>240.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bunyoro</td>
<td>261.52</td>
<td>224.24</td>
<td>178.70</td>
<td>224.00</td>
</tr>
<tr>
<td>Eastern:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Busoga</td>
<td>252.27</td>
<td>210.00</td>
<td>176.00</td>
<td>227.00</td>
</tr>
<tr>
<td>Mbole</td>
<td>249.45</td>
<td>208.43</td>
<td>173.17</td>
<td>217.00</td>
</tr>
<tr>
<td>Usuku</td>
<td>216.04</td>
<td>217.20</td>
<td>170.50</td>
<td>203.84</td>
</tr>
<tr>
<td>Northern:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lango</td>
<td>238.56</td>
<td>204.74</td>
<td>172.14</td>
<td>215.00</td>
</tr>
<tr>
<td>West Acholi</td>
<td>221.44</td>
<td>202.59</td>
<td>172.94</td>
<td>215.00</td>
</tr>
<tr>
<td>West Nile</td>
<td>230.60</td>
<td>193.83</td>
<td>178.86</td>
<td>218.00</td>
</tr>
</tbody>
</table>

**SOURCE:** From the trade.

appears to be subsidized by having an artificially high price relative to world prices.

The mission recommends, too, that the disposition of the Price Assistance Funds should be changed. In the past the *income effects* of these Funds, taken in conjunction with export duties, have benefited coffee growers to a far greater extent than cotton growers, as is indicated by the figures for cotton and coffee growers' incomes, export taxes, their subsidies or imposts, and the "net government impact" for the years 1954-60 (See Table 13). Cotton growers as a whole earned £84.9 million in those years and paid £21 million, or the equivalent of 24 percent of their incomes, in export taxes; coffee growers paid £14.3 million in export taxes, or close to 20 percent of their incomes in export taxes. During the period as a whole, the cumulative effect of the payments into or from the Price Assistance Fund for cotton has been zero; however, receipts from the Fund by coffee growers over the period exceeded payments by them to the Fund by £6.1 million. Obviously, the use of export duties as a disincentive will be self-defeating if subsidies more than offset their effect on coffee as was true in 1960.
The Price Assistance Funds had been drawn down to about £16 million by October 31, 1961, with £11.5 million in the cotton fund (not including the £5 million interest-free loan to the Government's Capital Development Fund which had been practically exhausted by this date) and £4.8 million in the coffee fund. The mission recommends that the policy relating to the use of these funds be reconsidered. First, we recommend that a proportion of the funds be set aside to provide a reserve as a minimum disaster price support for cotton and coffee (the system of pricing coffee is discussed below) and to provide any extraordinary expense in the operation of the Marketing Boards. In our opinion these requirements would be covered by £10 million; the remainder should be used to benefit growers, not by direct subsidies but by investments which will increase returns to growers. The major investments should be in expanding cotton production and improving the quality of coffee. Specific proposals for these investments are contained elsewhere in the report.

We also recommend that the two Marketing Boards employ an economist. The Boards have done well and have a competent staff; however, the mission believes that there is a pressing need for a trained economist to analyze costs of production, marketing costs and, above all, to examine trends in world markets and the relationship between internal and external prices, particularly with the new pricing programs recommended below.

**Coffee**

In 1955 coffee surpassed cotton as the most valuable crop grown in Uganda. The increase in output of coffee has been one of the major phenomena of the past decade with acreage and output rising more than fourfold between 1945 and 1960. Two types of coffee are grown in Uganda: Arabica and Robusta. Arabica, however, is of minor significance: in 1960, 35,000 acres were under African Arabica (including Bugisu) and they produced a crop valued at £1.4 million while 498,000 acres under Robusta produced a crop valued at £12.1 million to the growers. Both types of production are predominantly peasant grown though there are 30,000 acres of estate-planted Robusta that produced close to 7 percent of the Robusta crop; 8,000 acres of estate land produced less than 500 tons of Arabica coffee.

While Arabica commands a much higher price in world markets than does Robusta, the opportunities for expanding Arabica production are restricted by ecological and other factors. At present it is
grown almost exclusively in limited areas in Bugisu and the Western Province. While the mission believes that Arabica coffee will seldom be more than of marginal importance to Uganda, it will continue to be the major source of cash incomes in several areas. Because of this, we recommend that the Government undertake two steps to increase production in these limited areas. The first, to which we have already referred, is to establish a small Arabica research unit to investigate problems in Bugisu, the principal production area. Yields and quality appear to be declining in this area, and there are many unanswered technical questions as to the reason for the falling off in quality and quantity of production. This research unit should resolve some of these problems. We also recommend a pest control program in those few areas where Arabica coffee is the major cash crop. The areas concerned are small but should have an important effect on local income. The program would cost £66,000 and should increase output by several hundred tons. We also endorse the Government's general development program for the Bugisu coffee area. (The marketing problems of the Bugisu marketing cooperative are discussed in Annex III.)

The major problem confronting the industry as a whole is not a production problem but a marketing problem arising from what appears to be chronic surplus of coffee in the world. It was because of this surplus that the United Kingdom, acting on behalf of Uganda, became a signatory to the International Coffee Agreement in 1960. In adhering to this Agreement for the 1960/61 season, the U.K. indicated that Uganda's present participation implied no long-term commitment. The obligations of the agreement, however, require Uganda to limit its expansion of coffee exports to traditional markets by "retaining" 141,500 bags or close to 9,000 tons, or approximately 6 percent of its exports to those markets. The Agreement gave Uganda favorable treatment as its retentions are half the percentage of that of the other major producers.

It is the mission's view that an international agreement will be in force for a period beyond 1965/66, and that, despite the fact that Uganda is a low-cost producer, it has little option but to adhere to it. This will be all the more imperative if the major coffee importers join the agreement. The U.S. is Uganda's major market and at present Ugandan Robustas are used largely for the growing "instant" coffee.

*The U.K. associated itself with the Coffee Agreement for the 1959/60 season. This involved the retention of 70,000 bags, virtually all of which, it is reported, were withheld by Uganda.*
trade. But the U.S. imports less than half its total bean requirements for instance as Robustas. Thus there is a wide field for competition, not only from other Robustas but also from Latin American coffees, and Uganda would have grave difficulty in meeting their all-out competition. Uganda has thus to accept the implications of the agreement and so adjust its policy to restrict production and marketing of coffee so as to slow down the commitment of further resources to coffee.

Furthermore, it is probable that the major producers may try to insist that East Africa's share of retentions of exports be brought up to parity with the retentions of others. Thus, while production of all coffee is expected to increase from the level of 117,000 tons in 1959/60 to 145,000 tons in 1965/66, exports to "traditional markets" may only rise to 125,000 tons if the coffee can be sold in those markets. It is possible that some of the retentions may be sold in non-traditional markets which have been importers of Ugandan coffee in the past, e.g., in the Sudan Republic and the Union of South Africa. Even so, Uganda will be faced with the problems of limiting exports, retaining its traditional markets and finding new outlets.

In the mission's view, the basic problem confronting Uganda will be to improve the quality of coffee so as to retain existing markets and at the same time organize the marketing system so that there will be a minimal financial burden imposed by unsaleable surpluses. We have suggested changes in price policy to make coffee production less attractive vis-a-vis cotton production, though we foresee no reduction in the rate of production in the five-years 1961/62-1965/66. However, we believe that a change in the system of marketing can improve the quality of coffee and ease the otherwise high cost of purchasing coffee so as to hold it off the world market.

It is of the utmost importance that quality be improved. We reject the view that because there will always be a market for low-priced inferior coffee, any effort and expenditure to improve the quality of local coffee is not warranted. It is our belief that competition in the world coffee market is so keen that buyers who might have bought on price alone are now becoming extremely quality conscious. Furthermore, we believe that, unless the quality of the coffee is improved, revenues to growers will fall substantially. Finally, we believe that unless grading and pricing policies are changed, the cost of withholding coffee off the market will be very high.

The problem of improving the quality of most Ugandan coffee commences at the first stage of processing the bean. Cherries are
picked and then sun dried on the ground or on mats into an undifferentiated product in the husk (commonly known as kiboko). The flavor of the coffee is influenced by the method of drying. Experiments have indicated that coffee trays are aids to quality improvement and provision for the purchase of these trays is included in our proposed subsidy program (see Table 11). We suggest that 50,000 trays be subsidized over the five-year period at a cost of more than £30,000, or of about 50 percent of their total cost. In addition, we believe that the present level of research into coffee storage at the producer level should be expanded.

The heart of the problem lies, however, in the next steps in the marketing chain. The bulk of the producers receive a fixed price by weight for their kiboko, which is then processed, the curer receiving a fixed margin per unit processed. Thus, the size of throughput is important, rather than the quality of throughput. The Marketing Board then sells the coffee on the world market. It is only at this latter stage that quality influences the prices received for the coffee.

The mission agrees with the Government that quality can only be improved if the growers and the processors are rewarded for improving quality. In the first instance, growers must be encouraged to pick and process sound, ripe cherries and, by implication, be penalized for selling poor cherries. This can only be done if the product they sell can be identified, i.e., it is not in the husk. Thus, a prime requirement for improvement is to enable the quality of the coffee bean to be identified when it is offered for sale either by removing the husks by rough hulling or by wet processing and selling it in the parchment. Since 1957 the Government has been encouraging producers to hand hull, or machine hull kiboko, by introducing a price differential for producers who rough hulled their coffee. However, in 1960 only 6,800 tons of coffee were hulled by growers.

The mission believes the price differential alone is not attractive enough to encourage hulling nor are the penalties for not hulling severe enough. The mission believes, as does the Government, that

A small proportion of coffee is "wet" processed; this process has many advantages over dry processing but it requires a plentiful supply of water and more elaborate procedures than does dry processing; furthermore it produces an end product which is well suited for limited markets, but the extent of those markets is unknown and there are storage problems associated with it. The Marketing Board's economist should examine the size of market, and the cost of production by wet processing, and determine the degree to which wet processing should be encouraged. In the interim, we have included equipment for wet processing in our subsidy program.
the only way in which this situation can be changed is by relying to a far greater extent than at present on market forces. This would entail freeing the market, rather than paying growers a fixed price by weight for their kiboko; such a move would enable the processors to purchase coffee in competitive circumstances which they in turn would sell to the Marketing Board. The prices received by processors from the Marketing Board would determine the price they would pay to growers. This latter price would depend on the grade of the coffee sold and, as the incidence of selective buying will fall on the processors, there would be a substantial differential paid to those growers who demonstrated that their coffee was of good quality, i.e., those who rough hull or wet process their coffee.

The mission believes that this change in policy will encourage rough hulling and wet processing, so removing a major defect in the present system. In order to give additional impetus to the performance of this vital service we believe that growers should have ready access to mechanical hullers and pulpers. Thus, we have recommended that subsidies be made available for the purchase of small-scale mechanical hullers which can be purchased by groups of producers, cooperatives or entrepreneurs who will either rent them to growers or utilize them to sell a service for a small fee. If 500 power hullers were acquired, the total cost, at £300 a huller, would amount to £150,000 (see Table 11). If 50 percent of this cost were subsidized, the cost to the Government would amount to £75,000 over the four-year period.

The freeing of the primary market would also introduce competition at the processing level. There are seven hulleries, 12 curing works and 29 estate factories in Uganda. The expansion of the industry has been influenced by the Government's desire to facilitate African participation in processing. This has come largely through African ownership of curing works and the rapid expansion of estate factories owned by "association of growers" or groups of African producers who erect their own processing plants. Their expansion has been rapid since 1957; and in 1960 they processed close to 30 percent of the African Robusta crop. In the past, returns to the curing works have been high. The major curing works have been compensated on a "cost-plus" basis that covers the cost to the curing works of the weight of dried cherry required to produce one ton of clean coffee, a curing allowance, interest on purchases and a profit allowance of $2.5 percent on the total cost involved. The major item in the formula is the allowance for the cost to the curing works of the weight of dried cherry required
to produce one ton of clean coffee—there is considerable loss of weight in processing the *kiboko* and any formula that bases the outturn of clean coffee per ton of *kiboko* at a lower figure than the actual outturn would give the producers a windfall profit—this appears to have been generous and the processors have made substantial profits both in respect to the outturn and to the curing allowance.

Furthermore, relaxation of control would end the rigid system of vertical control over the movement of coffee. At present, competition between the different processors is controlled. Estate factories may only process estate-produced coffee. The associations of growers may only buy processed coffee produced by their members and each plant has a quota it may process-based on estimated membership. Hulleries have a quota and the curing works can only process coffee purchased from individual producers. (There are two cooperatively-owned curing works who buy from their members alone.) Estate factories and associations can sell on the open market, while the curing works and hulleries must sell their product to the Marketing Board. There is consequently a considerable amount of illegal "lateral" movement of coffee from peasant producers to those who can sell on the free market when the world price exceeds the controlled price. When the controlled price is below the world price the movement of coffee is from estates and growers in associations to the curing works. The estates have been excluded from the price-support program because they did not contribute to the Price Assistance Funds which finance such price support. However, estate production is so limited that we do not think that the distinction between a controlled market (for the bulk of production) and a free market (for a small part of production) is worth maintaining, particularly in view of the illegal movements which have taken place.

The mission believes that the primary marketing system should be unified and producers should be free to sell their coffee where they will and that processors should buy as they wish. As African processors are now firmly entrenched in the processing industry, there appears to be no need to offer them further special protection. Competition will reduce margins and, since the Marketing Board will have more effective control over quality, there will be a twofold result: lower processing costs and greater stress on quality.

The Marketing Board would continue to have an important role to play both in respect to pricing and quality control. At present the Board's principal function relates to selling and grading processed coffee. In view of the importance of improving the quality of the
coffee and the need to reduce any financial burden for retaining coffee, the mission strongly recommends that the Board undertake investigations into introducing a stricter grading system than that used at present. Coffee bought and sold by the Board is currently graded at the curing works and grading is based largely on a hand count of defectives in a representative sample of coffee. Prior to 1959, the coffee was classified into seven grades, with the grade and price spread depending largely on the number of defectives in each sample. In 1959 the number of grades had been reduced to three major grades with one for brokens and handpickings. These grades are still based primarily on the percentage of defective beans in each sample. It is recommended that a system somewhat similar to that in use in the Ivory Coast be introduced: there should be a screening of coffee and an analysis of moisture content; at the same time, a point system should be introduced whereby weight can be attached to the differing defects among the cured beans. In addition, in view of the problems arising from the International Coffee Agreement, a special low grade of coffee should be established which the Board can buy at a nominal price. It is this coffee which the Board would retain to meet its obligations under the International Coffee Agreement. The Board should have the right to examine all coffee leaving Uganda and grade all Ugandan output. If necessary, the Board would grade some coffee at Mombasa. Furthermore, if possible, steps should be taken to prevent exporters from mixing Ugandan coffee with cheap musty coffee and selling it as a Ugandan product.

We strongly recommend that the Board and the Agricultural Department also undertake research into coffee processing methods that might improve the quality of the end product. An investigation into causes of mustiness in Ugandan coffee has already been conducted and the results demonstrate the value of this type of research. Additional research is needed into adapting existing machinery for modern methods of production. In addition, there are many unanswered questions relating to the use of electronic sorters, effects of storage on quality, elimination of dust and so forth.

The Board in cooperation with the other members of the Inter-African Coffee Organization is trying to prevent Robusta coffee prices from declining by maintaining a floor price below which it refuses to sell. Associations of growers, however, who produce 40,000 to 45,000 tons of clean coffee a year, are free to sell their output on the open market and consistently sell at prices below the Board's floor prices. Coffee offered for sale by the Board is undercut and is therefore fre-
quently unsold. At the same time, Uganda is prevented from honoring its commitments under the Inter-African Coffee Agreement.

The mission therefore believes that the Board should be given more effective control over export and sale of the crop. The mission recommends that all dry-processed Robusta and Arabica coffee, including that produced by non-African estates, should be sold to the Board at prices fixed by the Board periodically, say every two months. The Board should offer appropriate premia to encourage production of high grade coffee and should be empowered to enter into advance contracts for the purchase of clean coffee for delivery in the two-month period immediately ahead of each current period. The mission envisages that the average price paid by the Board for clean coffee should be equivalent to the price obtainable (through its existing auction arrangements) in the world market, less export duty and other necessary expenses, such as the Board's operating costs and the cost of retention, storage or disposal of coffee under international obligations. It follows from this that the Coffee Price Assistance Fund would be used primarily to enable the Board to guarantee its prices for periods of two months at a time and to provide working capital in the form of crop finance.

As wet-processed coffee forms a very small proportion of the total crop, its sale in the open market for a considerable time to come should not make it difficult for the Board's commitments under any International Coffee Agreement. In order to encourage production of wet-processed coffee (see footnote page 165) both Robusta and Arabica, licensed processors should be free to sell it in the open market for the highest prices obtainable. Export of such coffee below a minimum standard should, however, be prohibited, and should be subject to the same export control as other coffees.

Cotton

There have not been any marked variations in cotton production over the last decade, although the trend has been very slowly upward. Despite the unspectacular progress in cotton for many years, we believe that cotton now presents the best opportunity for a rapid increase in output in the coming years. While there are no precise studies, it is the mission's view that Uganda is a low-cost cotton producer and that the major component in costs of production is labor. Since most labor is family labor and there are few alternative employment opportunities, the opportunity cost is very low.
in disposing of a much increased cotton crop provided the quality does not deteriorate. However, the fundamental problem is one of increasing output by known methods. In our view, increased output could most readily be attained by pest control. Such control would not require a radical transformation of agriculture. Rather it would superimpose an added technique of production on existing systems. It would require a major drive on the part of the Agricultural Department and may have to be delayed somewhat until there is an expansion of staff. The program we have in mind would bring the grower (and the Government) benefits far in excess of the costs involved. We are suggesting a subsidy program to make it attractive to the grower. We also propose changes in the price system, and a special incentive scheme, to make cotton growing more attractive. For the longer run, we have recommended research to reduce the conflict in labor requirements between food crops and cotton. In the final analysis, however, expanded output will depend on the cooperation of the grower—if he does not wish to give up part of his leisure in order to benefit from a higher income, then there is little that can be done short of coercion, a policy which the mission does not endorse.

The advantages of pest control are demonstrable. Increase of 250-480 pounds per acre have been obtained under cultivation conditions by spraying cotton with a DDT insecticide at specific stages in the growth of the cotton plant so as to bring the Lygus bug and the spring bollworm under control. The significance of increase of this degree is obvious when viewed in relation to the estimated average current yield of 300-450 pounds per acre for the cotton crop as a whole.

Based on conservative estimates, the mission believes that 450,000 acres under cotton are likely to benefit markedly from spraying. This should result in an additional output of 110,000 bales of lint or an increase in 30 percent on present average production. Assuming a price of 50 cents per pound of seed cotton to the grower, such an additional output should increase growers' income by £3.4 million. If the export duty were at the present £7 a bale, additional cotton export duty revenue of £770,000 plus perhaps another £700,000 of other tax revenues arising from the increase in incomes would accrue to the Government.

Spraying was first recommended departmentally to the Uganda peasant cotton grower in 1958. A project to popularize spraying has been in operation since 1959. In that year the Government provided credit to the cultivator who bought the insecticide. The cost of the insecticide was Sh. 60/- per container: one container is sufficient to
spray one acre the recommended four times. In 1960 the manufacturers reduced the price to Sh. 50/- per container and the Government gave a subsidy of Sh. 20/- per container, the cultivator paying the remaining Sh. 30/-. In addition, the cultivator provided the pump. In the event, only some 5,000 acres are believed to have been actually sprayed each year. Obviously, either the inducement offered was insufficient to attract the peasant grower, or he was unable or unwilling to meet even the reduced price.

Spraying is an entirely new practice to the Ugandan cultivator. He has no experience of its advantages, and he still has to be convinced of them. In the mission's view the current inducements are insufficient to attract him on a scale which would have an appreciable effect in increasing cotton production for many years. Accordingly, the mission recommends that the current cotton spraying subsidy scheme be replaced on an expanded basis by a new scheme as follows:

a. The cost of the insecticide (at Sh. 50/- an acre in 1961) required by each selected peasant cotton grower should be subsidized to cover the bulk of its cost. The exact percentage of subsidy should be decided on the basis of the best judgment possible at the time of putting the program into effect: ideally, the subsidy should be just high enough to induce as large a participation of farmers as the administration can handle. To ensure that sufficient funds would be available, we have made our calculations on the basis of a notional 90 percent subsidy. The actual percentage needed might well be less. We would also hope that the increase in volume would make it possible for the manufacturer to reduce the price again during this period.

b. In 1962/63, 50,000 acres would be subsidized. In 1963/64, 100,000 acres would be subsidized. In 1964/65, 150,000 acres; and in 1965/66, at least 200,000 acres. Thus, a total of at least 500,000 acres would be sprayed during 1961/62-1965/66 at a maximum cost of £1,125,000 in subsidies at present insecticide prices.

c. The distribution of the insecticide would be made by the extension staff of the Agricultural Department and be confined to those cultivators on whom the staff can rely to apply it as required and whom they can supervise. Pumps would also be subsidized at 90 percent of cost (Sh. 60/-); allowing for re-
placements etc., we estimate that about 100,000 pumps would
have to be supplied during the five-year period at a cost of
£270,000 in subsidies.

d. The cost of the scheme should be financed as a charge against
the Cotton Price Assistance Fund. We have put down the total
cost of the proposal at the maximum estimate of £1,395,000
during 1961/62-1965/66 (see Table 11).

It is impossible for us at this time to forecast how rapidly spray-
ing will catch on with the peasant farmers. The pace of adding an
additional 50,000 acres to be sprayed each year has been geared to the
capabilities of the administrative machine. It is possible that by
1965/66 the demand for spray by peasants and their ability to use it
effectively will have increased so much that the ultimate target of
spraying 450,000 acres a year can be reached much more rapidly than
under the program we suggest. This would also mean that it would
be possible to begin to reduce the degree of subsidization much sooner
than otherwise. Our cost estimates, bearing in mind the possibility
of further reductions in spray prices, do provide some latitude for
some acceleration in the program if it proves possible.

The mission believes that the pest control project, together with
the program of raising levels of management and productivity, will
enable output to reach at least 475,000 bales by 1966. Appropriate
price, marketing and incentive policies should aid in attaining this
goal. At present, control by regulation extends from primary buyers
to exporters and the mission believes the major problem in cotton
marketing lies in the rigidity of control and the lack of competition
in the industry. We believe, however, the past history of the industry
indicates that there can be no over-all improvement in marketing
until the processing industry is reorganized.

At present, the country is divided into 15 zones and all cotton
produced in each zone must be sold to a ginner in that zone. At the
commencement of the cotton buying season (the season is mid-
November to March), the ginners or their agents, who are licensed
for this purpose, buy raw cotton at a fixed price. The grower may
be paid a small premium for sorting and bulking his cotton into two
classes: good raw cotton (SAFI) or stained raw cotton (FIFI). All
prices are fixed, prices for good raw cotton being substantially higher
than those for stained cotton and prices for BP52 varieties being
slightly higher than those for S47 varieties. The ginner then gins his
quota of cotton, separating the seed from the lint. He is paid on a cost-plus basis for his services. Lint and seed are then sold by auction by the Marketing Board. Some cotton is sold for local manufacture. Of the remainder, almost all the cotton is sold forward for export while the seed, with the exception of that held back for distribution to growers, is sold at auctions to brokers, exporters, merchants and millers. In recent years all the seed has been bought by local millers and crushed in the country. Any profits from the sale of seed have gone into the Price Assistance Fund.

We do not believe there can be a relaxation of the rigid controls until there has been a review of the operation and efficiency of the processing industry and a close examination of the effect that any relaxation might have on the industry. The processing industry is now ending a ten-year reorganization program, but the present marketing and processing problems are somewhat similar to those that existed in 1951 when the present plan was introduced. The problem then, as now, was that there was excess capacity in the industry with a large number of small ginneries, many of which were below acceptable standards. There was also a fear that without control there would be collusion by ginnery owners to the detriment of the producers, and it was considered important that the Government take steps to foster African participation in the industry.

Despite the reorganization program, the principal problem is still, in our view, that of an inefficient and uneconomic system—in efficient in the sense that the industry is a heavy charge on producers and uneconomic because the system is preventing a rational use of resources. Part of this has stemmed from the static nature of cotton production and the shift in the pattern of production. Coffee has displaced cotton in Buganda; there has been some increase in cotton growing in the north and eastern part of the country. However, the pattern of shifting production has not been matched by a shift in the location of ginneries; indeed, the “pooling” arrangements have prevented this. Thus in 1957/58 there were 158 erected ginneries of which 136 were working; the largest number of working ginneries were in Buganda; in Mengo, there were 37 ginneries with an average throughput of 1,940 bales, while 7 in Masaka had a throughput of 859 bales.

* Local manufacture utilized 26,000 bales in 1960/61 and is expected to use 31,000 bales in 1961/62.
* Erected ginneries all have a share of the market; some commonly owned have concentrated their share in one gin.
The average throughput in ginning only exceeded 6,000 bales in three areas: West Nile, Toro and East Acholi.

Gineries, as with all processing industries, depend on the quantity of throughput to lower their unit costs of operation. The present system of “freezing” the processing industry has led to many gineries having small throughputs and so their unit costs can be expected to be high. Since the price fixing formulae, whereby gineries are remunerated, cover all costs of operation of a ginery, based on average processing costs per ginning in each zone, together with a generous “wastage” allowance, the costs of this service must be high. The high costs are, in effect, a high charge against producers.

The ginning industry has provided valuable and essential service to the economy and full credit must be given to those who established it, but it must be appreciated that the incidence of the cost of this service cannot be shifted to consumers; under the present system, it must be borne by the growers and, in a situation where every effort must be made to encourage production, this charge might be large enough to be a disincentive to growers. (In 1958 fees for ginning and buying the crop were 15-23 percent of all expenditures made by the Board while in 1959 ginning and buying fees were 17-19 percent of all expenditure.)

It has been suggested that, as the period of reorganization will end in 1962, there should be a further review of the cotton industry by a special Commission of Enquiry. The mission endorses this view and urges that any such commission should have a strong representation of economists and should make a comprehensive study of all aspects of cotton production. We suggest that, among other questions, the commission should consider the following:

a. The areas in which increases in cotton production might be expected as a result of an expanded production program and the relationship between existing and potential ginning needs, including the possibility of consolidating ginning units so as to provide services at as low a cost as possible.

b. The whole problem of returns to ginners should be examined. Such an examination should encompass the ways and means in which the “wastage” factor can be measured more precisely than at present. It should also take into account the mission’s recommendation that growers be paid directly for seed rather than allowing the profits from the sale of seed go into the Price Assistance Fund. Furthermore, the mission believes that the rate
of return to processors should be considered as having a significance beyond that of providing "fair equity" to ginners operating in a riskful market. It is our view that these returns should also be considered in the light of the need to encourage cotton production in a situation where the incidence of these returns are costs that fall on growers (either directly or indirectly through drawings on the Price Assistance Funds).

c. We believe that the commission should examine the feasibility of a gradual relaxation of control of the industry by consolidating existing zones of production and marketing where this can be done without damaging purity of strains. If zones are consolidated, it might be possible to permit a greater degree of competition within several zones than exists at present.

d. The mission believes that the commission should review the role of cooperatives as a means whereby producers can exercise countervailing pressure against collusive action by ginners. In addition, there is now some conflict emerging between the cooperatives in some areas and the pools—the members of cooperatives are delivering more cotton to ginners than the ginners are permitted to handle under the present pooling arrangements. Consequently, the anomalous situation is arising where cooperatively-owned ginners are sending members' cotton to privately-owned ginners for ginning and so the overall bonuses paid to members are being reduced. The mission suggests that since the development of the cooperative movement should be encouraged, where cooperative ginning conflicts with pooling arrangements, the latter should be adjusted to permit cooperatives to handle all their members' cotton.

Sugar

East Africa is a protected market for sugar with East African production given preference in the three territories. In 1959 production in East Africa totaled 135,000 long tons of centrifugal sugar. With consumption of sugar at 187,000 tons, there was a shortfall of 51,000 tons below requirements. Uganda's production in 1959 was 81,000 tons of which 14,000 tons were exported to Kenya and Tanganyika. In 1960 Uganda's output jumped to 91,000 tons of which 31,000 tons were exported to the other two territories. During the 1950's, production in East Africa rose from 76,000 tons to 135,000 tons, an increase of 59,000 tons while consumption rose by 101,000 tons. Thus,
despite an 80 percent increase in production, the rate of increase in consumption has exceeded that of production. Consequently, there has been a ready market for Uganda’s production in the other two territories.

So far as the future is concerned, the prospects for increased sale of Ugandan sugar will depend in large part on the increased rate of consumption of sugar in East Africa and the degree to which Kenya and Tanganyika satisfy their own requirements. According to forecasts prepared by the East Africa High Commission, which we accept, the consumption of sugar in East Africa is expected to rise to 287,000 tons by 1966, with the largest increases being in Kenya. According to one set of estimates of increased production, based on known plans, production will rise sharply to 264,000 tons. This would represent an increase of 97,000 tons in Kenyan and Tanganyikan production—an increase of close to 200 percent over the 1959 production. Ugandan production is expected to increase by 41,000 tons or approximately 50 percent. Even so, total output is expected to lag behind estimated requirements by 23,000 tons. Consequently, if the consumption estimates and the production figures for Kenya and Tanganyika are realistic, there is considerable scope for expanding the market for Uganda’s sugar production beyond the projected increase of 41,000 tons. The scope for increased markets is further enhanced by the unused allocation of 10,000 tons as East Africa’s export quota under the Commonwealth Sugar Agreement.

The production of sugar is confined to two large estates in Busoga and Buganda whose combined area under sugar cane in 1960 was 37,700 acres. During 1960, acreage increased by over 3,000 acres, and during the three previous years the area of cane had increased by roughly 1,000 acres annually. Sugar production, which for three years had been constant around 81,000 tons a year, reached 91,000 tons in 1960. So far as can be foreseen, these two factories will remain the sole producers of processed sugar during the five years 1961/62-1965/66. Negotiations are understood to have been initiated for the lease of some thousands of acres of Crown land in Masaka district for sugar cane growing, but the outcome could not be predicted at the time of the mission’s visit. In any case, the time spent on clearance of bush, the production of the first crop of sugar cane (an 18-month crop), the erection of a sugar factory, and other essential preliminaries would be such that little sugar production could be expected by 1965/66.

Although the development of the present areas held by the two
factories still leaves room for some increase in area planted, the extent of the possible increase is not large. Both are anxious to procure additional land for expanding their production, but the current land tenure policy of the Uganda Government makes this extremely difficult for non-Africans and the sugar estates are non-African owned. We recommend that the obstacles to expansion of acreage be removed by amending the tenancy laws in Buganda, by resettling tenants with adequate compensation and by removing the restrictions on land ownership by non-Africans. As in the case of tea production (see below) this would facilitate the flow of capital into agriculture.

In addition, the mission believes that production can be increased by an expansion of outgrower schemes, which have already been inaugurated on a small scale. Under these schemes, the factories assist peasant cultivators in their localities to plant land to sugar cane and purchase the resulting cane for manufacture into sugar in their present factories. The scheme is still in its infancy and the ultimate contribution to sugar production cannot be estimated. If these schemes are to be expanded, the mission recommends that the model agreements, as we suggest in discussing land tenure (see Chapter 8), apply to these arrangements.

Further production can also come from the opening up of new areas. A proposal to produce sugar in Busoga was formulated by the Uganda Development Corporation in 1956. A 10,000-acre area was to be cleared and developed. Harvested, cut cane in the field was to be sold to the existing factory on one of the nearby estates, although a self-contained sugar factory was to be built later if the project were a success. The mission considers that this project is suitable for a modified form of outgrower schemes and suggests that it be re-examined both in the light of our suggestions regarding land settlement (see Chapter 8) and of the economic feasibility of the project.

The mission believes that there should be changes in the system of fixing the price of sugar in Uganda. The price paid to millers is based on the Commonwealth Sugar Agreement (CSA) price of raw sugar landed in the United Kingdom from which is subtracted the cost of moving sugar to the coast from the plantations in Uganda and the cost of prewar ocean freight to the United Kingdom. The price to the consumer is fixed by adding to this base price a fictional refining margin of £5½ per ton, transport and handling charges to move sugar to the region where it is to be sold, together with a 1 percent manufacturer agents' margin, a 2 percent wholesalers' margin
and a 10 percent retailers' margin. While no sugar is refined in Uganda (either on the basis of method of production or on the nature and quantity of impurities involved) the base price to millers includes, as mentioned, a refining margin of £5½ a ton. The millers thus receive a wholly unwarranted windfall on this account which, in conjunction with the method of price fixing, gives them a high price for their unrefined mill-white product. The consequences of the method of price fixing are twofold: the price of sugar to consumers is high and there is no incentive to refine or improve the quality of mill-white sugar.

The market for refined sugar is limited and imported refined sugar is being sold at the same price as mill-white sugar. In 1959 only small quantities of refined sugar were imported into Uganda, though a fairly considerable quantity was imported into Kenya, both for direct consumption and for industrial purposes. For many years to come, a good quality mill-white sugar will undoubtedly meet the needs of the people of East Africa. However, the present quality of mill sugar leaves much to be desired and the mission is of the opinion that the pricing system should be adjusted so that there is a differential between refined and mill-white sugar and an incentive to improve the quality of mill-white sugar.

The mission recognizes that it requires time and capital to improve the factories now producing sugar. However, the goal should be to introduce within the next two or three years a quality incentive scheme which will take account of the difference between refined and unrefined sugar. The premium for refined sugar should only be paid to mills producing this sugar. At the same time, another small premium should be paid to the millers who produce the specified mill-white grade of sugar. This premium should be added to CSA price excluding the margin for refined sugar. This scheme would still leave the Uganda price somewhat out of line with the price that would otherwise be set by economic forces within the CSA agreement because deductions for the notional cost of moving the sugar to the main Commonwealth sugar market in the United Kingdom are less than actual costs. We consequently agree that there is much merit to the arbitrary price reductions recommended by Dr. Douwes Dekker, Special Consultant to the Government on sugar. We would recommend that the East African countries for the next few years set the price on an economic basis within the context of the Commonwealth Sugar Agreement, i.e., set the price on the basis of the CSA price in the U.K. minus an amount equivalent to the real, rather than fictional, costs of trans-
CROP PRODUCTION

port between Uganda and the U.K. market. In the longer run, when production in East Africa reaches the point where it exceeds the East African home demand and the East African CSA export quota the domestic price should be directly related to world-market prices.

Tobacco

East Africa has a common market for tobacco and tobacco products. The three territories together produce close to 90 percent of the tobacco used for cigarettes, shag and coil tobaccos that are consumed in East Africa. The remaining tobacco, required primarily for blending purposes, is imported from the U.S. and Rhodesia. Some tobacco is grown by producers for direct local consumption as “coil” tobacco but, in the main, all tobacco produced in East Africa is marketed and manufactured by one company. As a result, the pattern of inter-territorial trade in tobacco products has been shaped by the decisions made by that company regarding the location of its manufacturing plants in relationship to the quality of tobaccos produced in the various territories. Formerly, the company's major production facilities were in Uganda, but in 1954 the decision was taken to “rationalize” the industry by establishing manufacturing units in each of the three territories. In 1955/56 one of the two manufacturing centers was shifted to Kenya and a factory has since been opened in Tanganyika. The consequence of the move of 1955/56 was that Uganda, which produced a surplus of certain qualities of tobacco beyond its internal needs, began both exporting unmanufactured tobacco to Kenya, and importing some manufactured tobacco from Kenya. At the same time, Uganda's exports of cigarettes to Kenya declined sharply and imports of different brands, formerly made in Uganda, increased rapidly.

The opening of the new factory in Tanganyika will undoubtedly continue to reduce cigarette exports to Tanganyika but it is possible that Tanganyika, which is a small exporter of unmanufactured tobacco at present, will have to import some tobacco from Uganda so that there will be a general shift in the pattern of trade. There will still be the same sized market but, with the entry of a new factor, the proportion of total East African cigarette production manufactured in Kenya and Uganda will decline. However, this is contingent on the continuation of the present system of dividing the market between the three territories, the present method being that acreage and production quotas are allocated to each territory on the basis of estimated requirements to satisfy the East African market.
The pattern of trade and production will thus depend on the rate of growth of tobacco consumption. In the late 1950's, the rate of growth of tobacco consumption of cigarettes in Kenya and Tanganyika was higher than in Uganda. However, if total East African consumption is considered, and there is no change in present export duties and continued free movement of tobacco, it is likely that demand for tobacco for East African consumption will increase by some 25 percent between 1961/62 and 1965/66. The mission expects Uganda to receive its proportionate share of the market.

Tobacco production is almost entirely in the hands of small-scale producers. Virtually all tobacco produced has been bought by the large manufacturing company operating in East Africa. This company has provided personnel and technical assistance to producers and, with the Government, has assisted them to improve the quality of their leaf and the curing of their tobacco. The results in some areas have been impressive, although on a limited scale. Because of the protected market, it has been possible to offer inducements to improve quality out of proportion with world prices. Prices paid to growers who have cured their own leaf have generally been about 80 percent higher than the prevailing world price for a similar product.

With the recent increase in production in tobacco, the relatively high returns to growers and the appearance of a small surplus beyond East African requirements, the Government has sought to find export markets beyond East Africa. A survey was taken by a firm of brokers who made recommendations concerning the improvement in quality and grading of smoke-cured and air-cured tobacco. In line with these recommendations a pilot scheme was instituted in Mubende. Buying points were established in ginneries and qualified buyers were brought into the area and were instructed to grade tobacco strictly. The initial efforts to grade met considerable producer resistance. A trial consignment of 12 bales of tobacco was exported to England in 1959. The results of the pilot scheme were disappointing. The quality of the local leaf could not compete in world markets with that of Nyasaland. If it is to do so, it is apparent that stricter grading is essential. The number of buying grades had been increased from two to four grades, with an accompanying widening of price differentials ranging from 1.50 to 60 cents (EA) per lb. In the mission's view this is not enough, and there is the danger that the prices offered are out of line with world prices.

The mission strongly recommends that the Government continue with its program and that intensive efforts be undertaken to educate
the growers on grading problems. We also recommend that steps be taken to increase the number of grades now used and widen the price differentials between grades. The prices offered should not be out of line with world prices, except that the prices for higher grades might be raised and those for the lowest grades might be lowered. The differentials should be so adjusted to balance each other.

If the grades can be improved, the moisture content reduced and the curing improved (so that tobacco is either air-cured or fire-cured, and not a bit of both) then, the mission believes, there will be scope for limited exports. In order to encourage this, the mission recommends that:

a. A new variety of seed, of the heavy western type, be introduced from Nyasaland and that its control and multiplication be undertaken by the Agricultural Department.
b. The primary markets be improved so that the moisture content of the tobacco can be reduced.
c. A rehandling depot be established to rehandle better grades for export.
d. Steps be taken to provide alternative redrying facilities to the present facilities in view of the conversion of these facilities into a cleaning and classifying plant.
e. Arrangements be made to market more trial consignments of tobacco.

Tea

The development of tea production may perhaps be said to be receiving more attention by estate owners and the commercial community than any other crop. Interest has been particularly keen in recent years, especially in the Western Province. At the end of 1960, 16,840 acres were under tea; of these 11,318 acres were in bearing, the remainder having not yet reached bearing age. In addition, a further 13,000 acres had been licensed by the Agricultural Department for tea growing. On the basis of Uganda Tea Board estimates of additional plantings, the area under tea at the end of 1963 will be 21,708 acres. Since licensing regulations require that planting must be completed within six years of the grant of license, the total area under tea by the end of 1965 could be 30,000 acres, excluding any further areas which might be licensed and planted in the meantime.
The production of manufactured tea, which in 1950 amounted to 3.68 million lbs. reached 10.29 million lbs. in 1960. By 1965 the further 5,128 acres planted up to the end of 1959 will have been planted a minimum of six years and a maximum of almost eight years, and will be in bearing, although not fully. Some tea not in full bearing in 1960 will also have reached or approached that stage. On the basis of yields of tea expected under such conditions by commercial tea estates, the mission estimates that the 1965 tea crop should produce 15-16 million lbs. of manufactured tea. Production will further increase materially for several years till the area already planted reaches full bearing. On the average acre yield of tea currently obtained, production could reach 25-30 million lbs. ultimately if the area already licensed is planted in full.

There is no knowledge of the total area which is suitable for tea production. The land classification program proposed earlier in this report should give an indication whether there can be large-scale expansion or not. Until such information is forthcoming, there can be no basis for formulating an investment program in tea production such as that currently under way in Kenya. The mission believes, however, that tea production will be of increasing importance to Uganda and more information and research is required on production problems in Uganda. Thus, earlier in this report, we recommend that there be a small research station to deal with tea problems in Uganda.

In the foreseeable future, tea production will come from two sources, the estates and from outgrowers. Thus far, the proposed and completed new plantings have been largely on estates controlled by the Uganda Company Ltd. and Agricultural Enterprises Ltd., a subsidiary of UDC. These organizations and some of the other estates now propose to associate the peasant cultivator in the production of what has hitherto been entirely an estate crop. They are instituting Tea Outgrower Schemes by which peasant cultivators adjoining their estates will be assisted in growing tea which will be purchased as green leaf by the factories.

While the introduction of outgrowers' schemes will change the structure of the industry, the mission believes that individual estate owners who wish to expand production should not be restricted from doing so. Tea production and processing requires capital and apparently estates are prepared to increase their investment. The major obstacle to this expansion is their difficulty in obtaining land (see Chapter 8). Nevertheless, even if land were available, we believe the largest increases in production will come from joint estate-outgrower
programs. The form of proposed schemes varies, ranging from local authorities providing land to be developed on a profit-sharing basis with estate factories to agreements between individual producers and estates on a share-cropping basis. Whatever the form of these partnership arrangements, they will have to incorporate safeguards for producers and processors. We stress the need for investigation of this problem in the chapter on land tenure (see Chapter 8). In addition, we recommend that thought be given to arrangements whereby growers can receive credit to purchase tea plants and equipment. This will require close coordination with estate owners who have nurseries. It is also recommended that, even though it will be some time before small-scale producers market their tea, plans be formulated about future arrangements for the processing and marketing of their tea.

These plans can best be worked out by the Tea Board. The composition of the Board, which recommends measures that should be taken for the protection and promotion of the industry, has now been changed to make provision for representatives of non-estate growers, and so will be representative of the views of all participants in the industry. The Board will have to devise regulations to maintain and improve tea quality and to control internal marketing arrangements. We believe that guidance of outgrowers will be essential and it is our view that assistance to outgrowers should be made conditional on compliance with good husbandry and picking conditions. We also recommend that, at the outset, outgrowers be compensated on a crop-sharing basis but that, as the proportion of total output from outgrowers increases, steps should be taken for the outgrowers to participate in the cooperative ownership of factories; as output expands further the outgrowers could establish their own factories.

Groundnuts

Groundnuts are grown in every district in Uganda, though the Eastern Province is the main producer. Total production is unknown. Groundnuts are both a cash and food crop. In addition, as cultivation practices are poor, fertilizers unused and few other legumes grown, the mission considers groundnuts to be a valuable adjunct to maintaining soil fertility.

Producers sell their groundnuts to traders or millers. There is very little differential in price paid on quality other than a premium being paid for hand-shelled nuts. Groundnuts that enter the market, usually through the sale of small lots to traders, are either sold for food or
for oil expressing or else they are sold to merchants for export. The exports are used either for oil expressing or for confectionary purposes. Exports have not been significant in the past and have fluctuated, ranging from 11,000 tons (valued at £680,000) in 1957, 3,000 tons (valued at £168,000) in 1959 and 9,500 tons (valued at £549,000) in 1960.

There is virtually no inspection of groundnuts and no check on export qualities. The present grading system is based on a fair average quality with a maximum of 10 percent defectives and 8 percent moisture. The exporter buys on the basis of the lowest grade of mixed qualities, so that the importer and exporter have an ample opportunity for regrading and profiting from the reclassification of grades. This profit must come at the expense of the producers.

The mission has been informed that there is considerable scope for increased production if the incentive could be provided to encourage producers to devote more resources to producing and marketing the crop. It has been suggested that a fixed price for groundnuts would encourage an increase in the amounts marketed, since present price fluctuations deter marketing. The mission saw no evidence to lead it to subscribe to this view. Price uncertainty is not, in our opinion, a major deterrent to increased output and marketing. Furthermore, a fixed price program would involve a considerable amount of government intervention which we believe to be undesirable. Implementing such a program would be costly and cumbersome, for groundnuts are not produced in quantity and they are grown over a widely dispersed area.

The mission suggests as an alternative a two-phase program for increasing production and sale of nuts. First, to test the market, there should be a three-year trial program operated in conjunction with the Busoga Union Cooperative Society which already buys nuts on a fair scale. A concerted drive should be made to inform producers in the area that the program is to be undertaken; they should be encouraged to grow nuts, harvest and bulk them. The Union should arrange to collect the nuts. As part of the program, the Union should be provided with a decorticator, with winnowing and grading equipment and storage facilities, so that the nuts can be decorticated, graded and fumigated and then offered to exporters or millers for competitive purchase. Prices to growers would be offered in line with world prices according to grades and growers would be paid a bonus or otherwise compensated, depending on the actual prices received for their individual products. It is expected that these prices would be substantially higher...
than prevailing prices since the benefits of grading would now accrue to the growers because marketing charges, formerly high because of small lot trading, would be reduced. The cost of the program over three years beginning in 1962/63 is estimated to be £10,000 in capital expenditure and £4,500 a year in annual recurrent costs, or £13,500 over the period. If the trial program is a success, it should be expanded and tried elsewhere. At the same time, longer-term research should be initiated into the most desirable market qualities of groundnuts consonant with existing ecological characteristics of the country and the need to have a variety which does not clash with other crops for labor requirements.

Cocoa

Cocoa was introduced into Uganda in 1901 from Ceylon. During the next two decades it aroused considerable interest, particularly in Buganda, owing to the high price which cocoa then commanded in the market. The years 1913-1918 were a period of active planting. Its popularity continued until 1924 when it was abandoned as a plantation crop. The market had broken and cocoa-growing had become uneconomic. The trees had also been attacked by an insect pest and a fungal disease. Although abandoned and receiving no attention in the intervening years, the surviving trees are now healthy and produce some fruit.

In the mid-1950's interest in cocoa-growing revived, probably because doubts were beginning to arise on future returns from coffee and because an optimistic report on cocoa production possibilities in Uganda was made for a firm of chocolate manufacturers in the U.K. by a former West African agricultural officer. The Agricultural Department imported seed of a number of the best varieties from the West African Cocoa Research Institute. Seedlings from these varieties are now undergoing tests at suitable experimental centers. Because of climatic and soil conditions, Uganda is considered to be a marginal country for cocoa-growing. But full information as to best varieties and most suitable locations will not be available from experiments for a number of years. If the results are favorable, a departmental multiplication program for a few years may be necessary for Uganda to produce its own seed for planting. The export of seed from the West African Cocoa Research Institute has been suspended and, though cocoa can also be propagated vegetatively, the technique followed in West Africa appears unsuccessful in Uganda. Development
cannot, therefore, be rapid. The Agricultural Department's cocoa nursery program is expected to produce seedlings from existing varieties sufficient to plant 5,000 acres under cocoa by 1965 and therefore, little production can be expected before 1970. Without awaiting the results of experimentation, informed opinion believes that the maximum area suitable for cocoa is only some 25,000 acres, and that ultimate production is unlikely to exceed 5,000 tons annually, valued at roughly £1½ million on present day prices. The mission has no reason to doubt this view but, because of the need to introduce new crops, we urge the Government to proceed with this program for which £40,000 has already been authorized.

Fruit

A considerable number of varieties of fruit is found in Uganda. The mango appears to be the most widespread, but bananas, citrus of various kinds, pineapples, paw-paw, avocado pears and figs are common in various regions. The quality of some fruit, mangoes in particular, is poor. Some good-quality citrus is found, but fruit of very indifferent quality also is common. Citrus trees as a whole look unhealthy and suffer from disease to a considerable extent. The mission feels that not enough is being done departmentally for the development of fruit culture. Citrus nursery seedlings are produced for the public at a departmental experimental station, but little or no encouragement or assistance is provided otherwise. The export possibilities of fruit may not be promising, but fruit is a valuable item of diet and production on a much greater scale could be of great advantage to the health of the people. The mission considers that fruit and vegetable growing should receive much greater attention from both the research and development aspects. We recommend that the appointment of a horticulturist for these crops should no longer be deferred.

Other Crops

The castor plant appears to thrive in a largely wild condition over most of the country. It is a "byways and hedges" crop, rather than a regular field crop. There is an annual export of about 2,000 tons, valued at about £100,000. Production of castor could be increased considerably and profitably, even while continuing its present status as a wayside plant, provided adequate arrangements were made for collecting and marketing the produce.
Specialized crops such as vanilla, spices, cardamoms, black pepper, are creating some interest at present, particularly in estate farming. Most of these crops grow satisfactorily, often demand little attention, and give a high return. Though they will always occupy a very minor position, they have been found on estates which have introduced them to make welcome contributions, in terms of thousands of pounds, against overhead expenses.

**Food Crops and National Diet**

The food crops consumed locally in Uganda are mainly plantains and bananas in the south, cassava all over the country, and millet and simsim mostly in the north. These crops, plus the other crops that we have discussed above and the fish and cattle resources, provide the potential for an adequate diet for the people of Uganda. The fairly widespread malnutrition that exists is not due to an absolute shortage of food but primarily from incorrect choice of the available food particularly in the food fed to young children. The problem is primarily one of health education rather than of production (see Chapter 13). Increases in population are likely to require improvements in the technique of food production and the natural wealth of Uganda is such that the necessary food supplies can be produced.

**MARKET AND PRICES**

**Policy Changes**

The foregoing discussion of individual crops suggests a number of ways in which productivity and output can be increased. Increased productivity will not, however, lead to increased value of output unless the proportion of output marketed is increased. Thus, the mission believes that there should be a change in policy regarding production for direct consumption. Production for the household and production for direct consumption without going through the market provides a degree of security for individual producers—security against shortages from a breakdown of the food distribution system and security from the vagaries of the market. In the past, prior to the development of adequate transportation and distribution facilities, there might have been good reasons to encourage and promote localized self-sufficiency. In the present circumstances, however, the security provided by domestic and localized self-sufficiency is an illusory security and may not be compatible with economic growth.
Emphasis on policies to promote local or even regional self-sufficiency—such as those recommended by the Agricultural Productivity Committee—limit the growth of the exchange and money economy. If carried to extremes, policies that compel or encourage producers to devote a large proportion of their resources to feeding themselves will retard specialization of production, the best use of resources and subsequent division of labor. Thus regulations in certain parts of Uganda, which give force to the policy of self-sufficiency whereby producers must plant a specified acreage of food crops for each acre of cotton planted, might well be depriving the producer of an opportunity of earning the largest possible surplus from his land and labor. This surplus, if it were to be produced, could be used to purchase goods and services; the increased demand for goods and services would encourage the extension of trade and, if a sufficiently large volume of marginal production and trade was forthcoming, this could ultimately lead to an increase in the national income. The increase would come not only through an increase in volume of production for the market but also through an expansion of wages and profits in the trading sector of the economy.

We stress the need to encourage production for the market because there appears to be some resistance to this notion. We recognize that, in the short run, opportunities for expanding internal trade in agricultural products are limited by the high degree of regional self-sufficiency. However, the mission strongly recommends that over-all government policy should be oriented toward increasing the size of the total market, be it internal or export. (The recent appointment of marketing officers is a welcome move in this direction.) We are not suggesting that producers should be discouraged from growing their own foodstuffs or that dietary considerations should be ignored. Indeed we have recommended the appointment of a research staff for work on improving food crops. But, given the opportunity, producers should be encouraged to produce for the market, even if it means diverting some resources from food production, rather than being encouraged to divert resources from production for the market to production for household consumption.

In the 1950's there was a substantial increase in the volume of output produced for the market. This trend is likely to continue, with increasing quantities of land and labor going into production for the market as well as some rise in output per man and acre. However, the rate of diversion of labor from subsistence production to production for sale would, in all probability, be a slow process, unless policy
is designed to speed it up. Our recommendations calling for the ready availability of credit, capital and other facilities are part of this design.

Incentive and Price Policy

No matter what programs are introduced, there can be little progress in Uganda unless producers have the incentive to increase output. Generally this incentive is created by a desire for higher money incomes to raise levels of living. However, there is widespread belief that many Ugandan farmers are not interested in increasing money incomes as their preference for non-economic activities takes precedence over increasing output for the market or raising the levels of their profits from farming. If this incentive is lacking, means must be found to create additional desires whereby people will produce more for the market to raise their levels of living. The problem of money incentives must be viewed in a dynamic rather than a static context. Over the past years, the spread of money, the greater availability of consumer goods and the spread of education have all contributed to a desire for higher levels of living. In the near future, the rapid increase in numbers passing through the school system will add to those forces already at work that are creating a desire for higher levels of income.

The mission recognizes that the spread of increased wants and desires for higher money incomes might not be evenly distributed and that there are differing degrees of sophistication among the peoples of Uganda. We believe, however, that there is substantial evidence, particularly in Buganda, that many producers are profit-oriented and have desire for higher incomes; we also believe that attitudes are changing in other parts of the country. However, we recognize that in some areas the incentive provided by higher money incomes or higher prices might not be as positive an incentive as one in a form which might be more meaningful to producers. We suggest that the Government consider a special incentive scheme for cotton production whereby increased cotton production can be tied directly to provision of educational facilities at the local level. It is our view that the desire for education is a powerful incentive to increase output but the causal connection between increased production and increased revenues is not clearly appreciated. We suggest that the Government examine the possibility of relating increased output to the direct provision of additional educational facilities; possibly a quota system may be introduced and, whenever the specified quota is exceeded, then the
school fees charged to elementary school children might be proportionately lowered.

In the past, prices have been considered primarily as a component of incomes rather than in directing resource use. We recognize that the role of prices in influencing use of land and labor is contentious and that there are conflicting views and little available data on the extent to which changes in prices and relative prices affect producers' decisions. It is also accepted that, as long as the principal goal of many producers is to provide self-subsistence, a large proportion of resource allocation is automatic and impervious to price change; however, it is our view that while there are many interdependent factors at work, relative prices do have a pronounced effect on the use of land and labor between competing crops, particularly in Buganda, Bugisu and Busoga, and so are a significant factor in directing resource use; we believe that policy in regard to prices should be viewed in this light, as well as the more widely accepted one of considering prices as a constituent of incomes.

In the normal course of events, the relationships between prices of competing commodities and of different grades of commodities are best established by the free market mechanism. In the past, institutional arrangements, special market opportunities and stabilization policies have led to government intervention in setting prices for some commodities but not for others. There is thus now a mixture of pricing arrangements: prices for staples consumed within the country are determined in the open market, though the price of sugar is controlled from producer to consumer; most tobacco prices are controlled, but prices for tea and groundnuts are free market prices. All producer prices for cotton are fixed by the Government, but there are small differentials as between grades that command wide differentials in world market. Most coffee producers receive fixed prices, while others who produce the same quality of product depend on the world market for their returns. Other administrative actions such as export taxes have affected the prices received by producers, although these taxes have usually been viewed purely as revenue-raising devices. Prices received by producers for some export commodities have been so administered that they have not necessarily reflected external prices and, consequently the relationship between internal prices has not been such as to encourage production of those commodities or grades of commodities most in demand in export markets. The resulting composition of national output has meant that resources are not being used to best advantage.
The mission believes there should be greater reliance on the market, and we do not recommend the setting of fixed prices for commodities that are uncontrolled at present. We recognize the existence of conditions that limit the Government's freedom to remove price controls on specific crops—interterritorial pricing and trade agreements, the peculiarities of the cotton industry, the International Coffee Agreement and the limitations imposed by the size of the tobacco market. Thus, while the mission foresees a continuation of administrative actions that will influence prices received by growers, we urge, most strongly, that whatever action be taken it be governed by available market opportunities.

Interterritorial Agreements

We have already noted that the Government has limited freedom of action on pricing policies and expanding the market for those commodities governed by interterritorial agreements. Wheat and sugar are traded under reciprocal trading arrangements, whereby Uganda gives preference to Kenya's wheat (as well as butter and bacon) in return for which Kenya provides an assured market for Uganda's sugar. Since wheat cannot be grown in Uganda, there are no opportunities for import substitution. The landed cost of Kenyan wheat at the Jinja flour mill in Uganda is close to world market prices but, because of overcapacity in foreign mills and subsidies on flour exports and shipping, Uganda could import flour from other countries at a substantial discount over the prevailing price of flour c.i.f. Uganda. However, if Uganda were to import flour freely, it would lose the benefit of the assured market for its sugar. In view of the importance of sugar exports and the expansion of the sugar market, we recommend that the present arrangement be continued with some modification in the pricing arrangements for sugar, as we have suggested elsewhere.

There are restrictions on the interterritorial movement of other commodities and these have curtailed market opportunities. For example, maize cannot be exported from Uganda to Kenya. While Ugandan maize is produced at a low cost in the field, high storage costs and storage difficulties for controlling moisture content and the long haul to the ocean make such a bulky low-cost item non-competitive in world markets. The maize is of a quality that is popular among Africans and, provided there were no restrictions on its movement, it would undoubtedly sell in Kenya if it were not for the high internal price supports in that country and the exclusion of imports.
If there was no such protection, low-cost Ugandan maize, which could be moved rapidly over a short distance (so obviating some of the storage difficulties), would undoubtedly be sold in Kenya. An illustration of the result of freeing maize trade is seen in the impact of easing interterritorial restrictions on movements of maize following the end of wartime controls in 1952. Exports of maize to Kenya and Tanganyika, after rising to values of £1,122,000 and £475,000 respectively in 1954, were once again controlled and fell off to zero to Kenya in 1955, while exports to Tanganyika dwindled to less than £15,000.

The supply of maize is extremely elastic and the mission suggests that, in future negotiations over interterritorial trade, the Uganda Government should attempt to obtain the agreement of the Governments of Kenya and Tanganyika for the entry of Ugandan maize into those territories and so expand the market for maize.

**Marketing Minor Crops**

While marketing channels for the major crops we have discussed are well established and producers have little difficulty in disposing of these crops, there appear to be several defects in the marketing arrangements for minor crops. These defects might well be deterrents to increasing the output of these crops and so the expansion of production for sale. At present, producers deliver limited quantities of oilseeds, groundnuts, sesame seed and other supplies to the small traders who provide the only inter-regional trade network. These traders are usually under-capitalized. They have to hold these commodities until they can accumulate a large enough load to ship them to the oil expressers or to the produce merchants in Jinja or Kampala. The small trader thus has to bear the risk of prices dropping, spoilage, and the incidence of a high interest rate while he is accumulating a large enough supply to ship to a buyer. Consequently, prices received by producers are heavily discounted in order to make possible a wide enough margin to remunerate the trader sufficiently to offset his risk.

If producers could collect large enough supplies to deliver directly to the trader—who provides an essential service as part of a network of price and market intelligence—then the margins might well be reduced as the trader's service then becomes one of rapid transit of supplies. (Alternatively the producers might provide the services themselves.) However, at present there are virtually no producers' marketing organizations for handling minor crops, although cooperatives deal with cotton and coffee, and associations of growers collect coffee.
Recommendations regarding the role of cooperatives in this area are made below and we have already considered a special program for cooperative handling of groundnuts. The mission believes that, even where there are no organized cooperatives, efforts should be made to encourage producers to bulk their commodities through informal arrangements organized by marketing officers.

There is also a need for more markets where sellers and buyers of specialized products could come together. If crops could be collected by groups of producers and brought together at specified assembly points, it would be possible to organize markets for special crops on announced days. Buyers could then attend these markets and, if possible, produce could be auctioned under the supervision of the Department of Agriculture. The local government or a marketing official would have the task of posting prevailing prices (as provided by the Crop Industries Division of the Department). The mission recommends that a trial marketing program of this nature be instituted in two areas: one in the more densely populated areas of Buganda, possibly at Masaka, and another at Gulu. Cooperatives and associations of growers should be encouraged to bulk their crops and sell them collectively. There should be prescribed minimum-sized lots and very simple grading standards established for difficult commodities. The local government should provide a suitable structure as a market place. The only equipment needed would be a scale. Sales should be widely advertised and the local government and extension service should be used as a medium for spreading information about them. If such a program is tried, it is recommended that the Trade Development Department encourage traders to have stores at the site of the market. These stores should carry as wide a range of consumer goods as possible to encourage the sellers to convert their commodities into cash. If the trial program is a success, it should be extended to other areas where the sales could be held, possibly at less frequent intervals.

COOPERATIVES AND AGRICULTURAL DEVELOPMENT

The Growth of the Movement

The statutory basis for the cooperative movement in Uganda is the Cooperative Societies Ordinance of 1946 (as amended) and the Cooperative Societies Rules. Although there had been some sporadic attempts by producers to form marketing societies and quasi-cooperatives
prior to the enactment of this legislation, it was only after 1946, when a Registrar of Societies was appointed and a government department created to foster development of cooperatives, that the movement expanded on an organized basis. The movement is based on small-scale primary societies with an average membership of less than 150 members per society. The financial structure of the societies limits liability of each member for the common debts of the society to three times the member's subscribed share capital. The share capital payable by the ordinary member is commonly Sh.20/- — a comparatively large sum for a peasant producer. The by-laws of the societies provide for the raising of deposits, for the grant of loans, for the supply of agricultural requisites and for the marketing of produce of their members.

The principal government department concerned with the cooperative movement is the Department of Cooperative Development. It is responsible for the promotion and supervision of the cooperative movement. However, since 1952, when there was a separation of the post of Registrar and Commissioner for Cooperative Development, the supervisory powers of the Registrar have been limited. At that time, certain powers previously exercised by the Registrar were ceded to a Cooperative Council. In addition, the Registrar's powers of compulsory liquidation were transferred to the courts, the Registrar, creditors and members of a society being empowered to move the court to make a compulsory liquidation order.

Because of the shortage of staff and the rapid expansion of the movement, the Department has been restricted to carrying out its minimum statutory requirements of the audit of the accounts of societies. It has been forced to neglect its other duties, such as the supervision of operations of the societies and the education of the committees and members to prepare them for full autonomy. If the scope of the activities of the Department is extended, as the mission recommends below, it will no longer be possible to contain either the departmental personnel at the current level or the annual budget at the present low estimates.

Membership in societies has grown at an impressive rate rising from less than 40,000 members in 1952 to more than 212,000 in 1960. Almost one out of every eight producers in Uganda is now nominally a member of a cooperative society. In 1960, there were 1,638 cooperative societies on the register: 1,595 of these were producers' societies, 28 were thrift societies, four were consumers' societies and there was one trade supply society. While the constitution of the producers'
societies declares them to be multi-purpose societies, 1,535 of them perform only one function—that of marketing; the other 15 were fishing, cattle and dairy producers' societies. Most of the marketing societies are affiliated to one of fifteen Marketing Unions. The marketing societies, which are the backbone of the movement, deal almost wholly in cotton and coffee. The mission estimates that approximately 22.5 percent of the total crop of seed cotton is marketed by primary marketing societies and 16 percent of the lint is ginned at union-controlled ginneries. About 25 percent of the Robusta coffee crop is handled by cooperatives and almost all of the Arabica goes through the Bugisu cooperative union (see Annex III).

The expansion of marketing societies has been rapid and has been encouraged by the Cooperative Department. But there have also been other factors that have helped expansion. In the first instance, the structure of the agricultural economy enables simple groupings of producers to perform a service for which they are compensated. There are millions of small-scale producers growing the two main cash crops, each of which is fairly uniform in character. Since the holdings of the producers are widely scattered, the marketing cooperatives perform a simple but valuable service by collecting and bulking (though not necessarily grading) these relatively uniform commodities. The ginneries and coffee processors are thus relieved of transport costs and they are prepared to pay for this service. This in turn has provided a financial incentive for the formation of these societies and so has helped accelerate the growth of the movement. A further factor in the increase in the number of societies is the distrust and suspicion of producers of regular commodity buyers. As most of the buyers have been non-Africans, there has been sentiment for the formation of cooperatives under African management in the belief that this would offset what were often regarded as sharp practices by buyers. Additional impetus for growth has come from the Government's policy on pricing and processing of cotton and coffee. The policy of having fixed prices for cotton and coffee at the producer level has shielded the cooperatives and the unions from competition and entrepreneurial risk in their formative years. There is no doubt that the certainty engendered by government pricing policies has helped many cooperatives and unions to remain viable.

The Government's program for promoting the Africanization of the processing industry has also been helpful to the cooperative movement. In the first instance, the Government utilized the cooperatives as its vehicle for executing this policy. The Acquisition of Ginneries
Ordinance of 1952 made provision for the Government to acquire up to 20 ginneries for transfer to cooperatives, while all newly constructed ginneries were to be cooperatively owned. The Government made very generous credit facilities available to the societies or unions to purchase or construct ginneries. The result has been that, whereas there was only one cooperatively-owned ginnery in 1950, there were 16 so owned in 1961. As a consequence, the members of primary societies who are affiliated with unions that own processing plants are able to participate in the guaranteed margins to processors. The promise of a share in these profits has provided an obvious incentive for producers to join cooperatives. Provision was also made for Africans to enter the coffee processing industry. Financial assistance in the form of long-term loans was made available to Africans who wished to establish curing plants. However, the major form of African participation came through the formation of associations of growers rather than through cooperatives. Nevertheless, there are four cooperatively-owned curing works, all of which have been established with government assistance.

The primary societies have confined their activities to marketing cotton and coffee largely because of the financial attraction arising from services provided in handling these crops. The mission believes that cooperatives can and should be an important element in the development of Uganda. Not only can they provide one of the essential institutional factors for aiding in the mobilization of resources, but they can continue to be an important element in promoting a sense of participation by small-scale producers in that development and in improving their economic position.

Future Development

The mission believes that the principal purpose of a cooperative in economic development should be to provide services which either are not provided by other sources or which can be provided by the cooperatives at a lower cost than by any other source. Thus far, the cooperative movement has strengthened the bargaining power of small-scale producers and given them the opportunity of deriving, as a group, the benefits of large-scale operations. They have contributed to raising the returns to growers from marketing and of participating in the processing industry. However, the cooperative should play a much more positive role in development than hitherto. The movement can provide the institutional framework for needed services which are not now available and it can provide some services at a lower cost than
any existing organization. In this regard, we believe that the cooperative movement should extend its marketing activities and that in time it should become the major instrument for providing credit to producers.

The mission believes that certain immediate steps should be taken to strengthen the movement before embarking on any expanded program. While we recognize that there might be an emotional appeal about the formation of cooperatives, we recommend that they be viewed pragmatically as service-providing organizations. At the moment there is a proliferation of small societies, many of which are not economically viable. These societies are adding to overheads, diverting the limited resources of the Department of Cooperative Development, and they cannot perform services adequately. The mission strongly supports the view that, where possible, cooperatives be consolidated and that no new societies be formed and registered unless they have a satisfactory minimum membership and the necessary support of the local population.

Providing an efficient service requires good management and a sound administration. Dishonesty and mal-administration in some societies has tended to destroy confidence in the movement. It can only be rectified by action by the members (most of whom are ill-informed about the affairs of their societies), supported by firm action by the Registrar. At present, the Registrar’s supervisory powers are extremely limited. We recommend, therefore, that steps be taken to restore the powers of the Registrar so as to permit him to liquidate societies which are not complying with the conditions as laid down in the ordinance. We believe that this would have a salutary effect on the movement.

The mission also believes that one of the important cooperative principles should be put into effect in the operation of societies. This is that there should be reward for effort. At present, this principle does not appear to be applied and there is an equal sharing of bonuses regardless of the quality of product delivered by producers except for one poor grade of product. In our view, this is tending to diminish the incentive of the more progressive farmers who belong to societies. As part of the larger problem of improving quality by grading, we believe that this principle should be incorporated in the future management of cooperatives.

We recommend that the cooperatives be urged to collect and bulk other commodities in addition to cotton and coffee. There are some cooperatives that market tobacco, but very few handle groundnuts,
simsim, maize and other crops. We have pointed out above that the lack of this service has depressed prices to growers for these commodities and have recommended a trial program by a cooperative for groundnuts in Busoga. It is our view that the cooperatives can provide this service but that any such program will require close liaison between the Department of Cooperative Development and the Crop Industries Division of the Department of Agriculture. We strongly recommend that these two agencies collaborate in developing a systematic program for encouraging cooperatives with local support to expand their activities to include the bulking of other crops.

Education of members of the cooperative movement, particularly at the lower levels, is an essential prerequisite of the sound development of the movement, if it is to expand along the lines proposed by the mission. To implement an adequate program on this level requires the provision of additional staff in the Department of Cooperative Development and the provision of additional accommodation at the District Rural Training Centers to enable educational courses to be held throughout the greater part of the year. The additional staff recommended is ten Assistant Cooperative Officers (i.e., an increase of almost 50 percent on the present establishment), at an annual cost in salaries of £7,000 when the whole of the additional staff is in service, while the capital expenditure necessary for the construction of additional buildings is estimated at £50,000. Facilities should also be provided for the education of the committees and staff of cooperative unions both in Uganda and overseas. Courses might be provided at the Kampala Technical Institute (KTI) for this purpose. The courses at KTI should provide specialist training for ginner fitters in addition to instruction in cooperative and commercial subjects. While much of the expense involved in these courses would be borne by the KTI as a normal part of its activity (see Chapter 12), it would be appropriate for the cooperative unions to make a substantial contribution to the costs. Some of the money available for overseas bursaries should be used for the overseas training of senior technical and managerial employees of cooperative unions.

The cooperative movement could make an important contribution to economic development if it became a basis for expanding the credit system in Uganda. We envisage that part of the £500,000 we recommend allocating for credit programs over the five-year period will, in the latter part of the period, begin to flow through the cooperative movement. Given guidance, the cooperative movement can also provide the basis for wholesale trading, educational programs and even-
tually, when much more organizational experience has been accumulated, cooperative farming. They would also be the source of supply of general farm requisites such as implements, coffee trays, fencing wire, insecticides and other equipment and supplies recommended for use by cultivators and included in our proposed subsidy program.

There seems little hope of having in Uganda cooperative credit societies with unlimited liability, such as are found in other countries, because of the lack of title of land which could be offered as security. The mission believes, therefore, that the linking of producers’ credit with the marketing of their produce through cooperative societies is the most feasible way of obtaining a guarantee of repayment of loans, by the deduction of the amount of the loan from the sale proceeds of the producer. The country has a marketing movement which, with suitable amendments to the ordinance, could be used for expanding credit facilities and safeguarding both borrowers and lenders. Such a move could never succeed without the provision of extended supervision and an adequate supply of managerial talent in the societies themselves.

To create a cooperative movement which can serve as an effective credit mechanism, the mission accepts in broad outline a program first suggested by a consultant brought to Uganda in 1960 for this purpose. The consultant’s program, spread over five years, would train 1,000 managers and would add 100 supervisors and 16 auditors to the Department of Cooperative Development as well as one senior official to oversee the credit operations of the Department. The managers would be trained and employed by cooperatives, being paid on a diminishing subsidy scale by the Government. The managers would provide the expertise and service at a local level to process loans, organize markets, engage in trade activity and so forth. The supervisors and auditors would give the audit and supervision needed to safeguard members’ interests. In addition, supervisors would perform the organizational and educational tasks generally expected of this type of official. Eventually, a central cooperative union could take over the whole program. The program as laid down by the consultant, would entail an expenditure in excess of £200,000 over a five-year period. In our view, this is not an excessive sum, but we strongly recommend that the program be introduced on a limited scale so that some experience can be gained in the type of problems that emerge from this institutional change. We recommend that first

a pilot project be begun with 100 selected societies, starting in 1961/62 increasing to 200 societies in 1962/63 and then running for three years. Such a pilot program would require 200 managers, ten additional supervisors, and the assignment of a senior official to oversee the program. The managers would serve on a part-time basis and would be remunerated with £60 a year. We would retain the suggestion that their payment should be subsidized by the central government on a declining scale. If the rate of decline were from 75 percent to 50 percent during the four years of the pilot program, the cost to the central government would total £22,500 over the years. This sum may be regarded as an investment by the central government in the future of the cooperative movement in Uganda. Certain additional governmental recurrent expenditures would also be incurred. The ten additional field supervisors would be paid £120 a year, or a total of £1,200, and associated travel and operating expenses would come to a similar amount. During the three years, additional recurrent expenditures would thus total nearly £7,500. The senior official would be drawn from the existing establishment. Two or three additional auditors would be needed, but their salaries could be paid from the Audit and Supervision Fund.

As many societies have surpluses in the Uganda Credit and Savings Bank, such societies could make initial loans out of their own resources, although other societies would have to borrow from the UCSB from the start. Even in the former cases, additional financing would probably become necessary and consequently at some point the UCSB lending resources would have to be expanded. Loans would be restricted to productive purposes and they should be in kind rather than in cash. Individual security for the loans would be provided by sureties signed by a member and a co-signer whose share capital would be pledged. The society's credit would be guaranteed by its share capital and reserves plus the reserve liability of the members which, as stated, is equal to three times the subscribed share capital. Security of loans would be strengthened by the suggested supervision in the field and by the District Cooperative Officer. The Commissioner of the Department of Cooperative Development and the officer in charge of this program should be on the Board of the UCSB.

If the program proves itself, the mission recommends it be expanded after 1965/66 to cover 1,000 societies along the lines suggested by the consultant. In the still distant future it might be necessary to form a Central Cooperative Bank which might first be developed within the UCSB but later become independent, all this presupposing
that a Central Cooperative Union would have been formed. In this way, members of cooperative societies would be able to manage their own movement to a much greater extent than at present.

SUMMARY OF PROPOSED EXPENDITURES

The direct recommendations we have made in this chapter would entail capital expenditures on crop agriculture of £2,027,600 during the five-year period, 1961/62-1965/66, or an annual average of £405,500 (see Table 14). Included are annual expenditures of £100,000, both to cover the necessary incidental capital costs of the big expansion in the agricultural and cooperative programs (i.e., up-country housing, administrative buildings, transport, etc.) recommended and to cover other contingencies. The recommended average annual capital expenditures of £405,500 compares with £324,000 spent in 1960/61, which in itself was at the peak of a rising trend; the annual average of capital expenditures for the three years 1958/59-1960/61 was only some £140,000.

Our recommendations would also entail certain additional recurrent expenditures which we regard as developmental. These would total some £1,945,000 over the five-year period 1961/62-1965/66 (see

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**TABLE 14: Proposed Capital Expenditures on Crop Agriculture, 1961/62-1965/66**

<table>
<thead>
<tr>
<th></th>
<th>Five-Year Total</th>
<th>Annual Average*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Stations</td>
<td>44.4</td>
<td>8.9</td>
</tr>
<tr>
<td>Training Facilities</td>
<td>12.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Subsidies on Equipment</td>
<td>788.7</td>
<td>157.7</td>
</tr>
<tr>
<td>Credit</td>
<td>600.0</td>
<td>120.0</td>
</tr>
<tr>
<td>Marketing</td>
<td>10.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Cooperatives—Credit Scheme</td>
<td>22.5</td>
<td>4.5</td>
</tr>
<tr>
<td>— Services</td>
<td>50.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Other Capital Costs of Expanded Program</td>
<td>500.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>2,027.6</td>
<td>405.5</td>
</tr>
</tbody>
</table>

* Few programs entail outlays spread evenly over each of the five years of the period. For details on each program, see text.
Table 15). While not all these expenditures would rise evenly to a peak in 1965/66, expenditures in that year would include £658,000 additional recurrent expenditures. These expenditures would be on services over and above the services which cost £750,000 in 1960/61. The mission is not in a position to judge whether, and if so, by how much, the cost of the items comprising the latter figure might also rise over the five-year period.

**TABLE 15: Proposed Developmental Recurrent Expenditures on Crop Agriculture, 1961/62-1965/66**

<table>
<thead>
<tr>
<th>Program</th>
<th>Level Reached by 1965/66 £'000</th>
<th>Total Additional 1961/62-1965/66 £'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Research</td>
<td>13.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Arabica Coffee Research</td>
<td>11.0</td>
<td>44.0</td>
</tr>
<tr>
<td>Extension</td>
<td>105.0</td>
<td>300.0</td>
</tr>
<tr>
<td>Agricultural Diploma Course</td>
<td>14.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Field Workers' Salaries</td>
<td>11.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Field Workers' Training</td>
<td>5.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Ox Cultivation Demonstration</td>
<td>10.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Subsidies on Insecticides</td>
<td>459.1</td>
<td>1,210.3</td>
</tr>
<tr>
<td>Groundnuts Marketing</td>
<td>—</td>
<td>13.5d</td>
</tr>
<tr>
<td>Cooperative Credit Supervision</td>
<td>2.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Cooperative Services</td>
<td>7.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Agricultural Statistics</td>
<td>22.5d</td>
<td>180.0e</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>658.1</strong></td>
<td><strong>1,945.3</strong></td>
</tr>
</tbody>
</table>

* Levels reached in 1965/66 for all programs, except those in notes d. and e., represent a peak during the five-year period.

b Most programs involve rising annual expenditures during the period, although not necessarily at an even rate; some programs have delayed starts or early terminations. See text for details.

c Excludes new class of Field Workers.

d Involves outlays of £4,500 each year 1962/63-1964/65.

e Involves outlays of £22,500 in 1961/62, £45,000 in each of 1962/63-1964/65 and £22,500 in 1965/66. Some of these expenditures are for livestock programs (see Chapter 7).
CHAPTER 7 LIVESTOCK

The Mission's Approach

Throughout this report we have stressed the need for a greater degree of diversification in Uganda's agricultural output. In our view, the development of the livestock industry offers the best promise of diversification. The mission believes that there is considerable potential for the expansion of the livestock industry in Uganda. The demand is strong for meat in markets Uganda could supply and, provided adequate supplies for the market can be forthcoming and the average price can be lowered, the long-run prospects are promising even for the export of poor quality meat, either in the form of frozen carcasses or as products from a local canning industry.

The size of the marketable surplus of meat will depend in good measure on the extension of the control of animal diseases in livestock. Expanded disease control is also a necessary precondition to improving the quality and productivity of livestock. Thus, the mission views the expansion of animal disease control as the key to livestock development in the immediate future and we suggest that a development program give priority to this aspect of the problem. While the economy could derive both short-term and long-term benefits from such a program, it is difficult to estimate their money value within the period 1961/62-1965/66. Nevertheless, the mission expects that if such a program were adopted, animal losses from disease would be substantially reduced and Uganda may well be exporting around £500,000 worth of meat products by 1966,1 provided that marketing methods are improved as we discuss below.

Consumption of meat in Uganda is reported to have increased at an average rate of 2 percent a year during the 1950's with levels of consumption fluctuating sharply as prices for cotton and coffee varied. In general, supply is increasing at a faster rate than consumption. This supply is augmented by a small quantity of livestock

1 Goat and sheep output are expected to increase as a matter of course. We are concerned primarily with the cattle industry.
imported, usually on the hoof, from Kenya to provide for the quality trade in the Kampala-Entebbe complex. These imports have been sporadic and are strictly controlled to meet local demand. In 1960, these imports seldom amounted to more than 300 head a month. Control is deemed necessary as a measure of protection to the local producers since the livestock from Kenya are both superior in quality and lower priced than the equivalent animal produced in Uganda.

Output in both milk and meat of the livestock population of Uganda is extremely low. The three local breeds—Zebu which comprise about 70 percent of the cattle population and Nganda and Ankole the remainder in about equal proportions—have very low milk yields and slow growth rates. The average Uganda cow probably yields no more than 100 gallons of milk per lactation. While livestock experimental stations have demonstrated that selective breeding, better feeding and management, can lead to higher yields, even the highest of these milk yields is pitifully low when compared with western standards. In general, growth rates of Ugandan cattle are slow, with local animals requiring five years to reach readiness for the market as compared with three years in more advanced stock-raising countries.

Improvement of livestock can come through selective breeding within the local breeds, through the introduction of exotic breeds and possibly through cross-breeding. Present knowledge indicates that, at its highest development, the Uganda purebred animal will be a poor counterpart as a producer of meat and milk compared to western breeds well-known for these qualities. Since available information on the performance of local breeds is still somewhat scanty, the mission recommends that the work on selective breeding within local breeds and cross-breeding should be continued.

It appears at present that the most rapid approach to livestock improvement would lie in the introduction of foreign blood if the necessary high level of management and feeding can be attained. As just mentioned, we believe that work on the local breeds should also be continued. There has been some limited importation of foreign livestock—usually of Jersey and Guernsey breeds—from Kenya over the last few years. These have been placed on departmental farms to test the reaction of these animals to local conditions.

Chickens and dairy products are also imported from Kenya—the 6,000 gallons of milk a day that are imported are pasteurized and marketed hygienically in striking contrast to the locally produced milk.
and the resistance to disease of the progeny produced by crossing with local cattle. A few “planned farms” have been assisted in procuring Guernsey cows to observe results when exotic stock are kept by progressive cultivators. In addition, some dairy owners have imported livestock on their own account. The ensuing experience of these livestock owners tends to indicate that exotic cattle can be maintained provided there are strict protective measures. These necessitate rigid control—particularly against tick infestation—land first freed of ticks, animals kept free of ticks by constant spraying, internal water supply and complete isolation from outside livestock through fencing and movement control. It would be possible to get these measures adopted on a limited scale and for special purposes. But the average stock-owner would be most unlikely to practice them to the extent that is essential. Consequently, such measures are only expedients applicable in special circumstances. For the livestock industry in general, policy should concentrate in the coming period on improving indigenous cattle by improving their feeding and especially on maintaining them in good health. The mission consequently considers that extending disease control in particular will bring the quickest benefits to the industry.

The general control of diseases presents a formidable, though not insuperable, task. Rinderpest and contagious bovine pleuropneumonia, two major epidemic diseases, have not been finally eradicated within the country. Rinderpest is always liable to be reintroduced into cleared areas from neighboring territories. Foot and mouth disease, only partially controlled, though only of limited importance to indigenous stock, will assume far greater importance with the introduction of exotic stock and the development of exports of meat. Endemic diseases take a tremendous toll, especially among young calves. East Coast fever, by far the most important, is endemic throughout the whole of Uganda, except Karamoja district. Little has been attempted in the way of eradication, though tick control through spraying is being popularized. Trypanosomiasis is widespread in the country, and losses are considerable as only a proportion of livestock owners avail themselves of the facilities for treatment. Bovine tuberculosis is also widespread.

Diseases such as the tick-borne disease, where they do not prove fatal, cause debility and anemia, slowing down the rate and ultimate extent of development of animals. Diseased livestock compete with others for existing grazing, thereby depriving healthy animals of food and increasing the pressure on existing resources. Disease con-
control would thus also enhance the value of local herds, reducing mortality rates and increasing productivity.

While stressing the need to expand control of diseases, disease control should not be an end in itself. The long-run goal of policy should be to increase numbers and make livestock more productive than at present. This would require improvements in breeding practices, animal nutrition, animal husbandry and range management. However, changes of this nature would invariably be a slow and selective process, involving fundamental changes in techniques of production and levels of management. Furthermore, in our view, such changes will only be feasible if they are preceded by an extension of disease control measures without which there could be no basis for improvement in livestock production.

Thus, the mission's suggested five-year program is concerned predominantly with disease control and includes provision for expanding and training staff, supplying the staff with diagnostic equipment and research facilities, and introducing specific disease-control pilot programs in Ankole and Buganda. The execution of this program would bring direct benefits to producers through improving the condition of livestock as well as increasing numbers of livestock, and an allied marketing program is recommended to provide outlets for the sale of the increased numbers. Disease control would increase the livestock population without any need for radical changes in techniques of production and improved management. Such changes should be the longer-term goals of policy and we will suggest a trial ranching program to test the feasibility of changing means of production. In addition, while the emphasis is on short-term measures for disease control, the mission views parts of its program relating to research, training and extension of staff as elements in a program oriented toward attaining the longer-term goals.

Some specific mention is necessary, however, of the need for improvement in pasture management—a field in which progress is very slow and dependent on a whole complex of sociological factors. Over the greater part of Uganda, traditional relationships to land persist, particularly in the pastoral areas and also with respect to customary rights of grazing in the agricultural areas. In general the rights in land which the cultivator enjoys depend largely on his continuing position as a member of his society and are secure so long as he is in occupation of the land allocated to him. His individual claim, as such, is to the land actually cultivated. Open range
land or fallow is free to all and the concern of no one in regard to
its maintenance or improvement.

Satisfactory as the various systems have been when the popula-
tion of both humans and livestock was small, they have tended to
become unsatisfactory or positively harmful under pressure of in-
crease of population. With the increase in the human population
that has occurred in many areas, and because of the customary laws
that obtain in regard to "inheritance" of cultivated land, fragmenta-
tion in some areas has developed to an alarming extent. This,
together with the concept that only cultivated land is the possession
of the individual, has militated against the development of adequate
pasture for the livestock.

The position in the predominantly agricultural zones has been
further complicated by the cultivation of perennial crops, plots of
which have been established haphazardly over the holdings. No
progress in the areas can be made in pasture development without
enclosure, but until such time as the idea of individual ownership
and the view that a man has the exclusive right to the use of his
land (whether arable or pasture) has been generally accepted, en-
closure is not likely to take place rapidly. It is the Government's
declared policy to encourage enclosure wherever possible. As the
mixed farming areas become more closely settled and cultivated, so
does the available amount of grazing decrease. Thus the trend is
for an increasing stock population to be thrown on a diminishing
area of communal grazing. With a few exceptions there is still a
very general and almost complete failure to appreciate the impor-
tance of livestock in a mixed farming system.

In those areas where stock keeping, and not agriculture, is the
main occupation of the people, fragmentation has not been a
major problem. However, resulting from the protection afforded by
settled administration and the services of the Veterinary Depart-
ment, the enormous increases in stock numbers that have taken
place in some areas now constitute another, and equally intractable,
problem. The position is aggravated by the fact that while all have
a claim on the grazing, nobody is directly responsible for the pre-
vention of abuses, and over much of the country the grass cover is
deteriorating. Because such a large proportion of the country is
natural grass land or bush, for the future prosperity of Uganda it
is vital that it should not be misused. There are thus two main
objectives to be attained: one with respect to livestock raising in
predominantly agricultural zones and the other in pastoral areas.
In the former, efforts need to be made to introduce grazing management and stock keeping. In the latter, effective control of what is at present permanent grazing needs to be established.

In the intensive farming areas the policy is to secure the systematic resting of land, whether by individuals or communities; to introduce planted leys under enclosure where possible; and to spread the practice of tethering or stall feeding of stock, where pastureage is limited, coupled with the growing of relatively small areas of high-producing fodder crops to supplement the grazing. The work so far carried out in studying the possibilities of pasture establishment in the agricultural areas has shown that the recommendations made are not beyond the means of the more progressive farmers. Several have already fenced paddocks, some have planted fodder crops and in a few cases paddocking and fodder crop production is now being practiced.

In the predominantly pastoral areas where establishment of pastures, because the area is so large, is almost impossible, the emphasis must be on management. Uncontrolled and injudicious burning has been the cause of a great deal of damage as has also the practice of heavy grazing immediately after a burn and before the grasses have recovered their vigor. Progress can only be achieved under a system of providing adequate control over both time and density of stocking, and over the frequency and degree of burning. In these areas where the distances are great, the population relatively scattered, and the field staff small, visible progress in grassland management is limited. The main difficulty in most places has been to persuade the people to adopt some form of fire control and, until they do so, progress will be very slow. Division of the areas concerned into ranches, operated either by individuals or communities, is also very helpful. Water development is, of course, a priority in any scheme of this nature.

The Veterinary Department's Ankole Land Utilisation Unit was established to investigate ways and means of economically tapping the resources of this type of grassland. Studies on stocking rates, control of fire, weed and bush control and investigations into the control of tsetse infestation are being undertaken.

Staff and Training

The mission attaches top priority to expanding and equipping the field services of the Veterinary Department. The field section
includes animal husbandry and livestock marketing, but its principal function at the present time is disease diagnosis and control. The present staff has done outstanding work under difficult circumstances, but it cannot give reasonable protective coverage and assistance to the industry against not only the threat to which it is always exposed of heavy losses from rinderpest and contagious bovine pleuro-pneumonia, but also the immense loss which it actually suffers annually at present from the tick-borne diseases.

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The main categories of veterinary staff and their qualifications are as follows:

**Veterinary Officers:** Fully qualified veterinarians with overseas university degrees. A special class of Veterinary Officer (Uganda) is a promotion appointment for Senior Assistant Veterinary Officers.

**Assistant Veterinary Officers:** Makerere diplomates.

**Veterinary Assistants:** Certificate holders of the Veterinary Training Institute, Entebbe.

**Veterinary Guards and Scouts:** Relatively untrained or possessing only field training.

The field establishment is organized on a provincial basis, but the paucity of staff does not permit a regular pattern of postings of officers of suitable status and adequate qualifications to be followed at any administrative level other than provincial, and even that level is to be abolished if the recommendation of the Economy Commission is accepted. The position is greatly aggravated by the switching of Veterinary Officers and Assistant Veterinary Officers needed for field services to other duties, some of them extra-departmental altogether.

Briefly summarized, the mission recommends that the target establishment for 1965/66 should be 21 Veterinary Officers on field duties (excluding senior Veterinary Officers), 62 Assistant Veterinary Officers and 315 Veterinary Assistants. We thus estimate that a total of 7 Veterinary Officers, 40 Assistant Veterinary Officers (Field Officers) and 132 Veterinary Assistants need to be recruited by 1965/66, exclusive of personnel required for livestock marketing. In our view, it will not be possible to train the full requirements of Assistant Veterinary Officers and Veterinary Assistants by that year,
and we estimate that only 32 additional Assistant Veterinary Officers and 110 additional Veterinary Assistants are likely to become qualified for appointment by that time. Thus, there will be a shortfall in 1965/66 of 8 Assistant Veterinary Officers and 22 Veterinary Assistants below our estimated requirements. It will be obvious from the foregoing calculations that the mission is unable to agree with the Economy Commission's recommendations to stabilize the Veterinary Assistant cadre at 180 or to suppress certain posts of Senior Veterinary Officer and Veterinary Officer. The effective strength of the department is already below the level required, and it will not be possible to exercise adequate control over disease outbreaks at the present establishment level.

We recommend the following action with regard to recruitment and training of staff for the three major categories of personnel.

Veterinary Officers. At present there are no facilities in East Africa for the training of Veterinary Officers and Ugandans wishing to qualify as Veterinary Officers have to study abroad. The mission believes that there is an urgent need for the establishment of an East African Veterinary College (see Annex VII). Any such move would only have an influence on supplying Uganda's needs in the years after 1965/66. There are four vacancies for Veterinary Officers on the current requirements. We strongly recommend that these posts be filled immediately by recruitment from overseas of officers on three-year contracts. As Ugandans now training abroad become available, not only would the four expatriates be replaced but an additional three officers would become available. The costs in salaries and other emoluments would vary over the period as the number and composition of the additional staff varied, but we estimate additional recurrent costs for this purpose would total £47,000 over the entire period. The additional salaries bill in 1965/66 would be about £9,000.

Assistant Veterinary Officers (Field Officers). Since no facilities exist otherwise for the training of an adequate number of candidates for appointment to the post of Field Officer (hitherto designated Assistant Veterinary Officer), the Veterinary Department proposes to initiate its own diploma course in veterinary science at the Veterinary Training Institute, Entebbe. This will be a course of one year's duration for selected Veterinary Assistants who, on its successful completion, will be promoted to Field Officers. It is the present intention to fill all future vacancies in this grade by
such promotions. Eight Veterinary Assistants will be selected for diploma training each year. By this means, most of the estimated requirements by 1965/66 can be met by that year, provided the number of Veterinary Assistants who merit promotion is adequate. The mission fully supports these proposals and recommends that immediate action be taken to provide the necessary facilities so that the diploma course can begin in January 1962. Assuming that the first selections begin in training in January 1962, the first appointments can be made in January 1963, to be followed by eight more each succeeding January. At this rate there will be 32 Field Officers employed by 1966 and the cadre would be complete by 1967. The cost of the training program includes capital expenditures of £26,000 for buildings and other facilities at the Institute. Additional recurrent costs at the Institute are expected to rise to near £10,000 by 1965/66 and total £47,000 over the five-year period. The salaries of the Field Officers so trained, once in the field, would amount to an additional £33,000 by 1965/66 and would total £75,000 over the entire five-year period.

Veterinary Assistants. The qualification for becoming a Veterinary Assistant is the Veterinary Certificate and this course extends over three years. Formerly, veterinary students shared with agricultural students a common course of two-years duration at one of the farm institutes and spent the third year in veterinary specialization at the Veterinary Training Institute at Entebbe. As from 1962, the common course at the farm institutes is to be discontinued and Veterinary Assistants will be trained entirely at the Veterinary Training Institute, Entebbe. The course at Entebbe will be of two-years duration and will be devoted largely to veterinary study with a view to improving the standard of technical knowledge of future Veterinary Assistants. Provided that sufficient students of School Certificate standard come forward, the admissions at the Veterinary Training Institute will be stepped up to 40 annually. Owing to the current shortage of students with initial education qualifications of that standard, the mission estimates that an annual average of not more than 27 or 28 students are likely to be available for admission to the Veterinary Training Institute during most of the five-year period. About 24 students are expected to qualify at the Veterinary Training Institute for appointment as Veterinary Assistants in 1962. In 1963 a further 24 students are expected to qualify from the present three-year course, plus 20 students from the new two-year
course which will commence in 1962, making a total of 44 in all. Thereafter, during the remaining years of the five-year period, recruitment seems certain to be restricted by the shortage of students of School Certificate standard for admission to the training course and we estimate that only about 60 students will qualify in the three subsequent years. On this basis, there would be 130 additional Veterinary Assistants available for employment during the entire five-year period. The extra salaries of the Veterinary Assistants so employed would amount to about £44,000 in 1965/66 and to about £117,000 over the entire five-year period. (The additional expenditure entailed by the changeover from a one to two-year veterinary course has been included in our capital and recurrent expenditure proposals discussed in connection with our suggestions for the Diploma Course.)

In all, the total cost of training and employment of additional staff—so essential for a disease control program—would amount to £312,000 over the five-year period, of which £26,000 would be in the form of capital expenditures and £286,000 in additional recurrent expenditures. We estimate additional recurrent expenditures by 1965/66 to reach about £97,000.

Veterinary Dispensaries

While we have proposed a considerable expansion in the veterinary field establishment, staff alone is not the complete answer to the problem of disease. To discharge their duties efficiently, trained staff need the tools of their profession in the form of dispensaries, instruments, drugs, microscopes and other equipment. These are almost nonexistent outside district headquarters. Nor is there, outside district level, a single veterinary dispensary to which a livestock owner can take his sick animal for treatment or from which he can get the necessary supplies for treatment. In more advanced countries, veterinary hospitals exist at district headquarters and veterinary dispensaries at lower administrative subdivisions for the provision of such services. The mission recommends that essential facilities of this kind be now provided in Uganda by setting up veterinary dispensaries at county (saza) headquarters in the areas where livestock is most important. These dispensaries would be the focal points of veterinary activity in the sazas. They would provide facilities for disease diagnosis; they would carry stocks of vaccines
Tsetse Fly

At present about 32 percent of Uganda is said to be infested by tsetse fly (see map facing page 216). There are several species of tsetse fly carrying various disease-bearing trypanosomes which are the causal organisms of both human sleeping sickness and animal trypanosomiasis. Consequently, the relationship between human beings and their stock, and the fly, the vector of the disease, is of great importance. Both the human and animal disease are present in Uganda, but the former is restricted to the rivers and water courses and to the lake shores. Since the 1930’s, much of the country in north and central Uganda has been infested by the spread of the Savannah tsetses, G. morsitans and G. pallidipes and, as a result, livestock are denied the use of some of the best grazing lands in Uganda.

Research, particularly that by the Colonial Pesticides Research Unit, the East African Trypanosomiasis Research Organization, and the Department of Tsetse Control in Uganda, has gradually evolved a series of techniques which make possible the partial or total eradication of the insect and the disease it transmits. The trypanosome may be attacked by prophylaxis and immunization and the fly may be eradicated by the use of insecticides, bush clearing or the destruction of game. Since 1947, the Department of Tsetse Control has been engaged in a major program to halt a series of extensive tsetse advances which took place in the 1930’s and early 1940’s, to reclaim the newly-invaded country and to prevent its re-infestation by establishing “consolidation lines” at selected positions (see map facing page 216). Further reclamation will only be undertaken if the land is needed for immediate economic use and can be consolidated by settlement against the return of the fly.

The Department has reclaimed a considerable amount of land and has performed valuable services in “consolidating” reclaimed areas. We make suggestions regarding the possible settlement of reclaimed areas (see Chapter 8), and the clearance of South Ankole. Reclamation is costly both in terms of men and money, averaging Sh. 5/- to Sh. 8/- an acre or £250 per square mile. Therefore, while we suggest that reclamation continue along the present lines, we strongly endorse the view that reclamation cannot be warranted merely as a relief measure in order to allow the expansion of low-yielding production methods.
There is a 2,000 square mile area in the South Ankole district, formerly entirely infested by tsetse. We propose a program to clear the southern half of the area of tsetse, to prevent its further spread, and to settle the northern half which has already been cleared. The settlement would be in the nature of a pilot project to test and demonstrate the feasibility of "settled" ranching in a relatively good cattle-raising area normally grazed in a nomadic fashion. At present this entire area only carries 10,000 head of cattle, of which 4,300 receive regular two-monthly trypanophylactic treatment.

The southern half of this area is still infested by tsetse. The settlement plan for the north may be jeopardized unless the south is cleared. Furthermore, the eventual extension of the plan to the south will depend on eradication of fly from the southern region or reducing it to such a low density that the land can be reoccupied and restored to productive use at the same time. The method of reclamation to be adopted is ground spraying with dieldrin, an insecticide which will destroy the fly in its habitat. Much recent investigation in various parts of Africa, including Uganda, by the Colonial Pesticides Research Unit and the Uganda Tsetse Control Department has evolved an economical and effective technique for treatment by this means. The project calls for the completion of spraying operations in 36 months spread over the financial years 1961/62 to 1964/65, while the fifth year, 1965/66, would be devoted to follow-up observational work.

The mission regards this project as most important, both to the prevention of the spread of fly into the major livestock producing areas of western Uganda, and to the development of the livestock industry, particularly so in a part of the country unsuited to arable farming. We therefore recommend its immediate implementation. The capital costs of the project are estimated at about £26,000. Total recurrent costs over the five-year period would amount to about £211,000, with peak expenditures being made during the middle of the period.

In the northern half of the South Ankole tsetse project area, the Uganda Tsetse Control Department began operations in 1958 to prevent the further advance of tsetse and to reclaim about 1,000 square miles of infested country by the elimination of game which inhabited it. It appears that, except along the southern boundary,
TSETSE INFESTATION

Legend:
- Tsetse infested country
- Country reclaimed from G. morsitans and G. pallidipes
- Country in process of reclamation
- Consolidation line
- Consolidation line (Proposed)

Note:
Glossina pallida is distributed marginally on all open water and on rivers with permanent water.
tsetse has been eliminated from the treated area or reduced to such a light density that cattle can be kept productively under a prophylactic drug regime, and that this large tract of country can now be reoccupied by livestock. The Department of Veterinary Services and Animal Husbandry has proposed that, on reoccupation, this area should not revert to uncontrolled nomadic grazing, but should be settled under a ranching development project for small cattle-owners through a system of individual land tenure, the whole area being divided into blocks each averaging 2,500 acres, and each block being occupied permanently by one stock owner. The rate of stocking would be controlled in keeping with the grazing potential; rotational grazing would be enforced; cattle and grazing would be maintained under proper management. By this means, maximum productivity would be obtained from a very large tract hitherto very inefficiently utilized. The total cost of the settlement program is expected to amount to £285,000 in capital expenditures and £76,000 in recurrent expenditures over the five-year period; recurrent expenditures would rise each year and reach £76,000 by 1965/66. Of the total costs, £215,000 of capital expenditure for equipment, engineering and labor would be due to the provision of water supplies for the ranches by the Water Development Department. However, the annual return by the latter year is expected to be in the region of £100,000 and to double in the subsequent five years.

The mission recommends that immediate effect be given to both the southern eradication and the northern settlement projects and suggests that they be considered not only for the direct benefits that they would bring but also as pilot projects which, if they were successful, could be extended to other pastoral areas. These areas at present make but little contribution to the livestock industry.

As with all projects of this nature, there would also have to be constant precautions against the re-entry of disease into areas cleared of it. This is well illustrated by recent experience on the Bunyoro Ranching Scheme. This large cattle ranching project covers an area of 100,000 acres and is still in course of development under the management of Agricultural Enterprises Limited, a subsidiary of the UDC. The project was initiated in 1956 after the land had been cleared of tsetse fly. Trypanosomiasis reappeared at the end of 1959, and a large area of the ranch had to be evacuated of livestock until it was again cleared of fly. It is believed that the disease was re-introduced by wild game—buffalo and wart hog—which re-entered the ranch through a failure to keep a protective barrier adequately
established through human settlement between the ranch and the National Park. Measures have been taken to eliminate the fly and establish an effective barrier.

Tick-Borne Disease Program in Buganda

The most serious cattle disease problem in Uganda is that associated with a group of protozoal diseases—East Coast fever, heart-water, anaplasmosis and redwater—known collectively as the "tick-borne diseases", the vector of which is a number of different species of tick which abound in great numbers. No curative drugs have yet been discovered to combat East Coast fever, the most serious disease of the group, nor is any effective prophylactic treatment yet known for any of these diseases. In an endemic area, all calves undergo an attack of East Coast fever in their first year. The mortality among calves is estimated to be of the general order of 25 percent, but the economic loss to the livestock industry is far greater than that caused by actual deaths. These diseases lower the resistance to other diseases of the calves which survive, and slow down both the extent and the rate of their subsequent development. The dairy cow dries up on the death of her calf, with the complete loss of milk production in that lactation. Debility and anemia also follow a heavy tick infestation and considerable damage to hides is caused.

The tick-borne diseases are the limiting factor to any project for livestock improvement. Exotic breeds of all kinds are extremely susceptible to them. No imported animals can hope to survive without stringent precautions to prevent them coming into contact with ticks. Cross-bred progeny, produced by artificially inseminating local cows with exotic semen, are far more susceptible than indigenous calves. There can be no hope of major development of the livestock industry until ticks are brought and kept under control.

The first step toward improving livestock in more developed countries where tick-borne diseases have existed, has been the compulsory control of ticks by dipping or spraying. The United States, Australia, the Union of South Africa, Southern Rhodesia and Nyasaland are among the countries which have dealt successfully with this problem by such measures. In Kenya, control of ticks in the White Highlands has enabled a flourishing livestock industry to be built up. Nothing short of similar compulsion is likely to be effective under Uganda conditions. The introduction and enforcement on all cattle owners of such compulsory tick control measures
as may be prescribed should be a first priority in the action which
the Government must take for the improvement of the livestock
industry.

Technically, the control of ticks is practicable by spraying or
dipping cattle at regular intervals, while simultaneously preventing
the introduction of ticks from outside a protected area. The indivi-
dual progressive farmer can avoid or reduce losses by fencing his
land, by dipping or spraying his cattle, by providing an internal
water supply on his farm for his stock, and by keeping his animals
out of contact with others from outside. This presents no problem in
a highly-developed farming area where land is held on individual
tenure and farms are fenced. These conditions do not exist in
Uganda. Over most of the country, land is not owned individually.
Enclosure of grazing land is almost unknown. Communal grazing
and communal watering points are the general rule. General tick
control in these circumstances can be achieved by communal action
only.

For effective tick control in a given area, a number of conditions
must be fulfilled. All cattle without exception within the area must
be dipped or sprayed: a few untreated animals would suffice to delay,
if not to prevent, the full success of the measure. Dipping or spray-
ing of all cattle must be repeated with the frequency prescribed.
Reinfection from outside of the area under treatment must be pre-
vented. Thus, the full cooperation of every cattle owner within the
area is essential.

The mission was informed that cattle owners in Buganda are
eager to have a cattle-dipping scheme against ticks and that they
would be willing to cooperate in such a project. A few communal
spraying centers for tick control already operate in the area under
departmental guidance, and it is presumed that at least some of the
cattle owners are already aware of the benefits which tick control
confers. The mission has no means of knowing the degree to which
voluntary cooperation in such a project would be forthcoming from
the stock owners.

Kampala is an important center for the disposal of dairy pro-
duce, and the area around it is suitable for building up a profitable
dairy industry with considerable beef potential also. The mission
proposes that a cattle-dipping project for tick control be considered
by the Uganda Government in the three counties of Kyagwe,
Kyadondo and Bugerere. They lie to the immediate east and north
of Kampala and have protective river and lake barriers to the south,
east and north. The cattle population is of the order of 100,000 head. This project would be of sufficient size to produce economic benefits of itself. It would be part of a general program to develop mixed farming, and it would test out the conduct of a dipping program to cover the whole country. Dipping would be done free of charge during the period of the project. Subsequently, when dipping became normal practice, a charge would be made, either directly or through general taxation. The mission recommends that this project be undertaken, provided that the voluntary cooperation of all the cattle owners can be assured for the full period of the project or, failing that assurance, that the Government will enforce compliance by non-cooperative owners. If voluntary cooperation is not complete and enforcement is not acceptable to the Government at present, the project should be dropped as it could not succeed in those circumstances.

We estimate that the project would require 75 dipping tanks costing in all about £75,000; a central store might cost £1,000; a land rover and a truck would have to be acquired at a cost of about £4,000; finally, other equipment might cost another £1,000. Thus, total capital expenditure entailed by the project would amount to £81,000. To operate the project, 75 dip assistants would be required, supervised by two Field Officers. There would also have to be one dip tester. We estimate the salaries of all the foregoing at £6,750 a year. The dipping powder required would cost about £15,000 a year. We estimate maintenance costs of both the tanks and the vehicles at £1,350 a year. Finally, travel expenses might amount to £400 a year. Thus, total operating expenses would amount to £23,500 each year, or £117,500 over the five-year period.

If the project were accepted, and the Government finds control is effective the mission recommends that thought should be later given to extending the program—first over other areas in Buganda. Buganda appears to have natural boundaries which would ease problems of control of entry into the area. Buganda has a cattle population of 620,000 head, but it imports a large supply of livestock from Teso and Lango. If offtake in Buganda could be raised, then those cattle formerly imported from the north could be diverted for export or might provide the supply base for a small canning industry there. Once the dipping program were extended beyond the initial project in the designated three counties, recurrent expenditures involved thereafter could be offset by a dipping fee. However, the imposition of fees would only be possible when the benefits from dipping had become apparent to the livestock owners.
Marketing

Increasing the supply of livestock in Uganda does not necessarily increase the rate of offtake for the market. If supply is increased without a proportionately larger increase in amounts marketed, large investments in disease control might well be self-defeating. Improved animal health will bring advantages, but increased pressure of numbers, due to reducing mortality rates, might well aggravate erosion and overgrazing problems in the north. In addition, disease control, without improved productivity of livestock, could mean that an increased supply would only have a slow rate of turnover because of the length of time taken to produce mature livestock ready for the market. This is a difficulty which can only be overcome as the general level of management, disease control, nutrition and animal husbandry are raised in the course of years. Only then will the over-all productivity of the industry be raised. Without improved management and higher rates of offtake, the substantial investment recommended for disease control would increase the stock of capital in the country but not the returns from that stock.

One of the major obstacles to increasing offtakes is the well-known proclivity of many producers to view their livestock as a "store of value" in themselves, irrespective of their income potential. Their value is considered in terms of prestige and as a means of paying bride-prices. While these attitudes are changing, particularly with the expansion of the educational system, the process of change is likely to last for many years to come. We believe that livestock owners tend to be more commercially oriented in Buganda than elsewhere, and it is partly for this reason that we have suggested an expansion of tick-borne disease control in Buganda first.

The rate of offtake for the market is influenced by prices and the availability and intensity of markets. Price information is scanty but available data indicate that there was a steady increase in average prices of livestock from 1939 to 1949; in 1949 average prices rose sharply and in 1950/51 rose even further; e.g., in 1949 average prices in Teso were Sh. 123/- per head, in 1950 they were Sh. 149/-, while in 1950/51 they rose close to 70 percent to Sh. 240/-; in Busoga the price rose from Sh. 115/- a head in 1948 to Sh. 356/- in 1952, or more than 300 percent in four years. It was during this period that coffee and cotton incomes rose markedly, indicating the very high income elasticity in the demand for meat together with a slug-
lish response to that demand in terms of supplies for the market. Average prices increased steadily until 1955 but have since been declining. The decline in prices can be attributed to increased supplies finally reaching the market at a time when, with a fall in consumer incomes, the demand for high-priced meat had declined.

The numbers marketed responded sharply to the sharp increases in prices in the early 1950's but, after falling off for a year or so, tended to increase between 1954 and 1960 when over 100,000 head of cattle were sold from the main producing areas (Teso, Ankole, Lango, Karamoja, Bugisu, Bukedi). This increase, however, represented only a slight rise in the proportion of the total available supply that was marketed and must be attributed more to an increase in total numbers of livestock available rather than to a higher offtake for the market. There were over 3.6 million head of cattle on African farms in 1960 compared to 2.3 million in 1945.

In our view, the general level of prices for livestock may continue to fall as the disease control program increases the supply of livestock more rapidly than coffee and cotton incomes are likely to increase. However, it is also our view that the incomes of livestock owners can be maintained and increased by increasing sales and by reducing losses through a better organization of the present stock routes.

The mission does not subscribe to the suggestion that there should be a nationwide marketing board to handle livestock. Nor do we believe that any good purpose would be served by having fixed prices for livestock. Rather we believe that the role of Government should be to improve marketing facilities and marketing services. This would include the increase in numbers of markets and marketing officers, the improvement of stock routes and quarantines, and some changes in the Karamoja Cattle Scheme (see below).

Marketing arrangements in all districts (with the exception of Karamoja) are very simple, while the patterns of movement of livestock are governed by the disease situation in the country. Cattle are sold by stock owners, traders and speculators by private treaty at numerous small markets which consist of a series of fenced paddocks. The dates of these markets are published in advance and veterinary staff attend the markets to inspect the cattle and to record prices. After purchase, the cattle come under veterinary control until they are finally resold at consumer centers. The cattle are sent to one or other of the veterinary quarantines, inoculated against rinderpest, held for seven days and inspected by a Veterinary Officer both
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before release from the quarantine and prior to railing at the
railhead.

The Veterinary Department assists with the organization of these
markets which are, however, the prime responsibility of local govern-
ments. In Lango and Teso there is one marketing officer who aids
in this task. The relatively high rate of offtake of export cattle from
the markets in Teso (8 percent compared with an average of about
4 percent from other exporting districts) can be ascribed mainly to
the large number of well-organized markets in that district. The
intensity of market opportunities has a bearing on the number of
livestock sold and, while the mission endorses the Veterinary Depart-
ment’s proposal to add two more marketing officers to the present
staff (the costs of whose employment would total £3,000 a year), we
believe that there should be a more systematic approach to the siting
of markets. As there are no economists in the Veterinary Department,
we recommend help be sought from the Agricultural Economist at
Makerere College for this task and that appropriate officials visit
Tanganyika and Kenya to examine the siting of markets in those
territories. Any such survey should take into account the impact of
the expansion of the railway into Acholi and the proposed changes
in the highway system and the water routes (see Chapter 11).

We also suggest that two innovations be tried in methods of
marketing. The first is that weigh bridges or scales be established at
markets to give both buyers and sellers confidence in the marketing
system. The second is that auctions be introduced on a trial basis
at one or two of the larger markets. Experience in other parts of
Africa indicate that auctions have been a great stimulant to increas-
ing sales at markets. If the auctions were demonstrated successes,
they should then be expanded.

One further recommendation might be considered to help over-
come the reluctance of producers to release their livestock. We
suggest that the local government cooperate with the appropriate
authorities connected with trade promotion to make a range of con-
sumer goods available at the larger auction markets. This could be
done by the building of permanent stores for shopkeepers who
would be aided in purchasing supplies or else a mobile store could
be used to move from auction to auction. (Credit for these ventures
could perhaps be supplied by the Uganda Credit and Savings Bank.)
An added advantage from these proposals is that they might help
offset the tendency of sellers to hoard the proceeds from their sales.

There is little liaison between the Veterinary Department and
the markets in Buganda. There are 17 market places in Buganda and 26 markets are held a year. The two large markets near Kampala are supervised by market masters who are responsible for collecting market fees from sellers of livestock. These fees amount to a fairly substantial sum but do not appear to be subject to any audit. We recommend that steps be taken to rectify this.

Stock Routes

The movement of livestock from the producing areas of the country to the major consuming areas is complicated by the need to hold trade animals in quarantine for varying periods. To prevent the spread of certain diseases to the highly susceptible cattle in the main consuming areas after purchase, trade cattle, with a few exceptions, are moved to quarantines in the large producing districts of Teso, Karamoja and Lango. There the cattle are immunized against rinderpest and held for a minimum of one week before being allowed to proceed to a railhead or lake port for transport to consuming areas. The quarantines are scattered and widely spread. Livestock from Lango, which move to Buganda, Bunyoro and Busoga, are routed through three quarantines. Those from Teso go through seven quarantines and animals from Bukedi have to be quarantined in one of two quarantines. Cattle from Karamoja pass through the one quarantine at Iriri, or else are held at the holding grounds at Namalu.

Most of the quarantines are too small to be used throughout the year, and the carrying capacity is far below required levels. Most quarantines are undeveloped, without internal roads, fencing or demarcated paddocks. Some are lacking in bare essentials, such as inoculation crushes, inspection and sorting yards, cattle kraals and dips. There is very little in the way of bush clearance or pasture management. In some quarantines the lack of adequate facilities results in cattle being poorly distributed—concentrated in limited areas where crushes and sprays are available—so causing erosion in these areas while the remaining parts of the quarantine are completely unused.

The siting of the quarantines in relation to railheads and district offices is also unsatisfactory. All cattle have to be given prophylactic inoculations on arrival at quarantines and have to be carefully examined by a qualified officer before they are permitted
to proceed to the railhead. The wide dispersion of quarantines, notably in Teso, makes it necessary for the Veterinary Officer to spend a great deal of his time traveling and fulfilling routine inspection tasks. Because of the shortage of staff and the time involved in traveling, cattle can only be seen for short periods at fortnightly intervals instead of being under close supervision. Little, if any, time can be given to the supervision of and management of the quarantines. Furthermore, this time-consuming routine work can only be done at the cost of neglecting other important work.

Further deficiencies in the present system include the fact that, despite the strict precautions taken elsewhere in the country, some stock are still being moved from southeastern Teso to Bukedi, Busoga and Bugisu without going into quarantine. In other areas, stock are being moved from quarantines to railheads without adequate resting camps en route. Livestock from Karamoja follow a 50-mile route from the quarantine at Iriri to the railhead at Soroti. This route has one night stop so that the animals have to walk 25 miles a day, thus having no time for grazing en route. Furthermore, there are only limited facilities on the 24-hour rail journey. Finally, the feeding facilities at the lairage adjoining the abattoir at Kampala are inadequate. The over-all result is that the animals lose a considerable amount of condition: producers, consumers, and the national economy all lose.

It is apparent that the whole routing and quarantine system requires reorganization and simplification. The number of quarantines should be reduced and they should be as close as possible to the railhead or embarkation point to avoid unnecessary movement and to maximize the use of available staff. In addition, those quarantines that remain as such should have adequate facilities to be satisfactory both from a veterinary and animal husbandry viewpoint. While it would be desirable to overhaul the entire system, financial limitations necessitate a selective approach to investment in improving stock routes. The major problem areas at present are in the Northern Province and the Soroti railhead and, accordingly, the mission recommends that priority be given to improvement in these areas. The first steps should be to consolidate the quarantines by establishing one or two large holding grounds near the railhead. The existing quarantines could be closed or retained for emergency purposes. The consolidation should shorten stock routes, ease staff
strain and facilitate handling of livestock. In addition, provision of adequate feeding or grazing would enhance the value of the livestock passing through the holding grounds.

If land were available, the investment required would be confined to providing water, fencing, crushes and paddocks. However, the mission has been informed that suitable land is not available so that capital would have to be substituted for land—capital in the form of a large roofed structure, with stalls to feed livestock. The animals being held in this lairage would have to be fed hay. The Veterinary Department has developed preliminary estimates of the capital costs of such a structure and, given the fact that land is not available, the mission sees little alternative but to build such a lairage. However, the mission feels that it is important that there be an investigation into the economics of using hay to feed an estimated 40,000-50,000 head of cattle passing through Soroti. The hay would have to be grown locally or imported from Kenya and the costs of such a program are, at present, an unknown factor. As the operating costs of lairages should be self-financing, any high-cost feeding program will add considerably to the cost of services provided without offering commensurate benefits. If a low cost program of feeding could be instituted, then the mission recommends that an adequate lairage be constructed. If the feeding costs were too high, then the mission recommends that the Government take steps, through compulsion if necessary, to acquire grazing land in the "public interest".

The mission also recommends that priority be accorded to the following:

a. The completion of the preparation of an adequate quarantine and holding ground in the vicinity of Lira in anticipation of the extension of the railroad to Acholi; it is hoped that this extension will add to the offtake from that area.

b. The establishment of a quarantine to cater for livestock moving from South Teso.

c. The preparation of an additional and adequate resting camp for the livestock moving from Iriri to Soroti.

d. The further development of the quarantine at Iriri so as to obtain full usage of the quarantine.
e. The further development of the quarantine at Kelle as the focal point for movement of livestock by water transport.

f. Cooperation with the railroad to improve feeding facilities on the railroad.

g. The construction of an improved lairage at Kampala in conjunction with the recommended new abattoir at Kampala (mentioned below).

The Department’s estimate that the total investment required for the above program (excluding item g.) would be close to £100,000, is accepted by the mission. Recurrent costs should be negligible as the quarantine services are included as service charges in the sale of livestock.

Karamoja Cattle Scheme

Karamoja is an area which differs from others in Uganda. It is primitive in the extreme and is occupied by a people whose main occupation is nomadic cattle herding. There are, however, an estimated 650,000-700,000 head of cattle in this area and they provide the main source of supply of the incipient export of low-grade carcasses.

While there have undoubtedly been heavy losses due to disease and livestock sales, the impact of disease control and subsequent increases in numbers is having a deleterious effect on the grasslands of the district. Overgrazing and erosion are becoming widespread in this relatively arid area. The problem is being aggravated by limitations on grazing following on the expansion of other nomadic tribesmen into areas formerly considered the preserve of the Karamojong.

Despite controls, livestock disease is still a serious problem in Karamoja. The conservatism of the Karamojong, together with that of their neighbors in Turkana and Southern Sudan, and the shortage of veterinary staff have made it impossible to control the major epizootic cattle diseases. Diseases of this kind can spread rapidly and it is essential that there be close control over trading within the district and movement out of the district until such time as rinderpest and possibly contagious bovine pleuro-pneumonia can be eliminated. It is for this reason that the district is closed to the “normal” traders, and cattle from Karamoja can only be slaughtered at the
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abattoirs at Kampala and Jinja. All cattle have to be routed through a quarantine where they are immunized against anthrax and rinderpest and held for a minimum of three weeks. They are then trekked with one night stop 50 miles to Soroti railway station, after which they are entrained to Kampala or Jinja.

The lack of mobility of Karamojong livestock has made Karamoja a closed economy for livestock marketing. Cattle from Karamoja have been purchased on an organized basis since 1940, but in 1960 the local government embarked on the Karamoja Cattle Scheme under which a central buying organization purchases all livestock at fixed prices and then, in turn, sells the better quality livestock on the open market to butchers and the lowest grades at fixed prices to a private entrepreneur. The entrepreneur then slaughters and freezes the carcasses, and ships them to packers in Kenya or Tanganyika. Without the operation of the Scheme there would be little outlet for the lower-grade livestock allocated at such a distance from markets. Controlled buying and selling and movement of livestock is mandatory because the disease danger requires quarantining of all animals before they leave Karamoja.

At present there is a great deal of confusion about the nature of the Scheme and its function—whether it should be a self-sustained profit-making scheme or whether its main purpose is one of reducing overgrazing and providing revenues to the local government with the local government using part of these revenues to finance the Scheme. In the main, our view is that the Scheme is already serving useful purposes but could be made more effective if it were separated from the local government and considered primarily as a scheme that provides a marketing service, not as one that provides government revenues directly. The personnel for the marketing organization could be drawn from those now operating the program. The Scheme should be self-financing. Prices should be flexible and lower-grade prices should be reduced in line with market prices while higher-grade prices should be increased. There should be a cess based on a sliding scale on each animal sold to finance the Scheme and to provide funds for investment purposes in improving internal markets.

Furthermore, we believe that the exporter should be given every encouragement to expand the export trade. In this connection, the development of the export market is being hampered by the inadequate facilities at the abattoir in Kampala which is barely capable of handling requirements for local consumption let alone
handling the Karamoja throughput for export. A new abattoir is needed and the mission recommends that one should be constructed. If the outflow of cattle for export is sustained at its mid-1960 level, it should be built immediately. Plans for the abattoir have been drawn up and the required capital outlay amounts to £75,000, while recurrent costs should be self-sustaining through service charges.

Integration of Agricultural and Livestock Activities

One of the factors hampering agricultural development in Uganda has been the absence of an integrated approach with respect to policies related to both livestock and crop production. Responsibility for animal husbandry development has been divided between the Agricultural Department and the Department of Veterinary Services and Animal Industry, with the duties of each Department clearly defined. While perhaps preventing some duplication, this division of responsibility has tended to compartmentalize the approach to livestock questions on the one hand and agricultural questions on the other. A joint Agricultural and Veterinary Husbandry Committee has recently been revived and reconstituted and its function is to advise the two Directors on all matters relating to animal husbandry, land utilization and pasture work with a view to coordinating the policy and the work of the two Departments in the field. The Committee consists of the Deputy Director of Veterinary Services (Chairman), the Deputy Director of Agriculture and two representatives from each Department nominated by the respective Directors. The Committee meets several times during the year in different parts of the country to study the various problems on the ground in consultation with the field staff of the two Departments. This is a step forward, but the mission believes that the best results in animal husbandry are likely to be obtained from a unified control of the subject and, accordingly, we recommend that the Government consider a reorganization of the Departments along such lines.

Methods of animal husbandry vary in Uganda. The nomadic tribesmen of the northeast rely on extensive grazing without supplementary feed. The Government's main activities in this region have been to provide water holes and dams so as to spread the effective area of grazing and avoid maldistribution of herds. We recommend that this program, which includes the fencing of water holes.
be continued at approximately its current level; this program would probably entail capital expenditures of about £40,000 over the five-year period.

Livestock in parts of Uganda other than the northeast are frequently "farmed out", the owner passing them over to a herdsman who keeps them under semi-ranching conditions, often many miles from the owner's house. In some instances, the practice of supplementary feeding by maize, cassava and sweet potatoes is being adopted. If livestock are to be integrated into the farming system as we recommend (see Chapter 6), the unified departmental unit will have to encourage this practice. The unit will also have to continue research on suitable fodder crops that will fit in with the crop rotation system. In any event, the unit will have the extremely difficult task of persuading farmers to increase their labor on crops which are neither for human consumption nor for sale. The attainment of this goal will be difficult and probably lies in the future. Nevertheless, we believe that a few progressive farmers might be persuaded to plant fodder crops. Persuasion will be, of course, the task of the extension service and points up the need of a unified approach to animal husbandry. In the interim, however, we recommend that emphasis be laid on utilizing the by-products of existing food crops for the purpose of animal feeding.

Summary of Proposed Expenditures

The recommendations we have made in this chapter would entail capital expenditures on livestock of £882,200 during the five-year period 1961/62-1965/66 or an annual average of £176,400 (see Table 16). Included are annual expenditures of £40,000, both to cover staff housing requirements and other contingencies arising from the expanded livestock program. The total of annual average expenditures of £176,000 compares with £76,000 spent in 1960/61, which in itself was at the peak of a rising trend; the annual average of capital expenditures during the three years 1958/59-1960/61 was only some £38,000.

Our recommendations would also entail certain additional recurrent expenditures which we regard as developmental. These would total £910,500 (see Table 17). While not all these expenditures would rise evenly to a peak in 1965/66, additional recurrent expenditures in that year would amount to £212,500. These expenditures would be on services over and above the level of services budgeted at a cost of £411,000 in 1960/61.
### Table 16: Proposed Capital Expenditures on Livestock, 1961/62-1965/66

(in £ '000)

<table>
<thead>
<tr>
<th>Description</th>
<th>Five-Year Total</th>
<th>Annual Average$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary Diploma Course</td>
<td>26.0</td>
<td>5.2</td>
</tr>
<tr>
<td>Dispensaries</td>
<td>80.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Mobile Investigation Unit</td>
<td>9.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Tsetse Eradication—South Ankole</td>
<td>26.0</td>
<td>5.2</td>
</tr>
<tr>
<td>South Ankole Ranching</td>
<td>285.0</td>
<td>57.0</td>
</tr>
<tr>
<td>Tick Control Project</td>
<td>81.0</td>
<td>16.2</td>
</tr>
<tr>
<td>Stock Routes</td>
<td>100.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Abattoir</td>
<td>75.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Staff Housing and Other Requirements</td>
<td>200.0</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>882.2</strong></td>
<td><strong>176.4</strong></td>
</tr>
</tbody>
</table>

*Few programs entail outlays spread evenly over each of the five years of the period.*

### Table 17: Proposed Development Recurrent Expenditures on Livestock, 1961/62-1965/66

(in £ '000)

<table>
<thead>
<tr>
<th>Description</th>
<th>Level Reached by 1965/66</th>
<th>Total Additional 1961/62-1965/66$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Personnel</td>
<td>97.0</td>
<td>286.0</td>
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<tr>
<td>Dispensaries</td>
<td>60.0</td>
<td>180.0</td>
</tr>
<tr>
<td>Mobile Investigation Unit</td>
<td>5.0$^b$</td>
<td>25.0</td>
</tr>
<tr>
<td>Tsetse Eradication—South Ankole</td>
<td>6.0$^c$</td>
<td>211.0</td>
</tr>
<tr>
<td>South Ankole Ranching</td>
<td>18.0</td>
<td>76.0</td>
</tr>
<tr>
<td>Tick Control Project</td>
<td>23.5$^b$</td>
<td>117.5</td>
</tr>
<tr>
<td>Marketing Officers</td>
<td>3.0$^b$</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>212.5</strong></td>
<td><strong>910.5</strong></td>
</tr>
</tbody>
</table>

*Levels reached in 1965/66 represent a peak during the five-year period except where noted.

$^a$At this level in each of the five years.

$^c$Expenditures at a peak in 1962/63 and 1963/64, amounting in each year to more than £70,000.
Land Tenure

Land in Uganda is either held privately or vested in the Crown. Privately-held land comprises some 12 percent of the total land area of Uganda and falls into two categories: land surveyed and registered as freehold and mailo land. Freehold land, which amounts to approximately 1.5 percent of the land area is held in fee simple and is freely negotiable though mineral rights on such land are vested in the Crown. (About 44 percent of the very small acreage of freehold land is held by non-Africans and derives from grants, purchases and gifts made to pioneers in the early history of Uganda.) Mailo land is confined to Buganda and differs from freehold land in respect to mineral rights and control on its ownership and disposition; mailo land can only be held by Africans and cannot be sold to non-Africans, although it can be leased to them, mineral rights belonging to the owner of the land. About 8,000 square miles are held privately in mailo; a fair proportion of the ownership is registered.

In 1950 the Uganda Government declared that Crown land outside Buganda was to be "held in trust for the use and benefit of the African population." The Government also stated that it was not its intention that Uganda should be developed as a country of non-African farming and settlement. In keeping with these policies, Africans are allowed to occupy Crown land in rural areas outside Buganda without lease or license in accordance with their tribal custom. Land occupied by Africans in Buganda must be held on lease or license and the rents so received are passed to the Buganda Government.

The Government retains the right to appropriate land for public purposes and to alienate land to non-Africans. However, in accordance with policy, the Government only appropriates or alienates land for undertakings which, in the judgment of the Governor-in-Council, will promote the economic and social welfare of the people of the territory. Alienation is only acceded to after consultation with the appropriate local authority and is invariably by grant of leasehold, rather than freehold, title. Rents received from alienations are paid to the local
LAND USE AND WATER DEVELOPMENT

authority concerned. The Government is prepared to make Crown land available to non-African enterprises in agricultural development, provided they meet the criteria mentioned above. However, as far as “larger ventures” are concerned, the Government has stated that it prefers to see partnerships between non-African landowners who wish to develop land (where they own the land) and local African farmers. The Government has also declared that it welcomes non-African commercial companies which are prepared to provide processing facilities and to assist neighboring farmers to produce crops for the processing plant. Thus far there have been no “partnership schemes” other than those organized by the Uganda Development Corporation. These schemes include partnership arrangements in cattle ranching in Bunyoro and in tea raising in the Western Province.

The Government has been preoccupied with its responsibility of preserving land rights for Africans. Present policy recognizes the almost obsessive fears of Africans about the loss of their basis for security and their fear of the possible establishment of a powerful alien minority of landholders who might dominate Uganda to their detriment. Whatever validity there might have been for these fears in the past, they would be dissipated by the advent of self-government, and the mission strongly recommends that the Government weigh the consequences of any policy based on racial exclusiveness against the benefits that might be derived from relaxing these restrictions.

In the first instance, as the East Africa Royal Commission pointed out, the whole concept of economic security depends on a fusion of land, labor and capital, not on land alone. The non-African landholdings, confined to a handful of plantations, occupy less than 1 percent of the land area of Uganda but their contribution to the agricultural economy and economic growth of the Ugandan economy far exceeds their proportionate share of landholding relative to the peasant sector. The plantations are capital-intensive operations. They combine technical management, land and capital in proportions governed by the availability of those factors. Because of restrictions, land for plantation purposes is in short supply and is limiting investment. Almost all capital for plantation development—with tea and sugar as the most promising sphere of development—must come from non-African sources. These sources are either non-Africans based in Uganda or foreign investors. Limiting the right of these groups to acquire or lease land limits the flow of investment into agriculture,

which in turn retards the rate of economic growth and the subsequent benefits to the economy as a whole.

In the long run, it must be hoped that the racially-oriented policy regarding domestic investors will disappear with the emergence of a concept of Ugandan citizenship and that there will be no discrimination against the ownership of land by any Ugandan. The emergence of this concept will remove an obstacle to increased investment by Ugandans. The mission has already expressed its belief that everything should be done to encourage foreign investment. We suggest that effect should be given to this policy of encouraging investment in agriculture irrespective of the racial origin of the investors by removing some of the more obvious handicaps relating to race and land tenure.

We recognize that changes in such a sensitive field, however economically desirable, are likely to be slow. Probably for some years to come the method of allowing private investors to acquire land should be by private arrangements with local governments or local authorities, the latter probably being allowed to participate in any new ventures requiring the acquisition of substantial holdings of land.

First, we suggest that there should be model partnership agreements or “outgrower” agreements, so that all parties concerned in any such program will know their responsibilities and obligations. These agreements should include conditions that safeguard the providers of land and labor as well as those who provide capital and management. We suggest that a combined working party, which would include members of local governments, growers’ associations, unions and appropriate government departments, should participate in drawing up a standard agreement.

Second, where investors can acquire land through private arrangements with local governments, through lease or purchase of land and they wish to develop it themselves rather than in partnership agreements, then they should be allowed to do so. Partnership agreements, while desirable, should not be mandatory. If investors wish to enter into lease contracts or other arrangements, they should be encouraged to do so. We believe that most potential investors would prefer partnerships, but they should not be prevented from investing on their own account if they wish to do so.

Third, there are some changes that can be made to improve opportunities for expansion of acreage by existing sugar and tea plantations, at present being restricted by the non-economic difficulties placed in the way of estate owners acquiring the use of land adjacent to their estates. In Buganda, these difficulties arise because of the legal ob-
stacles against non-Africans purchasing land and the difficulties of moving squatters from mailo land—the mission has suggestions regarding this below. In the Western Province, the tea estates cannot expand because of the status of Crown land and the lack of any encouragement for local governments to lease land to estate owners. The mission recommends that the local authorities be encouraged to make contractual arrangements with the estates, whereby they can lease land and receive rents for the land so leased. In return, the estates must be guaranteed security of tenure.

We also recommend that, in those limited areas that abut forest land, consideration should be given to allowing estate owners to expand into perimeter forest glades. This should be on the proviso that an equivalent area of land at present held by the tea estates which is unsuitable for tea production should be given in exchange for forestry. It follows that such land must be suitable for tree growing and should also be reasonably contiguous to existing forest reserves.

Mailo Land

Under the Buganda Agreement of 1900, approximately 9,000 square miles in Buganda were distributed among the king, chiefs and other notables, either in their private capacity or by virtue of their office and the remaining 8,000 square miles, including forests and swamps, became Crown land. The concept of individual ownership of land had been alien to Buganda custom. Nevertheless, large tracts of land were allocated to the ruling hierarchy as private property on the incorrect assumption that such grants would confirm their private ownership of the land. As a consequence, a landed oligarchy was now established for the first time consisting originally of some 4,000 owners of land. By now, as a result of transfers, there are over 50,000 with some large landowners and many landed peasants. A landlord-tenant relationship has been established on the larger holdings to replace the former system whereby chiefs or clan heads allocated usufruct of land, with the producers paying a tribute to the chiefs.

The mission believes that the creation of the concept of private ownership of land in Buganda has aided that Province in its development. Security of tenure has facilitated investment, particularly in coffee, and the creation of a land market has discouraged the use of valuable land for subsistence purposes. In addition, the mission believes that the right to own land and the conversion of land into a negotiable asset has assisted in the emergence of groups of producers
who are commercially oriented and are beginning to specialize in production for the market.

Nevertheless, there are several institutional problems relating to *maite* land which we believe are hindering development of Buganda. The first relates to the problem of subdivision and mutations in land ownership and the problem of the survey and registration of these changes. In the early years of the Protectorate, strenuous efforts were made to survey and register all land grants in Buganda. However, financial stringency, technical difficulties and vacillations in policy resulted in many subdivisions and mutations in ownership going unsurveyed and unrecorded. Paper transactions in land interests have taken place over the years which bear no relationship to the actual extent and situation of land to which they referred. The number of subdivisions and transfers requiring survey and registration are estimated to be about 35 percent of all registration. The absence of title and survey of these areas is hampering the development of the land market and offsetting some of the economic advantages arising from security of tenure. The mission understands that a major obstacle to the completion of the registration of title is that at present there is no legal process whereby the break in records of transfers, and the absence of records of the earlier transfers or unregistrable agreements, can be rectified. The mission is not competent to comment on the legal aspects of the problem, but in our view the economic advantages of completing surveys and registrations of title, and keeping the register up-to-date, warrants a review of the current legislation.

A further problem in Buganda arises from the tenancy laws which militate against mobility of land resources. Tenancy under the *Busuulu* and *Envujjo* Laws, formulated in 1928 and still in force, guarantees undisturbed occupation of an area of land sufficient to support a tenant and his family provided a specified sum of money and other specified dues are paid to the landlord. The amounts of rent paid by tenants under the law have remained virtually unchanged since 1928. The system affords maximum protection for the tenant who pays a very low rent which guarantees his use of the land and, as long as he pays the rent, guarantees him the right of bequeathing the tenancy to his successor. Under the laws, further specified areas of land, up to a maximum of three acres, can be used for the growing of certain crops against payment of additional sums. These laws do not limit the areas cultivated as many tenants make contractual arrangements to use additional areas of land above and beyond those over which they exercise statutory rights and pay statutory dues.
The mission endorses the view of the Royal Commission that it is desirable to establish "a state of affairs whereby all land in Buganda is either owned by the occupier or is held on a normal tenancy in which the rent is related to the value of the land and the conditions are established by agreement." However, as the Royal Commission pointed out, statutory change will be doing an injustice to those already having permanent rights to land. The mission concurs with the Royal Commission that the laws should only be made inapplicable to all future settlers on *mailo* land and that contractual arrangements should be the basis of future settlement. Statutory rights and obligations could also be replaced by contractual agreements, whenever tenant and landlord so desire, but this is not likely as long as tenants have the protection of the present laws.

The operation of the tenancy laws has prevented the expansion of sugar estates, even under proposed partnership agreements. Owners of *mailo* land have expressed willingness to join with estate owners in growing sugar cane. But such land is occupied by tenants who are using it to provide subsistence. As long as the tenants comply with the existing laws, they cannot be disturbed. Because of this, in an area where there is ample land, the economy as a whole is losing the advantages of returns to scale that could come from a combination of land, labor and capital in producing a commodity for which there is a ready market. The mission is of the opinion that, in particular situations such as these, the law should be amended to provide for change in the national interest. Every effort should be made to persuade the tenants to join in outgrower schemes, under the model agreements referred to earlier, or in the last resort should be adequately compensated for their improvements by owners and relocated in other areas.

**Crown Land**

Apart from *mailo* land in Buganda and limited areas in the Western Province, land is held under customary forms of tenure by Africans. Their forms vary, but their major characteristics are that there is no private ownership of land (land is neither surveyed nor registered) and the allocation of rights to land depends on clan relationships and, in some instances, on tribal or district councils. There is no security

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of tenure, no title and no market for land. Consequently, there is no incentive to invest in land, to increase its productivity or its capitalized value. As the Royal Commission has pointed out, the major criterion for distribution of land is land need rather than land use. Customary tenure is based on the needs of a simple subsistence economy and the social relationships that are associated with land use in such an economy.

We concur with the Royal Commission’s recommendation that land use rather than land need should be the criterion for land rights and the market should be the arbiter of those rights. However, if there is to be a market for land there will have to be individualization of title and tenure and this will require a survey, adjudication of rights and registration of title. Experience in other parts of Africa indicates that this is a costly process and benefits from such an operation are slow in maturing. At present, estimated costs of survey and register are such that it does not appear that the low-yielding agricultural economy can bear these costs. However, new methods of aerial survey are being developed that are reducing costs and we suggest that the Government should be alert to these changes and relate these reduced costs to changing situations in various parts of the country.

The mission believes that survey and registration should proceed in stages and that certain preconditions should precede any registration. These would include a relatively high density of population, a relatively high level of development with the use of land to grow cash crops and thus the imputation of money value to land and a growing rate of litigation over land rights. In addition, we believe that it is important that the population in a locality should request consolidation, where necessary, and individualization of holdings before any program be initiated. In Kigezi a program of survey and registration is now taking place. The mission recommends continuation of this program, not only for the direct benefits which will flow from it, but also for the experience it will impart in dealing with the next area. We also recommend that the present program of granting title in Ankole be continued.

During 1961/62-1965/66, the mission recommends that investigation be made into the desirability of registration of land in the Eastern Province. We have been given to understand that most of the preconditions mentioned above exist in this area, but that, as yet, the local governments have not evinced interest in such a program. We suggest that a pilot project be established to demonstrate the advantages of consolidation, farm planning and registration of title. Such
a pilot project should be large enough to be meaningful but need not be elaborate. It would require the cooperation of all concerned with agriculture and its main purpose would be to mobilize public opinion to the point where pressure develops from the producers for a program of consolidation and registration. If a request were forthcoming for such a program, then the procedures employed could be modeled on those followed in Kigezi. Pending general acceptance of consolidation (where necessary) and registration, the mission recommends that there be a nationwide ordinance, including whatever exceptional or special arrangements are required for the legal position of Buganda, to prevent gross subdivisions of lands.

While there is an abundance of land in the other provinces, the mission recommends that special steps be taken to protect the progressive farmers emerging there. At present, right to occupation and expansion of land holdings is subject to approval by tribal and district councils. Those progressive farmers who wish to expand their acreage are the ones who are breaking with custom and are contracting out of customary obligations. They are hiring labor and introducing pay as a substitute for traditional reciprocal labor arrangements. These innovators are viewed with suspicion and hostility and are meeting resistance in their attempts to acquire land. They lack security on their present holdings and are reluctant to increase investment in their land.

The mission strongly recommends that steps be taken to encourage these producers and that a system be devised whereby these producers have security of tenure and the opportunity to expand their holdings. This form of security of tenure should also be given wherever possible to those livestock owners who participate in the ranching project in South Ankole (see Chapter 7) and those who engage in mixed farming and erect kraals and fences.

Earlier experience with the granting of documents, such as certificates of occupancy, indicates that no such system works without a survey. The mission suggests that, pending a general survey, thought be given to a scheme whereby these innovators could have a rough survey made of their land and then enter into rental contracts with the local government. Such contracts would be long-term negotiable documents and could be used as a basis for commercial credit.

In the short run, changes in the system of land tenure should be modest and largely based on modifying, rather than altering, the fundamental structure of the land system. Such modifications should take account of the changing political and economic situation in Uganda and be considered as part of the general program to increase
productivity and encourage the flow of capital into agriculture. In the long run, however, we believe that there should be changes in the legal and economic basis of land ownership and rights to use land throughout the country. These changes would be in the direction of making land a negotiable factor of production and, as such, would encourage the creation of a land market. Land would have a market value determined by its productive capacity in a market-oriented society. Land would thus be used in line with market forces, rather than being the pivotal factor in providing subsistence or near subsistence in a narrowly based economy.

These long-run changes would envisage the individualization of land ownership rather than the quasi-communal form of tenure now in vogue in most of the country. Their accomplishment would take many years and would require a veritable revolution in attitudes. Experience of similar programs elsewhere in Africa indicates that the costs involved in any program of survey, registration and allocation of land on a nationwide basis would be beyond the capabilities of the Government and would be most uneconomic. The long-run changes would have to come in stages and would be governed in part by the reduction in costs of survey through improved methods, the efficacy of the general educational and extension programs in raising levels of productivity, incomes and output, and creating a wider desire for individual land ownership and a greater desire to break with tribal custom than exists at present.

Land Settlement

Very large tracts of Uganda have been evacuated and closed to habitation and economic use for many years—some since the early years of the century—owing to invasion by the tsetse fly. Official statistics show the total area of tsetse-infested land at 5,810 square miles (3.7 million acres). (See map facing page 216). Clearance measures have been in operation for a number of years in some of the closed areas. Some areas have been cleared wholly or sufficiently to warrant reoccupation by man and beast, the latter sometimes under protection of drugs against infection. Other areas now in process of fly clearance will become available for reoccupation shortly.

The mission considers that the resettlement of these areas offers a unique opportunity of great potential importance and benefit to the country, through development by land use planning and large-scale farming. Though agriculture will continue to be based on small
peasant production, there is both a place and a need for farming on a planned and regulated basis, if maximum production and best land use are to be attained. Large areas of unutilized land, cleared of tsetse, appear ideal for development of this nature.

The mission appreciates the action taken already in developing one large unit of some 100,000 acres in Bunyoro as a single cattle ranch, through a public development corporation. We have also strongly supported the project to develop another cleared area of some 600,000 acres in pasturage country in Ankole on a small cattle-owner ranching basis. We regret, however, that no similar planned action has been taken, or is contemplated, for the orderly development of fly-cleared land suitable for arable farming.

Specifically, the mission refers to two tracts of which the largest and that appearing to offer the greatest potential for development is the Ikulwe area in south Busoga, lying between the Jinja-Tororo road and Lake Victoria. This block of some quarter of a million acres probably contains some of the best land in Uganda. It is located in what is known as the fertile crescent, in a good rainfall area, and in a region well served for the marketing of produce by road, rail and boat. If supplementary irrigation for crop production should be required and be economically profitable, there is plenty of water available for the purpose. It is understood that this land has been cleared of population twice in the past fifty years because of sleeping sickness. It is at present covered by bush, said to be mostly of secondary regrowth with isolated patches of large forest trees. It is not yet cleared of tsetse fly, but some roads have been constructed by the Government and cultivators are beginning to settle in on the fringes.

No attempt at organized or planned development is being made. The land is actually Crown land but the *mutulla* chief demarcates areas and distributes them to intending settlers on payment of a fee. There is no fixed rate per acre or per holding. It was the official intention to allot land on the basis of ten acres per holding. Whether this uniformity is observed in practice seems doubtful, and it is obviously open to the chief to demand as large a fee as he can get. Each settler has to clear his own land of bush—a heavy task over an area of ten acres and likely to be protracted over many years, rather than the officially expected four years, thus continuing to afford cover to the tsetse fly in the meantime. No conditions are imposed and the settler is free to continue the traditional and inefficient land use and practices of his forefathers.

The clearance and development of this tract under arable farming
by a public corporation would serve two important purposes. It would
rid a very large area of a serious menace to public health and would
make a valuable contribution to the country's economy by the large-
scale production under modern methods of farming of a variety of
crops for export. It is recognized that vested interests exist and that
opposition would be encountered, both from the local chiefs who
would not wish to lose such a profitable source of income and from
settlers who claim that they or their forebears held land there in pre-
vious days. It should be possible to overcome such opposition by a
development project in which these interests have a share. It is fitting
also that the local cultivator should participate.

We suggest that a suitable partnership for a development project
of this nature might be:

a. the central government who own the land;
b. the local government who would frame by-laws and regulations
   and enforce their observance;
c. a public corporation which would provide the capital and the
   technical skills and manage the project;
d. the local chiefs;
e. the local cultivators.

If, in the present stage of political development, the Government
considers it undesirable to exercise the authority which it possesses to
inaugurate such a project, a successor government should be able to
give serious consideration to doing so.

Another tsetse tract of some 200,000 acres for future development is
the Maruzi peninsula in Lango district, which has been closed to habi-
tation for some decades. Part of the area has now been cleared of
fly sufficiently to allow settlers to move in along the road sides. The
land is flat and covered with bush and the soil is said to be good.
In this region there is no distribution of land. All land is con-
sidered to be common property and the tsetse-cleared area will be oc-
cupied, as is the local custom, by squatters who practice a system of
shifting cultivation for three years and then move on. There is no
scarcity of land in relation to population and, when the peninsula is
cleared of fly, the local population will be inadequate to cultivate
it. Large-scale farming by a corporation is apparently the only hope
of developing it. In view of the inflexible attitude of the local tribes
to changes in land tenure, any proposal for development by this means must obviously be left to a future independent government for decision.

The mission believes that the large tracts of undeveloped land, such as those under reference, offer excellent opportunities for organized development on an appreciable scale through supervised settlement projects for the Agricultural Department's master, or progressive, farmers and, in some cases, through projects for cooperative farming by groups of cultivators farming their lands under unified direction and control within the cooperative movement. The mission believes, however, that any such settlement scheme should proceed with caution. Earlier experiences with the small Busoga farm scheme and a privately-financed scheme in Bunyoro were disappointing. The latter intended to be a profit-making scheme was abandoned very early because of heavy losses. Learning from these experiences, it is clear that future settlement should be planned on the basis of a careful selection of settlers and close supervision of farming operations—linked to a credit and subsidy program—as well as the right to penalize farmers who do not follow prescribed practices. These tasks can only be performed by the Government.

While we believe that any settlement program will only bear fruit in the years after 1966, we strongly recommend that steps be taken to plan ahead and we suggest that the Government organize a working party to establish the *modus operandi* of a settlement project involving the various elements considered above. Due consideration should be given to the need for legislation to permit the orderly development of these areas, possibly including the introduction of legislation to prohibit settlement until such time as organized settlement is feasible. The proposed land classification program and statistical survey should be so organized that they provide as much detailed information about these areas as possible. These data would provide the basis for a detailed development program.

A start should also be made on a pilot scheme whereby a small number of settlers would produce sugar in the lower Busoga area. The mission suggests that such a project might be operated under any one of a variety of arrangements. One such arrangement might be between the Government, the settlers, the Agricultural Enterprises Ltd., and the nearby sugar mills. AEL would be the managing agents for the Government which would provide the land. Selected settlers would produce sugar cane, which would be processed by the mills on the nearby sugar estates. Profits would be shared. This project, which
would be small in scope, would serve to test the type of working arrangements that could be evolved but, more important, it would demonstrate the economic feasibility, or otherwise, of sugar growing in this area. It would also provide a realistic evaluation of costs of production of cane and profits (bearing in mind the recommendations made elsewhere that the price of sugar should be lowered). We recommend that the outcome of this project be used as a basis for re-examining the economics of the plan, proposed in 1956, to establish a 100,000-acre sugar scheme in this area.

The mission suggests that the Agricultural Department examine the possibilities of producing kenaf in these areas. We suggest that, as a start, UDC and the Agricultural Department should undertake a small-scale project to test the feasibility of producing this crop. If kenaf can be produced and if the marketing situation is favorable, we suggest this crop be given priority in any settlement program.

Mechanization and Cooperative Farming

Paradoxically, while the mission feels that low productivity of labor and, in some instances, a shortage of labor is the main drawback to increased output, we foresee no great advantages from mechanization of production on peasant farms for some years to come. Mechanization through the provision of tractors cannot be superimposed on traditional forms of production. This has been demonstrated in those areas where tractors have cleared land, but where a shortage of labor for harvesting, bad timing of operations and high costs of operation have resulted in disillusionment with tractor services. Furthermore, in many areas the pattern of landholdings and land use (and the low prices for commodities) prevent tractors from being economic. In those rare instances where farmers have succeeded in mechanizing cultivation, they have broken with traditional forms of cultivation. These are the pioneers who, in our opinion, require security of tenure.

There is still scope for mechanization of land clearance and we recommend that the work of the Special Development Section be continued. We also recommend that there be a continuation of research into the economics of the uses of small tractors now being conducted at Makerere College. In addition, we believe that there should be some experimentation in the evolution of a system of more rational land use and mechanization through cooperative farming. The mission recommends that a pilot project be initiated along the lines
suggested in the Symposium on Mechanical Cultivation. This scheme would not require more than £5,000, but we believe that it might well serve as a valuable testing ground of the potential advantages and problems involved in cooperative farming in Uganda. If it were a success, we recommend that other pilot projects be tried in other areas and that it might be considered in relationship to future settlement projects.

Irrigation

Because of the general adequacy of rainfall throughout the country, irrigation is unlikely to be of major importance in crop development in Uganda for many years to come. However, in some regions and for some specific crops, it could be a valuable supplement to rainfall during the few months in each year when dry conditions, sometimes approaching drought, prevail. Little knowledge exists from practical experience of the economics of irrigation as a supplement to rainfall under Uganda conditions. The likelihood of greatest profit may be expected to lie in intensive and profitable crops, such as sugar cane and vegetables, but there may also be some advantages in cotton. However, the value of irrigation must remain speculative till actual experiment establishes its economic profitability or otherwise. The sugar estates are initiating their own irrigation systems. The Agricultural and Water Development Departments are at present conducting experiments on a small scale at a number of centers in different parts of the country to collect data on the value of irrigation in crop production. The Water Development Department is investing £20,000 for this purpose in 1961/62. Final results cannot be expected for some time. While we believe that the information they will provide will be useful in the longer term, there are other activities that will yield larger returns quicker and, consequently, we recommend a continuation of these experiments at a rate during 1961/62-1965/66 that would be made possible by capital expenditures totaling some £50,000 over the period.

The Water Development Department has proposed the development under irrigation of an area of 6,000 acres of bushland (total area 12,000 acres but 6,000 acres to be perennially irrigated) north of

*J. L. Joy (Editor), Symposium on Mechanical Cultivation in Uganda, Kampala, 1960.*
Kasese in Toro district, water supply to be provided from the Mubuku River, the principal crops to be cotton and groundnuts, development to be by small cultivators. The cost of the project has been estimated roughly at £500,000. The mission advocates the development of irrigation for crop production where its provision is known to be economically sound, but considers that too little is known at this stage to warrant the immediate undertaking of a project of this magnitude. It is our opinion that investigations should be undertaken on a scale sufficient to determine the most profitable manner of developing the land in view under prevailing local conditions. Cotton and groundnuts may be unable to bear the cost of providing irrigation. A crop, such as sugar cane, may give a much higher return. Development on an estate or outgrower basis by a corporation in partnership with the local government and local people may be preferable to peasant cultivators on small holdings. We understand that UDC is willing to consider initiation of such a project. We would support such action, particularly if it were planned on a step-by-step basis designed to expand the project in stages only after adequate experience had been gained of the problems involved and the results likely to be achieved.

Water Supply

At present, two departments of the Ministry of Land and Water Resources are directly responsible for water supply in rural areas: the Geological Survey, which is responsible for drilling boreholes in rural areas and minor townships, and the Water Development Department which works on the provision of surface water supplies, irrigation, swamp reclamation, etc. (The Ministry of Public Works is also concerned with water supply for government institutions and for the other townships and municipalities other than Kampala which has its own Water Board.)

There is a very great demand for water supplies throughout the country. This is hardly surprising. In most of the country the cost falls on the central government with no charge on the users of the water. Since the rural population does not live in villages, there is practically a potential demand for a borehole or water tank for every shamba (peasant holding).

The present procedure for the drilling of boreholes roughly is for the local governments to submit their demands to the Geological Survey. The Survey pinpoints the location of the boreholes to be
drilled and a private contractor, who has a negotiated contract covering the whole country, drills them. The cost of a borehole averages around £1,000. In general, they have been drilled so far along the main roads. In three districts (Busoga, Mengo, Teso) the local government pays all the costs and there is no cost to the central government. Three districts of the Northern Province pay an arbitrary amount of £3,000 each toward costs, and the central government spends about £100,000 a year for the remainder of the costs in these three districts and in the rest of the country.

Once the boreholes are drilled, in five districts (Acholi, Ankole, Bunyoro, Lango and Teso) the district government is responsible for maintenance with the central government sharing the costs; in the rest of the country the central government is fully responsible and bears all the costs. This activity costs the central government £35,000-£40,000 a year.

**Dams and Ground Tanks**

Dams and ground tanks were originally installed by the Government mainly for cattle watering. They are now also being used extensively for domestic purposes and, consequently, the policy is being followed of fencing in all water storage and extracting the water by means of a pump. The allocation of central government capital funds for the provision of surface water is about £90,000 a year. This pays for four construction units run by the Water Development Department. These units have an output capacity of 50-60 ground tanks (¾ million gallons water storage) or 16 small dams a year. The local governments bear no part of the capital cost but are fully responsible for maintenance of the water storage after it is provided.

We have suggested that the Water Development Department install the water supplies in the proposed Ankole cattle scheme at a capital cost of £215,000 in the 1961/62-1965/66 period (see Chapter 7). In the provision of water for cattle the allocation of funds for this purpose can be rationally determined since the economic return from the added market value of the cattle production resulting from improved water supplies can be calculated, even if somewhat roughly. Consequently, investment can be allocated on the basis of the highest returns.

There is no accessible information at present on which the cen-
tional government could judge the adequacy of the existing water supplies in rural areas for human beings or on the basis of which it could make an economically rational judgment on how to allocate financial resources to this activity or how to distribute the funds available across the country.

We would suggest, therefore, that the central government continue to bear the cost of construction of tanks and dams designed primarily for water supply for cattle, though at some point a cess or fee might be levied on the cattle to help repay such investment. In the case of water supplies designed mainly for human consumption, we feel the financial responsibility should be turned over to the local governments which are in the best position to determine the needs and to allocate resources for this purpose. This is in line with the recommendations of the Munster Commission and our own recommendations elsewhere in this report. The £215,000 investment in water supplies for the Ankole cattle scheme is included in our estimate under that heading. For other water supplies, mainly for cattle, we would suggest an allocation of central government funds of £250,000 for 1961/62-1965/66 to be supplemented by a contribution from local governments of 10 percent of the cost of any works in their area to take care of the incidental domestic benefits of the available water supplies. This would largely maintain the recent level of investment in this field.

On the administrative side, the Geological Survey and Water Development Departments should continue their technical role of advising on the actual location of the water supplies, while the local governments, the Ministry of Agriculture and Ministry of Health would play their respective roles in deciding on the needs to be met. We would suggest there be consideration to giving PWD more operating responsibility for the actual construction of the tanks and dams. Similarly, it seems to us that PWD should also be the central government agency that is charged with the responsibility of inspection and guidance of the local authorities in their maintenance of boreholes, tanks and dams.

Under our recommendation it would be for the local governments to decide how much they want to invest in providing water for their people. This would be a part of the investment program that they could submit to the Local Authorities Loans Fund in their applications for loans. In our recommendation on enlarging the Local Authorities Loans Fund we have taken into account this added need of the local authorities for finance (see Chapter 5). As this transfer
to the local authorities will probably not be possible before 1962/63, we have left £100,000 in our suggested program for borehole drilling expenditure by the central government in 1961/62.

Swamp Reclamation

Swamps cover something like 6,000 square miles of Uganda. Nothing was done to reclaim them prior to World War II because the available land and water resources were sufficient to meet Uganda's needs. Although this is still generally true, the pressure of population in the Kigezi district, in particular, where the inhabitants are inhibited in moving into other areas by tribal and other sociological considerations, has made swamp reclamation a more current problem. After World War II, about £100,000 was spent up to 1956 on pilot drainage works and exploration of the problems. From 1956 to the middle of 1961 about £55,000 has been spent to reclaim 3,400 acres of swamp in Kigezi. Plans have been worked out to drain a further 2,400 acres at a cost of £40,000. If cultivation practices on the reclaimed land reach a high enough level, a further £15,000 would be spent on additional control structures (sluices, etc.). The cost of this reclamation would thus average out at about £19 per acre. The Department estimates that as time goes on the people will get more sophisticated in their agricultural procedures and will require more regulations of water. Consequently, the ultimate capital cost may be about £30 an acre and the maintenance cost is very roughly estimated at £2 per acre per year.

The local population is now beginning to accept swamp reclamation as a permanent part of their social and economic pattern. It should now begin to be possible to make a study of the economic benefits of the project. Thus, while we endorse the proposed investment of £55,000 over the next few years, we suggest that the project still be regarded as an experiment and that it be completed on this basis. We do not think that there is a case for acceleration of the pace of construction of the project or for embarking on a larger program until an economic study of the present project would demonstrate that it is justifiable. If this should prove to be true we would suggest that consideration be given to securing some capital contribution from the local government and to giving individual titles to the reclaimed land against some money compensation, payable perhaps over a period out of the increased crop yields derivable from the reclaimed land.
Summary of Proposed Expenditures

In all, the program which we endorse for water development would entail capital outlays of some £455,000 over the five-year period 1961/62-1965/66 (see Table 18) or at an annual average of about £91,000.


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<th>Works</th>
<th>Five-Year Total</th>
<th>Annual Average</th>
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<tr>
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<tr>
<td>Boreholes</td>
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<td>Dams and Tanks</td>
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<tr>
<td>Swamp Reclamation</td>
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<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>455</strong></td>
<td><strong>91</strong></td>
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</tbody>
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Fisheries

The major fish-producing areas in Uganda are the main lakes or groups of lakes: Lake Victoria, Lake Kyoga and Lakes Albert, Edward and George. A small contribution has also come from dams and peasant fish ponds. Fish production increased rapidly between 1950 and 1960, rising from 10,000 tons to 60,000 tons a year. The growth of the fishing industry has been at a much faster rate than other sectors of the economy. Approximately 75 percent of the output is consumed internally while the remainder is exported, mostly as dry-salted and smoked fish with a small amount of frozen fillets.

Much of the credit for stimulating the growth of production must be given to the Fisheries Department. The marked increase in output followed the appointment of the first fisheries officers in 1949. Since that time the Department has introduced technological innovations such as powered canoes, improved nylon nets and improved fishing gear. The Department has also stocked lakes with good quality fish and improved marketing facilities along the lines recommended by an FAO expert.1 (While the mission's is a more recent view of the situation, the recommendations of the FAO expert, Professor Crutchfield, still remain valid and we endorse them.) In addition, the fisheries officers are conducting research into longer-range problems of production.

The innovations in fishing techniques and marketing, along with credit programs financed by the Uganda Credit and Savings Bank and the processing industry, have brought substantial benefits to the fisherman and the country. Internal consumption has risen to 18 lbs. a head a year; with a corresponding improvement in the protein content of diets that otherwise might have been deficient in this respect. At the same time, there has been a steady increase in internal trading and a corresponding expansion of incomes to producers and traders, and an expansion in the value of exports, which was estimated to be close to £500,000 in 1960.

The major export market has been the Congo (the former Bel-

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gian Congo) which took virtually all the output that could be offered by the traders in the western region of the country. This market has been served almost entirely by small-scale fishermen who catch and process fish on their own account. Formerly, they dry-salted or smoked fish and then sold them to traders from the Congo who either bought the fish directly for Congolese currency or for some of the sterling earned by the Congo from the export of palm oil. This trade was further encouraged by restrictions which prevented traders remitting all earned sterling to the Congo and so forced them to spend 60 percent on the purchase of Ugandan products—usually fish. The political disturbances in 1960-1961 dealt a heavy blow to this export trade and, as there is no alternative export market, production was curtailed in those regions near the Congo. Since then, the Congo has again provided market for this cured fish.

The other form of export of fish is as frozen fresh fillets processed by two small companies in the Lake Edward-Lake George area. Export quantities are small and in 1960 the total value of exports was around £39,000. The main export market in Kenya now appears to be saturated, so that increased exports for this fish product will depend on establishing new markets. Some exploration of markets in Asia has been undertaken.

If economic development resumes in the Congo, the prospects for expanding exports should be promising. Furthermore, the mission believes that there is still considerable scope for increasing local consumption of fish particularly as, in our view, the price of fish will continue to fall.

The mission expects that, while there might be a falling off of output in limited areas, the over-all rate of production of fish will continue to expand, as in the past, as a result of regular departmental activity in spreading new techniques. We foresee no difficulty in this connection. However, the mission believes that the over-all rate of output for the internal market can be accelerated by the implementation of a very modest program of constructing strategically-located roads and by expanding credit facilities. This would open up new fishing areas and would enable traders to acquire transportation to market fish from these and other areas.

Lake Kyoga, in the Eastern Province, was largely unfished prior to 1950 because of crocodiles damaging fishing nets. Since the virtual elimination of crocodiles and the stocking of the waters with good quality fish, this region has an annual production of around 12,000 tons, all of which is consumed locally in the districts bordering the
area of the forest estate (excluding excisions agreed but not yet gazetted) is about 5,600 square miles. There is also a sizeable area of open or semi-open savanna forest which probably covers about a half of the unreserved public land. This provides the great bulk of fuel wood and poorer quality building poles.

For many years the main aim of government forest policy has been to create in perpetuity, for the benefit of the present inhabitants and of posterity, a forest estate adequate to maintain climatic conditions suitable for agriculture, to preserve water supplies, to maintain soil stability in areas liable to deterioration, and to provide for produce for agricultural, industrial and domestic purposes. The management of this estate so as to obtain the best returns consistent with these purposes is a further principal aim.

The main problem confronting forestry in Uganda at present is the long-term provision of the timber that will be required in the future. Timber supplies derive from three sources. First, the natural forests’ growing stock of merchantable and potentially merchantable timber in forest reserves is estimated to amount to 408 million cubic feet available over the next 80 years. Second, softwood timber from plantations, formed in recent years, is estimated to produce 2 million cubic feet by 1980, increasing to 3.5 million cubic feet in 1990, and continuing at that rate annually so long as the current planting program continues at its present level. Third, private woodlands and unreserved public land, containing some 80 million cubic feet of available timber, is a wasting asset not being replaced and is currently being utilized at about 3 million cubic feet a year. Thus, the total available supply from the permanent forest estate is estimated a 7.0 million cubic feet a year by 1980, increasing to 8.5 million cubic feet in 1990 and thereafter. These totals can be supplemented from private woodlands until the latter become exhausted.

An assessment of the future timber requirements of the country, made by FAO, forecasts future needs at 12.5-14.5 million cubic feet round wood in 1980 and at 23-29 million cubic feet a year in the year 2,000. The lower and higher figures are based on two different appraisals of the average annual increase in per capita African cash income. The demands predicted are for sawn timber and plywood, although forecasts were also made for pulp and paper by FAO. The requirements of pulp wood, firewood and building poles are not included: they can be met quickly from short rotation crops of four to eight years. The greater part of the forest requirements is expected to be for a cheap general-purpose timber suitable for doors, windows,
shutters, frames, roof timbers and furniture. It is also estimated that available supplies from the permanent forest estate will fall short of requirements by 4.5-5.5 million cubic feet a year in the 1970's and by increasing amounts in succeeding decades. It is expected that these shortages can be made good from private woodlands' supplies until 1980-85 when these latter supplies become exhausted. Thereafter, requirements will begin to exceed available internal supplies and deficits will then be of the order of 9.0-12.5 million cubic feet a year by the 1990's, and 15-21 million cubic feet by the year 2,000.

At present, forest development is being pursued along two lines. First, the natural forest is being treated silviculturally in order to give desirable species of trees the optimum conditions for growth by eliminating competition from useless species. The latter are destroyed or killed off by slashing and arboricide. Treatment of this nature is not expected to provide any substantial increase in yield for at least 60 and, more probably, 80 years. An ultimate contribution, providing a sustainable yield of 20-25 million cubic feet a year, is estimated, if all the one million acres of natural productive forest reserves are treated. At the present rate of development, some 90 years will be necessary to complete the treatment.

A second line of forest development consists of the planting of new areas to softwood timber, mainly pines and cypress. The current planting program is estimated, as already stated, to produce 2 million cubic feet of timber by 1980 and 3.5 million cubic feet annually by 1990 and onwards.

For all practical purposes, the only potential source of outside timber supply in East Africa is Kenya which may not have an export surplus on present plans for setting up a paper industry there.

To meet the deficit, the Forest Department proposes to accelerate the current development program. An initial period of ten years, 1961/62 through 1970/71 is proposed, though it will be necessary to continue the program beyond that period. As 30 years are required to grow softwood timber to adequate millable size, the first cuttings will be available by 1990, if the new program takes effect at once. Under the proposed 10 years' accelerated development program, there would be new planting of 12,000 acres with an additional cost over present expenditures of £280,000. The additional revenue expected accruing from 1977/78 to 2000-2001 would amount to £1.2 million, thus giving a yield of about 5½ percent on the investment. This allows for an increase in timber fees made possible by the reduced cost of exploitation. For the improvement of natural forest, the
lakes. The opportunity for exploiting the rich potential of these fishing grounds is restricted by the lack of adequate roads. The main roads pass a few miles from the lake and lateral roads terminate a mile or two short of the lake shores. Connecting paths are few or nonexistent, and fishermen either cannot get to the lake or cannot easily bring out their catches. In consequence, large areas of almost virgin water remain unfished. In most instances, the extension of existing lateral roads to the water's edge or the connection of parallel roads with the water by short laterals is needed, particularly to allow motor transport to collect the catches. The mission, in conjunction with the Department of Fisheries, estimates that the construction of such roads around Lake Kyoga would cost £61,000. We recommend that these roads be built during the five-year period under review. The mission expects that they will make possible an annual increase in production of 5,000 tons of fish valued at about £175,000.

Lake Victoria produces around 22,000 tons of fish a year or 35 percent of Uganda's total annual fish catch. Following a fourfold increase in output to satisfy rising levels of domestic consumption brought about by higher consumer incomes, production from this lake was virtually stabilized in the late 1950's. Popular species of fish in the inshore waters off the mainland and islands are still capable of a small increase in production, but are considered to be very largely exploited already, as powered canoes have brought nearly the whole of these waters into fishing range. The main possibilities of increasing fish production from the Uganda waters of Lake Victoria appear to lie in directions other than any great expansion of output of the species at the present being exploited. There is considered to be a large potential for the exploitation of nkeje, a small sardine-sized fish which occurs in large quantities but which is unpopular for human consumption. While these fish could be converted into fish meal, there is limited demand for this product. Alternatively, Nile perch could be introduced in large numbers into the lake. These predatory fish are of first-rate eating quality and they would feed on the sardines and themselves provide desirable fish in turn. Such developments would be long term. However, immediate benefits would accrue from the improvement of an existing access road to the mouth of the Kagere River, in the southwest corner of Buganda, which would open up an added area for production in what is probably the greatest fish-producing area in Buganda. New construction would cost an estimated £6,400 and could add 500 tons of fish to annual production, so that its cost would be much less than the value of one year's increase in
output. Accordingly, the mission recommends that this road be built. Over the longer run the mission suggests that the views of the Fisheries Department be taken into account when plans are evolved for the resettlement of the south Busoga tsetse areas.

Lakes Albert, Edward and George produce around 20,000 tons of fish a year, more than half of which is exported to the Congo. There still are large areas of these lakes which have remained untouched because of lack of communications and accessible markets. The Government is undertaking to construct a road to link Fort Portal with the southern end of Lake Albert, and this will facilitate the exit of fish catches from that end of the lake. Road facilities are also needed further north for the exploitation of the rich fishing grounds in that area. The mission endorses the program. If these roads are constructed and the Congo market continues to be available, the present annual production of 12,300 tons of fish from Lake Albert should be doubled within five years—this would increase annual output from this area by around £300,000 a year.

In addition to including the special fisheries roads at a total cost of £67,400 during 1961/62-1965/66 in the general roads program (see Chapter 11), we recommend that as a part of its general lending program the Uganda Credit and Savings Bank make a special effort to lend during the period about £35,000 for loans to selected fishermen and others so that they can purchase motor transport for the rapid movement of fresh catches and acquire needed storage facilities. These loans should not be restricted to fishermen as they would essentially be loans to promote trade and should be made, if possible, on character and ability.

Forests

The forestry industry is not of major importance to Uganda. The total area of the forest estate in Uganda is only 6,148 square miles, or 6.5 percent of the total area of the country; 5,574 square miles comprise the relatively large areas of central forest reserves serving national needs and administered by the Government. Smaller areas of local forest reserves, serving local needs and managed by the Buganda Government and the local authorities, make up 571 square miles. Only 1,828 square miles of the former and 309 square miles of the latter are productive of saw timber. The remaining area is mostly savanna woodland and, while producing poles and fuel, does not produce saw timber in any significant quantity. The net effective
accelerated program would treat an additional 63,000 acres at an additional cost of £245,000 and would provide a revenue in the years 2030-2040 equivalent to a yield of something under 4 percent.

The mission draws attention to two additional factors. First, it seems likely that timber prices in the period 1975-2000 may be relatively higher than they are now, so that there may be scope for obtaining higher returns from timber fees beyond what has been assumed in this calculation. The mission suggests that the possibility of increasing revenue by raising the fees now charged should be examined.

As calculated, the yields on additional investment in forestry would indicate that such investment is marginal for funds likely to be available from ordinary sources during 1961/62-1965/66. However, taking into account the other factors mentioned above, the prospective yields become more attractive. If funds can be obtained at a cost lower than these yields, then these projects could be added to the program. Failing such finance, we suggest the continuation for the present of the development program at its current level of about £25,000 a year for capital expenditure, with greater emphasis on the new plantings part of the program and a review of the position after five years in the light of the financial position then existing.
PART III

PROGRAMS IN OTHER SECTORS
MINING

The history of mining in Uganda is not unlike that in the other East African territories. Since the discovery of tin, as cassiterite, in 1927, and the first production of gold in 1931, various other metallic minerals have been found and worked on a small scale, but it was not until recently that the first major venture—for the extraction of copper—was launched. Even this is small by comparison with similar operations in other parts of the world. But from the export figures (see Table 19) it can be seen that the value of blister copper now greatly exceeds that of all other minerals combined; in fact, it comes third, after cotton and coffee, among Uganda’s exports.

<table>
<thead>
<tr>
<th>TABLE 19: Value of Mineral Exports</th>
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<tr>
<td>(in £ '000)</td>
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<tr>
<td></td>
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<tr>
<td>1938  1945  1957  1959  1960</td>
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<td>-----------------------------------</td>
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<tr>
<td>Tin     78.5   64.4   30.2   30.5   26.2</td>
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<tr>
<td>Gold    146.5   19.8   2.3    4.1    8.2</td>
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<tr>
<td>Tungsten —     21.3  141.6   3.2   64.8</td>
</tr>
<tr>
<td>Colombium/Tantaiium —             —     0.4   0.6   2.3</td>
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<tr>
<td>Lead    —     —     4.0    10.9    —</td>
</tr>
<tr>
<td>Phosphate —   25.9  10.9   8.6   9.3</td>
</tr>
<tr>
<td>Beryllium —          0.4   9.1  20.9   45.5</td>
</tr>
<tr>
<td>Copper   —     —     1,533.7 2,711.4 3,465.0</td>
</tr>
<tr>
<td>Total Value Annually 225.0  151.8 1,782.2 2,790.2 3,621.3</td>
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As the Uganda Geological Survey has stated, "there are certainly no indications that Uganda is richer, nor are there any particular reasons to suppose it is poorer in ores than other countries. Mineral exploration has not yet reached the stage when the mineral wealth can be assessed, nor is it likely to do so for many years unless the
people of Uganda themselves join in the search for ores; this they show little inclination to do." For the most part, original discoveries have been made either by members of the Geological Survey or else by small prospectors. The first finds of payable gold in Kigezi and Ankole attracted attention to the southwest and resulted in other discoveries such as tungsten and beryl. This district has therefore been more thoroughly searched than any other. But in Kigezi particularly, the country is mountainous and forested, difficult to traverse and poor in outcrops. When mines have been established, they have nearly always been worked by surface methods and with a minimum of equipment; and when superficially exhausted, abandoned by the owner-prospector for other similar deposits. Only at the Kilembe copper mine in the foothills of the Ruwenzori Mountains, and to a lesser extent at the lead-zinc mine at Kitaka, has intensive exploration taken place by modern geophysical and geochemical methods. In the latter case, unfortunately, the results were disappointing.

Elsewhere in the country the search for minerals has been sporadic and not very rewarding. Apart from the gold field at Busia in the southeast, in which interest is reviving, the only real successes have been in non-metallic minerals such as mica, kaolin, limestone, and particularly phosphates. But because in general their value is too low for export and the domestic market is small, they have not been much exploited.

The geological mapping of Uganda is very far from complete. Most of the past work has been concentrated in the known mineralized districts of the south. In the northern province, large areas have only been superficially examined, and it is quite impossible on present knowledge to say whether or not economic minerals are likely to exist there. In Buganda, too, where mineral rights belong to the landowners who tend to be suspicious of intruders, not much progress has been made. Few parts of the country are free from natural difficulties restricting the activities of prospectors and geologists; in the arid plains of Karamoja, lack of water and communication; in the central peneplain, a thick lateritic cover sometimes 40 feet thick or more; and in the south and west, steep mountains with high rainfall and vegetation almost impenetrable in places. While physical obstacles such as these are common enough elsewhere, Uganda has its full share of them. It may be said, indeed, that the achievements during the relatively short period of 33 years since the

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first mineral was exported are extremely encouraging: and that the amount of work still remaining to be done is large enough and important enough in its promise of reward to warrant more government help than it has so far received. This is the opinion of the mission.

Geology and the Geological Survey

Rock formations in Uganda are predominantly pre-Cambrian, and therefore ancient. The most widely spread rock-group is the so-called basement complex, covering over 60 percent of the country and consisting of highly metamorphosed schists, gneisses, granites and basic intrusions. Somewhat similar in composition is the Toro system, occupying another 20-25 percent of the country, while the Karagwe-Ankolean system in the southwest, where the largest variety of minerals has been found and which has therefore been studied in the greatest detail, covers less than 10 percent. Granites have intruded all these pre-Cambrian rocks at many different stages. The relatively scarce tertiary rocks include the two volcanic systems on the eastern and western boundaries. Topographically, the central and major portion of the country is a comparatively flat peneplain about 3,800 feet high, broken by numbers of flat-topped hills marking a previous peneplaination. These hills gradually rise to the west, up to the Ruwenzori Mountains, and to the southwest they merge with the much higher deeply dissected district of Kigezi.

The geological processes causing the elevation and erosion of the peneplain have also produced a blanket of lateritic ironstone or murram, varying from 10 to 40 feet or more in thickness. This covers rocks of all types without showing any appreciable difference in form or composition. While it has greatly facilitated the building of roads, it is a considerable obstacle to geological mapping and mineral exploration.

The present knowledge of the geology of Uganda results almost entirely from the work of the Geological Survey founded in 1919, the first department of its kind in East Africa. It is responsible for the production of geological maps and publications, the investigation of economic mineral resources, and the development of underground water supplies. Its headquarters are at Entebbe, where it maintains well-equipped petrological, chemical, spectrographic and mineral-dressing laboratories, a drawing office, museum and library. The drilling section of the Department is based at Bombo where there are offices, stores and mechanical workshops.
If the recommendations of the Economy Commission are enforced, expenditures of the Geological Survey (excluding water development) will be held to the 1961/62 level of about £77,000. The arguments used by the Economy Commission are that the prospects for mineral development are not bright enough to justify a greater allocation of scanty financial resources, and that it does not particularly matter whether it takes 30 years instead of 20 to complete the geological mapping. This is not the attitude of other underdeveloped countries, which almost universally are trying to intensify the search for valuable minerals, and so are strengthening rather than weakening their geological survey departments. Uganda should not be an exception.

Geological mapping is not an academic exercise: rather, these maps are a basic guide to prospecting. A mining company does not start mineral exploration (as opposed to small-scale prospecting) until it has geological maps of the area it wishes to work in. It may be necessary to construct detailed maps of its own when once operations have started. But should the choice arise of deciding in which of two countries to prospect, and one country is mapped and the other is not, preference would be given to the former. Hence geological mapping is an essential prerequisite for attracting mining capital to Uganda.

This is not to minimize the importance of economic geology, which may involve intensive exploration of promising areas as well as direct assistance to small prospectors and miners already established. Ideally, a geological survey should be able to carry out both functions to the satisfaction of all concerned. But in Uganda the demands are, or soon will be, too great for the diminished staff. One important reason is that Uganda has received a grant of $285,000 from the United Nations Special Fund in order to carry out an aerial survey over the lesser-known parts of the country (see map, opposite). The Uganda Government is to contribute £17,000 to the cost of the actual flying, and the Geological Survey, whose Director is to be in charge of the whole operation, will be responsible for the ground follow-up which is an essential concomitant of an aerial survey. This will involve a minimum of three parties in the field for three years, at an estimated cost of £104,000. So as not to increase the departmental vote, the present plan is for the field parties to be composed of existing staff, who will therefore have to be withdrawn from their present work. The results will be to slow down the rate of geological mapping and mineral exploration.

The Director of the Geological Survey has estimated that in
order to meet his responsibilities effectively, the strength of his department should be increased so that geological mapping could continue at its present rate and the groundwork for the aerial survey to proceed without hindrance to other activities. This expansion of staff would eventually cost about £30,000 a year, and would in effect restore the strength to only a little more than the present nominal establishment. It is, however, a good deal easier to suggest engagement of specialized technical staff than it is to recruit suitably-qualified men for permanent service in an African territory. For many years to come, there is no hope of obtaining trained Ugandans for the senior positions. The mission believes it is important to intensify the search for economic minerals, and that the Geological Survey is one of the essential instruments for so doing. This is a field which should well qualify for external technical assistance.

For many years to come, it is unlikely that Ugandans themselves will take a prominent part in the geological work of the country. In 1961 the Department had no qualified local men; one was completing an honors course in geology in England, and another at the Royal Technical College, Kenya, was probably being sent overseas for a degree course. Otherwise, there are only four Ugandan assistants competent to undertake general supervisory work in the field. The difficulty is that men with a suitable education standard to enable them to proceed for higher training, are not willing to embrace a career that will require them to live a large part of their lives in the bush after graduation. With a general advance in secondary education, the situation should improve, but at all times it will be necessary to publicize the importance of mining and its associated skills in the future economy of the country.

The Mines Department

The Mines Department, like the Geological Survey, forms part of the portfolio of the Ministry of Lands and Mineral Development. Its functions are to administer the provisions of the Mining Ordinances and Regulations including the issue and control of prospecting licenses and mining titles, and to promote the mining industry particularly by aid to the small worker. By establishment, the staff consists of a Commissioner, a senior inspector, and two inspectors, a number barely adequate both to enforce the numerous legal requirements and also to give worthwhile help to the industry. Nevertheless, the Economy Commission has recommended the suppression of one post of inspector.
The Mining Ordinance of January 1951 alone includes 127 sections, while the Regulations, apart from amendments, comprise another 127 printed pages. They have been criticized (see section on tungsten/wolfram in Annex IV) as being altogether too detailed. They attempt to cover every contingency and if rigorously applied, would make some mining operations impossible. For instance, no agricultural land may be destroyed, all excavations must be refilled when the lease is abandoned, and no muddy water can be allowed to reach either rivers or swamps. Would-be prospectors and miners have to fill in a multitude of different forms (37 are listed in the Regulations) and are supposed to keep detailed records of alarming complexity. There has also been a tendency in the past to insert into mining leases conditions that have proved to be impossible in practice, or if observed, to have unnecessarily increased operating costs.

It is true that the Commissioner has considerable discretion in applying the regulations; in view of the limited staff at his disposal, this could hardly be otherwise. The Commissioner has also been fully aware of the importance of encouraging the lone prospector and small worker. There is some evidence, however, that such men, on whom much of the mining development has depended in the past, and may still depend in the future, are vanishing from the scene in Uganda.

The encouragement of local prospectors and small miners should be an objective of first importance, and the mission believes that a simplification of the mining ordinances and regulations would be an important means of attaining this end. This is a task for experts independent both of government departments and of mining interests, and might well be undertaken by specialists recruited abroad and specifically engaged to make recommendations on mining policy, legislation and taxation.

Leases, Royalties and Rents

Ordinary mining leases are granted for periods of not less than five years on terms of royalty and rent spelled out in the regulations. A Special Mining Lease (SML) can be negotiated with the Government, but is subject otherwise to the ordinance and the regulations. In general, they provide for the royalties to be dependent on the profits. The revenue derived from rents and royalties has been very small, totaling not more than about £8,000 annually in recent years. These sums are hardly worth the trouble of collecting, so that in order to
encourage a revival of small mining, there would be an argument for abolishing rents and royalties altogether, or at least for suspending them for a period. Against this, local governments receive 75 percent of all royalties paid, as well as the whole of the mining and prospecting rents. They find it difficult to understand why the mining activities in their districts, particularly in Kilembe, should yield them so little revenue. Most of the miners who are anxious to preserve good relations with local government appreciate this; Kilembe Mines Ltd. (KML), in fact, which so far has paid no royalties and are unlikely to do so for some years, are considering a scheme for issuing special preference shares to the local government to compensate for the lack of royalties. Such action appears to the mission to be well conceived.

**Taxation**

In an underdeveloped country like Uganda, which urgently needs capital, every possible inducement should be given to attract those with risk capital to invest. In order to encourage investment in mining, inducements must be provided which are at least comparable with those offered by other countries. Where exploration risks are particularly high, as they are in Uganda on account of the lack of knowledge of the country's mineral wealth, special concessions must be offered if mineral development is ever to reach a stage when the normal processes of taxation can be applied.

To help mining in Uganda, we have already recommended an overhaul of the regulations governing the industry. We believe that in this field, as in many others, legislation has been based too much on established practice in the United Kingdom. On the taxation side, the law which is common to the three East African territories, allows for writing off against income tax 40 percent of the capital and development expenditures in the first year, and the remaining 60 percent in the next six years. In practice, income tax relief for capital expenditures is normally given on the basis of a very short estimated life—in many cases an estimated life of one year. The Government is proposing to write this into the relief provisions in specific terms for certain classes of marginal miners. We endorse this proposal. The fact that the two principal activities of the mining industry in Uganda, copper and tungsten, are barely viable, despite investment that is heavy in relation to the country's economy as a whole, indicates that action is urgently necessary. An amendment of the law so as to
reduce income tax liability would have no immediate effect on either, since little tax is now being paid. But it would have the effect of encouraging the producers to continue their efforts to improve their properties and expand output, with the assurance that when profits are made, they will be able to retain a larger proportion. We endorse the proposal in the 1961/62 budget, consequently, that the special problems of the mining industry be met by giving a special low rate of income tax to marginal mining producers.

Mining taxation policy in general requires to be amended along the lines we have suggested. In working out the details, the advice of experts with specialized knowledge of mining taxation in other countries would be invaluable. Together with the work we recommend in the fields of legislation, regulation and leasing arrangements, the task would be one requiring, and warranting, outside assistance.

The Prospects in Copper Mining

In terms of employment and value of output, copper is by far the most important of Uganda's minerals. (For a discussion of other minerals, see Annex IV.) Various showings had been reported in the Ruwenzori Mountains as far back as 1908, but the whole production now comes from a single mine at Kilembe. This deposit attracted attention between 1926 and 1932, but it was not until 1947 that serious thought was given to its commercial development. The ore averages about 2 percent copper and it also contains cobalt. At that time, recovery of cobalt would have been remunerative, and this was a determining factor in the decision to open up the mine. Unfortunately, the initial negotiations were protracted, and by the time they were complete and the mine came into production, the price of cobalt had fallen below the point of profitable recovery. The consequences are that the cobalt concentrates are now being stockpiled, and the mine has to depend on the copper ore which is difficult to work.

The Kilembe Mines Ltd. (KML) is now owned 70 percent by Venture of Canada (formerly Frobisher), 20 percent by the Colonial Development Corporation (CDC) and 10 percent by the Uganda Development Corporation (UDC). An electric smelter has been built at Jinja, near the Owen Falls Power Station, to which the 26 percent concentrate is transported by rail. Only blister copper is produced. The whole operation would not have been possible had not the Government agreed to finance an extension of the railway line from Kampala to Kasese. This line, originally built for the mine, is
now self-supporting (see Chapter 11). Since the Uganda Electricity Board (UEB), which is only now building a high-tension transmission line to the west, could not supply electric power at a satisfactory rate, KML installed its own hydroelectric power station (5,800 kw.) on the River Mobuku. Outside the sugar industry, this is the only privately-owned generating station of any consequence.

In order to compensate for the loss of expected revenue due to non-recovery of cobalt, KML has been pushing up the output of copper, which was expected to increase from 14,515 tons in 1960 to a possible maximum of 16,000 tons in 1961/62 (determined by the capacity of the smelter). This has involved considerable expenditure on new equipment, exploration for fresh ore bodies, and on mine development. For the production ultimately envisaged, some 80,000 tons a month of ore would be needed. Unfortunately, the proven reserves have declined rather than increased, and at this rate of working, the mine would become exhausted by 1969. Moreover, if the expansion plan is completed and the cost then added to the capital already spent, the shareholders by that time may not have received dividends enough to recoup their investment. They will only make a profit if further exploration brings to light enough payable ore to enable the mine to continue working beyond 1970. This forecast depends on a London copper price of £220 a ton and no basic change in present operating costs.

The alternative to expansion would be to work the mine on a salvage basis, i.e., to reduce development expenditure to a minimum and to work out the best of the known ore bodies as quickly as possible. If this were done, operations would probably cease in 1967. The results of closing would be to deprive Uganda of annual exports to the value of £3-4 million, withdrawing from the country's economy some £3 million of income, representing the value of wages paid to more than 3,000 local employees plus supplies and services purchased in Uganda. This would be serious enough, but a further implication would be that the failure of Kilembe would make it even more difficult to attract overseas capital to other mineral developments.

We are aware that substantial help has already been given to KML by the Government, not only in financing the railway extension, but also in granting concessions on royalties and rents and in allowing all capital expenditure to be written off against income tax. The mission hopes that the Government will continue to take all reasonable measures to encourage future investors in mining, both at Kilembe and elsewhere.
A somewhat different problem arises over the cost of the exploration program. It is commonly accepted that the responsibility for detailed exploration should rest with the private interests to which a mining license has been granted. The rate at which this work can be carried out depends on the size of the team engaged and on the techniques employed. KML has an efficient organization for this purpose and uses the most modern methods but, if more money were available, could extend the search efficiently over a much larger area of geologically promising country than is covered by their Special Exclusive Prospecting License (SEPL). In view of Kilembe's special position, and the high importance of deciding as soon as possible whether the mine is likely to have a permanent future, the mission was glad to learn that the Uganda Development Corporation has set aside funds for this purpose. UDC already owns 10 percent of the equity, and is working on an arrangement whereby this holding might be increased if their contribution were to result in a significant increase in the proved ore reserves.

MANUFACTURING

The Structure of Industry

In a peasant economy such as that of Uganda, with a population of only 6.5 million and an annual per capita income of some £23, the chief industries are naturally those directly dependent on agricultural production, for example, the ginning of cotton, the processing of coffee and the manufacture of sugar. The modest purchasing power imposes its own limit on the demand for the products of secondary industries. The long distance of Uganda from the sea is a geographical fact that must always handicap the country in competing world markets, and even in the East African common market. Apart from agriculture, natural resources of raw materials and trained manpower will not for a long time be sufficient to overcome this disadvantage, and so permit the manufacture of goods cheaply enough for export, or even for sale much beyond her own boundaries. On the other hand, Uganda’s remoteness does provide some element of protection against imported goods—particularly those of large volume and relatively small unit value.

An important handicap to industrialization in Uganda is the heavy dependence on migratory labor which, because of high turnover and the low level of on-the-job skills, is costly. This type of labor is
prevalent in Ugandan industries, although there are exceptions in the case of Africans who live on their lands close enough to their industrial jobs to commute to work and therefore stay on the job long enough to acquire and maintain skills and also in the case of urbanized Asians working in industry. The prevalence of migratory labor arises from the whole complex structure of relationships of Africans to their land. When the laborer goes to town to work in industry, he leaves his family to raise their food on the land and in this way maximizes total family income. Since existing land tenure and market arrangements in most of Uganda do not invest land as such with a money value, the only way a man can transmute his claim to land into value is by keeping his family on it to work it. Land provides social security against unemployment, sickness and old age, but the individual cannot use it for these purposes unless his family is in actual occupation. Thus, he himself will have a constant incentive to quit his industrial job for longer or shorter periods in order to return to his family and land. Given such a labor-supply situation, industries which are best able to survive in Uganda are those which use unskilled labor (whose inefficiency as compared with that of a stabilized labor force is compensated by low wages) together with skilled craft labor. Industrial activities mainly requiring semi-skilled labor, the techniques of which can only be acquired specifically on the job, find it difficult to produce goods in Uganda at a competitive price. In the latter category, for example, falls the textile industry which still requires protection from imports. In brief, progress in industrialization, like agricultural advance, is closely related to the slow processes of change in land tenure.  

The mission is fully in favor of pushing ahead as rapidly as possible in creating industries that can be economic. Industries must have markets in which the goods they produce are bought before they can be successful, and markets mean consumers must have money. In Uganda, industries can only grow at this stage as agriculture prospers. As purchasing power grows, so will the demand for manufactured goods, to the point where local production of additional commodities may become viable.

In Uganda, there is already a moderate volume of industry outside agriculture and mining. The large undertakings are controlled almost entirely by the Uganda Development Corporation and a few large

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firms, while there is a sizeable number of small workshops in light industry working with a small capital and few employees. Industries which have been successfully established mostly fall into the following classes: (a) those protected from import competition by high transport costs such as building materials and furniture manufacture; (b) those producing highly perishable products such as newspapers and baked goods; and (c) service industries and public utilities. At the government level, the Ministry of Commerce and Industry, formed in 1958, has the general responsibility of promoting the trade and industry. It is specifically responsible for the Uganda Development Corporation Ordinance, the Uganda Electricity Board, the Weights and Measures Bureau, Tourism, Regional Communications, industrial development policy and interterritorial trade. The Minister or his representative is a member of the Central Legislative Assembly and also of some of the boards and committees established by the East Africa High Commission.

The Government holds all the shares of the Uganda Development Corporation, which is the biggest single industrial organization in the country, and has a wide variety of interests. The senior permanent positions in the Ministry, the UDC and the UEB are held by expatriate staff. In private industry, Asian influence is predominant, especially in agricultural processing (cotton-ginning, oil-milling, sugar, saw-milling, etc.) where, however, African participation is beginning to grow through the medium of cooperatives and partnerships. In commerce and commercial services, both British and Asian firms are active, and reflect the fact that the greater part of Uganda's external trade is with the United Kingdom and India. Much of the retail trading, even in the countryside, is in Asian hands, but there are already some 15,000 African traders.

In a minor way, Africans are also setting up businesses on their own account in the service industries, such as motor vehicle and bicycle repairing. Their lack of mechanical background at home is a handicap which is gradually being overcome through training both inside and outside industry and commerce, and they are now beginning to occupy intermediate positions needing skill and experience that previously were always filled by Asians. The demand for such men is far greater than the supply. But they have not yet reached the higher levels of management. Those Africans who have attained prominence outside politics are most likely to have done so either through higher education in the professions, or else through their landholdings and interests in agriculture. The rate of industrial development in the
future will depend not so much on external capital as on continued help from expatriates, and on closer cooperation with the settled Asian population.

Uganda Development Corporation

No discussion on industrial development is possible without detailed reference to the past achievements and future plans of the Uganda Development Corporation Ltd. It was established by ordinance in June 1952, the Government providing an initial £5 million as equity capital, and the Corporation thereafter took over the Government's industrial interests at valuation. These consisted of a cement plant which had started building at Tororo (the capital of which was severely written down before transfer), and a participation in the Lake Victoria Hotel and the Uganda Fish Marketing Corporation. By 1961, the authorized capital was £8 million, of which £7.4 had been issued as equity shares all held by the Government, and the consolidated balance sheet for 1960 shows net assets of £8.25 million.

Since its inception, the UDC has extended its interests into many fields, and now dominates several. It is the only producer in Uganda of cement, textiles and enamelled metalware; through other subsidiaries, it controls a number of tea estates, a cattle ranch, a chain of modern hotels and National Park lodges, and several leasehold properties; and, in association with overseas firms, participates as a minority shareholder in hire-purchase banking, mining ventures, food processing companies and production of specialized building materials. Not all UDC's ventures have been uniformly successful, and there have been occasional failures. But it is not to be expected that enterprises such as hotels and tea estates should show immediate profits, nor that new industrial undertakings such as the cement and textile factories, should settle down without teething troubles. Nevertheless, UDC has shown an over-all profit every year since its foundation, and its record is impressive. By agreement with the Government, no dividends have been paid. The profits have all been used to finance its own expansion, or to a lesser extent to assist others in small enterprises of their own.

Uganda Cement Industry Ltd., Tororo (UCI). The plant has two kilns operating the dry process, with a capacity of about 180,000 tons a year. Sales in 1959 were 80,081 tons compared with 102,450 tons in 1958, and in 1960, 72,000 tons. The plant is modern and well
maintained. Powdered charcoal, obtained from Kenya, is used for firing the kilns, and special lime-burning equipment designed to overcome difficulties caused by the impure limestone of Tororo. If the higher grade limestone near Kasese had been available by rail transport earlier, it is probable that the factory would have been sited in the Kampala area. Technical control is excellent, and UCI claims that its cements are now equal in performance to any others. Nevertheless, some users are still prejudiced against them so that there is a ready demand for the limited quantity of cement that an agreement with the Kenya cement producers allows to be imported from Kenya. The two factories there, together with UCI, have a combined capacity approaching 600,000 tons a year, which greatly exceeds the present consumption of East Africa. UCI sales have been adversely affected both by the building recession in Uganda and by conditions in the Congo, hitherto an important buyer of cement. However, even at the present low output, net profit after depreciation but before taxes, is expected to be about £165,000 a year. Provided that close attention continued to be paid to the unusual technical problems, UCI should have a bright future. Apart from cement, sales of lime are already a useful adjunct to revenue, and should steadily increase. Near the cement factory is the plant of Universal Asbestos Manufacturing Company (E.A.) Ltd., in which UCI has a one-third equity interest in association with two overseas companies. This produces all kinds of asbestos-cement building materials, and sales throughout East Africa have grown steadily but now seem to be stabilizing. A greater degree of protection from imports which is to be granted might further stimulate sales.

Nyanza Textile Industries Ltd., Jinja (Nytil). The Calico Printers Association (CPA) started this concern in 1954 under promise of adequate protection from imports, which was not immediately forthcoming. The company, therefore, operated at a loss until 1957, when the Government bought out all the shares at fifteen shillings in the pound. Shortly afterwards, the other two East African territories agreed to raise the duty on imported cotton cloth from the standard 22 percent to 30 percent ad valorem and also to raise the specific duties which are also imposed. Profits are now being made and the accumulated loss of £393,915 up to the end of 1958 has been eliminated. Sales in 1960 exceeded 13 million yards. The fabrics, spun and woven entirely from Uganda cotton, are of high quality and have found ready acceptance in East Africa—so much so that the plant
is now in process of doubling its capacity at an approximate cost of £1 million. CPA continues as managing agents. The expert expatriate staff, so necessary in the early stages of a highly technical organization such as this, is being gradually replaced by Ugandans trained on the spot. Progress to this end, thanks to an imaginative and effective training policy, is very encouraging, and augurs well for the future of Ugandans in industry. Until 1959, Nytil had the only license for cotton textiles issued under the East African Industrial Licensing Ordinance, but since then several licenses have been granted. Its present policy is to expand production of plain fabrics, for which there is still a large unsatisfied demand in East Africa and not as yet to make printed or mixed goods, nor to sell yarn as such on which other industries might be based. The mission appreciates that, in order to keep costs low, it is important for the machinery to have long uninterrupted runs and, therefore, that too much diversification at this stage is not welcome. Nevertheless, we believe there is scope for small independent manufacturers to produce other cotton goods, if they could procure local supplies of yarn or semi-finished cloth. We doubt whether it would be wise for Nytil to try to monopolize this field, and accordingly recommend that the present policy be re-examined, with a view to promoting opportunities for small enterprise to diversify the industry at the earliest possible moment.

Uganda Hotels Ltd. (UHL). The company owns six hotels, four of which are new and were opened in 1959, and manages the lodges in the two National Parks. Plans are in being for further expansion, including the building of two safari lodges which we endorse later in this chapter. Some of the expansion outside of the National Parks may entail taking over or directly competing with hotels already in private hands. Complaints of unfair competition are therefore to be heard, but it is true to say that UDC is vastly improving the standard of hotels in the country and is creating amenities which should be of great value, particularly to the tourist industry. In the present circumstances, no private concern or individual is likely to undertake this task. In order to avoid the criticism of monopoly, the UDC might consider whether one or more of the new hotels could be leased to applicants trained in managing such an enterprise and capable of maintaining the standards required by the developing tourist trade.

Agricultural Enterprises Ltd. (AEL). Formed in 1954, AEL now controls the whole of UDC's agricultural interests, which comprise the original Salama group and, in various forms of association with local
governments and others, a number of separate tea companies and a cattle-ranching estate in Bunyoro. AEL's primary object is to carry out estate development work, mainly in tea, in conjunction with local authorities, and it is prepared to offer services of all kinds, as well as to act as managing agents. This is basically long-term work still requiring heavy capital expenditure and the present small profit may be expected to increase steadily (see Chapter 8 for a discussion of AEL's activities).

Tororo Industrial Chemicals and Fertilizers, Ltd. has under construction a plant to produce 25,000 tons a year of high-grade single superphosphate fertilizer at a total investment cost of around £400,000. African Explosives and Chemical Industries (East Africa), which is associated with Imperial Chemicals and Anglo-American, will be managing agents, and Ventures Ltd. of Canada and the International Ore and Fertilizers Corporations of the U.S.A. are also partners in the enterprise. Production is scheduled to begin in June 1962 to produce this fertilizer for the East African market; in addition, some 1,500 tons of sulphuric acid will also be available for sale. A venture of this kind, aside from the creation of a new industry itself, makes a big contribution to Uganda's future by its success in attracting such important investors as the groups taking a role in this enterprise.

Uganda Consolidated Properties Ltd. (UCP) has shown a satisfactory record of profits since its formation. Its assets consist principally of long-term lease-hold properties and the financial position appears sound. The history of Uganda Metal Products and Enamelling Company Ltd. has not been so happy. The factory found it impossible to meet competition from cheap enameled ware from the Far East, with which the East African market was flooded before Kenya and Uganda (but not Tanganyika) raised the tariffs in 1959. With the running down of these stocks, and some diversification of production, the position has somewhat improved, and should continue to do so now that further tariff adjustments have recently been agreed upon and Tanganyika has fallen into line.

UDC is also seeking to invest wherever else there is an economic possibility. It is participating in the Steel Corporation of East Africa, an enterprise formed for the production of steel from scrap. UDC has also examined a large number of possibilities of other kinds, sometimes (as in the cases of paper and particle board), in conjunction with outside consultants. Among these are plastics, household de-
tergents, disinfectants, insecticides, caustic soda, gin, fertilizers, meat processing, protein flours, caffeine, soluble coffee, starch, essential oils, furfural, menthol, wines from indigenous fruits, vermiculite, castor oil, processing of pharmaceuticals, battery acid, matches, the knitting industry and industrial alcohol. Not all of them have been turned down as impracticable; study is continuous, and some may become viable with the progress of time. A difficulty with small operations, such as many of these would be, is the expense of senior experienced staff needed to man them efficiently and market the products. For this reason, UDC is considering the formation of a small company to combine several of these projects under a single management that would also aim to train indigenous technicians from the outset. The mission considers that this would be a commendable move.

Over the course of the five years 1961/62-1965/66, the UDC and its subsidiaries are likely to be able to invest about £7 million in new enterprises and expansion, depending upon the opportunities that open up. If UDC can secure about £2 million of outside capital to supplement its own profits and cash generation from depreciation, an investment program of this magnitude should be quite feasible. Some of UDC's investment, of course, will be in association with private enterprise or will aid private enterprise so that the total investment stimulated by UDC should be considerably greater than the £7 million forecast.

**UDC's Capital Requirements and Dividend Policy**

The UDC is likely to make considerable profits from its already established activities during the five years 1961/62-1965/66. In addition, it will have about £2 million in cash accruals from depreciation that will be available for investment in expansion and modernization of the enterprises generating this cash. While the mission appreciates that the primary task of the Corporation is to stimulate industrial development, we nevertheless believe it is now well enough established to make efforts to rely more heavily than hitherto on the capital market to meet its capital requirements. There is also a good possibility that UDC could secure funds from external aid agencies. UDC has formed a holding company, Uganda Crane Industries Ltd., which it is hoped may prove an attractive and well secured investment for outside capital in that to it has been transferred £2 million of shares at par value in the most profitable of UDC’s subsidiary companies.

If part of UDC's capital requirements are so met, then we feel
that a part of UDC's operating profits should be made available for dividend distribution. Given the high priority that industrialization deserves in Uganda, payment of dividends is only justifiable if UDC will still have sufficient funds remaining to be able to continue on sound grounds and to be able to carry out any economic investment schemes available to it. While no dividend payments have been made to date, the mission believes that this policy could now be changed. It would be most salutary if other potential entrepreneurs could see that the largest industrial organization in the country can actually make a return to the investor. As a parastatal organization, the dividends would naturally accrue to the Government. We suggest that dividend payments in the early part of the five-year period under review should be relatively modest, so that increasing payments toward the end of the period would be possible. The dividend payments would constitute a contribution to the country's development program, and we have already assumed in Chapter 8 that this contribution in net cash would amount to some £500,000 over the entire five-year period.

**UDC and the Government**

The Minister of Commerce and Industry is responsible for the exercise of statutory powers under the UDC Ordinance, and acts for the Government as the only shareholder. The Governor-in-Council appoints the directors of the Board, including the chairman. The latter and the deputy chairman, who is elected by the Board, are the only full-time directors, the remainder being chosen "by reason of their ability and experience in business or administration". The chairman of the Board represents the UDC on the boards of associated companies and is also chairman of all the subsidiary companies, the largest of which are managed by specialized expatriate staff. Financial, executive and secretarial divisions at the head office in Kampala are responsible for general administration, and a development division, together with the technical department at Tororo, handles new projects up to the point of maturity, and also administers a Small Industries Scheme.

The chairman has been in office since the formation of the Corporation and its very considerable success has been largely due to his strong personal direction. But some of the senior officers do not have the same record of long service, and the affairs of UDC are be-
coming increasingly complex. The mission believes, in fact, that the staff requires strengthening at its higher levels. In order to relieve the chairman of some part of his executive burden, two or three more senior staff members would appear to be desirable, and additional men of experience will be needed both on the development and marketing sides. These are apart from specialists needed for companies recently formed or acquired, such as Tororo Chemicals and Sukulu Mines. The mission has acknowledged in another context that it is easier to recommend the appointment of new staff than it is to find suitable men ready to serve. But we fear that, unless it is done, there is a real danger of UDC failing to discharge efficiently its many and growing commitments. New development might suffer severely if its central figure were to disappear. At some point within the next five years it might be possible for UDC's agricultural subsidiary, AEL, to be detached from its parent organization and thereafter be operated independently. Such devolution would help to spread the risk of the present reliance on one man.

The relationships between governments and state-controlled industries are everywhere a matter of controversy. Uganda is no exception. On the one hand, the Government is responsible for ensuring that public money is being properly used to attain the objectives for which the institution was established; on the other hand, the managers of public corporations need to have wide freedom of action, and the more competent they are, the more they resent official interference in their conduct of operations. These two opposite points of view can seldom be reconciled by legislation, and disagreement may frequently arise.

If the primary activities of the parastatal body are industrial and commercial, as in the case of UDC, logic would say that its organization, including the relationship between management and shareholders, should be modeled on the lines found by experience to be successful in the private sector of the economy. That is to say, when once the shareholders of a company have elected their directors, they in turn elect a chairman or president, and the board as a whole is then completely responsible not only for the conduct of day-to-day operations but also for the company's policy within the framework of its articles of association. They are judged on results, which in general means on the profits realized and, if the shareholders do not consider these satisfactory, they can remove any or all of the directors at any time. At this point they can also lay down new lines of policy but,
having done so, they must again trust the new board to carry them out.

A development corporation, such as UDC, differs in two respects from a private company (private in the sense that the majority of the capital is not in the hands of the Government). In the first place, it is not primarily concerned with early or maximum profits. Secondly, it is unavoidably subject to political scrutiny. Nevertheless, the criterion of judgment by results should still apply. The Government, as the only shareholder, must be concerned as to whether UDC has faithfully discharged the obligations imposed on it by the Ordinance within the limits of the powers conferred on it and whether results are as good as might be expected. But, apart from such periodic determination, the mission believes that UDC's success can best be promoted if it is allowed to conduct its operations with the minimum of interference either from politicians or officials.

The Legislative Council has the right to authorize changes in UDC's capital structure and an obligation to note the annual report and accounts. Under the terms of the Ordinance, UDC is required to obtain authorization from the Governor-in-Council for its new investment proposals, which are first subject to consultation with a legislative committee. A Consultative Committee has been set up to advise the Governor-in-Council. This Committee has probably been useful at this stage as a means of educating members of the Legislative Council about UDC activities and problems and in facilitating the passage of UDC's business through the Legislative Council. However, the whole arrangement is almost tantamount to the board of a private company always having to debate its proposals with a standing committee of shareholders. This would not be tolerable, and we doubt whether it is good long-term practice when applied to a parastatal body.

On the other hand, a greater degree of autonomy for the UDC Board will only come about in practice and is only likely to be acceptable provided that the Board itself retains the confidence of all the authorities concerned. Obviously, in the opinion of the mission, it is important to strengthen the senior staff. In particular, UDC should continue its policy of developing more senior staff from among those of its personnel who are permanent Uganda residents and of training them for positions of responsibility so that at a later date UDC will not be unduly dependent on expatriate services. By 1961 five Ugandans with university degrees or technical qualifications were already employed at UDC's headquarters where they were gaining valuable administrative experience.
Private Industries

Despite the importance of UDC, there are a number of manufacturing industries in private hands. It is to be expected that collectively the most important industries, whether in terms of employment or value of products, are those based on primary processing of agricultural products, notably cotton, coffee, sugar and maize. Most of the operations are carried out seasonally in a large number of small plants scattered round the country at places convenient for the collection of crops.

Sugar is an exception. Apart from a few small makers of jaggery, all sugar production is centered at two large mills, with a combined output of 91,000 tons in 1960. The industry is fortunate in that cane can be cut throughout the year so that, apart from maintenance periods, the mills are able to run continuously—unlike their counterparts, say, in Mauritius and the Argentine. By world standards, their general efficiency in recovery is not high, but large sums are being spent in modernizing and extending them. The sugar-milling companies are wealthy and maintain high standards for their employees. Being progressive, they are continually seeking avenues for expansion into other fields. Thus they have large and increasing interests in oil-milling, soap, confectionery, can-making, brewing, etc., and now appear ready to undertake almost any industrial enterprise, even if it calls for large capital. One of the companies is taking the principal role in the formation of the steel corporation; the other is investing in a foundry and in making sugar-mill machinery.

So far, the sugar mills have made little use of their main by-product, molasses, which is an important world source of industrial alcohol. The cost of transport to the coast is too high to permit exports. It is not returned to the land in the form of compost, as is done in Mauritius on a growing scale. A little is converted into alcohol for domestic and similar purposes. Many countries that have no indigenous petroleum enforce the use of locally-made alcohol as an admixture with motor spirit. If the raw material is otherwise worthless and production is on a large enough scale, there is no apparent reason why the cost should be any greater than that of imported petrol or of synthetic alcohol made from crude oil. The local alcohol could then carry an excise duty at least as high as the import duty and there would be no loss of revenue to the Government. If all the molasses wasted in Uganda in 1959 had been converted into alcohol, the yield would have been nearly 5,000 tons, over 5 percent of the country's
consumption of motor spirit. The mission realizes that this proposal is not new but considers that, with the output of sugar rapidly rising, it ought to be studied afresh by all the interests concerned, i.e., the Government, the sugar producers and the oil companies.

The other principal sugar by-product, bagasse, is utilized as in all other sugar-producing countries, as fuel to generate the power needed by the mills. It can be, and is, used elsewhere as an inferior raw material for making paper and various forms of fiberboard, but for this purpose the Uganda mills are unlikely to have a large enough surplus in the foreseeable future.

Cotton ginning and coffee processing are dealt with in Chapter 6. In general it can be said that there is excess of capacity in both industries, and perhaps because of this, the equipment in many plants is not very up to date.

In 1961 there were 223 maize-gristing concerns in Uganda. They exist chiefly for the production of posho, one of the staple articles of diet for much of the population. Little information is available on the volume of output.

There were also more than 50 oil millers in the country. Cottonseed is easily the most important of the oil-bearing crops; on the basis of the 1959 cotton exports, the production was some 140,000 tons. As the market is at present free, extraction of oil has tended to become concentrated in a very few plants in the Jinja district, with the result that most of the oil mills are now shut down. Much of the equipment is antiquated and extraction efficiency is low. The economics of this industry are complicated and the situation justifies the commission of enquiry which is to be set up by the Government.

Dependent to some extent on oil milling is the manufacture of soap. Thirty-eight makers are listed in trade directories, of which probably only a few are operating, and nothing is known about the total output. It must, however, amount to several thousands of tons, mostly low grade and heavily loaded with fillers. A modern plant for making better qualities has been installed by a subsidiary of one of the sugar companies which is also prominent in oil milling. Uganda does export some soap to the other East African territories, but it is a substantial net importer, from both Kenya and overseas, to the value in 1960 of £400,000. The industry has scope for further growth, but the common market gives it no protection from other plants already established in East Africa.

Saw milling is a substantial industry. Output of sawn timber is variously stated to be anything from 1.5 to 3.0 million cubic feet a year, equivalent to about twice the quantity of round timber. Total
production of round timber, used for simple housing and fuel, is of course very much greater. Small amounts of hardwood, chiefly mahogany and mvule, are exported to the U.K. Some 40 sawmills are said to be operating, including several that are large and modern. One of the latter has recently started to manufacture a good quality plywood. Many of the local hardwoods, though difficult to work, are pleasing in appearance and make excellent furniture. Joiners' shops are scattered throughout the country, with a natural concentration in Kampala, and vary in size from a single self-employed craftsman to busy establishments with power-driven wood-working machinery. The furniture tends to be massive and stereotyped in design, and poor materials and workmanship are evident in the smaller shops. The technical schools, with their emphasis on wood working, are turning out perhaps too many semi-skilled carpenters and joiners, many of whom are now failing to find employment as such owing to the temporary decline of the building industry. More needs to be done toward training the best of them to become expert craftsmen, both in fabrication and design.

The private building industry with its ancillaries (cement, bricks and tiles, etc.) is the largest employer of labor of any group. The desire for better accommodation, as an outward symbol of status, is very noticeable and, in its less ostentatious forms, provides a solid basis for the industry.

Metal industries, together with motor vehicle repairing, include establishments ranging from large modern workshops capable of carrying out every kind of mechanical repair and quite advanced fabrication, to one-man garages where the workmanship may or may not be good, but is usually cheaper. This is a field where the small African entrepreneur is developing steadily.

The manufacture of textiles is confined to the one UDC plant, to which we refer above, producing only plain cotton fabrics. A recent attempt to make cotton blankets at Kampala was not successful. The import of textiles of all kinds is still considerably in excess of £3 million annually, so there is obvious room for expansion and diversification of the industry. The customs returns do not distinguish between fabrics and made-up articles, but on the evidence of the long lines of sewing machines to be seen outside the shops of most towns and villages, fabrics in the piece must be a large proportion of the total. There is no organized making-up industry (tailoring and dress-making) which appears to be in the hands of the small traders, and could well remain so.

The by-products of the slaughtering of livestock, which might
form the basis of useful secondary industries, are hardly processed at all. Bones are mostly thrown away, and the hides, prepared by extension drying, are exported. There is little tanning, and consequently little leather work including shoe making. The Veterinary Department is trying to develop these crafts as cottage industries, and the attempt is worthwhile. But there may be room here for a modern, well-equipped tannery, producing good quality leathers for export as well as for home use. But, before the by-product of livestock slaughtering can be utilized in any fashion, it will be essential to establish well-managed abattoirs, as we have suggested in referring to the livestock scheme in Chapter 7. As regards footwear, a few small shoemakers are known, but nearly all the requirements (£370,000 in 1960) are imported, over 70 percent coming from Kenya. At the moment, a competitive plant in Uganda would not have much prospect of success, but with rising standards following on higher incomes this position may well alter. The potential market is clearly large.

The food and drink industries are well catered for, with enough capital and enterprise for normal development. Two breweries, one in Kampala and the other (owned by one of the sugar companies) in Jinja, produce lager-type beer in modern plants. Two cola-type drinks are produced, together with their respective fruit drinks, and consumption is rising. One of these companies has just made an issue of low-priced preference shares designed for local subscribers. Experiments of this sort deserve every encouragement.

The tobacco company which controls the manufacture of cigarettes in East Africa formerly operated two cigarette factories in Uganda, but one has been shut down and transferred to Tanganyika. The consumption of cigarettes in Uganda is growing, but not so fast as in Kenya and Tanganyika. The old factory has now been converted into a redrying center.

**The Encouragement of Small Industries**

Private entrepreneurs and UDC seem able and willing to handle all the major projects of any promise either separately or in combination. There are nevertheless a number of measures to promote industrialization which can be effective and do not involve substantial costs. These broadly fall into two categories, namely, measures to help the small Ugandan entrepreneur, and those designed to encourage the larger private investor.
Rising incomes derived from agriculture will not only accelerate the process of industrialization, but will also engender accumulation of capital even if on a rather small scale. This "emergent capitalist fringe" cannot have much impact on the country's economy during the five-year period, for outside agriculture it is only just beginning to become a factor in trade, and has hardly yet appeared in industry. But it is certain that the industrialization of the future will depend to a large extent on local capital, and even more so on African entrepreneurs and managers. So far, they have been almost entirely lacking in industry. The industries now established whether by the Government, through the UDC, or purely privately, owe everything to European or Asian enterprise. But there is a wide gap between the capital-intensive undertakings attractive to the larger investor and the very much smaller enterprises that might be within the present capabilities of many Ugandans to initiate and manage. We have no doubt that some opportunities already exist on this smaller scale. But it is not easy to define them, nor is it easy to provide the would-be entrepreneur with enough capital, business training, and technical knowledge to give him a reasonable chance of success. This is the problem that Uganda must solve if industrialization is eventually to advance on a broad and stable front. It is well recognized both in official and private circles, but the efforts to deal with it have met with many disappointments. This is not surprising. The creation of a class of successful entrepreneurs takes a long time as it involves not only training in techniques but the development of business attitudes and new psychological drives. The business and economic environment, too, must be favorable and, as we have already pointed out, the opportunities for any industrialization are still small in Uganda. In spite of this, the Government is justified in doing everything it can to accelerate the long process of growth of indigenous enterprise.

Capital and Credit for Small Businesses

Applicants who can establish their reliability can obtain loans or other financial help from one or other of the funds provided by the Government or public agencies for this purpose:

a. The African Loans Fund administered by the Uganda Credit and Savings Bank, primarily for agriculture, but also for small businesses. Its purpose is to make loans to Africans who cannot produce the kind of security needed by the banks. By the end
of June 1961, the Government had voted £308,000 to this Fund, and loans amounting to about £230,000 had been made. The Fund is also supported by an ICA grant of £80,000. (ICA also made grants totaling £150,000 to June 30, 1961, for a Revolving Loan Fund, also administered by the Uganda Credit and Savings Bank to supplement the African Loans Fund by making loans of a riskier character than the latter could make. All of this money has been lent out.)

b. The Trade Development Fund administered by the Trade Development Section of the Ministry of Social Development and Labour. By the end of June 1961, it had received capital grants amounting to £230,000, and had expended £125,000 on the erection of shops and showrooms for renting. The Trade Development Officers give direct advice to African traders in all parts of the country, organize courses of instruction and trade shows, and assist in the formation of trading centers and traders' associations. They also work closely with the Uganda Credit and Savings Bank in advising on the creditworthiness of traders seeking loans, and reporting on their subsequent use.

c. The Small Industries Development Reserve (SIDR) administered by the UDC. It was set up in 1955 by appropriating £20,000 from profits, and increased to £70,000 in 1958 to aid small business where technical assistance is an integral part of the aid. By the end of June 1961, £49,000 had been expended in loans to small businesses.

The experience of all these funds in helping small business has been similar and rather disappointing. Some individuals have wanted money first and then have asked for ideas about what to do with it. Few have had any knowledge of even the simplest business procedures, or have realized that the launching of any business, particularly on borrowed money, implies hard and concentrated work; and few have been able to produce acceptable security, or have even understood that loans must eventually be repaid. The time and trouble spent in administering the funds is out of all proportion to the loans made. The assessment of applications, seeking out of possible enterprises of merit, guidance of the principals, and supervision of commitments have demanded more experienced staff than has been available. The mission believes that these funds, which all have a similar objective, should be re-examined with a view to establishing a somewhat better division of labor among them so that the entire loan program may be rational-
ized within the framework of a unified program for small industry, as discussed below.

Legal Obstacles

In some cases regulations governing the establishment of a new business have created difficulties for the potential small entrepreneur. In this sphere, as in others, the mission has the impression that, in the attempt to apply the complex standards of U.K. practice, much legislation has come into being, which is unnecessarily cumbersome within the context of a relatively undeveloped economy. No doubt every ordinance has a good reason behind it, and much of the social progress has been due to the imposition of high standards. But many regulations are written out in great detail; so much so that the departments responsible for applying them (e.g., the Factory Inspectorate and Mines Department) do not generally have adequate staff to carry out their legal obligations, and a great deal has to be left to the discretion of the officials. An expert, seconded by ICA to the Ministry of Commerce and Industry, has recently analyzed this problem in detail and makes a number of suggestions for revision, including in particular:

a. relaxation of building regulations and town planning schemes, so as to facilitate the erection of low-cost factory and business premises;

b. amendment of the Shop Hours Ordinance to permit more Sunday trading;

c. adjustment of license fees for retail shops, payable under the Trading Ordinance;

d. compilation of a short guide to the regulations concerned in starting a new business or industry. This would incorporate the epitomes already issued to explain how to form a company, the labor laws, the Factories Ordinance and income tax returns, and would also contain a precis of the new Companies Ordinance (which contains 298 pages).

The mission endorses these recommendations. We also suggest that consideration be given to the possible abolition of the restriction forbidding trading within a one-mile radius of townships and to the

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possibility of finding alternative sources of revenue which would allow
the elimination of the fees charged for trading licenses. There may
also be need for a business advice bureau which would provide free
information on the legal and procedural requirements for setting up
new business and for its day-to-day conduct. We believe that more
effort should be directed in future to simplifying ordinances, and even
to abolishing those that are not vital, rather than to multiplying them
on the statute books.

We would suggest that Uganda seriously consider company law re-
forms along the lines recommended for Ghana in the Gower Report. The
latter indicates a codification of company law in the light of
African conditions and recommends a new "incorporated partnership"
or- ganization for small business.

The work of African trade development is, as mentioned above,
now located in the Ministry of Social Development and Labour. In
our view, help to African traders could be more effectively performed
if this were associated with the other services of the Ministry of Com-
merce and Industry which is pre-eminently a Ministry to help business
and industry generally.

Training in Business Methods

Many government departments have training schemes for clerical
and specialized staff, but officially only the Trade Development Section,
with the aid of expatriate experts and Makerere College, undertakes
training in business methods. On the academic side, the Kampala
Technical Institute (KTI) offers two-year courses in various business
subjects, but they are not well attended owing to the superior attrac-
tion of the free training given either by government departments in
other subjects, or else by commercial firms. Several of the more pro-
gressive companies have instituted schemes for training Africans in
all departments of their business. Those that have interests throughout
East Africa are centralizing courses for their most promising men at
Nairobi and appear to be very satisfied with the progress so far made.
In the mission's view, these schemes make a valuable contribution
toward general commercial education. As we recommend for appren-
tice training (see Chapter 12), firms who are willing to take trainees
supernumerary to their own requirements should be encouraged to do
so either by direct grant or by tax concessions.

*Final Report of the Commission of Enquiry into the Working and Adminis-
tration of the Present Company Law of Ghana, 1961, Government Printer, Accra,
325 pp.*
UDC, in administering the SIDR, has also made some contribution toward teaching applicants for loans some of the elementary principles of conducting their own businesses, but has not set up the facilities to do so in an organized way. Recognizing the need for a much greater effort in this field, UDC has now proposed the formation of a new subsidiary, to be called African Business Promotion Ltd. (ABP). The broad objective would be to train Africans in all aspects of business and at all levels from junior clerks to directors. It is argued that effective training can best be carried out within a profit-making concern; and that in order to make a profit the company must enter (perhaps by purchase) a variety of commercial fields such as marketing, wholesaling, importing and exporting, insurance, etc. It might offer secretarial and accounting services to small businesses, take up managing agencies, and become interested in distribution and passenger transport. It would, of course, take over small industries development (having enlarged the scope to include small businesses). The training staff would not be executive, but would necessarily have to be highly experienced and therefore largely expatriate.

This proposal was still in embryo in mid-1961, and had aroused criticism on the score that the organization would be in open competition with existing institutions that already provide adequate services of the kinds envisaged. While the UDC Ordinance does not specifically prevent the Corporation from competing with private interests, it has been government policy that it refrain from doing so directly. The mission itself considers that ABP, as at present visualized, is not a good way of solving the basic problem, which is the training of entrepreneurs. These may be defined as men who are capable of assembling all the ingredients that are necessary to a new business enterprise; who also recognize and are willing to assume the risk of loss, and are able to manage the business after it is started. The qualities needed are different from those of an employee, even at a high level. While the entrepreneur, to be successful, must have some knowledge of business methods, he does not usually need to be expert in any one. An employee of ABP would find it no easier than his counterpart in a private firm to appreciate that the profits of the concern depend on his own efforts.

**Handicraft Training and Cottage Industries**

The training of artisans for employment in organized industry is one function of the ordinary educational system. But the training of craftsmen who will later run their own small industries in the
country districts requires a different approach and the inculcation of different skills. In Uganda there is an almost complete lack of the handicrafts which could form the basis of cottage industries. Native skills are not entirely absent, e.g., iron working in Karamoja, Soroti and Kigezi, bead and ivory work in West Nile, and wood working in a number of districts. But the products are crude and show little sense of design. In some countries, cottage industries are an important element in the economy, not only for providing many household necessities of the people, but also for the contribution they make to exports and the tourist industry; and a good deal of effort is made to foster them. In Uganda, there have been many small isolated schemes for teaching handicrafts in prisons, blind schools and missions. The Community Development Department of the Ministry of Social Development is interested, and the UDC in conjunction with the Kampala Technical Institute has started a successful pottery school. Independently, the Veterinary Department of the Ministry of Agriculture is training students in tanning and leather working in a pilot plant at Kampala, but is handicapped through lack of funds.

Experience has shown that it is not easy to establish flourishing cottage industries in a country like Uganda where there are no handicraft traditions and little initiative. Not only must the skills be properly taught with an emphasis on good design, but financial help must be given for equipment and premises, materials and markets must be organized, business procedures must be mastered, and the beginners, when once set up on their own account, must be constantly supervised. All this needs time and money, and the outcome is far from certain. The necessary first step would be to establish a central training school, of which the nucleus already exists in the pottery school at KTI, and to which should be added the tanning school now in being elsewhere. A list of other crafts that might be taught, if possible at KTI, is contained in a report describing the proposal in detail, in which it is estimated that the capital cost spread over eight years would be £85,000, and the recurrent cost about £32,000 a year. If this more extensive scheme is undertaken, close cooperation with local governments and officers in the field would be necessary, and because of its inherently commercial objectives and its necessary connection with the various loan funds, the mission believes that it should work closely with and be financed largely by a larger organization with general responsibility for all measures to promote small Ugandan enterprises.

Industrial Estates

Industrial estates could also be established within the framework of a larger organization. Such estates constitute an incentive offered by many countries, at all stages of industrial development, to attract new manufactures. The inducements may take any form, from a suitable site with services, at an economic rental, up to a complete factory provided free as a grant. In Uganda, town plans have been constructed for 19 urban centers, and Kampala and Jinja have effective industrial zones. No attempt has been made so far to go further than the provision of services. For the larger industries it has been, and will probably continue to be, unnecessary to do so. But there is much to be said in favor of erecting with public funds a certain number of small premises, of the simplest possible design and cheapest possible cost, to be let or sold on very easy terms. An area scheduled for this purpose would have to be residential as well, and the town planning and building regulations might need to be adapted accordingly. A pilot project might cost something of the order of £100,000.

Commercial Services

There is an apparent need for accounting, secretarial and general commercial services to be available for small enterprises which, through ignorance or poverty, could not employ specialized staff of their own. The UDC is encouraging the provision of such services on a private basis. If this is unsuccessful, consideration might be given to organizing an agency to operate on a fee-paying basis. Its function would be different from that of the business advisory bureau previously recommended, in that the agency would provide direct services while the bureau would simply advise on procedures. The two might nevertheless be run in conjunction. Both, in fact, were included in the program for African Business Promotion Ltd., but neither could be expected to be financially self-supporting and therefore, like the handicraft school, they should be part of a larger organization supported directly or indirectly by the Government.

A Unified Program for Small Industry

To summarize the foregoing discussion on encouraging small industries, the mission is of the opinion that for the effective promotion
of such industries and entrepreneurship, there is need for a unified program which would:

a. work closely with the loan funds;

b. coordinate and expand business training schemes;

c. simplify regulations;

d. create a business advice bureau, commercial services agency, a handicraft training center and industrial estates.

The mission considers there is a strong case for centralizing all these activities under one executive control. If an organization were to be formed for this purpose, its outlook must be essentially commercial—with a commercial, rather than governmental system of accounting—and therefore it should not be a department of any ministry but should be a part of the UDC system. It is clear, however, that the new organization would have to take over some of the functions now belonging to various ministerial departments, and in doing so it would be logical to absorb the staff, such as some of the trade development officers, who already have some experience in different aspects of the work to be undertaken. The problem of staffing would undoubtedly be serious, but less serious than if several different authorities were to have responsibility for separate parts of the enlarged program. It would at least be possible to avoid the duplication which is now evident.

The new organization by its very nature could not be self-financing. Its revenue would be much less than the cost of the experienced staff required to run it, but the net cost cannot be estimated until its scope is accurately defined. In the view of the mission, there is a clear case for the UDC to manage the enterprise and to appropriate some of its profits to meet the net expenditure, both capital and recurrent. We believe it would be desirable to limit the new organization’s financial aid to equity investment and guaranteeing documentary credits, and have the Uganda Credit and Savings Bank carry out the purely banking function of making loans. In effect, the UDC’s task would be to help enterprises find their feet and then let them walk on their own. The UCSB would then have control of all the various loan funds, but the new organization could retain responsibility for recommending applicants and supervising their use of the money. The mission recognizes that there might be some administrative difficulties in the above proposals, but does not think they are insuperable.
We therefore recommend that the Ministry of Commerce and Industry, UDC and UCSB should consult together to get the proposed program started.

_The Effects of the Common Market on Industrial Enterprise_

While the encouragement of the small entrepreneur is largely a matter of internal reorganization, positive measures for the development of industry on a larger scale are not so easy to recommend, since the most hopeful of them would depend on fiscal action requiring the cooperation of the other two East African territories. For most consumer goods that might be manufactured in East Africa, the industrial centers of Kenya—Nairobi and Mombasa—offer advantages, particularly in distribution costs, that cannot be matched by the other territories. Many articles, such as footwear, bicycle tires, etc., for which the demand in Uganda has nearly reached the point where local production might be viable, can be made more cheaply in Kenya and have free entry into Uganda. In such cases, it is important to remember that the overhead charges on small plants of this kind tend to be very high because of expensive equipment and supervisory staff. Production costs are therefore very much dependent on volume of output. Other things being equal, one large plant will always be able to undercut two or three smaller ones with the same combined capacity. The more capital-intensive an industry becomes, the truer this is. For instance, the production of paper may eventually become economic in East Africa, but it is quite clear that for many years there will only be room for one mill, which would almost certainly have to be sited in Kenya. On the other hand, there are some instances where Uganda has certain inducements to offer, particularly to industries where electric power is an important element in the production costs, and special bulk supply contracts can be negotiated. This was a determining factor in the decision to site the new steel mill at Jinja, where the favorable power rate was able to offset the greater cost of collecting scrap iron and delivering the finished products to their principal points of consumption in the other territories.

Uganda also derives indirect benefits from the common market, as the Raisman Commission has concluded, and if the recommendations of that Commission are accepted, Uganda will receive financial compensation to offset in some measure any apparent loss caused by the rise of industry in Kenya. Granted, therefore, that a continuance of the common market is in the interests not only of East Africa as a whole, but also of the territories separately, Uganda's problem in the
industrial sphere is how to maneuver to its own best advantage within the limits imposed by a uniform tax structure and the common tariff code.

The usual method by which territories vary the customs duties is by granting refunds to manufacturers who can establish their need for protection of this kind. This is usually done unilaterally, without consultation with the other territories. Increased tariffs are generally only imposed after agreement with the other territories, though there have been exceptions (e.g., Tanganyika's refusal to increase import duties on imported enameled ware, after Uganda and Kenya have done so). Agreements of this kind often take a very long time to attain. In one case at least (in Kenya) a protective tariff was only granted after the applicant had gone into liquidation.

The mission does not know how often refunds have been granted in other territories, but it believes that the Uganda Government is wise in deciding to pass legislation to enable the Governor-in-Council to authorize the refund of duties incurred by manufacturers engaged in any of the industries approved under a general ordinance. This will make it better known that the Government is prepared to give this relief and make it easier for manufacturers to comply with the procedure for getting the relief. We would suggest that recommendations to the Council of Ministers on such subjects should be produced by a committee of the three ministers primarily affected: Finance, Commerce and Industry, and Economic Development.

It also seems good policy to the mission that the Uganda Government should strengthen the impression that it is willing to help its own industries through a reasonable degree of protection when necessary. The Government should make it clear that it is always prepared to consider raising the import duty to a reasonable level on competitive goods, if this would allow an infant domestic industry to raise its volume of output and so produce more economically.

**Tax Policy**

In the realm of taxation, there is less room for unilateral action, and in Chapter 4 we have recommended that a Tax Commission should investigate certain aspects of this complicated problem. We have also suggested in Chapter 4 that there be a shift from company income tax to profits tax. However, we emphasize here that a profits tax could only be imposed by the three territories simultaneously and that it should be accompanied by measures to provide tax relief for
"pioneer" industries. No territory can increase company tax burdens unless the others followed suit without discouraging industry compared to the others.

For new industries other concessions are desirable in any case in order to stimulate the flow of investment. Unlike other underdeveloped countries, none of the territories at present offers any special inducement to new industry other than the fairly low company tax. The East African Income Tax Act provides for an initial allowance of 10 percent on industrial buildings and 20 percent on machinery. The annual allowance on buildings is 2 percent and on machinery, an "amount considered by the Commissioner to be just and reasonable." No deductions, either initial or annual, are allowed for commercial buildings. The mining industry, on the other hand, does receive special treatment. The allowance on buildings is not realistic in that, under modern conditions, their life cannot be expected to reach 50 years. And it would be better to fix a minimum "wear and tear" deduction for machinery, with the Commissioner having power to increase it in special cases. The objective should be to enable investors to write off the whole of their capital expenditure in a reasonable and realistic period. Further, since offices, shops, warehouses and even apartment buildings are necessary for economic development, investment in them should be encouraged and consideration should be given to the possibility of allowing an annual depreciation deduction to be applied not only to new buildings of this kind but also to those recently erected.

Tax holidays for new industries are widely conceded in other countries. They may vary from two years, as in Nigeria and Malaya, up to 25 years, as in Eire. They are generally regarded by potential investors as a useful inducement. There are certain administrative difficulties, particularly in defining a new industry, but experience has shown they are not insuperable. The mission considers that Uganda should grant such a concession as soon as possible. We have suggested in Chapter 4 that this holiday apply to any five of the first eight years for a company operating in an agreed new industry.

One other taxation matter of importance to industry and commerce is the undistributed income tax (UIT). UIT was introduced in 1958 in order to prevent evasion of personal income tax by partners in private companies. These are now taxed at the rate of 75 percent on 67½ percent of all profits not distributed as dividends, the remaining 32½ percent of profits being subject to company tax at the standard rate of 27½ percent. Very little tax revenue has been secured
from this tax since the main object has been achieved in persuading companies subject to the tax to pay out dividends. One adverse effect may have been to reduce the amount of profit that can be ploughed back into a business and, to this extent, it might inhibit expansion. Small enterprises that have had to borrow money for capital development may, in some cases, have to repay the loans out of undistributed profits, and may find the greatest difficulty in doing so after taxation at such a high rate. The possibility of alleviating such difficulties may be worth examination by the proposed tax commission.

Industrial Licensing

An interterritorial attempt to attract new industries was made in 1948, by the institution of industrial licensing. Identical ordinances enacted by the three territories, which in a modified form are still in force, provide for the scheduling of industrial products which thereafter can only be manufactured under license. Scheduling and licensing are the responsibility of the East African Industrial Council, acting under the High Commission. The main object was to enhance the attraction of the common market for an entrepreneur with the necessary capital and knowledge by assuring him against competition from too many other similar enterprises.

It was the original intention that the Council should direct industries to location anywhere in East Africa that appeared most suitable. This presupposed that a general development plan would be agreed between the three territories, but in practice it has not eventuated. Industries have therefore been scheduled and licensed whenever one territory has managed to persuade the others that it would not be to their disadvantage to agree. Negotiations have often proved long and difficult, so that at the present time, only 11 industries have been scheduled and 13 licenses issued. Few additions have been made in recent years, and consequently it is now held in some quarters that the system serves no useful purpose and should be abolished as soon as the existing licenses expire. The arguments in favor of abolition are that:

a. Interterritorial difficulties have made it impossible to agree on an over-all development program, without which industrial licensing cannot be effective.

b. The growth of non-scheduled industries (e.g., cement and shoes) shows that licensing is not necessary for development.
c. Licensing tends to produce monopolies, resulting in inefficiency, higher prices, and a bar to further investment in these fields.

While there are some counter-arguments, including this contention that a single concern operating in an industry is not necessarily monopolistic because it must compete with imports, the mission believes that the weight of the argument is in favor of suspending the industrial licensing system. In this, we join the East African Royal Commission 1953-55, the Raisman Commission and the IBRD-sponsored general survey mission to Tanganyika. Because the number of industries scheduled for licensing has been limited, we do not feel that the system has had a heavy impact (except in helping establish Nyanza textiles)—either favorable or unfavorable—on industrial development. But, because the attraction of private venture capital, both from home and abroad, should be of prime concern to those concerned with economic development, every effort should be made to avoid creating a restrictive image of the economy, particularly by imposing conditions for which the justification is at least dubious.

Labor Policy

We have already noted the essentially migratory nature of most of the industrial labor force in Uganda. These special characteristics make the labor policy followed in industrialized countries a poor guide for Uganda. We endorse the Government's policy of encouraging collective bargaining but it must be recognized that it may be many years before the conditions allow the development of strong, responsible trade unions. The Government must thus be prepared, where necessary, to intervene to ensure that certain minimum standards of health and industrial safety are observed, and to protect the workers' interests where in a more developed society this would be done by the trade unions. But just because industry is newly emerging, care should be taken to avoid burdensome multiplication of labor regulation which could inhibit enterprise.

Another important problem is the impact of public wages policy not only on government workers but on those in private employment. In fact, because public employees are in many areas the majority of workers, government wages policy for its own labor has a strong influence in the private sector. The Government should, of course, be a "good employer", but it should bear in mind the need to avoid discouraging private enterprise and to hold down government ex-
penditure in view of present fiscal stringency. Finally, it would be socially undesirable, with the bulk of the population poor peasants, for government workers to become a highly privileged class.

In setting minimum wages in the private sector, the Government should bear in mind the necessity to balance overall supply and demand. The supply of labor, under Uganda conditions, is highly elastic. A small increase in wages, all other things being equal, calls forth a large number of additional workers coming to the principal areas of wage employment, Buganda and Busoga, from the farming districts in the remainder of Uganda and Ruanda-Urundi, Tangan-yika, Kenya and the Congo. If the minimum wage is set too low and employers do not pay more, there will be a scarcity of workers. If it is set too high, there will be a substantial oversupply of labor leading to unemployment and social problems, such as an increase in crime, malnutrition and overcrowding.

The Government's contribution to stabilizing the labor force, which is desirable for industrialization, will probably rest mainly on what it can achieve by speeding the painfully slow process of social change. Workers remain migrants, rather than becoming permanent urban workers, for good economic reasons: their total real income is higher with the family left on the farm and their social security for old age, illness, unemployment, is their right to tribal land. Thus, the change from a migrant, temporary labor force to a stabilized labor force probably depends more on the development of individual land tenure with the accompanying right to sell than on what can be done in the towns themselves. Even though such a change rests on a whole complex of sociological factors, the mission believes that the Government has a positive role to play in this field and we outline some of our suggestions when we discuss the problem of land tenure (see Chapter 8).

THE TOURIST TRADE

Tourist Attractions

Uganda has much to offer the tourist. It is the land of the fabled Mountains of the Moon (Ruwenzoris) with their snow-capped peaks almost astride the equator, and it contains the source of the Nile, vainly sought for more than 2,000 years since the days of the ancient Romans. Moreover, it is a land of contrasts. In a relatively short and comfortable journey the enterprising tourist can pass, without
retracing his steps, from the primeval Africa of the gorilla forests and
the rare white rhinoceros, through an Africa in almost every stage of
civilization mankind has experienced, to the modern Africa of the
towns of Kampala and Jinja with their factories and industries.

Even the average tourist with not much time at his disposal can
counter very comfortably by road through the great National Parks of
Uganda. The Queen Elizabeth National Park which lies between
Lakes George and Edward covers an area of about 767 square miles,
mostly bordering the two lakes. The Murchison Falls National Park
lies astride the Victoria Nile and covers an area of about 1,100 square
miles. In the parks the tourist will see vast herds of wild elephant,
buffalo, and many kinds of antelope and deer. Often he will catch
glimpses of lion, leopard and other predatory animals, and he will
certainly see everywhere (and not only in the parks) many large-
toothed fierce baboons, wart hogs, many kinds of monkeys, giraffes,
and other kinds of wild animals. From the safety of comfortable,
high-powered launches, he will come to within a few feet of wild
elephants, hippopotamuses, crocodiles, black rhinoceroses and most of
the other wild animals previously mentioned. If he wishes he can take
back with him a pictorial record of what he has seen, a record which
could perhaps not be equalled in any other part of the world.

To the discerning tourist, a study of the ways of life of primitive
peoples and their handicrafts still in the early stages of development
will be fascinating. For those who are prepared to make an even
longer stay, there are the added attractions of mountaineering, sailing,
uncommonly good fishing, duck shooting and big game hunting to
pick from.

Above all, Uganda is a pleasant land, full of vivid color and
friendly smiling people. The climate can be likened to that of a
perpetual temperate zone summer since the temperature rarely rises
above 85° Fahrenheit (29° Centigrade) and rarely falls below 60° F.
(15° C.). A beneficial rainfall keeps the major part of the country
lush and green all the year round. The hotels are excellent; most of
the main centers of tourist attraction are served by scheduled air
services or are accessible by small aircraft at hire for reasonable prices;
and there is a good car-hire industry with fine new automobiles
available in adequate numbers.

Uganda can be reached by air in less than half a day from London
and less than 24 hours from New York. There are no irksome regula-
tions for tourists, hotels and travel costs in the country are relatively
low, and international air fares (the main items of expenditure) are
being steadily reduced. Nevertheless, the number of tourists visiting Uganda has so far been very small. In 1960, about 7,500 visitors arrived in East Africa with Uganda as their first stop and an additional unknown number visited Kenya and Tanganyika first. The Government's policy is to welcome tourists because they not only find additional income and employment for its people, but because the tourist trade can become an important source of foreign exchange. By 1960, the estimated foreign exchange benefit to Uganda was estimated at somewhat over £½ million.

**Access**

Direct access to Uganda is through a fine international airport at Entebbe. For those traveling to East Africa by sea, or visiting Kenya or Tanganyika first, or coming from the southern parts of Africa, there are excellent means of access by rail, road and air, to the main tourist centers. The railway also runs a nine-day package tourist service by rail and steamer to the Murchison Falls and the West Nile.

Internally the country is well served by roads but some upgrading and new construction will be required to give more steady access to parts of the National Parks and other areas of tourist interest. The construction of a new bridge and its approaches over the Nile near the Karuma Falls above Atura (now in hand) will give ready access to the eastern portion of the Murchison Falls Park, at present not easily accessible. Other roads under construction (see Chapter 11) and of incidental value to the tourist trade, include a road down the Simliki Valley to the southern shores of Lake Albert (giving easier access than at present to an interesting area, the home of the Ituri pygmy tribe) and a road from Masindi through the Murchison Falls Park at Paraa and on by a direct route to Pakwach, with a short branch to the Murchison Falls themselves. We do not consider general purpose roads, etc., should be financed from the tourist budget. On the other hand, internal roads and tracks in the parks are the responsibility of the parks organization and chargeable to its budget. These include a track connecting a newly proposed Chobi Lodge with the old lodge at Paraa in the Murchison Falls Park, various other tracks in both parks, and some forest tracks near Kisoro. We estimate that these roads, which are exclusively for tourist purposes, will entail capital expenditures of some £50,000 during the five-year period. As tourism develops, other roads will be required in the West Nile and Karamoja districts, but these will probably not be necessary before 1965/66 and are not included in the above figure.
Hotels and Safari Lodges

The capacity of good hotels outside the National Parks is about 870 beds, and surplus capacity exists for about 200,000 bed/nights a year for visitors, including tourists. There is, therefore, no immediate necessity to increase the capacity of these hotels for tourist traffic purposes. Taking account, however, of seasonal fluctuations in tourist traffic and the effect of single occupancy of double rooms, the safari lodges in the National Parks, the main centers of attraction for tourists, are already, at times, filled to capacity. Indeed, they have been obliged to refuse substantial bookings in certain months although at other times they are frequently sparsely occupied. It is true there is some surplus capacity in good hotels within easy motoring range of the parks, but these hotels would normally only be used by tourists making a second or subsequent visit and familiar with the country. If tourism is to expand, a second lodge in the Murchison Falls Park, the Chobi Lodge, is immediately required. A second lodge in the Queen Elizabeth Park will also probably be required at some point during the five-year period, depending on how rapidly the number of tourists grows. There is also some possibility of expansion of a small privately-owned hotel, Kichwamba Hotel, sited just outside the park and overlooking game on the plains below. A lodge is estimated to cost £75,000 to construct.

Further, an extension of the travelers' rest-house at Kisoro near the gorilla sanctuary in the southwest of Uganda is urgently required; this extension is likely to cost some £20,000. Should tourist traffic increase at a greater rate than 25 percent a year in this period, similar extensions might be required at the Arua and Moroto rest-houses, but we doubt whether these will be warranted before 1965 and, in any event, such increases in accommodations would have to be related to the proposed road works in the West Nile and Karamoja districts respectively.

Promotion of the Tourist Trade

The Uganda Ministry of Commerce and Industry is responsible for the development of tourism in Uganda and is assisted by an active Tourist Advisory Board on which private enterprise is well represented. Its present budget for promotional expenditure is only £10,050, or a little less than Sh 30/- per tourist now annually attracted to the country. Of the budget provision, £4,000 is reserved for direct
promotion and £6,050 constitutes a subscription to the East African Tourist Travel Association (EATTA).

Considering the promotional activities first, the Uganda Government is represented on the Executive Committee which controls the EATTA whose primary function is to publicize the tourist attractions of East Africa as a whole. While the number of bed/nights spent by visitors to Uganda formed only about 11 percent of those spent by visitors to East Africa as a whole in 1959 and while it is undoubtedly true that, because of past publicity and other causes, East Africa means Kenya to many prospective tourists, many tourists visiting Kenya also visit Uganda and Tanganyika (and vice versa). Common publicity is thus of undoubted value to all three territories.

On the other hand, Uganda has the special attractions we have already described, and it is reasonable that these attractions should also be advertised separately. The direct promotional activities of the Government have included the issue of guides, pamphlets and folders. Overseas travel consultants have been engaged; advertisements have been placed overseas; visits to travel agents have been made by officials; tours by travel agents and writers in Uganda have been sponsored; and the cooperation of the airlines has been obtained in distributing posters and literature, and providing window displays of interesting local handicrafts and products.

Some extension and intensification of advertising and publicity, particularly in the most promising markets in Europe and North America, is justified, but this campaign should be geared to the provision of further tourist facilities such as the recommended additional lodges in the parks and the development of roads. More could possibly be done than at present to make Uganda more appealing for the tourist and more profitable for the tourist trade. For example, efforts could be made to encourage tribal dancing displays in the interior and to promote the sale of local handicrafts and curios by encouraging the people to produce these articles. Much better window displays of articles than at present could be arranged in hotels and other public places. Good quality color post cards could be sold in larger numbers, even though their profitability might be limited, because their distribution by tourists constitutes, together with word-of-mouth, the best and cheapest form of advertising. The Government should also ensure that the necessary guidebooks are produced and kept up to date.

We accordingly recommend that the budget for promotional activities should be gradually increased from £10,050 a year as in 1960/61 to £25,000 a year during the period 1961/62-1965/66. We regard it
important that the bulk of this increase be spent on publicity and advertising rather than administrative overhead.

**The National Parks**

The two National Parks, together with other game sanctuaries, preserve the wild vegetation and many species of wild animals which elsewhere are fast becoming extinct. They provide a base for the study of tropical animal ecology and much scientific research. They are one of Uganda’s great national assets and should be carefully preserved. As time goes on, the value of possessing such an asset will be enhanced both in economic and educational terms. The parks are precious possessions which future generations of the people of Uganda and the world will enjoy. They are already Uganda’s chief tourist attractions.

The mission considers that maintenance and development of the parks and sanctuaries should be supported by public funds provided in the budget. Favorable action should also be taken before too long to establish a third National Park in the Kidepo Valley in northern Karamoja. In 1960/61, £50,000 for recurrent and £20,000 for capital purposes was voted for the two existing parks. We suggest that the capital allocation be maintained at this level for the first three years of the program and then increased in the last two years to £30,000 to accommodate a shift of activity to the proposed new National Park in Karamoja. Thus, about £120,000 of capital funds might be provided by the central government over the entire five-year period. The net recurrent expenditures, however, might fall somewhat over the period as direct earnings from tourism rise.

**Holiday Amenities**

Hitherto the majority of holiday seekers coming to Uganda have consisted of middle-aged people seeing a bit of the world upon retirement. Many tourist agencies believe that this type of tourist will soon be supplemented by a fairly large group of younger people from the prospering industrialized countries. This young group will seek various types of more intensive holiday activities. They would appreciate a swimming pool, use of golf courses, sailing on Lake Victoria and other such amenities. They would also want some kind of night life, including perhaps a casino. At Entebbe/Kampala are often found at times a large number of transient visitors, businessmen and persons held over because of a night stay at the airport. Most of them
would also be glad to take advantage of the amenities mentioned above. The mission feels it is mainly the business of the entrepreneur and Uganda Hotels, Ltd. to test this potential market as soon as volume of tourist traffic justifies. A swimming pool and lake launch could be provided at comparatively little cost, an old steamer might provide accommodation for a night club or casino, or one of the generally vacant large upstairs rooms in the Lake Victoria Hotel might be used for a time to test this market. The Government would have to agree to the casino and provide other facilities. In making these suggestions, we realize that there are many considerations involved, but we believe that amenities along these general lines are an essential pre-condition to a sizeable expansion of the tourist trade.

Summary of Proposed Public Expenditures on Tourism

The recommendations we have made in connection with tourist trade would entail capital expenditures and additional recurrent expenditures by the central government of £228,000 during the five-year period 1961/62-1965/66 and possibly £150,000 by UDC for two safari lodges (see Table 20). We emphasize that these figures are based on the assumption of a 25 percent annual increase in the volume of tourist trade and might have to be revised if, in the event, trade increases at a significantly different rate.

**TABLE 20: Proposed Development Expenditures on Tourism, 1961/62-1965/66**

<table>
<thead>
<tr>
<th></th>
<th>Five-Year Total</th>
<th>Annual Average</th>
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<tr>
<td><strong>CENTRAL GOVERNMENT:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Roads</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Rest-House Extensions</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>National Park Development</td>
<td>120</td>
<td>24</td>
</tr>
<tr>
<td>Promotion</td>
<td>35</td>
<td>7.5(^b)</td>
</tr>
<tr>
<td><strong>Total (Central Government)</strong></td>
<td>228(^b)</td>
<td>45.5</td>
</tr>
<tr>
<td><strong>UDC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safari Lodges</td>
<td>150</td>
<td>30</td>
</tr>
</tbody>
</table>

\(^a\) Not included in general purpose road program (see Chapter 11).

\(^b\) The excess of proposed annual average expenditures over the 1960/61 level of £10,050. This excess would gradually rise from zero to £15,000 in 1965/66.
TRANSPORT, COMMUNICATIONS AND ELECTRIC POWER

Transport facilities are at present generally adequate in Uganda. The main routes by land, water and air, reach practically every corner of the country and their capacity is largely underemployed. Such deficiencies as exist are local in character, affecting the standards of portions of some of the main road routes not yet bituminized and the development of some access routes to the main population centers and transport arteries.

The road system radiates mainly from Kampala. Only in the more populous parts of the Buganda and Eastern Province does a real network of secondary roads emerge, but there are the beginnings of networks based on Mbarara, Kabale and Masindi in the Western Province and, to a lesser extent, on Gulu in the Northern Province. The railway system (including the inland water transport system managed by the railway), on the other hand, does not contribute to the nodality of Kampala but provides the main transport artery of Uganda along which pass the exports and imports of the country. Air traffic, international and regional, is focused on Entebbe and thereby to a considerable extent on the neighboring town of Kampala.

The combined road, inland water and rail routes from the Sudan and the northern part of the Congo are at present oriented via Masindi Port and Namasagali toward eastern Uganda and the sea but this pattern will be radically changed when the railway reaches Gulu and many of the lake services are reduced or closed altogether. The interterritorial steamer services on Lake Victoria, in which Uganda participates, contribute toward further diversification of traffic.

It will be seen that the lines of transport-communication by road, rail, water and air, largely supplement each other at present (see map facing p. 306). The various projects now under consideration by the Government should ensure that this pattern is maintained as the transport system is developed.

RAILWAYS AND INLAND WATER TRANSPORT

The railway system (which includes the main water transport and a few road services) provides the major link between Uganda and
world markets. The maintenance of an efficient railway to the coast is therefore of vital importance to the economic life of the country. Interterritorial trade with Kenya and Tanganyika is also largely dependent on the railway, supplemented by lake shipping. Much of the external trade of parts of the Congo bordering Uganda passes along combined road, lake and rail routes in Uganda. The development of this trade would be in the interest of Uganda as it would benefit the revenues of the railway system. There is not likely to be much local trade reaching the railway in the near future between Uganda and the Sudan as these countries produce the same type of products, but there are some possibilities of developing trade with the eastern Congo in fish, meat and some manufactures.

For obvious reasons of geography and history, the railways and harbors of Uganda and Kenya were developed together and have long been operated together under single managements. There is also a long history of interterritorial cooperation. Until 1948, the Kenya and Uganda railways and harbors were a single undertaking under a High Commissioner for Transport (normally the Governor of Kenya). In 1948, the Tanganyika railways and ports services (originally established by a German company) were amalgamated with the Kenya and Uganda undertaking as the East African Railways and Harbours Administration (EARHA). The Administration also controls the inland water transport and certain road transport services in the three territories. In 1961, the EARHA operated some 3,490 route miles of railways, 4,200 miles of waterways and 2,800 miles of road services. Of the total railway route mileage, some 580 miles were within Uganda, another 141 were under construction and a further 100 projected. (See map facing p. 308 for EARHA network and traffic density.)

Since 1948, development over the combined railway system has mainly taken the form of constructing branch lines to bring traffic from production centers into the main lines of communication. In Uganda, the major developments have been the already-completed extension of the main line westward to Kasese in the copper-mining area and the commencement of construction of the line northward to Lira and Gulu in continuation of the Tororo-Soroti line. Completion of the Bukonte-Jinja "cut-off" was scheduled for mid-1961; this will shorten a long curve in the main line and enable the railway to improve substantially its service and capacity in Uganda. Further developments of the combined system now in hand include the construction of a 117-mile link between Mnyusi on the Tanga line and Ruvu on the Central line. A freight-car ferry is contemplated on Lake
Victoria to operate originally between Kisumu on the eastern shores in Kenya and Mwanza to the south in Tanganyika, and later between other ports. Both these projects are of intimate interest to Uganda.

Hitherto, it has been necessary to maintain two distinct sets of rolling stock to operate on the Kenya-Uganda and Central (Tanganyika) lines respectively. Traffic on these two main lines, however, displays a complementary seasonal pattern, the Kenya-Uganda line having its peak load in March and its trough in June-August, whereas the Central line has its trough in March-April and its peak load in August. The construction of the railway link and freight-car ferry will make it possible to shift rolling stock from one main line to another as needed.

Interterritorial Control and Financing of the Railways

There have been differences of opinion between the Governments of Uganda, Kenya and Tanganyika on whether parts of the railway system in the three territories subsidize other parts and on the disposition between the Governments of the general guarantee of the EARHA loans in relation to the distribution of invested capital within the several territories. These questions have been thoroughly examined recently by the Raisman Commission and the mission agrees with the conclusion that the practice of the EARHA in these matters appears to be reasonable and fair.

A matter which may be of concern to Uganda is the "taper" element in the tariff structure of the EARHA. This taper favors long-haul traffic in which class falls most of Uganda's import and export movements. The existing policy-making machinery and the new East African Common Services Organization, in which Uganda is suitably represented, enables her to continue to influence tariff and other policy. If the ton-mile movements pertaining to Uganda represent a greater proportion of all railway ton-mile movements than the proportion of total operating costs incurred on Uganda's movements, it would be fair to modify the "taper" in Uganda's favor. The mission has not been able to collect sufficient data to examine this question. We would observe, however, that a change in "taper" would push up tariffs for short-haul traffic where the railway is very vulnerable from road transport and this is not desirable in the interest of Uganda also.

On the whole, Uganda has benefited by the amalgamation of the systems of the territories because the unified system is financially stronger, its utilization of rolling stock and equipment better, its ad-
ministration cheaper, and its tariffs lower than would be the case if the systems were not amalgamated. The financial position of the EARHA is sound, its assets are properly maintained, and its operation is efficient by any standards. In 1960, operating revenues totaled £24.2 million, while operating expenses totaled £19.6 million. Capital assets were estimated at £103.5 million, having risen from £37.5 million in 1948. During the twelve-year period the excess of operating revenues over expenditures was always sufficient to service capital loans and, in addition, make contributions to a "betterment" fund, against which the costs of upgrading facilities are charged.

While no general financial problem exists for the EARHA, the railways have often had great difficulty in obtaining loans and loan amortization charges have been heavy. Accordingly, it would be desirable if the rate of contribution to the "betterment" fund could be increased considerably. As the Royal Commission of 1953-55 pointed out, "it is often cheaper in the long run to avoid incurring fixed interest bearing debt by financing new development and improvements from profits. This also obviates the undue dependence of the undertaking on the vagaries of the capital market." ¹

Railway Wage Scales and Housing

Wage scales and housing costs of railway staff are of concern to Uganda because they affect both freight rates and the general finances of EARHA. In the mission's view, the general level of wages (and the standard of housing provided) prevailing in 1961 and the minimum wage paid by the EARHA were already well above the levels being paid in other industries in East Africa or in other countries with the same magnitude of per capita income, such as India, for example. The high wages paid to railway workers have an historical reason. The railways were originally constructed and run almost entirely by expatriates because local personnel were not available. With Africanization, there has been a tendency to maintain the salary structure although the holders of many posts do not yet have the skills of the expatriates they displaced.

The solution lies in working toward an adjustment of basic wage scales to a market rate, giving due consideration to the wages paid by other public services and private undertakings. At the same time, inducement differentials should continue to be paid to the decreasing

EAST AFRICA: RAILWAY TRAFFIC DENSITY

Notes:
This diagram indicates the annual estimated gross tonnage - locomotives plus trailing loads - passing over each section.
The figures refer to thousands of gross tons.

Source: "East African Railways and Harbours", 1960
number of expatriate officers, as has already been recommended by the East Africa Salaries Commission. Pay scales would have to be revised from time to time as better qualified local recruits were obtained and the workers became more efficient. Some such adjustments are already in evidence as a result of the training given in the excellent railway training and apprentice teaching institutions maintained by the railway but the present basic wage structure still appears to be too high even for well-qualified candidates.

The Future of Inland Water Transport

Nature has provided Uganda with some excellent waterways on her lakes. Her rivers are, however, unsuitable for through navigation, including even the Nile which is navigable only on relatively short sections separated by cataracts and many shallows. With the advent of motor transport and its ever-increasing efficiency, the importance of inland water transport in Uganda is declining. The navigation channel of 697 route miles on Lake Kyoga and its appendage, Lake Kwania, for example, has to be kept clear of obstruction from floating islands of sudd; some of the lake ports, such as Kachung are silting up; and other lake assets have been depreciated considerably. More serious in the sphere of competition with other forms of transport, is the fact that the lower-level water season in Lake Kyoga usually coincides with the export season for the cotton crop.

The most important disadvantage from which export and import traffic by inland water transport suffers is, however, the number of transhipments that are often necessary. Goods from the West Nile district, for example, go down the Nile to Lake Albert, across the lake to Butiaba, by road to Masindi Port serving Lakes Kwania and Kyoga, and then by water again across the lakes and down a short length of the Victoria Nile to the railhead at Namasagali. The costs of transhipment, including the cost of damage done to the produce handled, are appreciable. The mission feels that the extension of the railway to Gulu and its contemplated further extension in due course to the Albert Nile may be found to be economic when balanced at some future date against the costs and delays of the parallel inland water services which will be run down gradually as the new railway develops.

Water transport will, however, long remain an intrinsic, if rel-

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atively small, part of the regional transport service, particularly on Lake Victoria. This will be the case even if shippers are left with complete freedom of choice between water and other forms of transport at rates or charges that cover the full cost of carriage. Traffic on Lake Victoria will probably grow appreciably with the introduction of the freight-car ferry service and its extension to the more important non-rail-served ports, such as Bukoba, thus making practicable direct rail services to these ports without the disadvantages of transhipment. So far, competition between the EARHA services and mechanized private craft on the lake does not exist to any great extent. Should competition become serious, the problem will have to be studied with a view to obtaining a solution without such undue regulation of the private craft as would suppress desirable local initiative. Elsewhere on the inland water transport system in Uganda, the effects of competition with local craft have not been felt.

ROADS AND ROAD TRANSPORT

The Road System

The road system of Uganda is commonly said to be one of the best in the whole of Africa south of the Sahara. The favorable factor which led to the creation of this system was the presence of a laterite subsoil cover extending over most of the country which furnished an excellent road-building material, murram. Among other favorable factors which encouraged development in the past, may be mentioned the general absence of rapid rivers and streams requiring bridging; the generally equable distribution of rainfall over most of the country; the existence of an old tradition of road building among most of the tribes; and the application of *luwalo*, a customary law which gave option to the African taxpayer to choose between payment of local government tax in cash or community work. The southern swamps, however, made roads costly.

The spread of cotton cultivation since early in the present century from modest beginnings in Busoga and Buganda near the railway and the water-communication systems of Lakes Kyoga and Victoria to practically all areas in the country having a rainfall from 40 inches to 50 inches, created a demand for roads, mainly secondary and feeder roads. This demand was met by those local government authorities who had available a large body of unpaid labor under the *luwalo* system described above, and by the central government who gave
grants to local authorities and, themselves, gradually built up a system of main roads, originally with murrum or laterite-graveled surfaces, to link production centers with the railways, large towns and lake ports.

At present the Ministry of Works maintains a total of 2,989 miles of main roads, of which 680 miles on June 30, 1961, were bitumen surfaced, and the local governments maintain a further 8,300 miles of listed roads (most of which are passable even in wet weather) from their own funds and with the assistance of road grants. Unlisted rural roads and town roads might add 1,500 miles to the total.

An examination of the pattern of the main road network at present maintained by the central government reveals that such roads fall into three principal groups. The first group contains roads radiating from Kampala in several directions: southwest to Kabale and the Ruanda-Urundi and Congo borders; due west to Fort Portal and the Congo border; due north to Nakasongola and then curving round Lake Kyoga to Gulu and north to the Sudan border; and due east to Jinja and the Kenya border. The roads in the second group do not radiate from Kampala but include important roads connecting those in the first group to each other. They include a road from Tororo running due north to Mbale. At Mbale the road has a branch to the west toward Soroti, Lira and Gulu. The other branch from Mbale continues due north via the newly constructed "watershed" road to Moroto, ultimately linking with the Kenya road system. The roads in the third group include several important branch roads serving large production centers.

The Need for Upgrading

While there are nearly 13,000 miles of roads in Uganda, the total number of registered motor vehicles is, by contrast, only about 38,000 (or 1 per 170 of the population) and many of these ply solely in urban areas and near large distributing centers. It follows that traffic (there are practically no animal-drawn vehicles) is very light on most of the roads, even on some sections of the main roads.

On the other hand, traffic densities in terms of numbers and weight of vehicles now being experienced over some sections of the road system are such that the murrum and graveled-surfaces carriage-ways are quite unable to stand up to the resultant attrition. The cost of frequent renewal of graveled surfaces is so high that the only satisfactory measure is to provide bituminized surfaces over murrum-stab-
Programs in Other Sectors

ilized bases. Such expensive surfacing (which may well cost over £5,000 a mile) is itself uneconomic unless the roads to be upgraded are on their final alignments. The capital expenditure involved in upgrading roads is therefore considerable. But experience has shown that the maintenance charges on most of the re-aligned, stabilized and upgraded roads, are less than they would have been had an attempt been made to maintain graveled surfaces.

Where traffic densities are high, therefore, bituminized roads are generally cheaper to maintain than graveled roads. But the upgrading of roads can also be justified when the savings in maintenance charges do not quite amortize the additional capital investment. Better roads lead to an increase in the real income of the community since they ensure reductions in transport costs (repairs, fuel and tire consumption), savings in transit time, and decrease in accidents. The effect of these advantages is difficult to evaluate (except perhaps the savings in operating costs of vehicles per mile). Some upgrading of roads in anticipation of traffic needs may also be justified on developmental grounds since it is not desirable to concentrate all the good roads in the already developed parts of the country. Considerable discretion is therefore required in formulating a detailed road program.

Since before 1953 the Government has taken censuses of road traffic on the busier roads. In 1961 the number of census points totaled 87 and many of the counts are obtained by automatic traffic counters. A study of the census figures and the road maintenance costs of particular sections of road has revealed that in general it is economical to upgrade a road to a bituminized surface when the traffic density lies between 150 and 250 vehicles a day throughout the year, the exact position depending on the range of seasonal fluctuations, types and weights of vehicles, availability of gravel and other such factors.

A Road Program for 1961/62-1965/66

With most of the country's road network complete, much of the capital works needed in the five-year period 1961/62-1965/66 will be related to upgrading of both main and secondary roads. Upgrading, as we have stressed, often includes completely new construction along some stretches of the route to obtain a more suitable alignment, and it always includes reconstructing the sub-base over which a new surface is laid. In addition, a few completely new roads will be required. After 1962/63, the main expenditure will be on secondary roads which are very important and in need of development.
The first part of the five-year program would include those works already under way at the outset of the period. These are listed below:

a. Reconstruction and providing a bituminous surface on the Masaka-Mbarara road (50 miles).

b. Shortening the main Kampala-Gulu road around Lake Kyoga via the new Nile bridge beyond Atura (Karuma Falls) with a line to the Pakwach-Gulu road (84 miles graveled surface plus a new Nile bridge (the Karuma bridge) for which a contract has been placed).

c. Constructing a new road (at present being surveyed) along the Semliki flats to connect the Fort Portal-Bundibugyo road with Ntoroko on Lake Albert (30 miles). The road is required mainly to develop the fish industry.

d. Upgrading the Nakoloke-Greek River local government road (45 miles) of which 12 miles will have a bitumen surface and the rest will be graveled.

e. Completing the Masindi-Paraa road now under construction to the Murchison Park boundary (16 miles), and extending the road to Paraa (24 miles).

In addition to the specific works listed above, the Government is considering putting in bituminous surfaces on about 300 miles of heavily trafficked roads and graveled surfaces on about 500 miles of main and important secondary roads. The selection of these roads is being continuously reviewed, taking into consideration traffic densities and administrative needs.

All the specific work listed above would be completed during the first two years of the five-year period, together with much of the continuous task of resurfacing other roads. The Government forecasts capital expenditures with respect to all these works at £1.09 million in 1961/62 and £1.36 million in 1962/63, or an annual average during the two years of £1.22 million. Some of the work is being financed by a U.K. Colonial Development and Welfare grant of £1.75 million designed to cover 75 percent of the cost. About £1.01 million of the grant had been spent by June 1961, and it is presumed that the unspent balance will be available for expenditure thereafter.

In addition to financing road works directly, the central government also provides capital assistance to local authorities, particularly
for roads of developmental significance. The Government forecasts such capital grants will total £150,000 in each of 1961/62 and 1962/63. Adding these grants to the forecast direct capital expenditures mentioned above, total expenditures on capital account would amount to £1.24 million in 1961/62 and £1.51 million in 1962/63, or an annual average during the two years of £1.37 million.

Provided that traffic densities continue to expand, it is clear that during the final three years of the five-year period further upgrading of roads will be needed. We therefore recommend that the central government should budget for capital expenditures of roughly the same annual average as in the earlier years of the period. We believe that such a level of expenditures is likely to be the maximum that traffic densities would warrant. It is quite possible that, in the event, capital works in a lesser amount will be needed. We therefore emphasize once more that periodic reviews of road requirements will be necessary.

We expect there to be some redistribution of expenditures as between direct works by the central government and grants to local authorities. As work on the major roads proceeds, traffic-carrying capacity should gain somewhat over economic expansion, so that some decline of central government works might be anticipated toward the end of the period. At the same time, the improvement in the major networks will call for further improvements of the secondary roads feeding into them, so that the work of the local authorities—and therefore the need for central government capital grants—will probably increase during the period. We thus suggest that direct central government capital expenditures might average about £1.10 million during 1963/64-1965/66, while capital grants to local authorities given

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<tbody>
<tr>
<td>(in £ million)</td>
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<tr>
<td>Direct Works</td>
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<tr>
<td>Grants for Aided Roads</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
under the conditions postulated later in this chapter, might average £0.27 million, total capital expenditures remaining at an annual average of £1.37 million.

In all, we recommend total capital expenditures by the central government on roads of up to £6.86 million during the five-year period 1961/62-1965/66 (see Table 21). Of this total, £5.75 million would be spent on direct works and £1.11 million on capital grants to local authorities.

Road Maintenance

The yearly expenditure on road maintenance varies in Uganda from about £65 to £1,800 per mile on different roads in different years. The variation is due to the type and width of surfaces; the amount of traffic carried; the availability and cost of labor and materials; the time for renewals of surfaces; and other factors such as the topography and intensities of rainfall in the area through which the roads run.

Central government expenditures on road maintenance rose steadily between 1956/57 and 1960/61. This was due to the increased cost of maintaining heavily trafficked graveled roads which could not be bituminized fast enough to keep pace with developing traffic. The position is easier now as upgrading is catching up with traffic densities and road maintenance costs will not rise so steeply in future. On the other hand, these costs will not always remain static as the mileage to be maintained is constantly increasing and costs are rising. Governments are often tempted to emphasize new road construction at the expense of maintenance of existing roads. The latter, if neglected, will often result in a much greater loss of existing assets than the cost of maintenance. Adequate maintenance is therefore generally a better economic investment on balance than the building of new roads. Expenditures on road maintenance rose to more than £827,000 in 1960/61, of which about £701,000 went for roads maintained directly by the central government and £126,000 for grants to local authorities for the maintenance of aided roads (see Table 22). The budget figures for 1961/62 provide £590,000 for main roads and £114,000 for the aided roads.

In estimating future maintenance costs, the fact that some roads have recently been provided with a bituminous surface will mean that these roads will not require much attention for some years. On the other hand, roads upgraded during the 1950's will begin to qualify for renewals. On balance, the mission believes that expenditures on
TABLE 22: Expenditures by Central Government on Road Maintenance

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<tbody>
<tr>
<td>Main Roads</td>
<td>528</td>
<td>701</td>
<td>667</td>
<td>716</td>
</tr>
<tr>
<td>Aided Roads</td>
<td>116</td>
<td>126</td>
<td>180</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>644</td>
<td>827</td>
<td>847</td>
<td>966</td>
</tr>
</tbody>
</table>

* Excludes grants by Ministry of Local Government to townships for urban roads. These grants are estimated to have totaled £34,750 in 1960/61.
* Includes ordinary maintenance, renewals of surfaces, special repairs and repairs and replacement of vehicles and equipment.
* Maintenance grants to local authorities.

roads maintained directly by the central government will decline during the earlier years of the five-year period (as postulated in the government forecast) and then will begin to rise again toward the end of the period. Thus, we forecast that by 1965/66 these expenditures will be back at about the 1960/61 level but that the annual average over the whole period will be somewhat less (see Table 22). So far as maintenance grants for aided roads are concerned, we believe that, if Government takes over direction and control of local road development and maintenance as suggested later in this chapter, the consequent expansion of secondary roads will give rise to increasing maintenance requirements during the five-year period. Taking direct maintenance and grants for aided roads together, we believe total road maintenance expenditures will rise during the period and reach a level of £966,000 by 1965/66. However, the annual average of maintenance expenditures for the period as a whole should not vary much from the 1960/61 level of £849,000.

Secondary and Local Roads

Secondary and local roads are at present mainly the responsibility of the local administrations and are financed partly by capital and maintenance grants from the central government and partly from local funds. No government policy has been formulated for these roads for the guidance of the local administrations and there is practically no
technical supervision by the Ministry of Works, even though a large proportion of expenditures are being provided by the central government. Each year's program is determined piecemeal by the local authorities who also decide on locations, alignments, standards and needs.

Considering the vital role played by secondary roads, the mission suggests that more interest than heretofore be taken by the Government in their maintenance and development. Policy directives should be given to the local governments on such matters as location, alignment, standards and the accounting of expenditure. Furthermore, technical assistance and direction should be made available by the Ministry of Works to the local governments and the Ministry should be responsible for seeing that central government grants for road maintenance and development are properly spent. The days are passing when local officials can be left with the responsibility for maintaining roads within their respective counties aided by lump-sum central government grants not subject to detailed accounting. The mission's specific recommendations in this matter and on strengthening the Ministry of Works to enable it to undertake the additional duties suggested are given below.

The Administration of Road Development and Maintenance

We believe that certain administrative changes are necessary if Uganda's road development is to proceed efficiently on the basis of a coherent nation-wide policy which nevertheless takes into account local needs and desires. There should be incisive direction at the top, and effective channels from below. Accordingly, we recommend the establishment of a system of local road conferences headed by a national Transport Advisory Council, together with the creation of a new ministry concerned with all phases of transport.

A Proposed Transport Advisory Council. The existing machinery for assessing road needs in Uganda is, in the opinion of the mission, defective. There is considerable public demand for improvement of the road system but the response to this demand has not always been well conceived. For example, although the development of roads in the first few decades of the present century led to a very extensive spread of cotton cultivation, it does not necessarily follow that similar road development will always lead immediately to the spread of the cultivation of cash crops. Much will depend on world market prices
of exportable produce; on agricultural extension services and credit facilities; and on the public health, sanitation and other amenities made available in newly opened areas.

To arrive at reasonably effective development plans for transport facilities in the future, it would perhaps be better, not to rely solely on the judgment of officials, however able and experienced, but to provide means for the voicing of public opinion from the District level up to East Africa as a whole. To this end, we recommend that District and other Road Conferences should be summoned at regular intervals and that their recommendations be considered by a Transport Advisory Council (TAC) at the national level. This method of drawing up the road plan would enable future central governments both to keep in touch with local opinion and (as explained below) to take full advantage of the considerable body of expert knowledge and experience which would be available in the Technical Committees of the TAC.

At District level, the membership of this conference should include not only the present official “teams” but, depending on the state of advancement of the District, one or two prominent persons representing local commercial interests, the local member of the legislature and other prominent people, as circumstances dictate. The road and other transport plans drawn up by the District Conferences should then be considered by Provincial Conferences similarly constituted but representing the wider interests of the province as a whole. The provincial plans should next be considered by one of the Technical Committees of a Uganda Transport Advisory Council (TAC) to be set up under a proposed Ministry of Transport, Communications and Works recommended below. Represented on this Technical Committee would be the local Chambers of Commerce and Industry; the Ministries concerned with agriculture, commerce, industry and mining; the Railway Administration in an advisory capacity; important road-transport operators; and certain members of the legislature and other prominent people. (Other Technical Committees would deal specifically with such matters as railways, civil aviation and motor vehicle regulation.) Finally, the plans for the development of transport facilities that emerge from the deliberations of all these bodies, should be considered by the TAC itself. On this Council would sit all the Ministers concerned and their advisers. The Council’s recommendations should finally be discussed at Cabinet level.

This procedure, though apparently cumbersome for a small country like Uganda, once established, would work automatically. It would
enable many interests, at present not consulted, to contribute toward the plan and, most important, would uncover and adjust minor issues and differences of opinion which at present perhaps hamper the arriving at decisions at the highest level. The plan that would finally emerge under this system would tend, through the play of contending forces, to take into account the weight and direction of informed public opinion in the country.

**A Proposed Ministry of Transport, Communications and Works.** At present there is considerable duplication in policy making in the sphere of transport and communications. The Ministry of Commerce and Industry is responsible for policy on "regional communications" (railways, posts, telecommunications and civil aviation); the Ministry of Land and Water Resources, apparently, for such matters as "feeder road" policy; and the Ministry of Works for "main-road" policy and road and airport construction in general. In most countries, the ministry responsible for the formulation of policy on transport facilities, is also responsible for constructing roads, airports, and such other transport media as are under the direct control of the Government. Thus, the technical competence of the Ministry and its intimate knowledge of the defects and potentialities of existing transport media enables it, in consultation with other ministries, to formulate satisfactory schemes in the matter of all road and other transport development requirements.

Since there is not sufficient building construction and other public works activity in prospect in Uganda to justify the retention of a Ministry of Works not connected with road construction, we suggest for consideration that the ministry here proposed be called the Ministry of Transport, Communications and Works. This arrangement would conserve technical staff who could be employed on both buildings and roads, solve accommodation problems and generally streamline organization. The policy previously adopted of divorcing road and airfield works from other works was not satisfactory in the then economic situation of Uganda, and the mission feels the experiment should not be repeated under present conditions.

A Ministry of Transport, Communications and Works would not only have available to it the opinions of the local road conferences referred to above, but would have knowledge of other development proposals into which the new schemes could well be fitted with perhaps some agreed adjustments in alignments to avoid duplication of bridges, hill roads and other expensive works. The new Ministry should assume
Programs in Other Sectors

Responsibility for technical assistance to local authorities and for seeing that central government grants in its fields are properly utilized by these authorities. Such supervision of local authorities' utilization of central government grants would, of course, have to be exercised with tact. Some expansion of the technical and secretarial staff of the existing ministry would be necessary to enable it to undertake the additional duties proposed. But this expansion should be offset by the possibility of some decrease of staff in other ministries.

Another function of the Minister in charge of the new Ministry would be to represent Uganda on the triumvirate concerned with communications to be established as part of the new arrangements envisaged for the East African Common Services Organization. Thus, there would be one voice qualified to speak for Uganda on communications matters, rather than the several that there have been so far because of the overlap in ministerial responsibility referred to above.

Road Standards

One of the most important tasks of the new Ministry would be to decide the standards to be adopted for the various roads included in a general plan. Basically, road standards are determined by consideration of the traffic any given road will carry. In Uganda, for the new and re-aligned roads provided in the program, the "design-standard" should approximate to those briefly described below.

"Geometric standards" (sight-distances, curves, transitions and gradients) for all main roads (whatever formation-widths or surfaces are first provided) should allow, because of the generally exceptionally favorable topography, for motor traffic traveling at speeds of 55 miles an hour and, preferably, for higher speeds where this is feasible. As traffic develops the formation and carriageways can then be upgraded in stages without the expensive re-alignment of roads that has so often been necessary in the past. For secondary and local roads, the geometric standards might be less exacting and provide for speeds of 40 or 50 miles an hour when it is not expected they will ever carry very heavy motor vehicle traffic. An exception may be made for subsidiary roads in hilly country when the immediately anticipated traffic needs can only be met within the funds available by adopting still lower geometric standards. In these cases, expensive re-alignment will be necessary if traffic develops considerably and this contingency must be borne in mind when coming to a decision. The present statutory reservation of 100-ft. width for all roads should be retained and culti-
vation of high crops and the planting of hedges should not be permitted close to the formation.

The technical categories of sections of roads might include Class I, Class II, and a lower class (Class III) might be included with subclasses which would allow for lower geometric standards, reduced formation and carriageway widths, lower standards of bridges and culverts, and lower types of surfacing. No road, regardless of the standard of its construction, should be included in Class I or II if it is not motorable all the year round.

Road Classification

In addition to the technical standards to which roads are built, they may also be classified according to the uses they serve. The mission suggests that the opportunity be taken, when financing the road plan for the coming five-year period, to review the present classification of roads, both with respect to required technical standards and to the uses they serve.

A suggested classification according to use is:

a. *Main Roads.* These will pass through more than one province and are destined finally to link with the road systems of surrounding territories.

b. *Major Provincial Roads.* These will include all important roads for which the Protectorate Government assumes responsibility.

c. *Other Provincial Roads.* These will include all roads passing through more than one district, for which the concerned local government is responsible, partly or in whole.

d. *District Roads.* These are confined to one district.

e. *Local Roads.* These are of local importance only.

f. *Urban Roads.*

Under this system of classification such terms as feeder roads (all roads are feeder roads), subsidiary roads, secondary roads, etc., which are susceptible of varying interpretations, would be used only when giving very general descriptions and not when specific schemes are referred to.
The relationship between use classification and technical standards would depend on traffic densities. Thus, a section of a Main Road might be built to Class III specification if it carried little traffic, while a heavily trafficked District Road might be built to Class I specifications. Furthermore, the use classifications should be reviewed from time to time in consultation with local governments to determine whether in fact the use of particular roads has changed; the construction of other roads, the building of new railways and the changes on water transport arrangements often have an impact on nearby roads.

Finally, whatever the use classification, whatever the technical standards of construction and whatever public authority is ultimately responsible for their construction, development and maintenance, all roads would be under the general direction and control of the new ministry, as we have suggested above, the only exceptions being the roads in forests and parks, which are controlled by the forestry and park authorities, and municipal roads where there is a statutory municipality.

Road Transport

Road transport is very adequately analyzed in the Hawkins Report. The mission has found little change in conditions since that report was written and agrees generally with the analysis and main conclusions contained therein. In particular, we agree that there is considerable spare road-freight capacity in the country due largely to state control of export crops and the present organization of trade and commerce; that long-distance road traffic forms a small proportion of the whole; that the fall in freight rates in recent years has been beneficial to the economy; and that there is no evidence that competition within the industry is becoming uneconomic. We further agree that there is no substantial ground for a restrictive goods-transport licensing system in Uganda.

Uganda's economy unfortunately does not at present provide a large enough market to allow for the growth of a specialized, fully employed road-transport sector. One factor which restricts the growth

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3 Mr. E. K. Hawkins, Research Fellow of the Nuffield College, Oxford, was asked early in 1957 by the British and Uganda Governments to carry out a survey of Uganda's road transport economics and to estimate the probable future expansion of the transport industry with a view to providing information on which a road-development policy could be based. Mr. Hawkins submitted a voluminous report in 1959 which is still under consideration of the Government.
of transport specialization is the Government’s belief that there would be temporary inflation of transport rates in the busy cotton season if cotton transport were not in effect subsidized by the Lint Price-Fixing Committee. Other factors include the limited opportunities specialized carriers have of obtaining business from many other prosperous industries which maintain their own unspecialized transport for convenience even at the expense of higher transport costs. If the present very low taxes on motor vehicles were brought more into line with those of some other underdeveloped countries, it is probable that much of the present inefficient transport would be eliminated to the benefit of the economy.

Although the mission does not agree entirely with all the conclusions arrived at in the Hawkins Report on the question of passenger transport, we recommend that there should be a planned retreat in the regulation of mass passenger transport in the direction of granting franchises to more bus companies, allowing lower standards of comfort in bus travel and allowing more competition from smaller vehicles. Private cars and small commercial vehicles can frequently offer a more convenient and flexible method of transport for the majority of the traveling public than the large bus. Because Uganda is a land of small, scattered homesteads rather than of villages, there is a demand for door-to-door transport or at least for transport serving local needs more intensively than at present. Unfortunately, it appears that the “pirate” competitors of the bus companies do little to serve rural needs as they seem to confine their activities very largely to the main roads. The bus companies are said to be more willing now than heretofore to stop at non-regular stopping places at the request of a passenger. But the fact remains that bus services operated on traditional lines on strict schedules and maintaining the other aspects of efficiency and comfort that pertain in more advanced countries than Uganda, can only survive if very strict, and unpopular, transport regulation is maintained.

Higher motor vehicle taxation, which we endorse below, would undoubtedly discourage illegal carriage of paying passengers by private cars. But the Government could also devise ways and means of gradually liberalizing the industry while offering an assurance of reasonable protection for those operators who have invested capital in it. The refusal of licenses for expansion where alternative, cheaper and lower-standard transport appears available and the encouragement of operators, including “contract carriage” small-vehicle operators who will operate partly on the main roads and partly in rural areas, are
among the methods that may be considered to give effect to the policy recommended by us.

The mission also agrees with Mr. Hawkins' recommendation that there is a strong case for mechanizing the records of the Motor Vehicle Registry and that some statistical methods should be introduced into traffic counts. We have recommended that the works activities of District Councils and other local administrations should be placed under the direction of the Minister for Transport and this will overcome some of the present difficulties.

Motor Vehicle Taxation

In the mission's view, the efficient development and use of transport facilities require that users be given a free choice of alternative methods of transport at prices at least high enough to cover the costs that would be avoided if the service were not made available. Under conditions of equitable competition and freedom of choice, the transport user can weigh the comparative practical advantages to himself of various modes of transport. He alone knows how much it is worth to him to use one rather than another. There is therefore a prima facie case for allowing users unrestricted freedom of choice among the means of transport. To further this objective, the mission recommends that, so far as road transport is concerned, motor vehicle taxation in its broadest sense should be reviewed in order that appropriate adjustments can be effected.

Road transport charges should contain an element (indicated by road-user taxes) that covers the road-users' "fair share" of the cost of the provision and upkeep of the roads. The motor-vehicle operator is not the sole beneficiary of the road-system assets, since the latter also serve the purposes of governmental administration, give access to property, and make possible the provision of neighborhood and community services. In fact, some authorities claim that many rural roads and most local access streets in towns are primarily of benefit to adjacent property holders and to local communities and that the motor-vehicle operator should be debited with only a small portion of the cost of their provision and upkeep. As a case in point in Uganda, the road system in the Karamoja district carries very little traffic. The roads are, however, necessary for the maintenance of law and order, and for the provision of many essential services to the people.

The question of what special charges, over and above general direct taxes and the prevailing level of indirect taxes, should be imposed on
road transport to cover the road-user's fair share of road costs has been intensively studied in many countries during the last few decades and a great deal of literature is available on the subject. These studies have been concerned with the benefits that are derived in different countries from the road system by the various beneficiaries (property owners, transport operators, etc.); the “ability to pay” of transport operators; the method of calculating the cost of the road system when the historical cost is not known; the apportionment of the share of costs or expenditures to be borne by the various categories of road users; and many other such factors. The mission has not attempted such an investigation nor do we consider it is necessary to make very detailed calculations in the present circumstances of Uganda to arrive at a reasonable basis for imposing special charges on road users.

Nevertheless, it would be necessary to collect a good deal of factual information (not available to the mission) before a scale of special charges to be imposed in Uganda could be drawn up. Probably the best procedure would be to calculate the capital and recurrent costs of the road system, decide on the road-users' fair share of these costs, and then adjust road-users' special charges, over and above general tax levels, so that costs and charges are equated.

The road system in Uganda was developed partly by communal effort without capital expenditure, on the basis of the luwalo system referred to above, partly by recurrent maintenance measures and partly by direct capital expenditure. The total capital expenditure during the last few years could perhaps be ascertained, but this alone would not give a true indication of the amount of capital locked up in the road system. If, however, the total capital expenditure on roads since the advent of the motor vehicle in any numbers (say 1,924) happens to be known, this figure, valued at today's prices, could reasonably be taken as the value of the capital locked up in roads since nearly all expenditure before that date would be for community use and not for the motor vehicle user. Failing this, an attempt would have to be made (as has been done in other countries) to work out the value of the road system by more or less rule-of-thumb methods.

Given an agreed capital value for the country's roads, annual capital costs can be reckoned on the basis of reasonable amortization and

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4 Such an equation was attempted in the Hawkins Report (see op. cit. p. 25). However, on the cost side, Hawkins ascribes total costs to users and, on the revenue side, ascribes the total yield of automobile duties, etc., as a charge on the road user.
the present long-term market rate of interest. The bulk of these costs, but not all of them, would be charged to road users, the remainder being regarded as chargeable to the community—to government activities, to community services and property owners. By the same token, the major share of recurrent maintenance costs should also be charged to road users.

In calculating revenues to be derived from road users only the excess of import duties on motor vehicles and parts and on motor fuel, lubricants, etc., over and above the general level of import duties, would be regarded as a special charge to road users in their function as such, the remainder being regarded as the normal contribution to the general exchequer made by all interests in the country. Added to such an import duty excess, would also be the incidence of sales taxes on motor vehicles, fuel, etc., over and above the general level of taxes on other economic activities. Finally, license and registration fees would also be regarded as part of the special charge on road users.

It would thus be possible to calculate the total sum that road users are currently providing which is specifically chargeable to road costs. On the basis of very rough calculations of our own, we feel sure that present revenues from special charges, in the sense that we have used the latter term, are at present insufficient to meet the road-users' share of road costs.

We therefore recommend an increase in the customs duties on motor vehicles (or the imposition of a countervailing sales tax), an increase in the customs duty or a sales tax on motor fuel and an increase in registration and license fees. The increases in the various rates should be such that the total yield from them would equal total costs to be charged to road users as indicated above.

The mission is not in a position to advise as to how much of the required additional yield should be obtained from each of the three possible sources. However, we do consider that the fuel sales tax is the best form of levy since fuel is a measure of the use made of roads, the cost of collecting the tax is negligible, and the method of collection causes little inconvenience to the taxpayer. On the other hand, the duty imposed on motor fuel has recently increased and there may be limits to further increases.

As far as the general level of charges on the road transport sector are concerned, the mission believes that most underdeveloped countries levy much higher duties than Uganda, and license, registration and other taxes are also appreciably higher. On general grounds it would seem that, if the scale of taxes in the transport sector of other
underdeveloped countries has not harmed their economies, a somewhat similar scale imposed in Uganda would be similarly innocuous. The mission has already commented on the fact that market pressures have not been sufficient in Uganda to foster specialized transport and that the country's motor-vehicle capacity is much underemployed. These conditions would be considered by some authorities as signs of under-taxation.

In any event, in addition to adjusting tax rates to meet the specific costs of roads, there are also other grounds for changing taxes as a matter of policy. In an underdeveloped country there is a special case for taxing luxuries. Expensive automobiles can only be purchased by the very rich or the privileged and such persons can afford to pay heavy taxes. The mission suggests that the customs duty (or surcharge) on motor cars should be progressive, going up steeply with value.

For heavy transport vehicles, which cause so much damage to the roads without a countervailing reduction in low freights and which are the fiercest competitors with the railway, high taxes appear to be appropriate. The mission suggests that, if the Government agrees, such competition should be discouraged, the license and registration fees, etc., be increased steeply with carrying capacity or estimated total laden weight.

The mission does not recommend the imposition of any tax that would discourage the use of the diesel-engined motor vehicle. This type of vehicle uses much less fuel for the same performance than the gasoline vehicle. The fuel is cheaper, easier to handle and store, and less foreign exchange is required to import diesel fuel (for the same engine performance) than gasoline. The diesel engine has a longer life than the gasoline engine, there is a longer period between overhauls, and more power is developed at low speeds. On the other hand, the diesel engine is initially expensive, is not generally suitable for low-powered engines in motor vehicles, and requires special facilities for servicing. It does not follow that the diesel vehicle should contribute considerably less toward road upkeep than the gasoline vehicle, as is the present position in Uganda. The problem has been solved in many countries by imposing increased license, registration and other taxes on diesel vehicles. Even so, it has often been found that the diesel engine does not bear its due share of road upkeep costs.

The mission also suggests that the customs duties on spare parts and accessories be abolished altogether or be kept very much lower than on the motor vehicles themselves. Considerable quantities of inferior spare parts are imported and high duties would accentuate
the difference in cost of good and unsuitable substitutes. Moreover, the high insurance rates paid by motor-vehicle owners in Uganda is to some extent due to the abnormally high incidence of thefts of cars. These cars are stolen for their spare parts and are usually abandoned after being stripped. If spare parts pay low customs duties and are therefore reasonably cheap on the market, there will be less incentive for such thefts.

Before coming to a final decision on details of all forms of road taxation, the Government should consult transport operators, trade interests, the oil companies and other interested parties. As always, adjustments will have to be made if it is found a particular tax is too low or that it bears harshly on sections of the community. A very convenient method of consulting all interests would be through the Transport Advisory Council we have proposed (except on customs duties).

ROAD-RAIL COMPETITION

In general, the road and rail systems of Uganda are complementary. However, there is also competition between the two. The problems presented by competition for freight traffic between the roads and railways await a satisfactory solution in most countries. (There is virtually no competition for passenger traffic in Uganda.) Everywhere, statistical information on road traffic, because of its very nature, is extremely difficult to collect. Uganda is no exception but a study of motor vehicle registration and fuel consumption statistics gives some kind of indication of the total volume of goods traffic carried by road. The mission is satisfied that the roads in Uganda carry many times the quantity of goods conveyed by rail when measured in tons. Road transport, moreover, has grown at a somewhat greater pace than rail transport during the last decade. During the three years 1957-1959, however, rail-freight traffic has remained fairly constant while road-freight traffic has declined.

Transport policy in no country in the world appears to be based on firmly established principles of inland transport coordination. This is because strategic needs, vested interests, political pressures, and other imponderables have a strong influence on policy which changes in the course of years. However, the principle we have already mentioned seems to be gaining wide acceptance in many countries: the shipper must have freedom of choice under circumstances such that charges for transport reflect at least the costs that would be avoided if
the service were not made available. The difficulty arises in interpreting this "freedom of choice" within the context of particular circumstances. In Uganda, for example, the taxes on road vehicles do not cover their share of the cost of providing and maintaining the roads. Until the taxes are raised along the lines we suggest above, the principle of freedom of choice will not yield a rational result.

In spite of the fact that road transport is to some extent subsidized in Uganda, it does not seem that, so far, there has been much unfair internal competition with the railways and inland waterways. This is so because motor vehicles licensed in Uganda do not engage in interterritorial trade—a major aspect of rail transport—and the policy of the Government has been to divert traffic to the railway, as explained in the Hawkins Report. Government departments are required to use the railway even when road transport would be cheaper, quicker and far more convenient.

The EARHA does not agree that road-rail competition in Uganda is marginal. They tend to the view that nearly all road transport traffic, except short-haul traffic defined as that under a distance of 30 miles parallel to the railway, is a "loss" to the railway. Short-haul road traffic has positive net advantages over rail. If the railways can keep their traffic at rates that cover, at minimum, the incremental costs of rendering the service they should attempt to do so, but it is unlikely that, even at these rates, they will be able to equal the advantages offered on short hauls by truck service. When there is no unfair competition, in the sense of trying to attract business by making low, uneconomic charges, competition between the purveyors of transport benefits the economy as a whole and is therefore of advantage to all forms of transport.

The railway admits that in certain circumstances some goods would travel by road even if the railway offered to carry them for nothing at all. The mission has come to the general conclusion after reviewing all the data available that, as a general principle, long-haul and interterritorial traffic is especially suited for carriage on the railway, and that this principle should be recognized as far as possible by a system of tax incentives and disincentives, rather than by regulation. It is the experience in most countries that regulation (licensing, etc.) is administratively difficult, expensive, unpopular except with the holders of monopolies, and unenforceable. On the other hand, the conveyance of short-haul traffic should be left to the freedom of choice.

*Hawkins Report, p. 89 and pari passu.*
of the shipper provided the tariffs of both forms of transport are based on the added costs involved in providing the service and the obligations are the same. (See Annex VI for a sample comparison of road and rail tariffs.)

AIR TRANSPORT

Airports

Entebbe is Uganda's main airport, built to international standards (Class B). In addition there are seven well distributed landing grounds served by scheduled flights and several landing strips usable by small aircraft and providing air access to the more remote, small centers of activity. Thus, the present needs of the country are adequately served.

The Entebbe airport is well planned and fairly well equipped. It is not proposed to extend the main runway (already 9,800 feet long) or to raise its classification during the next few years because extension would be very costly for reasons of topography and because the main international jet traffic of the region will continue to pass through Nairobi, only 323 air miles away. It is very unlikely that this traffic could be attracted to Entebbe. Nairobi has several advantages over Entebbe: it now handles about twice the number of passengers and more than eight times the freight of Entebbe; its terminal facilities, in which considerable sums have been invested, are much better; and there is ample space for extending the runways and making other improvements at reasonable cost. On the other hand, weather conditions over Entebbe are generally more favorable than over Nairobi (no craft has been refused a landing at Entebbe in recent years) and the runway is wider (200 feet, against 150 at Nairobi). Traffic at Entebbe is appreciable (12,000 movements, 90,000 passengers and about half a million kilograms of freight handled in 1959/60) and has been growing at a rate of about one percent a year.

The mission agrees that the runways at Entebbe should not be extended at great cost merely to provide emergency landings for fully fueled heavy jets, and that expenditure should be restricted to maintaining the airport to its present international standard and providing adequate terminal facilities to meet anticipated traffic needs.

At the smaller internal airports, where only one or two aircraft (or none at all) call during a day, some economies are being effected at present by combining the duties of more than one of the ground and administration posts in one person. More could, however, perhaps be
done in this direction. For example, the same operator who transmits weather information for the meteorological service could transmit information on the movements of aircraft for aviation service. In particular, better use might perhaps be made of the fire fighting staff who, because of their special training, are disinclined to undertake other duties even when no aircraft movements are anticipated over long periods of time.

**Operation of Civil Airlines**

The main air services inside Uganda and with its neighboring territories are operated by the East African Airways Corporation (EAAC) with its own aircraft. Since 1957 the Corporation has also operated international services to Europe (including London) and India using its own jets and aircraft chartered from the British Overseas Airways Corporation. Under the new East African Common Services Organization, civil aviation will be within the field of the triumvirate of ministers on communications. The combination of internal and international services has been satisfactory and the Corporation has made profits in every year since 1955.

The EAAC, like the railway, is operated as a business concern. The mission is of the opinion that the estimates of the Corporation should be made as public as possible within the limits of the secrecy commonly enjoyed by a commercial enterprise facing international competition.

In addition to the East African Airways Corporation, Caspains Air Charters and Agencies Limited operates a service round Lake Victoria and, together with several other air companies, undertakes chartered flights elsewhere in Uganda. The main user of the minor air strips is, however, the Police Department.

**Ground Facilities**

Ground facilities at Entebbe and the internal landing grounds and air strips are provided by the Uganda Government. During the five years 1956/57-1960/61, total recurrent expenditures charged to the Budget were £252,700 but this does not take into consideration the contribution to the High Commission for air services and the general overhead costs attributable to the airports. Revenue amounted to £290,400 (see Table 23). During the same period, capital expenditures totaled £409,900. During the five years 1961/62-1965/66, we recom-
mend the allocation during the period of £400,000 for capital works.

Table 23: Revenues and Direct Budget Expenditures on Airports and Landing Fields

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues (in £ '000)</th>
<th>Direct Recurrent Expenditures</th>
<th>Capital Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956/57</td>
<td>38.9</td>
<td>33.8</td>
<td>51.8</td>
</tr>
<tr>
<td>1957/58</td>
<td>55.3</td>
<td>35.0</td>
<td>108.5</td>
</tr>
<tr>
<td>1958/59</td>
<td>63.6</td>
<td>60.3*</td>
<td>88.6</td>
</tr>
<tr>
<td>1959/60</td>
<td>66.6</td>
<td>58.0</td>
<td>58.0</td>
</tr>
<tr>
<td>1960/61</td>
<td>68.0</td>
<td>65.6</td>
<td>103.0</td>
</tr>
<tr>
<td>Five-Year Total</td>
<td>290.4</td>
<td>252.7</td>
<td>409.9</td>
</tr>
<tr>
<td>Projected for 1961/62-1965/66</td>
<td>390.0</td>
<td>275.0</td>
<td>400.0</td>
</tr>
</tbody>
</table>

* Increase in maintenance due to financing some of the cost of runway resurfacing from revenue expenditure.

Source: Uganda Public Works Department.

At Entebbe, the proper upkeep of the airport will involve a “reseal” of the runways with a two-inch bituminous carpet in the near future. Visual glide path indicators are on order. There will also be required improvements to hard standings and aprons, replacement of existing (obsolete) storm warning radar and the provision of other necessary facilities. The terminal buildings are inadequate for the growing passenger traffic, the sanitary arrangements are being improved and many other matters require attention.

In addition to provision and upkeep of airfields, the Government contributes to the High Commission costs of the upkeep of the East African Civil Aviation and Meteorological services, the contribution in 1960/61 being £42,000 and £72,000 respectively. In future, if the recommendations of the Raisman Commission are accepted, Uganda will make no direct contribution for these services, but will do so indirectly through the pool of revenue accruing to the Common Services Organization.

An Aerodromes Advisory Committee was constituted in October 1959 by the Uganda Government and is doing excellent work. It has
been able to investigate complaints about the operation of the minor landing grounds and air strips and to make many valuable suggestions. It also brought to notice the grave shortage of meteorologists at Entebbe and the consequent effect on the full use of the main airport.

**Meteorological Services**

The Meteorological Service is an East African Department directly responsible to the High Commission. It is intimately concerned with air transport, both regional and international. Its duties in this field are rapidly expanding with the expansion of jet air routes and the trend toward putting ever larger jets into service. Nevertheless, the services rendered by the meteorological department to the territorial government are also important in providing information for the agricultural, forestry, hydrology engineering and other departments. The department is also responsible for many geophysical schemes.

The regional headquarters of the department are situated at Entebbe airport. In addition to providing a weather forecasting service for aviation, the Regional Representative is responsible for administering the meteorological services throughout Uganda. Liaison with the Uganda Government is maintained through the Ministry of Commerce and Industry, but in matters relating to agriculture and natural resources and, in fact, all the scientific departments, contact is maintained with the local ministries concerned. The Regional Representative is a member of the Uganda Water Resources Sub-Committee as well as other committees.

The office at Entebbe is nominally open throughout daylight hours but since many jet services through Entebbe operate at night, the forecasting watch is extended on most days. A severe shortage of trained and experienced meteorological personnel has thrown a great strain on the local staff and, on occasion, has necessitated the restriction of the hours at which meteorological services are available. Big aircraft using Nairobi at night have on occasion to be diverted to Entebbe in stormy weather. The loss of landing facilities at Entebbe due to lack of weather information at night at that port will also make Nairobi unpopular with the airlines.

**Interterritorial Administration of Civil Aviation**

The Air Advisory Council of the High Commission does not appear to have met often enough. When it did meet it seems largely to have
confined its attention to the Civil Aviation and Meteorological estimates. Had the Council met oftener and considered matters of policy at its meetings, or had there been an independent Commissioner for Transport, it is conceivable that specific suggestions would have been made on how to overcome the difficulties created by the serious shortage of personnel in the meteorological office at Entebbe. The mission suggests that perhaps some reorganization of the meteorological department and concentration of part of the work in Nairobi (already being examined) might ease the position somewhat. It is also probable that well qualified mathematicians and physicists could be quickly recruited from countries other than those so far considered. These men could be soon trained for routine forecasting and similar work. The matter is urgent if jet services in East Africa are to expand.

The High Commission has had difficulty in financing new meteorological services which the airlines have stated are necessary for jet operations (£41,697 in the recurrent budget of 1960/61 and £18,102 under Special Expenditure (Capital)). Items not yet provided, but required for facilitating jet flights, include a long-range Sferic network for the detection of thunder storms. The existing ten-year old storm detection radar at Entebbe is useful for local forecasting and for briefing air crews at the airport but has limited value for other aviation purposes. The airlines have not felt the need for the new equipment to be great enough, however, to have been willing to provide finance or pay increased charges for it.

If the communications triumvirate of ministers within the East African Common Services Organization have the necessary administrative staff, they should be able effectively to coordinate transport policy, including that concerned with civil aviation. It is possible that the triumvirate and its staff would be in a position to advise the new East African Common Services Authority at an early stage on the advantages to the territorial governments and the traveling public of providing facilities for the new international and other jet services. It might also be able to advise the territorial governments on the facilities to be provided at local landing grounds independently of the advice given by commercial air companies who may not always otherwise purchase and operate aircraft best suited to the interests of the East African taxpayer.

The triumvirate staff may also be in a position to advise the Uganda Government on landing fees, fees for servicing aircraft, etc., some of which are probably too low at present. In particular, the charges for cleaning aircraft passenger cabins, which at present are
at a flat rate, should be put on a sliding scale according to the size of the aircraft. There is no reason why air transport should receive specially favorable financial treatment by the Government over other modes of transport.

POSTS AND TELECOMMUNICATIONS

The East African Posts and Telecommunications Administration (EAPTA) is another agency of the East African High Commission. A regional director, who is responsible for all the Administration's activities in Uganda, is stationed at Kampala. Liaison is maintained in postal and telecommunications matters with the Ministry of Commerce and Industry. In addition, Uganda is represented on the East African Posts and Telecommunications Advisory Board by three members appointed by the Governor of Uganda. The postal and telecommunications network is efficiently operated and covers the country reasonably well. However, there is a keen public demand for an extension of the postal services. There were 42 post offices and 112 postal agencies in operation in Uganda in 1960 and the telephones numbered 14,079.

Telephones and Telegraphs

The telephone service in Uganda is popular and the traffic has been expanded at the rate of about 7 percent a year. Many outstanding applications for telephones would involve the construction of rural lines which would not produce sufficient revenue to cover the cost of their own provision, operations and maintenance. To meet the wishes of potential subscribers as far as possible, a scheme was launched toward the end of 1959 under which prospective subscribers in rural areas were invited to provide 85 percent of the direct cost of constructing their lines while the Administration would bear the remaining 15 percent plus all overhead charges (estimated at 25 percent). In these cases the normal rental rate would be reduced by 25 percent and the standard connection charge waived. (Within two miles of an exchange the connection charge is £4 to £8.) This scheme was subsequently made a little more attractive but so far not many subscribers have taken advantage of it.

Public call offices total 67 only. These offices are subject to pilferage and damage unless installed in locations directly under police surveillance and this limits their number. Also, they are not installed
unless the earnings are estimated to be at least £20 a year. Private wire services totaled 103 speech circuits and 20 teleprinter circuits. Trunk calls totaled 860,000 in 1960 and local calls over 15 million.

A radio call service has recently been opened for remote subscribers operating their own radio sets. The service operates through a central post office during scheduled hours and is connected through this station with the whole telecommunications network. Outside scheduled hours, subscribers are free to communicate directly between themselves. It is too early to assess the success or otherwise of this commendable enterprise.

Telegraph traffic has been steadily declining throughout East Africa since 1953 because of the very much improved telephone and air-mail services introduced progressively since that date. Efforts are being made to improve the efficiency of the telegraph services. The recently introduced phonogram services are being extended to more exchanges but otherwise the decline in telegraph traffic is likely to continue.

**Postal Services**

Postal traffic in Uganda is increasing slowly. The traffic in letters, post cards and printed papers (16.0 million, or perhaps two letters a year per head of population) is not much more than the telephone traffic. The high internal postal rate (30 cents a letter as compared with a daily wage of about 250 cents of the average literate earner) coupled with the post office box system of delivery undoubtedly has an influence on the low incidence of postal traffic.

In Uganda (as in most African territories) letters have to be collected by addressees themselves from post boxes in the post office. The hire charges for these post boxes is Sh. 30/- a year which is beyond the means of the average literate person in Uganda. It is claimed that the low level of literacy and the difficulty of locating addresses has led to the introduction of the post office box system of delivery, but in India, for example, where illiteracy is as great as in Uganda, letters have always been delivered by hand and the internal postal charges are much lower than in Uganda.

The mission suggests that the internal postal charges should be reduced as soon as possible. With the telephone service becoming more viable and requiring less subsidization, attention should be directed during the next five years to improving the postal system. A reduction in charges would almost certainly divert to the post offices
some of the extensive messenger traffic between business concerns in Kampala and other large centers and lead in due course to a general increase in postal business and revenue. The extent of the internal letter traffic which does not pass through the post offices because of the high postal rates and other reasons can be gauged by the existence of official local government postal services operated by the district councils and by the Kabaka’s government in Buganda. These administrations supply an internal postal service between chiefs and a great deal of mail passes regularly through the county and sub-county offices carried free of charge by local government messengers. A great deal of mail, parcels, etc., is also carried by bus and truck drivers and by the traveling public in behalf of friends and acquaintances.

Another question that requires examination is the establishment of more postal agencies in small trading posts in the interior of the country. Efforts so far made in this direction have not been very successful. If paper work were simplified and attendant responsibilities eased and made less costly, more private traders would be eager to take on a postal agency which could come to be regarded as a desirable asset and competed for, rather than resisted as at present. This would be in accordance with the Government’s policy of encouraging the entry of Africans into retail trade since the provision of easy postal facilities will undoubtedly benefit all small traders. The introduction of some form of hand delivery might also be examined. More could be done in the way of providing pre-stamped post cards, letter cards, etc., and in giving other assistance to the public to encourage the use of the postal services. Many suggestions on this could be made and some advance appears possible provided there is a will to introduce better postal facilities to the benefit of the country’s economy. On the whole, the mission is inclined to believe EAPTA is too complacent about the present position of the postal services in Uganda.

Radio Communications

At present there are at least five authorities in Uganda responsible for radio communications, Civil Aviation, the Meteorological Department, the Police Department, the Railways, and the Posts and Telecommunications Administration. The first four must have a 24-hour service and be certain of prompt delivery of messages to individual persons. The Civil Aviation and Meteorological Services also have their own special equipment (including teleprinter equipment for
broadcasting messages to half a dozen or more places simultaneously). It appears that if the same type of equipment were, as far as possible, used by these two services and the Posts and Telecommunications Administration, some of the present redundancy in radio communications could be eliminated. Some progress in this direction has already been made. It does not, however, appear feasible at present for EAPTA to handle the special radio communications systems of the other departments mentioned.

**Broadcasting**

The broadcasting service was established in 1954. By June 30, 1963, total capital expenditure will amount to £226,000, of which £23,000 had already been spent by June 30, 1961. These funds are being provided by the United Kingdom under a C. D. & W. grant. Operational costs are estimated at about £110,000 in the first year after the capital development now in hand is completed. It is proposed that some "sponsored" programs be introduced but that the sponsors should have no control over the programs. The revenue expected from this source is about £50,000 a year. The mission endorses these development plans, particularly the provision of a 50-kw. medium-wave transmitter and booster.

The mission considers that broadcasting is an essential service. We would, however, advise that the broadcasting service be now organized as an independent corporation so that it cannot be used for the purposes of propaganda by any political party or the party that may be in power at any particular moment. In giving this advice, the mission has taken into consideration that there is no common language in Uganda and very few newspapers outside Buganda, excluding official newsprints and periodical broadsheets published by religious missions and others. These publications are produced in English or the local vernaculars and the broadcasts themselves are given in no fewer than eight languages at present.

**ELECTRIC POWER**

Uganda as yet has no indigenous sources of mineral fuels (coal and oil) and the prospects of finding them are not bright (see Chapter 10). Fuel wood is to be had in almost unlimited quantities, and bagasse (the residue from sugar cane crushing) is available for the fairly large power requirements of the sugar industry. But most im-
Important of all is the large hydroelectric potential of Uganda. The River Nile itself in its passage from Lake Victoria to the northern border of Uganda drops 1,700 feet, and the Owen Falls Power Station at the exit from Lake Victoria, only utilizes 64.5 feet of this head. In the mountainous west and southwest of the country where the rainfall is high, there are many other smaller rivers that can be (and two have been) harnessed as sources of power.

The Uganda Electricity Board (UEB) has a monopoly for the public supply of electricity. It was established by ordinance in 1947 and shortly thereafter took over the Uganda assets of the East African Power and Lighting Company, which at that time was operating generating sets in a few centers of population. UEB has the duty to generate, transmit, distribute and supply electricity throughout Uganda. First commissioned in 1954, UEB’s main generating station at Owen Falls now has an installed capacity of 120,000 kw., with provision to increase to a maximum of 150,000 kw.

A small hydroelectric station on the Kagera River in the southwest was acquired from a moribund tin-mining company, and is being extended. This serves the areas around Kitagati and Mbarara. Several thermal sets are held in readiness as stand-by at various points. These small stations account for only about 1 percent of the total units sold by UEB.

Outside the UEB system, Kilembe Mines operates its own hydroelectric station and small independent petrol or oil-driven sets are installed at mines, cotton ginneries, coffee hulleries, tea estates, etc. Some lie within the present distribution network, but the majority are outside. No figures are available for the total capacity of these units.

**UEB’s Financial Problem**

When the Owen Falls Station was first conceived, and after it went into commission, it was confidently expected that the availability of ample energy at a reasonable price would bring about an industrial revolution in Uganda. The township of Jinja, where the station is sited, prepared for this by heavy expenditure on services of all kinds, but although several important industries have established themselves there, the early hopes have not been realized. In order to obtain some contribution to overheads and to improve the load factor, a 50-years’ contract with Kenya was made in 1955 for supplying electricity in bulk at a rate which has worked out at about
three cents (East African) a kwh. The average annual load factor was improved to 72 percent of peak output in 1960. This indicates an improvement in the efficient use of output, but maximum demand was still only 52.6 percent of the installed capacity in 1960. Not that the growth of the Ugandan load has been abnormally slow—even in 1960 it increased by 9 percent.

The natural result of the failure to attain expected sales has been that the undertaking has not yet become profitable. Capital charges against revenue account amounted to £1.39 million in 1960, and constituted 74 percent of the cost of generation; but in addition, £0.27 million, or nearly 22 percent of the total interest payable, was charged to capital account. The rate of interest has been steadily increasing, and its present high incidence is largely due to the fact that much of the original financing was effected through short and medium-term loans which have had to be converted at prevailing rates.

The major problem of the UEB is therefore how to increase revenue so as to meet all capital charges, including proper depreciation. In 1960, ordinary consumers took only 31 percent of the kwh sold, but provided 75 percent of the income (see Table 24). Obviously, revenue can only be increased by raising tariffs or increasing sales or both. The supply to Kenya is governed by long-term contract which can only be varied by agreement. The industrial consumers under special tariffs are also subject to contracts which can be varied as they fall due, but their tariffs cannot be raised too high if Uganda is to retain one of its few industrial advantages. Neither can a spectacular growth in demand be expected from these two sources. Hence, UEB must still look to the ordinary consumers to make up the deficit between income and expenditure. Tariffs must be raised again, and more people induced to use electricity.

**Table 24: UEB Sources of Revenue, 1960**

<table>
<thead>
<tr>
<th>Kwh. sold</th>
<th>Revenue</th>
<th>Av. Price Per Kwh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(million)</td>
<td>(£ million)</td>
<td>(£ million)</td>
</tr>
<tr>
<td>Ordinary Consumers</td>
<td>111.3</td>
<td>1.379</td>
</tr>
<tr>
<td>Special Industrial Consumers</td>
<td>91.1</td>
<td>0.249</td>
</tr>
<tr>
<td>Kenya</td>
<td>160.1</td>
<td>0.218</td>
</tr>
<tr>
<td>Total</td>
<td>362.5</td>
<td>1.846</td>
</tr>
</tbody>
</table>
**Future Development**

Within the present distribution system, there are doubtless many potential consumers who now generate their own power and who will gradually seek to be connected. However, the whole area in reach of the main transmission lines is not fully covered, and further capital expenditure is necessary to do so. UEB believes that this is not enough and that a supply must also be taken to districts outside the existing network, both for the sake of future revenue and to fulfill their statutory obligations. Their capital resources do not enable them to do so, and they have therefore obtained a loan from the IBRD for this purpose.

The immediate scheme is to install three new transmission lines and distribution systems to serve Lira and Gulu, Hoima and Masindi, and Fort Portal and Kilembe. Small independent thermal or hydro-stations will be built at other points that cannot be reached by the new lines. Since the IBRD has investigated in detail the scope and costs of the proposed work, and the means of financing it, no elaboration is necessary in this report. It is sufficient to say here that the amount of the IBRD loan is about £3.0 million, which is to be supplemented by a U.K. Treasury loan of £2.5 million, making a total of £5.5 million. This is expected to cover both expenditures already incurred and future requirements during the period 1959 to 1963.

As a condition of the loan, IBRD required that standard consumer tariffs be raised by an average of 18 percent. It is calculated that this will bring in enough extra income to pay for all interest and depreciation charges. It remains to be seen, however, what effect such an increase, the second within two years, will have on consumers who have already shown marked signs of restricting their demand. The rates in the up-country areas will be considerably higher, and if the estimated consumption figures are not achieved, it may be a long time before the new schemes become financially self-supporting.

The mission appreciates, however, that the loan has been made for essentially developmental purposes and eventually electricity must be taken to all parts of the country. External support on the scale now forthcoming will be very valuable to the future government of Uganda. Further, it is highly important for the future that the finances of a public utility company such as UEB should be put on a sound basis as soon as possible. It is unfortunate that so much of their capital has been in the form of loans, and unfortunate too that more capital for development cannot be raised within Uganda itself.
The long-term plans of UEB include the erection of another large station at Bujagali, on the River Nile about 4½ miles below Owen Falls. Preliminary design work is already in progress. The timing of this development depends to some extent on a Kenya scheme to build a new hydroelectric station at Seven Forks, and it is hoped that as one outcome of discussions in progress, it will be possible to revise the present contract with Kenya on terms more favorable to Uganda.
Long-Term Objectives

Economic development depends at least as much on the growth in useful skills and knowledge as it does on an increase in the stock of plant and machinery. The major difference between a developed and underdeveloped country is that the former possesses the proficiency required to take on and use efficiently superior techniques of organization and production and the latter has not yet acquired the capacity to do so. Consequently, the further expansion of education in Uganda is essential for the country's economic, social and political development. While there has been considerable educational advance, particularly during the 1950's, the current and prospective output of trained personnel is inadequate to meet the needs of a developing Uganda, let alone reduce dependence on expatriates. Furthermore, basic education is still not widespread enough in all parts of the country or in all sections of the community to ensure the transformation of cultural and social attitudes which will be needed if Uganda is to become a modern society.

Educational patterns cannot be changed overnight. Educational planning must take place on the basis of generations rather than in terms of a five-year cycle. Those in the first year of primary studies this year form the pool from which a stream of skilled workers, artisans, teachers, technicians, agronomists, veterinary surgeons, engineers, doctors, administrators and political leaders, will be produced at various points in the near and distant future—in six, eight, ten, twelve, fourteen, or even twenty years from now. Any changes which are proposed at any point in the system will only be reflected in the output of trained personnel a number of years later, after those changes have pushed all the way through the "pipeline". Thus we must perforce take a forward look over a generation before we are able to make specific recommendations for educational activities in the five years of 1961/62-1965/66.

Since 1957, the integration of the existing racial divisions into a single educational system has been the announced aim of government policy. Since that time considerable progress has been made. While realizing that differences of language, background and standard
of living may make it a slow process, we consider that a fully integrated school system with a unified teaching service for teachers of all races in all types of schools is most suitable for Uganda on the eve of and after independence. Full integration, at any rate, at the primary level, may depend largely on the scales of fees charged and the ability of parents to pay them and therefore, as an interim measure, it may be necessary to retain a number of different types of schools in the towns.

Integration is primarily an urban problem since almost all non-African children live in the towns. The mission was principally concerned, however, with schools in rural areas which provide for a population which is almost entirely African, and where almost all African children live. We endorse the present policy by which primary and junior secondary schools (the majority of which are now day schools) are to be regarded as a single entity and, while we acknowledge that in more remote areas and especially for girls, there will continue to be a need for some boarding facilities, we are sure that Uganda must plan a day school system for the bulk of the pupils in the first eight years of education.

For rural secondary schools, most of which are boarding schools, a boarding system, unfortunately, will have to be retained for many years: even with the considerable expansion of secondary education which we recommend in later paragraphs the population density is too low and in any given locality the number of children eligible for secondary education too small for day schools to become efficient units, save in certain very limited cases.

The base of the educational pyramid having been expanded in the 1950's by more than doubling the numbers enrolled in primary schools, the mission endorses the Government's policy that first priority in the 1960's should be given to widening the apex of that pyramid by increasing secondary and higher education. This policy has a dual purpose. First, it would begin the supply of trained personnel which a developing and independent Uganda will need. Second, it would provide the beginnings of a professional leadership—both within education and the economy in general—which would make possible even further educational advance in the 1970's and beyond. In essence, what we are stating is the recognition of a "feedback" process in education: primary expansion in the 1950's has provided the basis for post-primary expansion in the 1960's, the latter will provide the basis for additional primary expansion in the 1970's, and so on.

A useful study of Uganda's manpower problems for the middle
level of employment has already been made by Robert L. Thomas.\(^1\) We believe that the Government should keep informed on the manpower position either through further surveys or, preferably, when staff can be found, through periodic inquiries by its own permanent staff. The Thomas study, and the mission’s own observations, confirm that by, say, 1970, the economy of Uganda can absorb all the personnel that can possibly be trained under an expanded program of post-primary education, given the limitations of the number of students already in the educational system and assuming the maximum administrative capacity to increase secondary school facilities by 1965. To achieve this maximum output of secondary school graduates will require expenditures, both on capital and recurrent account, over and above the levels pertaining in the late 1950’s. So far as primary education is concerned, by some changes in policy and in administration of central government grants, it should be possible to increase total enrollment during the five-year period 1961/62-1965/66 with little additional capital expenditures and without increasing the rate of supply of new teachers.

**PRIMARY EDUCATION**

In Uganda, as in so many other African territories, educational enterprise owes its origin to missionary endeavor, to which the sole credit must be given for its development until 1925. That year, however, marked the beginning of a new chapter in educational history—not only had the first survey of educational needs in Uganda been completed under the auspices of the Phelps-Stokes Foundation, but a Department of Education was set up and the first Director of Education was appointed. The great majority of primary schools (in which the first six years of studies are offered) are still provided and managed by religious agencies—the Protestant Missions, the Catholic Missions and the Uganda Muslim Educational Association. Although local authorities are taking an increasing part in educational administration and are now responsible for primary education in their respective areas, there are not as yet many schools operated directly by local authority.

There is no legislation requiring compulsory school attendance and, as at all other levels in the educational structure, fees are

charged. While formerly education was completely financed, staffed and controlled by voluntary agencies, the trend now is toward government financing, greater responsibility, management and authority. The money spent on education comes from five sources, namely, central government, local government and voluntary agency funds and from school fees and community effort. By far the largest sum comes from the central government. The annual income of all government or grant-aided schools is made up of capitation grants and school fees. Block grants are paid by the Education Department to the provincial or local authorities, who make the detailed disbursements. Fees in primary schools range between Sh. 20/- and Sh. 60/- per pupil annually. Grant-aided primary education is financed as follows: capital is mainly provided by the local authority or community; equipment and non-salary recurrent costs (if any) by fees from the children attending schools; and salaries by the central government and local authority on a grant-sharing formula. In addition there are a number of unaided schools which, by definition, do not receive public funds.

There was a very rapid advance in primary education during the 1950's. Enrollment in grant-aided schools rose from 163,300 in 1950 to 346,000 in 1960. By the latter year, there were in addition a further 147,200 children in unaided schools. The number of children in grant-aided schools was equivalent to 43 percent of the total population between six and eleven years of age, the ages at which children are normally in primary school. If non-aided schools are included, then combined enrollment was equal to 60 percent of all children of these ages. It must be remembered that these percentages present a national and general picture and that there are great variations both regionally and between the sexes. Thus, while at one end of the scale more than 60 percent of children of school age were in primary schools in Bunyoro, at the other end of the scale only some 10 percent of the children in Karamoja were enrolled. Furthermore, far fewer girls are known to attend than boys; thus, in Bunyoro, for example, the District-wide average of 60 percent is achieved because more than 80 percent of the eligible boys are in school and only 40 percent of the girls; and again in Karamoja, of the 10 percent of all children enrolled, very few were female.

Primary Education in Outlying Areas

In some rural areas the dispersed living pattern makes it impossible to establish four or six-class schools, the common organization, and
many children wishing to attend are denied educational opportunity. To attend school, children are sometimes required to walk distances up to ten miles each way. In order to avoid this most exacting physical effort for young children, and to give equal educational opportunity to those living in dispersed rural areas, it is recommended that one or two-classroom schools, covering the six grades, be established. This is a common practice in many countries, and we recommend the inclusion of instruction in composite teaching methods in the curricula of the training colleges.

On the other hand, in some areas there are sometimes two or three schools serving a limited school population where one would suffice. Each of these schools is relatively small and has been established to meet the competitive requirements of different religious denominations. This duplication is unwise economically and socially. It involves multiple sets of buildings and grounds to maintain, duplication of administration and supervision, the need for several headmasters, more unfilled places on present staffing methods and a dissipation of staff strength. Furthermore, a social cleavage tends to be created. The mission believes that it should be possible to organize large multi-denominational schools in which provision is made for separate instruction in the various religious faiths. Accordingly, we recommend that the system of administering grants be changed so that in any area a second school would not be admitted into the grant-aided system until enrollment in the first exceeds about a reasonable maximum, set as close to 480 (two streams of six classes accommodating 40 in each class) as dispersion of population would allow.

The Grant System

We have already referred to the wide disparity in the proportion of children enrolled in primary schools as between the various districts. Poverty in some regions, but not all, tends to have a reciprocal effect. In poor areas, parents are less likely to send their children to school, both because they simply cannot find the school fees and because such people are more likely to be as yet without sufficient social motivation to send their children to school. On the other hand, local government revenues in such areas are relatively scarce and educational programs are consequently inhibited. We believe that the central government should take such special situations into account in the grants that are made by the central government to the local authorities. We do not think it should be difficult to establish ob-
jective criteria as to which districts should receive such special assistance. Consideration might be given, for example, to average cash income in conjunction with other such factors as the proportion of local government revenues already expended on education.

The present grant-in-aid formula, which is applied in respect of primary education outside Buganda and to primary and junior secondary education within Buganda, leaves a great deal to be desired. The prevailing system, introduced in 1955, is quite complicated, but is essentially based on the number of teachers employed. The central government pays a block grant to local authorities covering the total salaries bill at the time of the transfer of responsibility for primary education to the local authority. Furthermore, the central government pays 50 percent of additions to the salaries bill, subsequent to the transfer of authority, which arise from increments in the salary scale. Thereafter, the central government also pays 50 percent of any increments in the salaries bill that arise out of expansion programs, so long as the central government has given approval for such programs. The principal objection to this grant system is that it fails to provide sufficient stimulus for the local authorities either to expand their school systems where necessary or to improve the pupil/teacher ratio and solve the problem of “unfilled places” (see below) and uneconomically small schools. The present method of making grants can discourage justified expansion because the local authorities, being required to pay 50 percent of the additional salaries bill so incurred, may be content to drag their feet. Furthermore, because the local authorities receive their grants on the basis of the number of teachers they have to pay, the number of pupils such teachers are instructing could receive insufficient attention. We therefore recommend that the grant structure should be modified and simplified to overcome these difficulties and commend for consideration a system wholly based on pupil/per capita grants (with provision for deficiency grants, as discussed above, for special areas where, due to unusual poverty or other circumstances, additional help needs to be given), so that the money provided can be related more to the needs of the child population and not just the extent of existing development. In any event, it ought to be made clear to local authorities that trends in pupil/teacher ratios would be taken into account by the central government in considering the eligibility of particular authorities for financial assistance with proposed expansion programs.

We are not in a position to make any estimate of how the proposed changes in the administration of the grant system would affect
the cost to the central government. However, we believe that, for the first few years at least, the total amount of central government expenditures would remain of a similar order to those that would be incurred if the present grant method were retained; the major effect of the change would be to redistribute funds in such a way that they would go where they would do the most good. At the time of writing this report the whole structure of relationships between the central government and the local governments and Buganda was in the course of negotiation and discussion between the Protectorate Government, Buganda, the other governmental authorities concerned in Uganda and the British Government. It was impossible to know what the final structure of the financial relationship which would be shaped by these negotiations would be.

*Policies for Increase in Primary Enrollment*

Partly because of the unevenness in enrollments, there are about 90,000 so-called “unfilled” places in existing primary schools. Each classroom is intended to accommodate 40 pupils taught by one teacher. This ratio does not prevail everywhere. The present system is to separate each group of pupils within each grade, irrespective of the number of pupils within the group. Because enrollment is voluntary, and therefore initial entry into the system is uneven, and because there is also an unevenness of size among classes due in part to the need for many students to repeat classes and in part to wastage from pupils dropping out between grades, there is no guarantee that there will be a full quota of 40 pupils per teacher.

The problem of repeaters is acute, particularly in Primary 1, the rate in some areas exceeding 50 percent. The reasons for a high repeater rate are complex. Undoubtedly, inadequate teaching can contribute to it. Many older teachers, through no fault of their own, because of poor academic background and inadequate training, are unable to manage a class of 40 properly. They know little of the group techniques necessary to deal with a large class of six and seven-year olds successfully and to take them to the point where they can reasonably be promoted to the next grade. Efforts have been made over the past three or four years to emphasize the importance of using teaching methods appropriate for young beginners and to improve the standard of instruction in the training colleges and the in-service training of teachers in these classes; slow but perceptible results are being obtained.
There can be little doubt that improved teaching methods could help reduce the repeater rate. However, there are now competent educationists who question the whole policy of compulsory repetition. The thesis is advanced that in the early stages of education it is difficult to separate purely academic achievement from psychological and sociological factors and that it is questionable whether a very young pupil gains more from being forced to repeat, for example, Primary 1 as against continuing on to Primary 2 together with his age peers. So far as the group is concerned, it is further argued, the presence of a large repeater group has an adverse effect on the other children in the class and creates difficulties for the teacher. Those who hold these views advocate the institution of the “promotion by age” or “automatic promotion” system. Under such a system all children automatically move from one class to the next higher at the end of the year regardless of individual academic attainment; special efforts are made to bring lagging children up to standard within the grade appropriate to their age rather than making them repeat a grade below their age group. We believe that automatic promotion during the early grades, particularly for pupils for whom primary education will clearly be terminal, should be tried in Uganda.

While a reduction in the repeater rate would aid in maintaining as closely as possible the pupil/teacher ratio by improving the continuation rate from one class to the next and so make possible a better use of the teacher force available, there are other measures that could also help to increase the number of pupils without increasing the number of teachers or costs. The modification in the grants system mentioned above would encourage local authorities to adopt policies designed to minimize the number of empty places and better to adapt their school systems to the needs of the children. Among such policies are:

a. The addition of more room for pupils in populous areas rather than building new schools in underpopulated areas.

b. The combining of small schools which are close together. This may arouse some opposition from some voluntary agencies but most are likely to put the interests of the children above other considerations. These combined schools could either be managed by one of the voluntary agencies with a mixed staff or become secularized as local authority schools.

c. The introduction of regulations—already in force in some dis-
districts—governing the minimum distance between grant-aided schools. These should be applied throughout the country. To the extent possible, unaided schools should be included in this attempt at geographical rationalization.

d. The extension of the biennial entry system to more schools. This system provides for new entries to Primary 1 in alternate years rather than every year. Thus, a two-year age group, roughly twice the size of a one-year age group, is admitted on one occasion and goes through its six years of primary education as a group. This means that only Primary 1, 3 and 5 are taught one year and only Primary 2, 4 and 6 the following year, always by the same teacher force. Because the teachers are always teaching a wider age-range of children, there is more chance of maintaining a higher pupil/teacher ratio even if the total local population to draw from is relatively sparse. It is true that there would be a somewhat greater disparity in the ages of children in the same class, but this disparity would be no more than that already pertaining in classes with a higher repeater element. In any case, if the measures indicated above to improve teaching methods are adopted, teachers should have less difficulty in handling a class composed of children in a two-year age-range who have spent the same time together in the school system than a class composed half of new entrants and half of older repeaters.

e. The introduction of composite classes in which one teacher handles two or more classes, as we have already recommended in discussing the problems of outlying areas.

f. The introduction of a “double stream” of pupils to the first year of primary schooling, attendance being for half the day only, with some coming in the mornings and some in the afternoons, and with both streams being taught by the same teacher in the same room. Other countries have found that many new entrants are in any case unable to work at a concentrated pace all day.

With the application of some of these policies, and if it is made to be clearly in the financial interests of local authorities to increase the pupil/teacher ratio, it should be possible in the next five years to fill a large proportion—perhaps 50,000-60,000—of the present “unfilled places”, without any increase in the number of teachers employed.
There will, however, also be a marked increase in the teacher force in the next five years, large enough to enable the schools to keep up with the increase in population. The 27 primary teachers' colleges in Uganda are now operating below their peak capacity output of 1,000 new teachers a year. This capacity was created during the period of rapid expansion of primary schools which took place in the mid-1950's. It is doubtful whether this capacity will be required in the next few years, but it is likely that about 600 new teachers will become available annually during the five-year period 1961/62-1965/66. Since about 400 teachers are needed each year to meet normal replacement requirements, this means that the teacher force will be augmented by 200 annually.

Assuming that the teacher force is augmented by about 1,000 by the end of the period and assuming that an average pupil/teacher ratio of 40 is attained with respect to the additional teachers, then a further 40,000 or more pupils could be accommodated. Taken together with the additional enrollment to be achieved by policies designed to improve existing pupil/teacher ratios—or to fill "unfilled places"—this would mean that the number of pupils in primary schools in 1965/66 would be about 100,000 higher than at present. This would represent an increase of more than 25 percent over the five-year period, an impressive increase during a period when, because of the need, the main concentration would be on the expansion of secondary education.

The proposed expansion in primary education will give rise to increased recurrent expenditures by the central government with respect to the salaries bill for the augmented teacher force. At an average annual cost of £175 a teacher, this bill would rise by about £35,000 in successive years (£175 times 200), so that by 1965/66 expenditures would be some £175,000 (£175 times 1,000) higher than they were in 1960/61. We believe, as stated above, that expenditures of this magnitude will be incurred during this period irrespective of whether or not the grants system is modified along the lines we suggest.

Quality of Instruction

During the last few years, enrollment in primary schools has nearly doubled. This expansion has somewhat naturally affected adversely the standards of instruction, and aggravated the problems of wastage, unfilled places, lack of adequate supervision, teacher effectiveness, supply of equipment and the like. During the five years 1961-1965, a
period of consolidation and improvement in standards of instruction in primary schools should be a major objective, and this, in fact, is the Government's policy.

The Relationships Commission's report assumes that local authorities will become more and more responsible for the primary and junior secondary schools of all races within their areas. If this comes to pass, these local authorities, through their own professional staff (Education Officers and Assistant Education Officers), must be responsible both for the administration and, in the first instance, inspection of their schools. Two problems will then have to be solved:

a. If the professional staff and the supervisory staff of the voluntary agencies are to be more and more closely integrated so that they become one team under the District Education Officer (DEO), many tasks now carried out by the supervisors of the voluntary agencies will become the ultimate responsibility of the DEO. This might mean that too much of his time would be occupied in paying teachers, issuing equipment and supervising the relevant accounts. It might well be advisable to include in the team a Chief Clerk with responsibility for administrative detail; such a person need not be trained as a teacher and indeed it might be a waste of talent if he were. We estimate that additional costs involved in our proposal might amount to £8,000 a year by 1965/66.

b. There will be a growing need to set up a nationwide inspectorate to ensure that public monies, whether from central or local sources, are not being wasted. Considerable progress for setting up a regional inspectorate has already been made and additional posts have been included in the estimates for 1961/62. Further expansion of the inspectorate could be achieved by reclassifying some of the existing approved posts in Provincial Education Offices. In any event, the total size of the inspectorate could be limited if it were made responsible in the first instance for only a sample inspection. Given the development of the inspectorate along these lines, we estimate that additional recurrent expenditures on it should not amount to more than £10,000 by 1965/66.

*Report of the Uganda Relationships Commission 1961, (The Earl of Munster, Chairman), Government Printer, Entebbe, para. 284 (iii).*

*As recommended by Munster Report, see ibid, para. 388.*
With the professional Education Officers spending their whole time on professional matters, considerable stimulus and impetus could be achieved in raising the quality of instruction in primary schools. The success of the educational system depends upon the quality of instruction in basic education. We realize that full effectiveness in the quality of instruction will not be achieved until recruits for teaching are better qualified on admission and teachers are accorded greater prestige. These developments must await the expansion of the secondary schools. In the meantime, every effort must be made to improve the present standards of teaching and raise the quality of instruction.

**Curriculum**

We recognize that much has already been done to adapt curricula to the particular needs of Uganda. It is most desirable in all subjects, but particularly in general reading and social studies, that the folklore, mores, fauna, games, and experience of the children in Uganda should be incorporated in textbooks and teaching. In this way, not only knowledge of their country is more easily taught, as it is within the children's experience, but a pride in the heritage of their nation and continent would also be inculcated. The mission feels that more could be done along these lines and, in particular, that textbooks require to be reoriented toward these objectives.

Nearly 90 percent of the population is engaged in agriculture, and yet education is widely regarded as a process by which its recipients can escape from this basic activity into “white-collar” positions. Education can contribute in combating this attitude by orientating the subject matter dealt with in the schools so as to emphasize the dignity and the challenge of rural life. There is likewise a need to combat unfavorable attitudes toward manual and technical skills. In this connection, too, the content of primary school instruction could be appropriately adjusted.

We therefore recommend that a team of departmental officials, representatives of the Institute of Education at Makerere University and experienced teachers study, revise and compile new curricula, syllabuses, and textbooks with these and other objectives in mind.

**Junior Secondary Schools**

At present, the seventh and eighth years of school studies take place in separate institutions known as junior secondary schools. Since
these studies are preceded by six years of primary schooling and are followed by four years of senior secondary education, the whole structure is often designated a 6:2:4 system. We endorse the Government's policy of establishing an 8:4 system in which six years of primary school studies would still be regarded as terminal for some students, but in which the seventh and eighth years of studies would be offered at the same location. Both in order to maintain the status of junior secondary education and to ensure that the curriculum is appropriately organized, we suggest that special supervisors be designated to oversee junior secondary school work. We believe that this arrangement would simplify administration, would obviate the additional expense of invariably establishing separate schools and would reduce the per capita cost of this stage of instruction by providing it in day, rather than in boarding, schools.

In 1960, there were 25,450 pupils in grant-aided junior secondary schools in which, because of location, the enrollment was African. Thus, enrollment was equivalent to 11 percent of the estimated number of 12 and 13-year old African children in the country. Less than one-third of all children completing the six years of primary education have continued to a seventh year of studies. This small continuation rate is one of the more serious blocks to a "feedback" process in the future. Since eight years of general education is required prior to the four-year primary teachers' training course, enrollment in junior secondary schools sets a limit to the number of future candidates for primary teaching and therefore limits the later possible expansion of primary school enrollment. Furthermore, low post-primary continuation also affects the "pipeline" to even higher education for which junior secondary schooling is a prelude.

We therefore recommend considerable increase of seventh and eighth-year enrollments during the five-year period 1961/62-1965/66. There are four factors controlling the possible amount of such expansion: the number of suitable pupils completing six years of primary studies, the availability of qualified teachers, the construction of school buildings, and the speed with which it would be administratively possible to bring about expansion.

So far as the supply of suitable pupils is concerned, we believe that there is no reason why the post-primary continuation rate should not be raised without reducing the caliber of students in post-primary courses. In 1959, there were over 80,000 children entering the first year of studies of primary schools and it is estimated that about 55,000 of these children will complete Primary 6 in 1964. If about half of these latter were to proceed to Junior Secondary 1 in 1965—
a continuation rate which we regard as reasonable—then nearly 28,000 new entrants would enter this stage of education in that year. Total enrollment in both Junior Secondary 1 and 2 would be something over 50,000.

The availability of teachers does present a problem. The Junior secondary school teacher force in 1960 was 760. However, the pupil/teacher ratio was 33 to 1. We recommend that this ratio be raised to as near 40 as possible, as in the remainder of the primary school system, so that additional students could be accommodated without any increase in the total teacher force over the coming years. However, about 130 newly trained teachers are available each year (mainly from Kyambogo Teachers' College). About ten new teachers are required each year to meet normal replacement requirements. Replacement requirements will be low because the teacher force is still young, with very few teachers in the relevant grades having been trained before 1952. Thus, given the present teacher output, a net addition to the total teacher force of about 110-120 each year, or about 550-600 by 1965, is in prospect.

The mission believes that a somewhat greater expansion in enrollment than the presently planned addition to the teacher force would be administratively possible and socially and economically desirable. We therefore endorse the plans to expand the training facilities for teachers for these grades. This includes a capital cost of £60,000 for extensions to Kyambogo Training College or some other selected college and £60,000 for a new girls' teacher training college. This college would replace two existing small and uneconomical colleges at Buloba and Namagunga, making the latter buildings available for other purposes. The new Tororo School should increase the presently limited female teaching force. Taking the additional output of teachers arising from the proposed expansion of training facilities together with the prospective output from existing facilities, it may be calculated that the junior secondary teaching force would be augmented by more than 750 teachers during the five-year period, thus doubling that force. This would make possible at least doubling the pupil enrollment during the same period to more than 50,000. To the extent that it would be possible to increase the average pupil/teacher ratio, pupil enrollment could be even further increased.

Additional capital expenditures would be needed if the increase in pupil enrollment were to be achieved. In addition to the £120,000 needed for the teachers' training colleges, about £300,000 would be needed for the building of additional classrooms and related facilities. There would also be additional recurrent expenditures incurred in
the form of an increased salaries bill, an increase amounting to perhaps £36,000 in 1961/62 as compared with 1960/61 and rising to perhaps £265,000 by 1965/66, with additional salaries over the entire period totaling some £690,000. The additional recurrent costs required to operate the proposed expanded teachers' training facilities would amount to £5,000 in 1961/62 rising to £10,000 by 1965/66 and totaling £37,000 over the entire five-year period.

POST-PRIMARY EDUCATION

For some children, primary education is terminal either after six or eight years of study. For those continuing their education, they might possibly enter primary teachers' training college, or proceed to senior secondary or secondary technical, all normally four-year courses. They might also enter two-year courses at special farm or trade schools. Since the seventh and eighth year of studies are to be joined to the primary school system, there would be no need in the future to designate post-primary education as "senior" secondary education. We also believe that the distinction between academic secondary schools and technical secondary schools has been too marked in the past. Academic secondary schools have been regarded as the sole source of university students and the technical schools have concentrated on producing either craftsmen or candidates for higher technical training. There has been in recent years perhaps an oversupply of craftsmen, but those so trained have not been able to use their training elsewhere. We therefore endorse the policy of modifying some of the present secondary technical schools so as to broaden their basis and permit trades and crafts to be taught together with more academic subjects, the latter biased toward science and mathematics. These courses could either be terminal for craftsmen, or preparatory to higher technical studies and in some cases preparatory to university education in the science or engineering faculties.

Secondary Schools

In 1960 there were 3,700 pupils in 22 grant-aided academic secondary schools in rural areas. While such secondary school enrollment showed a fourfold increase during the 1950's, by 1960 it was still only equiva-

*For planning purposes we assume that the teacher force will be augmented by 120 in the first year and by 780 by the fifth year and that some increments will have been added to the average salary of £300 a year by the end of the period.
lent to 0.7 percent of the total population between the ages of 14 and 17 and, even if urban schools are included, the figure would still only be about 1 percent. Furthermore, there is some drop-out during the four years and only 75 percent of those surviving until the fourth year pass the Cambridge School Certificate examination, which is regarded as the measure of satisfactory termination. In 1960, 639 students so qualified. Given the number of pupils already enrolled in secondary schools in 1961, the Government forecasts that the numbers passing the school certificate in 1965 will be more than double those passing in 1960. This will be a considerable improvement. If there is to be any improvement after 1965, measures will have to be taken in 1962 and after, since it takes four years for increases in first-year intake to be reflected in fourth-year output of certified pupils. We must thus look for an expansion in secondary school enrollment during the five-year period under review in this report if further advances are to be possible later in the decade.

The crucial factor in expansion is the supply of teachers: of the 246 teachers employed in the rural grant-aided schools in 1959, all but 28 were expatriate. In 1960, there were only seven local university graduates taking the one-year postgraduate teaching course and there were 28 others enrolled in the two-year diploma course. In addition, some qualified candidates have been sent abroad for teacher training and 30 are returning in 1960 and 1961. Probably about 100 teachers will return between 1961 and 1965. Some will go to training colleges and some to the urban schools and about 50 should be available for the rural secondary schools. Clearly Uganda must necessarily be dependent on expatriate teachers for many years to come, particularly if any increase in the teacher force is to take place. Fortunately, there is a prospect of outside assistance in the supply of expatriate secondary school teachers. The United States is supplying teachers on a bilateral basis for an initial two-year period. If this program is successful, it may be extended. The plan is that the U.S. teachers undergo a period of orientation at the University College of East Africa at Makerere, after which they are to be under the direction of the Uganda Education Department. There is also a UNESCO plan to recruit overseas teachers. Since there will be some delay between recruitment and actual availability for teaching, we are assuming that, so far as the teacher force is concerned, the two schemes would only be effective during the final four of the five years under review in this report. It is clear that these schemes, welcome as they are, will be inadequate to meet needs even assuming the maximum local efforts at teacher
training which we describe below. We therefore strongly endorse the ongoing efforts of the Ugandan authorities to secure further external assistance in the recruitment of secondary school teachers.

Efforts obviously also have to be made to expand the training of Ugandan secondary school teachers. As the supply of sixth-form and university students increases, in accordance with recommendations we make below, there is no reason why there should not be modest increases in the numbers entering the two-year diploma course and the one-year postgraduate course. If enrollment in the two-year course rose from the present 28 to about 40 in 1965, the annual output of such teachers at the end of the five-year period would be 20. At the same time, if enrollment in the one-year course also rose to 10, the combined output of Uganda-trained secondary school teachers would amount to 30 annually. Because output would only attain this latter figure at the end of the period, we estimate the net addition to the secondary school teacher force would amount to 100. Total Ugandan output—both domestic and overseas—would amount to 200 secondary school teachers.

It clearly would not be advisable for Uganda to depend on outside assistance in the supply of secondary school teachers indefinitely. Consideration might therefore have to be given to a much larger expansion of secondary school teacher training in the late 1960's when the supply of qualified candidates is likely to increase. Since there will be a limit to how much of such expansion could be accommodated at Makerere College, we expect the decision will then have to be taken to establish additional faculties of education at the Royal College, Nairobi, and at the new Tanganyika College.

Reverting to the five-year period now under review, the 200 additional Uganda teachers together with, say, 50 externally recruited teachers (assuming such schemes as the U.S. program become continuing) means that a total of some 250 additional teachers will have been recruited by 1965/66, at which time total teacher force in rural secondary schools will have reached about 500. The present pupil/teacher ratio is 16, and we suggest that efforts be made to raise this ratio. We realize that shortages of dormitory accommodation and classroom space and a number of complex administrative problems hamper such efforts. Nevertheless, we believe that, if a target ratio of 25 were established in principle, an actual ratio of 20 could be achieved on a nationwide basis—allowing for higher ratios perhaps in existing schools and lower ratios initially in new schools. If this were done, then the 500 teachers could instruct a total enrollment of
10,000. It is therefore of high priority that classroom and dormitory space be found for this latter number of students by 1965/66.

One possibility is to extend the buildings and facilities at the 22 existing secondary schools, as is in fact the Government’s policy. In 1959, the average enrollment per school was 162, with one school having 360 pupils but eight having little more than 100. We consider that the economic and educationally desirable size of a secondary school is one to accommodate 420 pupils in three streams of 140 pupils each. (It should be noted that we advocate an average class size of 35 pupils, although a pupil/teacher ratio of 25; the discrepancy is to allow for some free periods for teachers.) If all 22 schools contained an enrollment of 420, total enrollment for all schools would be 9,240. Because of siting and other factors, it is unlikely that all schools could be extended to the full extent. But we conservatively estimate that the existing schools could be expanded to accommodate 6,500 pupils, or about 2,800 more than present levels. Since it is estimated that there are already 400 vacant places in existing accommodation, new building would only be required for 2,400. We estimate the cost of such building extensions at £500 per pupil, which is less than the per capita cost for a new school, because sites are already cleared and many common services, facilities and equipment have already been provided, and is also less than £600 per pupil now used in estimating construction costs, because we feel efforts can, and must, be made to reduce costs if a sizeable expansion is to be possible. Thus, we estimate our proposed extension program for existing schools would entail capital costs amounting to £1,200,000.

A second means of accommodating additional secondary school pupils is to provide senior secondary technical courses in some of the technical schools in line with our recommendation above. In 1961 the existing 12 technical schools had an enrollment of about 1,100 students, although they had room for some 1,600 boarders and a small number of day students. The plan would be to leave two schools—Elgon and Wairaka—as entirely technical schools, each accommodating up to 200 students, and modify the remainder so as to enable them to offer either senior secondary technical or “modern” courses in addition to trade and craft work and accommodate in the first instance 2,100 pupils. Thus, the total enrollment in these 12 schools would amount to 2,500, an increase of 1,400 over the 1961 level. Consideration might be given later, in the light of circumstances existing in the late 1960’s, to expanding the size of these schools further. Capital costs of conversion to provide laboratories, other secondary
education classroom facilities and additional dormitory accommodation for 900 more boarders are estimated at £162,000.

With 6,500 pupils to be accommodated in the expanded existing academic secondary schools and an additional 1,400 in the expanded and converted technical and secondary modern schools, there is still a shortfall of 2,100 for a total of 10,000 pupils whom the prospective teacher force of 500 could teach by 1965/66. However, plans are already laid to construct a new girls' secondary school at Tororo. This should be able to accommodate 300-400 pupils by 1965. We strongly urge that every effort be made to keep building costs at a minimum; this might be possible with modified standards to avoid overlavish facilities. We believe a suitable school could be built for under £200,000.

Even once the new school has been constructed at Tororo there would still be a shortfall of some 1,700 places by 1965/66. There are, however, a number of unaided secondary schools which for various reasons are likely to continue to grow. In view of the general need to expand secondary education, we recommend that the Government negotiate with such schools to see whether it would be possible for the Government to help with their expansion programs. We suggest that the Government might offer capital assistance in the amount of £100 per place up to a maximum of 1,700 places during the five-year period, thus allocating a total of £170,000 for this purpose.

In all, we recommend a total of £1,732,000 to be spent by the central government on further construction of secondary school facilities in order to accommodate an additional 6,300 pupils by 1965/66 (see Table 25).

The proposed expansion will entail additional recurrent expenditures which, because they are essential to the further economic development of the country, the mission regards as special development expenditures. The salaries of the additional 250 teachers required by 1965/66 would amount in that year to some £375,000 (assuming an average annual salary of £1,500 per teacher). This mission is not in a position to comment on how much of this amount might be borne by external agencies providing assistance in supplying teachers. Furthermore, there are other recurrent costs in connection with operating a school system with an increased enrollment. We estimate these latter at an average cost of about £20 per additional pupil, or about

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6 This allows for a somewhat lower grant for the 1,000 places in partially aided schools.

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Additional Pupils to be Accommodated</th>
<th>Cost (in £'000)</th>
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<tbody>
<tr>
<td>Extension of 21 existing schools</td>
<td>2,400*</td>
<td>1,200</td>
</tr>
<tr>
<td>Conversion of technical schools</td>
<td>1,400*</td>
<td>162</td>
</tr>
<tr>
<td>Tororo girls' school</td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Capital grants to unaided schools</td>
<td>1,700</td>
<td>170</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,900</strong>*</td>
<td><strong>1,782</strong></td>
</tr>
</tbody>
</table>

* A further 400 pupils could be accommodated in existing secondary schools without any further construction.

* Includes expansion of enrollment at the two exclusively technical schools by more than 100 of the remaining 1,300, some places would be needed for a modest increase in enrollment in trade and craft courses.

£125,000 in 1965/66 for the proposed 6,300 additional pupils. Taken together, all additional recurrent expenditures arising out of our proposed program would amount to £500,000 in 1965/66.

**Sixth Form**

After completing four years of secondary school and having passed the Cambridge School Certificate with a first-grade, or good second-grade, pass, pupils are eligible for a two-year course of more specialized study in what are known as "sixth forms." This is essentially a preparatory course for the university, although for some individuals it is terminal. At the end of the two-year course pupils sit for the Higher School Certificate, the passing of which indicates the satisfactory completion of the course. In early 1961, enrollment in sixth forms totaled 217; in addition some 80 Uganda students were studying for the Higher School Certificate at the Royal College, Nairobi. Somewhat more than 60 percent of the second-year pupils are successful in passing the Higher School Certificate examination so that we estimate that an output of about 100 students a year so qualified is likely for the next few years.

It is from this annual output that all university, secondary teachers'
college and certain higher technical students must be drawn. It seems clear to us that steps must be taken to increase output at this point in the educational system. Given the prospective supply of secondary-school pupils completing the four-year course during the five years 1961/62-1965/66, we recommend that by the end of the period total sixth-form enrollment should be raised by 420, and even more if it subsequently transpires this is possible; further expansions would certainly be envisaged for the late 1960's. The increase in enrollment by 420 will entail construction of additional classroom space at an average cost of £750, or at a total cost of £315,000. An additional 20 teachers will be required (possibly to be recruited under the United States and/or UNESCO schemes to which we refer above), and the annual cost of these teachers would be of the order of £30,000 by 1965/66. Other recurrent costs would also rise to about £16,800 (£40 times 420), so that total additional recurrent costs in 1965/66 for the suggested expanded sixth-form program would amount to about £47,000.

Formerly the students were trained in preliminary courses at the Makerere University, Kampala. This has been discontinued, as the provision of such courses was not considered the function of a university, it was costly, university staff was deflected from other duties and the students were still too immature to adjust satisfactorily to the university environment with its greater freedom and expected sense of responsibility in the disposition of time and study. Some countries establish separate institutions for these courses. This has merit in that students with keen minds have the stimulus of competition, they have a kindred social and cultural group to associate with and high caliber staff is used more effectively in concentration. However, this fragments and diversifies the system, and denies schools the beneficial influence of their senior students in building up intellectual atmosphere. Sixth forms belong organically to the secondary schools and we recommend a concentration of students in carefully selected secondary schools, rather than small sixth forms in nearly all secondary schools, along the lines of government policy already under way. There should be a minimum of 60 students for the two-year course; students should be selected strictly on ability and free from any discriminatory basis of religion, race or tribe; a sensible geographical parity of allocation should be maintained, and only schools with good records for the quality of their work and good discipline should be selected.
TECHNICAL AND VOCATIONAL EDUCATION

The various forms of technical and vocational education have expanded rapidly since 1953, despite such difficulties as poorly qualified pupils, ill-defined relationships to manpower requirements and a proliferation of schools with uneconomically small enrollments. Although there is some overlap, the following types of technical and vocational education or training may be distinguished:

a. Trade, homecraft and farm schools. Normally a two-year course following primary school.

b. Technical schools. A four-year course following eight years of previous general education.

c. The Technical Institute. Two, three or four-year courses following either a course in a technical school or in an academic secondary school.

d. Degrees in technical subjects. Makerere College offers science and mathematics only. Applied technology to degree or professional standard is at present obtained only overseas or at the Royal College at Nairobi. The latter is being elevated to University status and, as a college of the proposed University of East Africa, will then offer degree courses in a wide range of technical subjects.

There are also various types of training courses, for which differing amounts of previous education are required. Adult technical and vocational education is in the main the responsibility of the Department of Education which offers part-time and evening classes for this purpose. The Department of Community Development, however, provides a great deal of informal training of this kind in rural areas and there is also the Nsamizi Training Centre at Entebbe which offers courses in civics and administrative problems and is designed for public opinion leaders and public officials. Commercial education is presently quite limited: professional training in accountancy, banking, etc., is obtainable only overseas; some sub-professional training in stenography, bookkeeping and clerical duties is obtainable at some secondary schools and at the Kampala Technical Institute. Agricultural education is discussed in Chapter 6.
Rural Trade Schools

The 1959 enrollment in the trade, homecraft and farm schools totaled 2,763 pupils of whom 503 were girls. Since there were no less than 79 such schools, average enrollment per school was somewhat less than 35. The courses in the rural trade schools are aimed at craftsman training and many of the schools are too small, with ill-trained teachers and poor equipment, to be effective. We therefore recommend that a number of these schools be closed and the remainder be increased in size and supplied with better teachers and equipment. We also recommend that training in manual skills and homecraft be integrated into the last four years of the eight-year primary and junior secondary course. The separate trade and homecraft schools which remain should be located mainly in areas where the eight-year primary school system is unlikely to be instituted for some time.

One of the weaknesses of the rural trade school system has been its failure to find subsequent employment for its pupils. This has partly been due to the recent decline in economic activity. More important has been the lack of information on requirements and trends. Furthermore, there is a predilection of pupils from rural trade schools to seek employment in urban areas where they meet stiff competition from those trained in technical schools.

Technical Secondary Schools

We have already recommended that ten of the twelve existing technical secondary schools be modified so as to enable both technical and general academic subjects to be taught in the curriculum. Thus, both at the primary and secondary level, we are recommending that manual and technical instruction be integrated into the general educational system. The two remaining technical schools should orientate their programs, even more than at present, toward the actual needs of industry, since education at these two schools should be regarded as mainly terminal. As we conceive it, most of the pupils at these two schools will enter the economy directly upon successful completion of the four-year course. Only a relatively small number will continue either to senior trade courses in these two schools or to advanced trade courses at the Kampala Technical Institute.
At present, many of those trained in trade and technical schools do not fit readily and easily into the rigors and practical demands of industry. Overprotection in school, lack of practical training, differences in types of equipment in use and failure to develop a close liaison between industrial requirements and school training are some of the inhibiting factors. Even at their best, trade and technical schools are not usually effective in developing the kind of skills required in industry. Experience in other countries indicates that the most appropriate means of developing manual skills is by training on the job, and in "vestibule schools", controlled by the industries which employ the workers. We therefore recommend a policy of placing more responsibility upon industry to train its own craftsmen.

In 1959 there were only 29 employers of apprentices in Uganda with a total of 267 apprentices in training. Many firms are too small to employ apprentices, while others are so uncertain of their future that they feel unable to commit themselves to long-term training programs. Some of the apprenticeship training received is very good indeed, more particularly in some of the "vestibule schools" attached to the larger industries where such training is very well organized, thorough and efficient. There is some evidence that some of the larger firms would be prepared to train apprentices in excess of their own requirements and so help to meet the needs of the country as a whole. In order to encourage selected firms to do so, we recommend that some system of incentives be devised, possibly in the form of a tax concession.

Since it will clearly be some time before industry itself will be capable of supporting all the apprenticeships that the economy will require, particularly for the full five years that this training normally involves, the trade and technical schools will have an important supplementary role to play. First, satisfactory completion of two years in school could shorten the required apprenticeship period thereafter to three years. Second, completion of the full four-year technical secondary school course could reduce the required on-the-job apprenticeships even further and, for some crafts, could possibly eliminate them almost entirely. In both cases, of course, employers would ultimately have to assess the relevance of training obtained in school. Finally, the technical schools, where feasible, could also offer part-time, concurrent, or "sandwich" courses to apprentices released on paid time by employers to obtain theoretical training collateral to the practical experience being gained on the job.
Kampala Technical Institute

Middle-grade technicians and supervisory and commercial personnel receive their training at the Kampala Technical Institute (KTI). As noted above, some such training has also been obtained by Ugandans at the Royal College, Nairobi, but with the upgrading of this institution to university status, this grade of personnel will no longer be able to attend it. There is a critical shortage of middle-grade technicians, and a great many posts at this level are at present held by expatriates. With all the training responsibility now fully on the KTI, it will become the sole source of such technicians.

The mission believes that KTI should concentrate on this latter function. The Institute has already been developing away from the functions of a technical school and toward those necessary for fulfilling its ultimate role as the training institution for full technicians and advanced craftsmen. The rate of this evolution should be increased so that the Institute can reach this goal as soon as possible. Four years of secondary school education, modern, technical or academic, should be the minimum prerequisite of entry. Students should hold either the General Certificate of Education at ordinary level or hold a technical qualification suitable for entry to the more advanced and specialized trade courses. Ultimately the aim should be for students who would then enter employment. In a few selected cases, outstanding students might proceed to university work of a specialized nature, either at home or abroad. On the other hand, KTI can also continue to be used, as in the past, for part-time and evening students.

The main problems at KTI have been the recruitment of suitable students and the adequate supply of suitably trained teachers. There is accommodation for some 580 students in excellent buildings on an outstanding site and yet in 1959 enrollment only totaled 360 students, some of whom were in any case below the sub-professional or technician level. One of the difficulties has been the paucity of students in secondary education; we believe the program we have outlined above will ease this difficulty in the coming years. Another problem is the widespread negative attitude toward technical education. In the long term this attitude might be combated by the inclusion of manual crafts in the curriculum of the primary and secondary schools, as we have suggested; furthermore the inclusion of senior secondary technical and modern courses in the technical schools would do much to build up a student body predisposed to proceed to the Technical Institute.
Another deterrent to recruits is economic. Students need to find funds for school fees and pocket money. Not only is this difficult, but there is often an alternative attraction in immediate employment: holders of the School Certificate are relatively scarce and job opportunities for them are good. We believe this deterrent can be offset by the combined offer of assured employment after the successful completion of the KT1 course, together with the offer of bursaries to cover fees and pocket money during it. Such a system of combined offers has already been instituted by some government services and we urge that every effort be made both to expand the system within the public service and to encourage its adoption by private firms.

In 1961 the teaching staff at KT1 totaled 36. If the Institute is to be built up to accommodate its full complement of 580 full-time students and to provide part-time and evening instruction for additional hundreds of students, then the teaching staff is clearly inadequate. Furthermore, some of the junior staff would not be qualified to carry out the teaching tasks required in an institution devoted to training full technicians and advanced craftsmen, since they were engaged at the time when KT1 was still operating rather like any other technical school. Such teachers are now being gradually placed in up-country technical schools for which they are suited. Recruiting and retaining staff of adequate qualifications and in sufficient numbers is difficult. Unfortunately, there is little possibility of recruiting an adequate number of teachers in Uganda, and the Institute will be forced to lean heavily upon overseas aid for a number of years to fill present vacant senior posts and to replace unqualified instructors. This is why the mission heartily endorses the application to the United Nations Special Fund for assistance in strengthening KT1. It is proposed to expand the staff to 50 full-time teachers over a period of just under six years. The extra cost of the additional staff over the entire period is estimated at $820,800. (The application also includes a request for assistance with additional equipment and the payment of fellowships so that the total application is for $1,051,232.) In addition, the application envisages capital expenditures of about £29,000 for the expansion of library facilities and counterpart additional recurrent expenditures by Uganda which would total £94,000 in 1962 and rise to £42,000 in 1964 and fall to £38,200 in 1966; the application involves a sixth year—1967—when counterpart recurrent expenditures would amount to £30,000.

The operating costs of the Institute have been subject to some severe criticism, and they do appear to us to be high at approxi-
EDUCATION AND MANPOWER

mately £375 annually per capita, although we recognize that technical education is the most costly form of all education. Some study of costs broken down by items has been made in Uganda but the resulting information would in any case require a costing consultant to analyze and examine. We therefore recommend that UNESCO be asked to recruit an independent consultant to head a group of local administrators to ascertain the accuracy of this criticism and if necessary to make recommendations as to how costs could be reduced.

Industrial Training Center

There are at present scarcely any facilities in Uganda for industrial training of adults. Accordingly, we endorse the recommendation of the 1960 Committee on Industrial Training that an Industrial Training Center be established to serve three purposes. First, craftsmen already in industry would receive short courses in their trades designed to upgrade their skills and increase their productivity. Second, supervisory personnel, both foremen and the lower ranks of technical management, would receive short courses in management techniques. Finally, technical teachers who would be training on an adjacent site, would be enabled to have some industrial practice. Because the numbers involved in each of the above three groups are not large and because courses would be of short duration and on a part-time basis, except for teacher training, it seems advisable to us at this point that the courses should be housed in one center. At Nakawa in Kampala there are buildings which would be quite suited for this purpose, and are only in temporary occupation. It may be necessary in some special fields to employ staff from the Kampala Technical Institute to cover specialized aspects, or to recruit from industry on a part-time basis. The estimated recurrent costs of operating the center at its likely maximum capacity are about £23,000.

UNIVERSITY EDUCATION

The University of East Africa

Higher education has been organized on an interterritorial basis to meet the needs of Uganda, Kenya and Tanganyika. At present, the three countries are served chiefly by the University College of East Africa (Makerere College) situated in Kampala. As already mentioned, the Royal College in Nairobi, Kenya, is being elevated to a
university level and there are also plans to establish a University College in Tanganyika. The three institutions would form part of one University of East Africa. There would be some specialization at the three institutions, with Makerere continuing as the main center for degree courses in arts, science, education and fine arts. The Royal College would continue its faculties in architecture, arts, commerce, science, surveying and domestic science and would broaden its scope somewhat. The proposed University College in Tanganyika would offer general liberal arts courses and would also establish a faculty of law. Students from all three territories would be able to attend any of the three institutions, as is already the case with the existing two. It will take a number of years for the full University to become operative, as careful planning is required; while some initial expenditures are to be made on the Tanganyika College, and while the mission understands that a few students are being enrolled there as from October 1961, full-scale operation is not expected until about 1965/66.

In 1960/61 there were 881 students enrolled at Makerere College, and 282 at RTC. Enrollment of Ugandans at both institutions totaled 424. An expansion of Makerere to an enrollment of about 1,200 by 1965/66 is planned for on the advice of the Quinquennial Advisory Committee and of RTC to an enrollment of 850, with the Ugandan combined total put at 764. This should be sufficient capacity for the prospective output of sixth-formers with Higher School Certificates which we have projected above. But, given the proposed flow through the educational "pipeline", further expansion would be required in the late 1960's and plans for such an expansion should properly be made before 1965/66.

The Quinquennial Advisory Committee has recommended that Makerere College receive grants from the East African governments of £4.3 million over the five-year period ending in 1965/66, while the Royal College would receive £1.9 million and the new Tanganyika College would be granted £255,000 for initial expenses. These grants would total £6.5 million, of which Uganda's share would be £2.3 million.

**Overseas Scholarships**

Opportunities for higher education are also provided by a liberal scheme of overseas scholarships, both publicly and privately sponsored. In 1960, there were some 960 Ugandans studying abroad of whom
343 were studying on scholarships provided from public funds, while many of the remainder obtained assistance from private sources. Of the total abroad, 451 were Asians, most of whom were studying in India. Most of the remainder were in the United Kingdom or the United States. A number of the students overseas were actually engaged on pre-university studies or in specialized non-university courses in the crafts, etc., and some students were following post-graduate courses.

We recommend that the number, costs and benefits to Uganda of overseas scholarships be reviewed. There is at present some question as to the caliber of many of the students going overseas. Makerere College has rightly been highly selective in its admissions policy and invariably requires its new entrants to the college course to hold a Higher School Certificate after attending the two-year sixth-form course. Many students who have gone overseas have held only the Cambridge School Certificate and have entered universities in the United Kingdom and the United States without having taken sixth-form work. This is particularly true in the United States where colleges are accustomed to admitting students to college work after twelve years of school studies. Under conditions existing in Uganda, the extra two years of preparatory study in the sixth form are considered essential.

The granting of overseas scholarships should be made on the basis of stringently selective standards. Furthermore, no scholarships should be offered for courses which can be obtained in East Africa. Finally, scholarships should only be granted for courses considered beneficial to the development of the country. We therefore recommend that the standing Selection Committee, already established by the central government should, on the basis of the foregoing criteria, be responsible for the selection of all students proceeding overseas on scholarships offered by the central and local governments or administered by public authorities on behalf of international or bilateral agencies. We also hope that other non-governmental agencies providing scholarships—even those who have not asked public authorities to administer their programs—will cooperate with the Selection Committee and also follow similar criteria in the selection of students and we are sure that the Government will make every effort to encourage them to do so. We also believe that scholarship holders have an obligation to return to the type of employment for which the training overseas was intended to equip them and believe that the Government is entitled to institute adequate measures to ensure this.
SUMMARY OF PROPOSED EXPENDITURES

The recommendations we have made in this chapter would entail capital expenditures during the five years 1961/62-1965/66 of £2,496,000 (see Table 26). The mission's program for education mainly in rural areas would therefore average £499,000 which compares with the 1960/61 budget for similar educational programs of £325,000.


<table>
<thead>
<tr>
<th>Type</th>
<th>Five-Year Total</th>
<th>Annual Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Secondary Schools(b)</td>
<td>300</td>
<td>60</td>
</tr>
<tr>
<td>Junior Secondary School Teachers' Training</td>
<td>120</td>
<td>24</td>
</tr>
<tr>
<td>Secondary Schools(c)</td>
<td>1,732</td>
<td>346</td>
</tr>
<tr>
<td>Sixth Form(d)</td>
<td>315</td>
<td>63</td>
</tr>
<tr>
<td>Kampala Technical Institute(d)</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>2,496</td>
<td>499</td>
</tr>
</tbody>
</table>

\(a\) Excludes expenditures on urban education and on universities. Urban school construction is forecast by the Government at £95,000 during 1961/62 and 1962/63. Uganda's share of the costs, both on capital and recurrent account, for the University of East Africa, is expected to be of the order of £2.3 million during the five-year period.

\(b\) Mainly for construction of accommodation of seventh and eighth-year classes.

\(c\) Includes academic and technical secondary schools.

\(d\) For expansion of library. Application made to C. D. & W. and Ford Foundation for assistance with this item.

Our recommendations would also give rise to additional recurrent expenditures (see Table 27). These would amount to £1,100,000 by 1965/66. Over the five years, 1961/62-1965/66, we calculate that such additional expenditures would total £3,110,000 or an annual average of £622,000. The mission is not in a position to judge the likely trends in other recurrent expenditures not related to our recommendations.

Apart from those expenditures on primary schools, the remainder of the recurrent expenditures shown in Table 27 relate to proposed
expansion programs at a rate faster than existing trends. In that they constitute a high priority requirement for the economic advance of the country, we regard them as properly belonging to our development program as such. These "development expenditures" would amount to £907,000 in 1965/66. Over the five-year period, they might amount to £2,517,000 so that, taken with the proposed capital expenditures of £2,496,000 (see Table 26), our recommended development program in education as a whole might entail total expenditures of £5,013,000.

**TABLE 27:** Proposed Additional Recurrent Expenditures of the Central Government on Education, 1961/62-1965/66*

<table>
<thead>
<tr>
<th>Type</th>
<th>1961/62</th>
<th>1965/66</th>
<th>Five-Year Total</th>
<th>Annual Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Schools</td>
<td>35</td>
<td>175</td>
<td>525</td>
<td>105</td>
</tr>
<tr>
<td>Primary School Administration</td>
<td>2</td>
<td>8</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>Primary School Inspectorate</td>
<td>10*</td>
<td>10</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>Junior Secondary Schools**</td>
<td>36</td>
<td>265</td>
<td>600</td>
<td>138</td>
</tr>
<tr>
<td>Junior Secondary School Teachers' Training*</td>
<td>5</td>
<td>10</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>17</td>
<td>500</td>
<td>1,200</td>
<td>240</td>
</tr>
<tr>
<td>Sixth Form</td>
<td>15</td>
<td>47</td>
<td>95</td>
<td>19</td>
</tr>
<tr>
<td>Kampala Technical Institute d</td>
<td>105*</td>
<td>72*</td>
<td>515*</td>
<td>103</td>
</tr>
<tr>
<td>Industrial Training Center</td>
<td>5</td>
<td>23</td>
<td>70</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>225</td>
<td>1,100</td>
<td>3,110</td>
<td>622</td>
</tr>
</tbody>
</table>

*This table is illustrative only. 1965/66 figures represent firm forecasts. 1961/62 figures are notional and designed to suggest the level of first-year expenditures necessary to initiate the programs recommended in this chapter. The five-year totals have been imputed by assuming various year-to-year patterns of changes in expenditures between 1961/62 and 1965/66.

* Starting in 1962/63.
* Mainly seventh and eighth-year classes located at primary schools.
* Includes both funds for which application has been made to the United Nations Special Fund (UNSF) and those for which local expenditures are envisaged.
* Of which about £90,000 has been requested from UNSF. The total to be spent in 1962 assuming program starts in February 1962.
* Of which about £34,000 has been requested from UNSF. The total to be spent in calendar 1966. (Application envisages the program continuing through 1967.)
* Includes about £369,000 requested from UNSF.
HEALTH

Present Health Conditions

The health status of the population of Uganda is currently such that its human resources cannot be fully utilized. Although the health situation in Uganda may be no worse, and in some instances somewhat better, than in other countries in equatorial Africa, standards are far below those now considered essential in more advanced societies.

The dearth of vital statistics makes an accurate assessment of the health status of the people of Uganda quite difficult. The infant death rate which is usually considered quite a sensitive index of the health situation is not known, but all persons working in the health field agree that it is very high. It is also quite obvious from general observation of the population that there are relatively few persons in the older age groups. There are thus indications that many persons die of diseases either of infancy or of early adult life—many of which are preventable.

Before a population can free itself of disease there must be a desire for better health. The fact that the African people of Uganda have this desire is evidenced not only by repeated statements made

<table>
<thead>
<tr>
<th>Year</th>
<th>In-Patients</th>
<th>Out-Patients</th>
<th>Total Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>77,668</td>
<td>811,581</td>
<td>889,249</td>
</tr>
<tr>
<td>1956</td>
<td>86,747</td>
<td>874,013</td>
<td>960,760</td>
</tr>
<tr>
<td>1957</td>
<td>89,813</td>
<td>1,086,026</td>
<td>1,175,839</td>
</tr>
<tr>
<td>1958</td>
<td>96,336</td>
<td>1,199,971</td>
<td>1,296,337</td>
</tr>
<tr>
<td>1959</td>
<td>102,835</td>
<td>1,299,094</td>
<td>1,401,929</td>
</tr>
<tr>
<td>1960 (six mos.)</td>
<td>58,662</td>
<td>665,857</td>
<td>724,519</td>
</tr>
</tbody>
</table>

SOURCE: East Africa Statistical Department, Uganda Unit.
to the mission by Ugandans that health services are one of the greatest needs in their country but also by the increase in the use made of medical services (see Table 28). While it is true that the desire for health services is principally a desire for treatment of illness, there are numerous indications that the people of Uganda can also be motivated to make use of the preventive services provided through public health programs and so adopt healthful living as a way of life.

So far, however, a number of preventable diseases have remained common in Uganda. For example, the number of cases of malaria treated in government hospitals and dispensaries rose from 120,214

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaria</td>
<td>120,214</td>
<td>119,013</td>
<td>149,428</td>
<td>172,258</td>
<td>180,021</td>
<td>92,284</td>
</tr>
<tr>
<td>Tuberculosis (b)</td>
<td>804</td>
<td>975</td>
<td>1,219</td>
<td>2,008</td>
<td>2,606</td>
<td>2,895</td>
</tr>
<tr>
<td>Typhoid Fever</td>
<td>576</td>
<td>762</td>
<td>786</td>
<td>677</td>
<td>577</td>
<td>422</td>
</tr>
<tr>
<td>Hookworm</td>
<td>11,282</td>
<td>12,137</td>
<td>13,193</td>
<td>11,658</td>
<td>10,120</td>
<td>5,702</td>
</tr>
<tr>
<td>Sleeping Sickness (T. trypanosomiasis)</td>
<td>114</td>
<td>108</td>
<td>490</td>
<td>394</td>
<td>233</td>
<td>66</td>
</tr>
<tr>
<td>Schistosomiasis</td>
<td>1,854</td>
<td>2,229</td>
<td>2,484</td>
<td>2,143</td>
<td>1,614</td>
<td>1,813</td>
</tr>
<tr>
<td>Syphilis</td>
<td>19,975</td>
<td>17,244</td>
<td>16,499</td>
<td>13,279</td>
<td>9,267</td>
<td>3,381</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>21,645</td>
<td>25,707</td>
<td>29,935</td>
<td>34,704</td>
<td>38,714</td>
<td>20,176</td>
</tr>
<tr>
<td>Yaws</td>
<td>13,847</td>
<td>10,880</td>
<td>10,529</td>
<td>8,557</td>
<td>9,480</td>
<td>4,672</td>
</tr>
<tr>
<td>Relapsing Fever</td>
<td>101</td>
<td>39</td>
<td>28</td>
<td>30</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>Small Pox</td>
<td>101</td>
<td>231</td>
<td>477</td>
<td>360</td>
<td>334</td>
<td>196</td>
</tr>
</tbody>
</table>

a Either treated in government hospitals and dispensaries or reported to the Health Department.

b New cases.

in 1955 to 180,021 in 1959 (see Table 29). While some allowance must be made for increased use of treatment facilities and perhaps even for some degree of over-diagnosis, it is evident that malaria continues to be a major disease. Hookworm is also a very common disease in Uganda. A large number of patients are treated each year only to return with reinfections on repeated future occasions. The number of treated cases of syphilis and yaws declined somewhat between 1955 and 1959 (see Table 29) due in part, no doubt, to better methods of treatment; autopsy findings indicate, however, that syphilis infections are still common and many patients are under treatment for
PROGRAMS IN OTHER SECTORS

mental disease resulting from central nervous system syphilis. Gonorrhea, in contra-distinction to syphilis and yaws, appears to be increasing (see Table 29); this may be due, not only to increases in the use of treatment facilities, but also possibly to the development of strains of gonococcus which are resistant to antibiotics.

The number of tuberculosis cases treated has materially increased (see Table 29). This increase is no doubt due to the gradual increase in facilities which has taken place since the establishment in 1956 of a TB Unit within the Ministry of Health. Furthermore, the increase in the number of cases diagnosed has in itself focused attention on the disease and so both encouraged the establishment of additional treatment facilities and induced patients to come forward to use them.

There are a number of other diseases which are endemic in Uganda, the total incidence of which is hard to estimate because so many cases are not reported. This is true for enteric diseases, including typhoid fever, schistosomiasis and bilharziasis and trypanosomiasis (sleeping sickness). Fortunately, most of these diseases, while endemic, do not often occur in epidemic form. In the case of sleeping sickness this is because of drastic population removals in the past. The enteric diseases are probably not epidemic because most of the population is dispersed in rural areas; as urban concentrations take place around Kampala and elsewhere the danger of epidemics will increase. In any event, where disease is endemic, the possibility of epidemics always exists. Accordingly, there can be no relaxing of preventive health measures.

In general, adult Ugandans do not suffer from frank diseases of nutritional origin since there is an abundance of inexpensive food-stuffs available. The diet of most Ugandans appears to be high in carbohydrates but low in protein and some of the minerals such as calcium. The severe nutritional problems of Uganda are those of infants and kwashiorkor is the condition most commonly found and the one which causes greatest concern. Kwashiorkor, being caused by deficiency of protein in the infant diet, usually occurs at the time of weaning. Up to this point the child has had an adequate amount of protein from the mother's milk. Weaning is usually abrupt and the solid food which is introduced at this time is usually matoke (a paste derived from plantains) or some other food low in protein. The disease therefore is one of ignorance since vegetable protein in the form of groundnuts, peas, beans and cereals, and animal protein in the form of flying ants, grasshoppers, eggs or fish, are usually
available to the mother, and dried skim milk can either be obtained free or purchased at a price that most families can afford to pay. The attack therefore must be made through the education of the mothers in the antenatal clinics, child welfare clinics and in the home. More kwashiorkor has been recognized in Uganda than in many other countries because more work has been done on it there. It does not mean that the actual incidence is higher. It should be easier to overcome in Uganda than in many other African countries because the foods needed are indigenous already. While kwashiorkor is still a serious problem there has been some progress and gastro-enteritis, due to insanitation in preparing food, is tending to replace it as a threat to children. With a better educated population, these children's diseases should largely disappear from Uganda.

Preventive Medical Services

The mission believes that more emphasis must be placed on the preventive aspects of the health services than has been possible in the past. While there is currently supervision of public health programs at the Ministry level, much of the responsibility for carrying out such programs in the field rests on the doctors, nurses, and other health workers who are also responsible for clinical services. Since all types of subordinate medical personnel are in short supply, and since curative services are such that their provision brooks no delay, it is only natural that it is preventive medicine that suffers primarily from the personnel shortage. Thus, an increase in trained personnel—irrespective of whether or not their primary responsibility is in the field of preventive medicine—will indirectly of itself aid in pushing on with public health programs. But, apart from this indirect effort, the mission believes that efforts should also be made speedily to train subordinate health workers specifically for the task of preventive medicine.

A health education program, in conjunction with environmental sanitation programs, can be considered the foundation on which all other activities in the preventive medicine field rests. While there is a medical officer in charge of the health education program at the Ministry of Health, his activities are severely restricted by lack of staff to carry out the program in the districts and local communities. The health education officer spends considerable time in teaching at the Training School for Health Personnel, in community development training programs, and in working with groups in the immediate
vicinity of headquarters. It would be highly desirable to project this program into each area of the country on a district-to-district basis. There is need to strengthen health education in the schools, particularly through giving school teachers special training in health education. We realize that it will take some time before all the necessary trained personnel can be obtained, but we strongly recommend that a start be made and that an additional two medical officers, with training in public health and with specialized studies in health education, be attached to the Health Education Unit. In particular, we believe that more money should be spent both on suitable education materials, such as posters, strip films and literature, and on the concomitant travel by health personnel to bring these materials to the people. We estimate the additional payroll would amount to about £5,400 a year, and if a sum of £9,600 a year were appropriated for additional teaching materials, a total of £15,000 would have to be allocated for additional annual recurrent costs of an expanded health education program during the years 1961/62-1965/66.

Environmental sanitation activities are under the supervision of the Chief Health Inspector, who constitutes the sole staff of this unit in the Ministry of Health. The program is projected into the field through a staff of Health Inspectors, one in each district, Assistant Health Inspectors who work in counties and Health Assistants who work in the local communities. At present not all counties and all communities are so staffed, nor are they likely to be so in the near future. However, the District Medical Officers have a responsibility in this field and should be encouraged to place more emphasis on it. In order that the work of such Health Inspectors and Health Assistants as there are may be more effective and in order that the District Medical Officers be stimulated in their activities in this connection, more frequent visits should be made in the field and this will require a larger staff at the center. We therefore suggest that the Health Inspector staff be increased at a cost of £15,000 a year and that an additional £15,000 be allocated for various supplies, equipment, traveling and transport, so that the additional recurrent costs in environmental sanitation would amount to £30,000 a year.

There is at present a small vector control unit which on the basis of surveys, institutes control measures over vectors transmitting disease. Since several of the diseases listed in Table 29 are vector transmitted, it appears to us that more work along these lines is indicated. We therefore recommend that the staff of the vector control unit be increased by employing additional specialist personnel, field assistants and laborers, and that the unit be supplied with the necessary ad-
ditional materials and equipment. The unit should be headed by a specialist with knowledge of both the epidemiological and clinical problems arising from vector-borne diseases. We estimate that the payroll increase might be of the order of £15,000 a year and that the additional supplies might cost a like amount each year, so that the total additional recurrent expenditures in this field might amount to £30,000 a year.

If public health services are to be brought to the people in their homes and communities, effective facilities at the local level must be developed. A very small beginning has already been made by adding staff to a few of the dispensaries and designating them as health centers. The aim is to have a staff consisting of an Assistant Health Visitor, a Health Inspector and a Medical Assistant. Such dispensaries, when upgraded to health centers, are usually provided with an additional room or building which is used as a lecture hall, as a meeting place for community groups, and for the display of models demonstrating hygienic housing, a satisfactory latrine, a properly constructed kitchen, bathing facilities and a protected spring. Through field visits to the homes in the immediate area of the health center, the public health team promotes healthful living and better participation in antenatal clinics, child welfare clinics and immunization programs provided through the clinical facilities of the health centers.

While there are very few such health centers at present, the mission believes that those in existence have already demonstrated their effectiveness. We therefore suggest that additional dispensaries be converted into health centers as rapidly as finances and trained personnel will permit. While we believe that local health services are properly a matter of concern for local government, we believe that concepts of preventive medicine are so sophisticated, relative to those concerning curative medicine, that the central government should maintain a role in this field. We therefore suggest that, where local government is prepared to provide the capital expenditure necessary to convert a dispensary to a health center, the central government should meet the necessary additional recurrent costs directly or indirectly. In this way, local initiative will be preserved while the central government should maintain control over standards through staffing and inspecting procedures.

We estimate that the annual recurrent expenditures required for the additional staff and materials needed to convert a dispensary into a health center would amount to about £2,000. Assuming four such conversions could be effected each year, the additional recurrent expenditures involved would amount to £8,000 in the first year,
£16,000 the second year, £24,000 the third year and so on. Thus the additional recurrent expenditures would rise from £8,000 in 1962/63 to £32,000 in 1965/66. These amounts have been estimated bearing in mind the amount of assistance given by UNICEF on this work so far (which has totaled $762,000 since its inception in 1953 to June 30, 1961) and which is likely to be given in the future.

**Health Installations**

Since most clinical services in Uganda are provided by the central government it has been possible to establish an integrated clinical service involving the rural dispensaries, the district hospitals, many of the mission hospitals and the central hospitals in Kampala.

**Rural dispensaries** vary widely in type from small installations staffed by one medical Assistant or Male Nurse to larger facilities with maternity services and beds for 30-40 patients, staffed by a Medical Assistant, one or more Midwives, Male Nurses, Ward Maids and Dressers. Medical Assistants in dispensaries receive some supervision from Medical Officers and Nursing Sisters of the district hospitals but are generally required to use their own initiative in taking care of emergencies and other conditions needing hospitalization until patients can, when necessary, be transferred to a hospital. Dispensaries serve an out-patient load of 75-300 patients a day (with an over-all average of 100 a day), most of whom present themselves for treatment in the morning. While conditions dealt with are largely minor, such as upper respiratory infections, abrasions, local abscesses, tropical ulcers and burns, patients with more severe conditions, such as malaria, hookworm, pneumonia, meningitis and tuberculosis, are often initially received at the dispensaries.

Dispensaries are constructed by local government and vary widely in type and quality. There has been little regard for patient flow or effectiveness of staff operation in the construction of the portion of the units which provide services to ambulatory patients. The mission believes that some standardization of design would result in more functional buildings and improved efficiency.

In 1960, there were 173 rural dispensaries in Uganda. These were quite well distributed in relation to population densities in various parts of the country, and most inhabitants were within ten miles of a dispensary. However, in some areas there appears to be some overlap in the services provided by neighboring dispensaries, and the
mission believes that the network could be rationalized by consolidating some such dispensaries. The staff released by consolidation could be used to strengthen the remaining dispensaries. We believe in short that a network of about 150 dispensaries, manned by a slightly higher average number of health workers per dispensary, would provide a more effective service than at present. Furthermore, as we have stated above, we look to the time when most rural dispensaries will be converted into full-fledged health centers providing both curative and preventive services.

District hospitals are to be found in each District, and for ease of accessibility some of the areas also have subdistrict hospitals. District hospitals are under the supervision of District Medical Officers who are responsible for all health services, both clinical and preventive, within Districts. The hospitals themselves are staffed by a small group of Medical Officers, usually ranging from one to four, and by one or two Nursing Sisters. There are also a number of Medical Assistants who provide much of the service in the out-patient departments.

District hospitals are of the separate ward type which, while helpful in preventing the spread of infection, results in much inconvenience due to the distance between the buildings making up the hospital unit. The amount and quality of equipment in the hospitals varies greatly. Most have a minimum of X-ray equipment, but some have none at all, largely because of lack of electricity. Most district hospitals are equipped with some laboratory services, which enables the medical staff to obtain simple bacteriological and serological information on their patients. Tests of a more sophisticated type have to be sent to the Central Laboratory of the Ministry of Health in Kampala, but since communications are not highly developed in many areas, full use of the central service is inhibited.

In addition to the government hospitals, there are a number of mission hospitals which have very generally been incorporated into the regional hospital system. Each new mission hospital which is so located that it provides services in an area where adequate hospital facilities would otherwise not be available is granted about 50 percent of its recurrent and capital budget from public funds. Grants to hospitals already established are not dependent on their distance from existing government hospitals but, if they are too close, their further expansion in such cases is not encouraged.

Taking both government and mission hospitals together, the regional system, in the mission's view, provides an adequate hospital
coverage for the country as a whole. We would see no reason to plan on establishing further hospitals in new locations during the five years 1961/62-1965/66. We do, however, believe that some capital improvements for expansion of accommodation to keep pace with population increase in existing government hospitals will be needed during the five-year period. The Government itself has forecasted expenditures for existing hospitals of £150,000 during 1961/62 and 1962/63 and we would suggest the allocation of an additional £225,000 to be spent during the three succeeding years. Furthermore, the Government is forecasting a total of £50,000 in capital grants to mission hospitals during the first two years of the period, and the mission suggests that a further £75,000 be allocated for this purpose during the last three years.

The development has been started of base or regional hospitals to which district hospitals could refer cases requiring diagnostic services and treatment facilities beyond the capacity of the district hospitals themselves. Such hospitals would be capable of providing advanced specialist services. The mission fully endorses this idea. We suggest that three existing district hospitals, strategically located in different parts of the country, be designated without delay as potential base hospitals. Since it will take careful planning and considerable staffing effort to upgrade these hospitals to their new status, we doubt whether it will be necessary, or possible, to initiate new construction of additional buildings at the three sites or acquire new equipment until 1963/64. We estimate that capital costs of this program will then amount to about £450,000 during the final three years of the five-year plan period.

The central hospitals of Uganda are located in Kampala. These are Mulago Hospital and Nakasero Hospital, the latter serving paying patients. Mulago Hospital is also the teaching hospital for Makerere Medical College, the district hospital for the Mengo District, the municipal hospital for the city of Kampala and a training establishment for auxiliary health personnel.

Mulago Hospital is quite old and—with 670 beds—is a duplication on a larger scale of the district hospitals. The staff includes a number of specialists, many of whom are members of the clinical teaching faculty of Makerere Medical College. There are about 25 attending physicians and the total professional staff including house physicians numbers about 75. This hospital, like the district hospitals, is badly overcrowded with many patients accommodated on the floors. The out-patients service is unusually heavy and is poorly housed. The building in which this service is conducted is quite inadequate and
the arrangements such that good patient flow is impossible. By using Medical Assistants, the professional staff is spared to a considerable degree in the out-patients department.

The facilities and equipment of Mulago Hospital are somewhat better than those of the district hospitals, but are not at all elaborate. This may actually be advantageous in one respect—graduates of Makerere Medical College usually serve in this hospital for two years after graduation and are then posted to one of the district hospitals; since the conditions under which the young physician works in Mulago at present are not too dissimilar to those under which he will work in a district hospital, he is no doubt better able to cope with situations in a more rural setting than would be the case had he obtained his hospital experience in an elaborately equipped hospital with the usual supportive staff and services which are lacking in rural areas.

In conjunction with Mulago Hospital, Nakasero Hospital constitutes the central hospitals of Uganda. Nakasero Hospital is designed to accept only paying patients. It is well staffed and the equipment is good.

The patients with mental disease from all parts of the country for whom hospitalization is required are cared for in the Butabika Mental Disease Hospital, located on the outskirts of Kampala. This hospital was constructed recently and is especially designed for the purpose which it serves. The wards are reasonably adequate for the current patient load; the grounds are being landscaped to make a tranquil setting and a farm is operated to provide work therapy for those able to participate. Occupational therapy is being carried on in a simple but fairly effective fashion. The Uganda Government forecasts that a further £93,000 will be required in 1961/62 and 1962/63 to complete this hospital.

A new central hospital to supplant both the Mulago and Nakasero Hospitals is now under construction. This hospital will be known as the New Mulago Hospital and will have 870 beds. It is being built at a cost of approximately £2,500,000—three-fourths of which has been provided by a grant from the Colonial Development and Welfare Fund of the United Kingdom. This hospital is unusually well constructed, both from the standpoint of the attractiveness of structural design and relation of form to function. The patient areas are built with consideration of the effective use of minimum nursing staff and convenience of all persons who will work with the patients. The necessary ancillary services such as food supply and laundry will reach the patient area in an expeditious manner. Both lateral and vertical communication between the various areas of the hospital has
been effectively planned—six elevators will provide vertical transportation and numerous semi-closed corridors will provide necessary access from one area to another on the same level. The out-patient department to which will come only patients on referral from the out-patient department of the old Mulago Hospital, which is the only part of the older establishment which will continue in operation, has been designed with due consideration to patient flow and the convenience both of the patients and hospital staff. The operating rooms, laboratories, X-ray units, and physiotherapy units are well designed and located in such a fashion that these services can be effectively used both by patients and staff. The kitchen, laundry and other service units are well located and constructed for maximum effectiveness.

The New Mulago Hospital was due to open in the second half of 1962. The Government forecasts that a further £1,000,000 will be required for its completion. The staffing of the hospital is likely to prove a problem. While the present staffs of the old Mulago Hospital and Nakasero Hospital will be available, some additional staff will be required, particularly in certain categories. To operate most effectively, the new hospital will need more nurses. As we shall discuss below, nurses are in any case in short supply. We nevertheless strongly advise against drawing staff from the district hospitals because the latter are already seriously handicapped in their work by insufficient staff. There will also be need of several well qualified maintenance engineers to supervise the operation of the complex machinery in the power house, the laundry, the kitchen, the operating theaters, and the power units for the elevators and airconditioning plant. It is probable that initially engineers of appropriate caliber and experience can only be recruited abroad. Once the hospital is completed and begins operations, it is inevitable that recurrent costs will rise above those presently incurred in running the two existing central hospitals. We estimate that this additional cost will amount to between £150,000 and £200,000 in 1962/63 and will rise in subsequent years. We understand that it is likely that this hospital will be given independent management within the portfolio of the Minister of Health.

**Personnel**

Many deficiencies in the present health services of the country may be attributed, as has been suggested above, to shortages of qualified personnel. This has in the past limited some programs and diluted
the effectiveness of others. The expansion of health services in the future will also be limited by personnel shortages and, because training programs take a relatively long time to attain full impact, the mission has had to be less ambitious in its recommendations in the health field for the five-year planning period than it would otherwise have liked to have been—budgetary limitations apart. The supply of trained personnel must thus be regarded as a necessary prelude to the longer-term expansion of the health services.

Africanization of these services, as of other services, is rightly considered of top priority in Uganda, and current training programs ensure that this process will actually take place. While it should be possible in some instances to speed up training by increasing total enrollments in particular courses, there clearly will be an interim period during which some personnel will perforce have to be drawn from expatriate sources. This is particularly true for some of the more senior posts for which experience is at a premium. The mission therefore urges the Uganda Government to take steps to induce expatriate medical personnel to serve in Uganda and to reassure those already serving that the Government will make every effort to ease the transitional burdens which Africanization will eventually, and inevitably, place on expatriate personnel.

Even given a liberal use of expatriate services and assuming the maximum practicable speedup in domestic training programs, the personnel shortage is likely to remain acute in the immediate future, as the following paragraphs indicate.

**Doctors.** On January 1, 1961, there were 465 registered doctors and 52 licensed doctors totaling 517 in Uganda. On this basis, there was only one doctor for about 15,000 of the population. Of these doctors, about 90 were African and another 200 were Asian, most of whom are permanent residents of the country. Accordingly, nearly half the limited doctor force was expatriate. Nearly all the senior posts in the Ministry of Health were held by expatriates, but more than half the District Medical Officers were African.

Ugandan doctors are educated at Makerere Medical College in Kampala. Supported by the East African High Commission, the Medical College serves all East African territories. Medical students, who have previously spent two years of pre-medical education at Makerere University College, follow a five-year program at the medical school and conclude with a one-year internship at Mulago Hospital. The high quality of the medical education so attained is attested by the fact that the product of such an education is qualified not only
to practice anywhere in East Africa but also in the United Kingdom. The mission is, of course, fully in accord with a policy of maintaining high standards, but we feel that there should be resistance to any tendency to stress training which is geared to the standards of practice in the United Kingdom. The mission urges that increased emphasis continues to be given to disease conditions peculiar to East Africa, since this is the area in which most of the medical graduates will practice. The Government should consider ways and means of assuring that students trained abroad in medicine at the expense of the people of Uganda should return to Uganda to practice.

The Medical College limits admission to 30 students a year. In 1960 there were 141 students enrolled in all five years of study. Initial selection of students is very careful and relatively few students drop out of the course before completion. Of the 141 students enrolled in 1960, 54 were Ugandans. If all the latter actually qualify, which they normally do, during the next five years there would be a gross addition to the total doctor force of some 13 percent over the period as a whole, or less than 3 percent on an average annually. These calculations do not allow for normal attrition arising from retirement, death or other factors, nor do they allow for the possibility of an unusually large withdrawal of expatriates. It is therefore possible that there will be little or no net addition to the doctor force by 1965/66, or even an actual decrease. In any case, the doctor/population ratio will worsen.

To meet this situation, the mission believes that plans should be made forthwith to expand the output of doctors for Uganda from Makerere Medical College. The objective should be to double the enrollment at the College as soon as possible. To achieve the objective, enrollment in the pre-medical course should be doubled in 1962 so that admissions to the first year of the medical college could be doubled in 1964 and in each succeeding year. By 1968 enrollment in all five years of study would be doubled, the total enrollment in the Medical College then reaching nearly 300, and, assuming a stable ratio of Ugandan students to other students, the annual output of Ugandan doctors would be more than twenty. We suggest that the Uganda Government enter into consultations with the East African High Commission and representatives of the other East African territories in order to plan and coordinate the proposed expansion.

The capacity already exists in laboratories and classrooms to double the enrollment. Some investment in staff quarters and student hostels would, however, be necessary. We suggest that the Uganda Government should allocate as its share of the capital costs of ex-
pansion a sum of £20,000 during the five-year planning period. Additional recurrent expenditures will be involved; these will be relatively modest in 1963/64, since the expanded program will not come into operation until the second half of the fiscal year, but will rise in 1964/65 and subsequent years. We suggest that a total of £85,000 be allocated for additional recurrent medical education expenditures for the final three years of the five-year planning period.

A small number of Uganda nationals are currently obtaining their basic medical education abroad. Some of these are paying their own way, while others are on special scholarships from various sources. The mission does not believe that overseas medical training is usually as appropriate for practice in Uganda as is local training. We therefore believe that public authorities should concentrate their efforts and their relatively limited funds on building up Makerere Medical College and that public funds for overseas fellowships (see Chapter 12) should be devoted to students following courses other than basic training in medicine.

**Nurses and Other Ancillary Health Workers.** There is an acute shortage of all types of medical personnel. On January 1, 1961, there were 2,526 certificated nurses, 690 midwives, but only 375 registered nurses, or one for every 22,000 of the population, even less than the number of doctors. While planned output of newly trained nurses indicates an output of nearly 100 annually, the wastage among female nurses—mainly on account of pregnancy—is so high that it is thought that the total number actually working in the profession will rise only modestly. Medical Assistants, who are of great significance in a country where doctors are in short supply, numbered only 350 on January 1, 1961. About 16 Medical Assistants will graduate each year in the coming few years, so that allowing for losses, there will hardly be any net increase in this category either. But, even though the quantity of Medical Assistants will not rise significantly, the quality should be improved because of the improved curriculum which has recently been instituted. A three-year course at Mbaale follows six years of secondary education. Medical Assistants are taught medical diagnosis and treatment in addition to nursing so that they may properly be regarded as clinical assistants to doctors. All other ancillary health workers—health inspectors, health assistants, health visitors, dispensers, laboratory assistants and technicians, medical stores assistants and the like—are similarly in short supply and training plans similarly only entail covering losses in the coming few years.

The mission wishes it were in a position to recommend increased
training programs for nurses and ancillary health workers. But we cannot do so. In the first place, there are simply not enough candidates “in the pipeline” with adequate secondary education to fill such an expanded education program in the immediate future. Secondly, the budgetary position, as explained elsewhere in this report, is such that it would be most unwise at this time for the Government to take on the burden of additional recurrent expenditures in this field. Toward the end of the 1961/62-1965/66 period, as the output of secondary schools increases (see Chapter 12) and assuming that the recommendations we have made elsewhere bring about an expanded national income and therefore expanded public revenues, it will probably be advisable for the Government to plan for an increase in all types of medical training programs to take effect in the subsequent period.

**Overseas Training.** We have already mentioned that some doctors obtain their basic medical training abroad. In addition, a number of qualified doctors go abroad for varying periods to undergo advanced training and other health workers also go abroad for specialized courses. While certain specialisms can only be gained overseas, it is our impression that much of this form of training is not adequately related to the sort of work the particular individuals are called upon to perform in Uganda. In no instance should such training be provided as a reward for satisfactory service nor simply to enable an individual to qualify for a salary increment. By a more judicious selection of persons for overseas training, a saving of public funds could be realized, possibly of the order of £10,000 a year.

**Summary of Proposed Expenditures and Financial Arrangements**

The Government’s forecast of capital expenditures on health totals £1,357,000 for the two years 1961/62 and 1962/63 (see Table 30). In addition, the mission’s recommendations made in this chapter would entail further capital expenditures totaling £770,000 during the three subsequent years 1963/64-1965/66. Mainly on account of the cost of completing the New Mulago Hospital, capital expenditures during the first two years will average nearly £680,000 annually. The mission’s proposed program for the latter three years would give rise to an annual average capital outlay of £260,000 or less than half the rate in the previous two years.

In 1961/62 the central government budgeted £2,152,000 for recurrent expenditures on health. Our recommendations will entail some
### Table 30: Summary of Capital Expenditures by the Central Government on Health, 1961/62-1965/66

(in £ '000)

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<tr>
<th></th>
<th>Government Forecast</th>
<th>Mission's Proposals</th>
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<tbody>
<tr>
<td>Completion of Butabika Mental Disease Hospital</td>
<td>93</td>
<td>—</td>
</tr>
<tr>
<td>Completion of New Mulago Hospital</td>
<td>1,001</td>
<td>—</td>
</tr>
<tr>
<td>Conversion of three district hospitals to base hospitals</td>
<td>—</td>
<td>450</td>
</tr>
<tr>
<td>Improvement of district and subdistrict hospitals</td>
<td>150</td>
<td>225</td>
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<tr>
<td>Staff quarters</td>
<td>20</td>
<td>—</td>
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<tr>
<td>Training Institutions</td>
<td>30</td>
<td>20*</td>
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<tr>
<td>Grants to Mission Hospitals</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,557</strong></td>
<td><strong>780</strong></td>
</tr>
<tr>
<td><strong>Less C. D. &amp; W. Grants</strong></td>
<td><strong>-753</strong></td>
<td>—</td>
</tr>
<tr>
<td><strong>Net Cost to Uganda Government</strong></td>
<td><strong>604</strong></td>
<td><strong>780</strong></td>
</tr>
</tbody>
</table>

*To expand Makerere Medical College.

Additional recurrent expenditures during the five-year period 1961/62-1965/66 (see Table 31, Part I). The expansion of various preventive health programs—for health education, for environmental sanitation and for vector control—will incur additional recurrent costs of about £75,000 in each year when the programs are fully operational, which we expect will not be before 1963/64 due to the difficulties of recruitment. The operational costs of the preventive sections of health centers will be borne by the central government and, assuming that four dispensaries are converted into health centers each year, these costs will rise by about £8,000 each year so that by 1965/66 they will have reached £32,000. Additional funds of £150,000-£200,000 a year will also be required to operate the New Mulago Hospital starting with the first year of operation, 1962/63. Our recommendation to expand the capacity of the Makerere Medical College will also entail additional recurrent costs of about £10,000 in 1963/64, the first operating year of the expanded college, and then £25,000 and £50,000 respectively in the two succeeding years.

The mission recognizes that it is usual to forecast a general expansion of recurrent costs to take account of what is regarded as...
an inevitable upward “creep” in such costs. We urge the Government to make every effort to resist this trend and hold down the increases to approximately the levels indicated in the table, the total recommended increases already being large. An attempt should be made to avoid increases in the operating costs of health programs other than those listed in the preceding paragraph. Because training programs already under way provide for little net increase in personnel, there should be little increase in total numbers on the payroll. Substantial increases in salaries were granted in 1961. The capital outlays on hospital improvements will give rise to further maintenance costs; the biggest single item involved is that for New Mulago. We allocate to general expansion of the health services—above and beyond the specific programs we specify above—additional recurrent costs of £25,000 in 1963/64 and rising by £25,000 each year to £75,000 in 1965/66.

In all, we see additional recurrent expenditures rising from £15,000 in 1961/62 to £382,000 in 1965/66. Against these new expenditures should be set certain savings that we feel might be effected and certain new revenue which might accrue (see Table 31, Part II). Africanization of the health services will involve, during a transitional period, the replacement of senior expatriate staff by relatively junior African staff. This should bring about some savings in the total salaries bill, a saving which might increase for some years as the Africanization process proceeds. For illustrative purposes, we suggest that this saving might total £5,000 in the first year and rise to about £20,000 by the fifth year. Furthermore, the recommended reduction in overseas training programs should save about £10,000 annually.

The mission recommends that local governments take over the operation of dispensaries and the curative services of the health centers. This transfer of responsibility has also been recommended by the Munster Commission. In order to ease the transition the central government should plan to take account of the present cost of operating the dispensaries in its grants to the local authorities. At the beginning of the five-year period we would expect that the whole of this cost would have to continue to be borne by the central government. But, by the end of the five-year period 1961/62-1965/66, the central government’s share should gradually be cut to 75 percent and the remainder should be passed on by the local authorities to the patients through the introduction of fees, as we discuss below. The savings to the central government on the present costs of operating the dispensaries should therefore reach about £80,000 in 1965/66.
### Table 31: Summary of Changes in Net Recurrent Expenditures by the Central Government on Health, 1961/62-1965/66

(in £'000)

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<tr>
<td><strong>ADDITIONAL EXPENDITURES:</strong></td>
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<td>Health Education</td>
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<td>Sanitation</td>
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<td>Vector Control</td>
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<tr>
<td>Health Centers</td>
<td>-</td>
<td>8</td>
<td>16</td>
<td>24</td>
<td>32</td>
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<tr>
<td>New Mulago Hospital</td>
<td>-</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
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<tr>
<td>Makerere Medical College</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>General expansion</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>50</td>
<td>75</td>
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<tr>
<td>Total</td>
<td>15</td>
<td>193</td>
<td>276</td>
<td>324</td>
<td>382</td>
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<tr>
<td><strong>SAVINGS AND NEW REVENUES:</strong></td>
<td></td>
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<tr>
<td>Replacement of expatriates with African staff</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
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<tr>
<td>Reduction of overseas training</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Savings to central government on dispensaries</td>
<td>-</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
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<tr>
<td>Additional revenue from patients</td>
<td>20</td>
<td>55</td>
<td>65</td>
<td>75</td>
<td>90</td>
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<tr>
<td>Total</td>
<td>35</td>
<td>90</td>
<td>125</td>
<td>160</td>
<td>200</td>
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<tbody>
<tr>
<td><strong>NET INCREASE IN EXPENDITURES</strong></td>
<td>-20a</td>
<td>103</td>
<td>151</td>
<td>164</td>
<td>182</td>
</tr>
</tbody>
</table>

* A net saving.

We believe that fees payable by patients should be reintroduced in dispensaries at the rate of at least one shilling for every new admission to service. These charges should be reviewed annually and revised upward as the economy expands. Charges might be higher in the more prosperous parts of the country. There should be certain classes of exemption, such as prenatal care, child welfare and indigent patients. All the fees so collected would go to help finance the local governments' share in the operating costs of the dispensaries. We calculate that, at the fee rate suggested above, income to the local authorities from this source might amount to £80,000 annually and so prevent a net drain on their budget from the reduction in central government grants. To the extent that fees can be raised later, an increasing proportion of operating costs will be so covered making it possible for local authorities to expand their services or use the money on other services.
We also recommend that charges be reintroduced for hospital services which are now free. We suggest a fee in out-patients departments equivalent to that to be charged in dispensaries, namely, one shilling for each new admission. There should also be a charge of three shillings for each new admission to in-patients service. These charges should likewise be reviewed annually. Furthermore, hospital services of a higher standard are currently provided to paying patients. The charges for these were increased in 1961. We believe that the scale of charges for these patients should be reviewed from time to time to try to keep revenue from these services in line with costs. The fees collected by hospitals would accrue to the central government and, together with the additional revenue derived from the increase in charges to presently fee-paying patients, might total some £20,000 in the first year and rise to about £90,000 by the fifth year (see Table 31, Part II).

From these figures, it is evident that, although there might be a small net saving of £20,000 in 1961/62 if all our recommendations were followed, by 1962/63 there would already be a net increase in expenditures of over £100,000 which would climb to over £180,000 by 1965/66. This strongly reinforces our opinion that vigorous action will have to be taken to avoid any increase in medical programs and expenditures other than the high priority ones we have recommended. There is some possibility that this increase in medical costs to the central government might still be avoided—at least in part. With the New Mulago Hospital being made into an autonomous institution, its ability to secure assistance from outside of the Government may be enhanced. As the local authorities assume more direct responsibilities in the health field, and the Ministry of Health's functions become increasingly advisory and inspectorial, it should be possible to save on administrative costs. Finally, as the local authorities themselves have to bear more of the direct financial brunt of medical services, there is likely to be a better assessment on a local basis of the priority need for medical services compared to other services and as compared to costs. Furthermore, local authorities should be able better to assess local feelings as to what fees the people are prepared to pay themselves if they are to benefit from added services.

HOUSING

Over 95 percent of Uganda's population live in rural areas and provide their own housing. However, with the growth of urban areas, primarily in and around Kampala, problems associated with urbaniza-
tion are beginning to emerge. But in general the country does not face a "housing problem" in the usual sense of acute shortages of houses adequate for the environment.

There has been considerable progress already in many parts of the country in raising the standard of rural housing. Old temporary and insect-ridden thatched roofs are being replaced by galvanized iron or aluminum roofing and stronger and more sanitary walls of blocks, or even hollow-tile, are being increasingly utilized. There is still much room for improvement in siting, sanitation and quality of housing, and we would expect that progress in the rural areas will continue to be made with the help of the health services (especially through the new health centers), community development activities and the initiative of the people themselves.

Living mostly in towns, Uganda residents of European or Asian origin are able to secure, or are provided with, housing through normal private enterprise channels in accordance with laid-down building standards. Senior civil service staff are provided with housing by the Government (see below).

Thus, to the extent that a "housing problem" is emerging, it is related only to Ugandans of African origin and only to those living in urban areas. Furthermore, the problem is only related to those who live in the largest urban areas, Kampala and Jinja, the only two concentrations of more than 20,000 inhabitants in the country, since Africans working in other areas either house themselves on their own shambas (farms) and travel to work daily or are housed by their employers according to government minimum standards. The government-set minimum wage includes an element for housing which an employer who houses his employees can deduct. In Kampala, the minimum wage of Sh. 75/40 a month includes Sh. 10/- for housing; the Jinja minimum wage is Sh. 67/60 and the housing element, Sh. 7/-. Of the total population of 47,000 within the municipality of Kampala at the last census, 24,000 were of African origin. In addition, 68,000 Africans lived in the Kibuga, the major urbanized area adjacent to the municipality. Thus, a total of 92,000 Africans lived in the greater Kampala-Kibuga urban concentration. Of the total population of 30,000 in Jinja, there were 20,000 Africans within the town and approximately another 20,000 in the adjacent Bugembe Planning Area (of which only 3,000 are classified as being in the peri-urban area of Jinja).

About three-fourths of the Africans working in Kampala and Jinja are migrant workers who leave their families at home on their shambas in other parts of Uganda or in other East African countries
and Rwanda-Urundi in order to earn wages to augment the family farm income. For the unskilled and semi-skilled worker, a wife in a rural area is an economic asset while in town she is not, except if she engages in some undesirable activity, such as beer brewing, since there is very little employment of women in towns at present. By maintaining a tie with the land, the migrants provide themselves with a measure of social security against illness, unemployment and old age. Since under traditional land tenure there is no way for a family to capitalize future income from land by selling it, the only way the land can be exploited is by living on it. Most of the migratory workers are not accustomed to spending anything on housing at home and, while in the town, prefer a bare minimum of shelter rather than paying for anything better. While many local people still live on their shambas and travel to work, thus combining farm living with city earning, an increasing number of them have joined the majority of workers in living in congested areas around Kampala in the Kibuga. (There are, unfortunately but understandably, no statistics available on the exact numbers of people involved in these various groups.) With the growth of the city, former adequate shambas in the latter area near the roads have been divided and subdivided. Houses in the area have been built in a quite haphazard fashion, with a maze of twisting roads and paths between them created by chance by the chaotic flow of foot traffic. Water is often lacking and has to be transported in tins on wheelbarrows from a distance, the drainage system is bad, street-lighting is nonexistent and public security is almost impossible. To improve conditions in the Kibuga is thus the priority housing need in Uganda today. The situation near Jinja in the Bugembe is still quite tolerable and no immediate action, beyond the continued maintenance of some control of siting and sanitation, appears necessary.

Another need in the housing field is to make possible the settlement of the emergent African middle class and permanently settled skilled workers within the established urban areas in housing of a standard suitable to urban conditions. While most well-to-do Africans are farmers and live in the countryside, some professionals and technicians wish to live in town and have the incomes to occupy houses in areas hitherto predominantly European and Asian. Until 1956, the Building Regulations provided for such a high standard of housing in towns that only Africans with the highest incomes could aspire to permanent houses in town. While even village dwelling, let alone urban living, has not been a widespread pattern of life in Uganda, the continuing process of development makes inevitable some perma-
The urbanization of Africans and therefore action is required to facilitate it.

Before World War II, the Government mainly concerned itself with staff housing, although some construction of small estates was started. Construction was resumed after the war and an African Housing Department was established in 1954. Although complete statistics are not available for the total amount that has been invested in African housing by the central government, it must be around £2½ million. Over 4,400 houses have been built, of which 1,600 are in Kampala. About £200,000 a year for additional construction over the period of 1960/61-1962/63 was mentioned in the Government's Three-Year Capital Forecast. This level has not been reached because the Government's housing policy has been under review and expenditures have been held up in the meantime.

While there is no accurate calculation of the total cost of running the estates, it is quite clear that the rents collected for the vast majority of the rented houses are far below the economic cost. For example, the maintenance, supervision and management and capital costs of a one-room house are estimated at Sh. 40/- to Sh. 58/- a month, while the rents paid are Sh. 15/- to Sh. 20/- a month. A two-room house may cost from Sh. 61/- to Sh. 153/- a month while the rents paid are Sh. 33/- to Sh. 40/- a month. Even with the large subsidy, rents are not low compared to the median wage of African labor of Sh. 100/- a month in Kampala, and the average African worker cannot afford to live in a housing estate. The median monthly cash wage of tenants in the estates directly administered by the African Housing Department was between Sh. 200/- and Sh. 300/- a month in 1960.

While the housing estates have made a contribution to housing middle-class and skilled Africans, they have not been of major importance in meeting the needs of the low-income Africans. Undoubtedly over the whole period the number of Africans living in the Kibuga slums has increased more rapidly than the number who found housing on the estates in Kampala. To house the whole of the African population of Kampala on the standards of the existing housing estates, even if they were willing to pay such relatively high, even though subsidized, rents, would cost £20-30 million. Even at the rate of progress during the 1950's when, due to the boom, a special effort in housing could be financed, it would take over 100 years. The cost would equal the total investment Uganda has been making for all purposes—schools, hospitals, agriculture—over a period of four to five years. In addition, of course, the subsidy drain on the budget from
the houses after they were built would be unbearable. To help the mass of the African workers a new line of advance is therefore necessary, one that will utilize available funds the most efficiently and will help the most people permanently. This is the basis and the necessity for the program for the Kibuga which we are endorsing below.

Program for the Kibuga

Funds should be concentrated on the introduction of an infrastructure of urban services into the Kibuga, services which could provide a suitable basis for the orderly development of housing, the latter being largely built by occupants for themselves or by private initiative for renting. The Kabaka's government has in fact already prepared a plan which would give effect to such a policy. The total capital costs of this plan are estimated at £400,000 to be expended over five years. Of this total, £200,000 would be required as a loan to the Kampala Water Board to enable it to install a suitable water supply. The remaining £200,000 would be needed for the other facets of urban infrastructure—access roads, street lighting, community buildings, public safety installations and the like. Recurrent expenditures during the five-year period are estimated at £505,000 of which the central government would provide half and the Kabaka's government half. Part of the local recurrent expenditures would be covered by new local rates and taxes to be imposed. The recurrent expenditures envisaged represent no significant additional financial burden on either the central or local governments, but rather re-deployment and better utilization of funds already expended.

Under the plan, a Mengo Municipal Council would be established to replace the existing system of rural government. The Council would be responsible for the initial design of the redevelopment of the Kibuga as a whole, for zoning the various parts of the area in order to put the over-all design into effect, for executing such works as the construction of access roads and the erection of street lighting, for supervising the Water Board's new works, and for establishing necessary security and community services.

While endorsing the many excellent features of the development plan, the mission believes that both the physical and organizational aspects of it might be improved. The mission recommends that the Government help the Council secure the services of an expert in town development schemes in tropical countries who would help prepare a master plan for the Kibuga, would schedule works and would cost the program to be carried out. Provision also needs to be made
for the organization of redevelopment agencies, probably formed of consortia of businessmen or landowners who could obtain suitably large areas of land by purchase or long lease and develop them on a rational basis.

One of the most serious problems to be faced in the Kibuga is the disposal of waste water and sewage. Storm-water drainage is already an acutely critical problem and most of the existing roads require proper culverts and drains. If the Kibuga were redeveloped with paved roads constructed and new buildings erected, the drainage problems would be greatly accentuated. And the proposed provision of domestic water supplies would further aggravate the problem. Under the existing plan, we feel there is very meager provision in the estimates for proper drainage and we would urge that the future development plans for the Kibuga start with the plans for drainage and sewage disposal.

Ideally, the redevelopment would be achieved on lines such as the following: the drainage outfall areas would be first determined and then cleared of obstructions and buildings that do not fit into the plan laid out for the Kibuga (the owners being duly compensated and found other accommodation or plots within this plan), and then outfall works would be designed and executed capable of taking the storm water and waste water of the whole of the Kibuga area. If sewers were not to be put in at once, the design would allow for their future installation. The design should also allow for the quick flow and sanitary protection of foul water which will at a later day go into the sewers.

Initially, redevelopment would probably have to be financed by means of a loan, but ultimately it would be self-financing from the sale yields of plots in the areas provided with substructures. These plots should be sold or leased after the roads and side drains, water, electrical and other services, are marked out (but not necessarily constructed) and the plots themselves marked out in accordance with the master plan. If slum clearance and development is to proceed in accordance with the plan, the acquisition of the areas proposed for substructure development should precede the execution of the plan and legislative action should be taken to make this possible. A system of arbitration, under which all interests were represented, would have to be devised, so that ownership disputes and conflicts between individual rights and public interests could be resolved.

Given a satisfactory development scheme, both in its physical aspects and in its administrative arrangements, the mission is prepared to endorse the expenditure of £400,000 on public works in the Kibuga
during the five-year period 1961/62-1965/66. It must be emphasized, however, that this figure, which we include in our capital program, is somewhat notional and might have to be adjusted in the light of the costs analysis which we have recommended. On the other hand, it is doubtful whether all works in the Kibuga could be completed within the five-year period and, therefore, any costs beyond the stipulated £400,000 could be incurred after 1965/66. If financed internally, the £400,000 would be obtained as follows: £200,000 for water supplies loaned by the central government to the Kampala Water Board; £100,000, or half the remaining capital costs, made available as a grant by the central government and £100,000 to be raised by the Kabaka’s government with assistance from the central government. However, the mission feels that a scheme worked out along the lines suggested above could probably obtain special external financial assistance for at least part of the proposed works and thus, we urge the Government to proceed without delay to devise appropriate plans which could form the basis for an application for such assistance.

Housing Estates

While the redevelopment of the Kibuga is of the highest priority in the housing field, action also should be taken with respect to existing housing estates. Of the 4,400 houses on estates, 3,300 are in Jinja and Kampala. The rest are located at 19 different administrative centers in the rest of the country, are mainly occupied by government employees who are not entitled to staff housing and are run by the provincial administrations. As mentioned above, residents of housing estates rent their quarters but do not pay full costs and are consequently being subsidized by the tax payers of the country. The latter include the cotton and coffee farmers, most of whom have very low incomes well below the average earnings of those living on the housing estates. In essence, the very poor in Uganda are subsidizing better housing for the better-off—clearly an inequitable arrangement. Because of the high initial capital costs of building the estates, it is unlikely that even all the better-off residents of the housing estates could meet the total costs of their housing. But, as a minimum, the rents should cover the running costs, maintenance of the houses and of the estates, and the costs of administration. This is already true of a large proportion of the housing and should be achievable of the others. Furthermore, rents should also cover the costs of depreciation, that is, the capital cost of replacing houses. To go beyond this and provide a yield on the capital investment locked up in housing is an
ideal goal which we do not expect could be achieved on most of the existing housing.

We understand that government policy is directed toward turning over the responsibility for the housing estates to local authorities. We endorse this policy and suggest that the time may now be right to begin to turn over the estates in Kampala and Jinja to the municipal authorities. Before transferring jurisdiction, rents should be adjusted so that they at least meet the minimum requirements of operating costs and depreciation and thus do not become a recurrent drain on municipal finances. There are also some minimum improvements that are needed on the estates to make it possible for the municipalities to take over without immediately being faced with major capital expenditures. About £200,000 should be sufficient to meet these minimum needs. The central government should not expect to be remunerated for the capital invested in the estates—to the extent municipalities recover any of the capital, they would be able to increase or maintain their stock of housing.

In the future, there will be a continued need for governmental action to help the emerging permanent African urban dwellers obtain improved housing. Some of the general policy goals laid down for the African Housing Department when it was established in 1954 are also still relevant:

a. To aid in the transition from the former primitive housing standards to better housing through finding and spreading knowledge of better and more economical techniques, materials and designs.

b. To help the local authorities to promote the growth of organic urban communities in the housing estates through the provision of basic services and urban amenities.

c. To keep watch on the housing situation throughout the country, to advise the Government on housing problems, and to secure the cooperation of all departments and agencies able to assist in meeting problems that develop.

African urban dwellers should be encouraged to participate in the construction of their houses in the towns, as indeed they have so done in the past in rural areas. This policy of self-help should bring down building costs. The central government, through the Ministry of Public Works, should help with technical research into low-cost building methods and materials, the results of which should be dis-
seminated to builders through local authorities and information media. Credit should also be available to help Africans build new housing. The Uganda Credit and Savings Bank and the Building Society which have already begun to operate in this field should be encouraged to continue. We would suggest that for the period 1961/62-1965/66, the Government might need to allocate £200,000 to the Uganda Credit and Savings Bank for this purpose and to help in the sale of government staff houses on credit (discussed below).

The outlines of an acceptable program for housing in urban areas might therefore consist of the following elements:

a. The Government would aid the local authorities in laying out and providing the minimum basic services (water, drains, roads) on suitable sites for low-cost housing through technical assistance and loans from the Local Authorities Loans Fund. In our allocation of increased resources to the Local Authorities Loans Fund, we have considered that up to £300,000 might be required for this purpose.

b. The Government would directly help in the construction of the houses by providing technical guidance to the owner-constructor, and helping arrange the transport and supply of proper materials.

c. The Government should do everything possible to eliminate unnecessary administrative delays in facilitating housing loans by the Uganda Credit and Savings Bank, the Building Society and other sources of funds.

Staff Housing

We agree with the Flemming Commission's conclusions on housing of government employees: "... that the present system of charging sub-economic rents for official quarters, and of paying salaries which only provide for the payment of rents on this scale, is inherently unsound." For the efficient use of resources in Uganda, the practice is a costly one. The central government has no particular qualifications as an efficient landlord and should only play the role of landlord when it cannot otherwise be avoided. As the Commission points out, the policy of subsidized rents inflates government officials'

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ideas as to what is a reasonable standard of housing, since they pay only nominal rents for attractive, well-built quarters. Furthermore, the policy inhibits the construction of houses either for owner-occupation or for rent because expectations are running ahead of economic reality and individuals find the cost of housing to which they have become accustomed in excess of their individual financial capabilities. Furthermore, some local authorities are now following suit and investing scarce investment funds in high-quality subsidized housing for privileged officials.

If economic rents for government houses are charged, it is quite possible that some government officers will wish to purchase them if given credit facilities to do so. To some extent, government officers will also be no longer interested in such housing but will make their own arrangements elsewhere. The Government should be ready then to dispose of surplus housing with the help of credit facilities at the Uganda Credit and Savings Bank. The only houses that the Government should build and run for its staff should be those on remote stations where private accommodation of a suitable nature is not available for renting, institutional housing where it is in the interest of the Government that officers live on the job, and housing for overseas staff where private landlords cannot be persuaded to build a sufficient amount of suitable rental housing. The policy of trying to dispose of government-owned housing should also apply to the housing estates administered by the provincial administrations and largely occupied by junior staff. With senior staff paying economic rents, the complaint that the subsidized rents of the housing estates are too high would vanish and the subsidy of the housing estates rents outside of Kampala and Jinja could be drastically reduced.

COMMUNITY DEVELOPMENT

Community development work began in a small way in Uganda after World War II. It became a separate activity in 1952 when a comprehensive five-year program for communal self-help schemes was established with a capital sum of £500,000 over a period of five years. In 1957, after a review of community development policy, the annual allocation for such schemes was cut from the previous £100,000 to £40,000 and the program has continued at about this level.

The work of community development includes both the communal self-help program and other activities which take about £10,000 a year in capital funds. Under the community self-help program, money is allocated among Districts to be used to help in schemes where the
local population wishes to carry out a local project and contributes the bulk of the labor. The District allocation is controlled by the District Commissioner and disbursed by the District team of officials (with the local authorities beginning to play a more important role). Day-to-day administration is in charge of the Community Development Officer. The amount allocated to any one project may vary between £5 and £300. Examples of projects executed in this way include the building of schools by parents out of *murram* blocks with the molds paid for by Community Development funds, the protection of a spring from pollution with Community Development funds paying for necessary pipe and cement, building tracks for cotton lorries, construction of a foot bridge so children can get to school across a stream, etc. Under this program many hundreds of projects have been carried out. The £30,000 contributed each year by the central government is probably about only a third of the total investment achieved, with the bulk resulting from voluntary unpaid labor.

Other community development work includes the encouragement of family self-help development work. This is accomplished through the formation of women's clubs directed toward this end. There are now over 1,000 women's clubs with over 20,000 families affected. These are a real force in improving child care, family health, and home and community improvement. Men have been brought into this work through being induced to build improved kitchens, latrines, better windows, etc.

Adult education is also a significant activity, again mostly successful on the women's side in the field of home economics. There are a number of literacy classes but suitable mass literacy methods have not yet been successfully established. On the other hand, good work has been done on improving teaching materials—all primers and readers in vernacular have been completely rewritten to take advantage of the latest techniques and they are now available in quantity. The lack of villages and the isolation of the individual farms in Uganda has encouraged the creation of residential educational courses at Rural Training Centers which have been established in most districts and at a national center, Nsamizi, at Entebbe. These centers are used by a number of government departments and some non-governmental organizations to provide courses for junior staff and to non-officials. The community development staff also have and use a variety of visual aids to help influence people in carrying out their own and other governmental activities.

UNICEF has been making a contribution to the value of around £11,000 a year to community development work by providing trans-
port and paying some of the costs of training women. This assistance is likely to continue but possibly at a lower rate. The U.S. International Cooperation Administration has provided a home economist and a specialist on visual aids at a cost of about £7,000. This program is likely to increase in the future with the provision of additional personnel.

The mission believes that, while Community Development has made a useful contribution to the economic and social development of Uganda so far, its biggest contribution is still to come. Community development is a process by which the efforts of the people themselves are organized to improve their economic, social and cultural conditions. It depends fundamentally on the wish and the capacity of the people to help themselves. The goal is to make a community conscious of the fact that it can itself affect significant improvements in its immediate environment and learn how to accomplish these improvements by working together under a system of democratic decision and representative action. So far in Uganda community development has barely begun to show what it can do. The reasons for the slow progress until now are many: the traditionally heavy dependence on authority, the lack of villages and spontaneous communal life, slow growth of the kind of nationalist movement seen in some other African countries that sparks the initiative and energy of the people to organize and to help themselves.

The mission believes that at some point in the not-too-distant future the conditions will be right for a big "breakthrough" in community development. The effect of the enlarged educational program since the early 1950's and the political progress that the country is making may result in an unrivaled opportunity for community development to leap ahead, set off by the stimulus of self-government and independence. In the meantime, the existing program of community development should be maintained and plans be made to take advantage of the opportunity for a breakthrough when it occurs. We are suggesting accordingly that recurrent and capital expenditures should be at least maintained at about the 1961/62 level (i.e., £120,000 and £30,000 for community development schemes respectively) and that they might then increase considerably over the course of the last four years 1962/63-1965/66. We recommend, therefore, that there be a notional allocation of £250,000 of capital expenditures (including £20,000 for rural training centers) and £110,000 of additional recurrent expenditures for the whole period 1961/62-1965/66 to be utilized fully if the circumstances do prove favorable.
ANNEXES
ANNEX I  THE BALANCE OF PAYMENTS OF UGANDA

While official information is available on Uganda's trade with the rest of the world outside of East Africa and on trade with each of the other East African territories, transactions in invisibles and capital movements are officially estimated only for East Africa as a whole, the customs union arrangements between Uganda, Kenya and Tanganyika making the compilation of a country balance of payments extremely hazardous.¹

The Balance of Trade

Table A.1 contains information on the balance of trade, first between Uganda and all countries outside the East African customs union and then between Uganda on the one hand and Kenya and Tanganyika on the other. Each of these two officially published series has to be adjusted for Uganda's use. First, the valuation of most of the international trade between Uganda and the countries outside East Africa is made on the basis of exports f.o.b. and imports c.i.f. at the port of Mombasa in Kenya. This means that the official export figures are overvalued by the amount it costs to transport the goods from the border of Uganda to Mombasa, while imports are undervalued for the same reason. The item "freight adjustment" in Table A.1 represents an estimate of the transportation element involved. Because of the long distance between Uganda and the seaport the freight cost considerably modifies the official balance. Second, the figures on Uganda's trade with Kenya and Tanganyika are based on the sales price of the commodities. This includes the

¹Some of the statistics quoted below have been published in documents of the East African Statistical Department and its Uganda Unit; others were taken from the following sources: T. A. Kennedy, An Estimate of Uganda's Balance of Payments, 1949-1957, The East African Economics Review, July 1959; W. T. Newlyn, Uganda's Balance of Payments: An Interpretation, ibid, June 1960; T. A. Kennedy and David Walker, Imports and the Uganda Economy; Saben's Commercial Directory and Handbook of Uganda, 1960-61. In addition, Mr. Kennedy has made an unpublished study available to the mission. Appendix Tables S.7-S.14 give details of the structure of Uganda's international and interterritorial trade.
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<td>19.2</td>
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<td>-1.8</td>
<td>-1.9</td>
<td>-2.5</td>
<td>-0.4</td>
<td>-0.5</td>
<td>-0.5</td>
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<tr>
<td>Adjusted Balance</td>
<td>1.3</td>
<td>0.8</td>
<td>1.7</td>
<td>2.0</td>
<td>2.4</td>
<td>1.4</td>
<td>-1.2</td>
<td>-1.7</td>
<td>-1.6</td>
<td>-1.5</td>
<td>0.1</td>
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<tr>
<td>Total Balance of Trade</td>
<td>10.2</td>
<td>23.1</td>
<td>20.9</td>
<td>6.6</td>
<td>15.7</td>
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<td>7.7</td>
<td>11.2</td>
<td>12.9</td>
<td>11.4</td>
<td>(12.0)</td>
</tr>
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</table>

Sources: Uganda Statistical Office, except for figures in parentheses which are mission estimates.
element of import duties on imported raw materials and components used by the local manufacturers and the excise duties levied on the commodities. These duties subsequently are transferred to the country of consumption. Actual export earnings, therefore, are lower than the export statistics indicate, because part of the value of the exported goods is ultimately collected by Kenya and Tanganyika; in the case of interterritorial imports, part of the value of the goods brought into Uganda accrues to the Uganda Treasury in the form of excise duties and therefore must be deducted from the total value of imports. An estimated “net tax adjustment” for these factors is also included in Table A.1. This adjustment, too, is considerable since a large part of the interterritorially traded goods are subject to local taxes (sugar, beer, tobacco, cigarettes, matches). On the other hand, no adjustment was necessary for the year 1959 because the 1959 official figures for the first time are exclusive of excise and other taxes.

Since 1950 Uganda has consistently been running a trade surplus with the countries outside East Africa. During the period of high cotton and coffee prices in the early 1950's, this surplus exceeded or approached £20 million. Falling world market prices combined, at times, with unfavorable crop conditions, however, reduced the surplus substantially (for instance, in 1953 and 1956, while extraordinarily high imports accounted for the reduction in 1955). Trade with Kenya and Tanganyika yielded modest but regular surpluses until 1956. Thereafter, imports exceeded exports by £1-2 million annually. This reversal, however, did not materially alter Uganda's over-all balance of trade, which over the last ten years was always positive.

The Balance of Payments

Uganda's balance on current account with the world has shown a consistent surplus as far as can be estimated (see Table A.2). However, because invisible payments exceeded receipts in every year since 1950, the surplus of the current balance of payments was somewhat smaller than that of the trade balance. (While the statistics in Table A.2 refer to Uganda's over-all balance of payments with the world, it is noteworthy that the country's regional current account balance with the two other East African territories most probably yielded regular deficits for Uganda. Lack of reliable information again prevents a quantitative assessment, but there is some evidence that Uganda's deficit in her interterritorial balance of payments on current account over the four years 1956-1959 may have been in the neighborhood of £5-7 million annually.)
### TABLE A.2: Uganda’s Balance of Payments

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Total Balance of Trade</strong></td>
<td>10.2</td>
<td>23.1</td>
<td>20.9</td>
<td>6.6</td>
<td>13.7</td>
<td>4.9</td>
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<td>11.4</td>
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<tr>
<td><strong>Invisible Receipts</strong></td>
<td>2.1</td>
<td>3.0</td>
<td>3.9</td>
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<td>4.9</td>
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<tr>
<td><strong>Invisible Payments</strong></td>
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<td>-4.4</td>
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<td>-9.4</td>
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<tr>
<td><strong>Current Balance of Payments (surplus)</strong></td>
<td>8.8</td>
<td>21.7</td>
<td>19.7</td>
<td>5.5</td>
<td>10.9</td>
<td>1.9</td>
<td>4.4</td>
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<td>9.5</td>
<td>6.9</td>
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<tr>
<td><strong>Capital Account (net):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gifts, Grants, Official Loans</td>
<td>3.4</td>
<td>-1.2</td>
<td>6.1</td>
<td>0.4</td>
<td>-0.7</td>
<td>3.7</td>
<td>0.1</td>
<td>—</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Other Official Balances</td>
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<td>-13.7</td>
<td>-7.9</td>
<td>-7.3</td>
<td>3.3</td>
<td>1.9</td>
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</tr>
<tr>
<td>Monetary System</td>
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<td>-3.2</td>
<td>-6.5</td>
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<td>0.8</td>
<td>0.2</td>
<td></td>
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<tr>
<td><strong>Total Known Capital Transactions</strong></td>
<td>-11.4</td>
<td>-18.6</td>
<td>-8.3</td>
<td>-7.4</td>
<td>0.4</td>
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<td>3.4</td>
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<tr>
<td>Balancing Item</td>
<td>2.6</td>
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<td>-6.4</td>
<td>-11.3</td>
<td>-17.2</td>
<td>-11.7</td>
</tr>
</tbody>
</table>

**Source:** Uganda Statistical Office.
Transactions on capital account are given on a net basis only since not enough information is available on gross flows. Probably all of the items listed are subject to a considerable margin of error. But no matter how large this margin, it appears most probable that Uganda's international payments account in eight out of the last ten years showed a sizeable positive balance which in the years 1957-1959 averaged over £13 million. Although a detailed explanation of this balance is impossible, official sources and private observers agree that a large part of it must represent private capital flows from Uganda. As we have mentioned in Chapter 2, this outflow is believed to have persisted for a number of years but probably assumed particularly large dimensions in 1959 and 1960.
ANNEX II A PROPOSAL FOR THE IMPROVEMENT OF AGRICULTURAL STATISTICS IN UGANDA

No census of either African or non-African agriculture has been carried out. However, estate production of coffee, sisal, sugar and tea, and the areas under these crops are recorded annually. Of the various African-grown crops, reliable production figures are available for cotton and coffee since these two crops are almost entirely exported. No satisfactory attempt has yet been made to estimate the production of important crops like plantains, maize, millet, groundnuts, etc. Sales of these crops represent a small proportion of total production. Areas planted under individual cash crops and subsistence crops have been estimated on the basis of returns by local chiefs and the knowledge of agricultural officers of the Department of Agriculture. Numbers of livestock on African farms are collected on basis of returns by local chiefs and veterinary officers.

Statistics on crop acreages based on actual measurements of fields were obtained in an acreage survey carried out in 1960. Plots of about 20,000 taxpayers, selected on basis of statistical sampling, were measured and estimates obtained for the areas under different crops. About 140 Agricultural Assistants were engaged on this survey for about five months. In recent years, a number of household surveys have also been carried out. There has been a pilot survey in a rural area to study the techniques for the measurement of income and expenditure patterns and food consumption habits of the rural population. This has given valuable methodological information for the conduct of future large-scale surveys.

After an interval of 11 years, a population census of Uganda was taken in 1959. Complete enumeration was limited to head count only. Other characteristics were enumerated on a basis of a 5 percent sample and the results of the census are likely to be most helpful in planning future agricultural surveys, particularly in stratifying the area, dividing enumeration areas in size classes, compiling lists of cultivators, etc.

Subject to the availability of requisite funds and personnel, the Agricultural Department proposes to continue on an annual basis the measurement of areas under different crops. It had been proposed
to estimate areas under cotton and coffee each year together with one or two food crops, the more comprehensive survey being carried out only once in five years. Plans of the Agricultural Department had not been finally decided at the time of the mission's visit, but it was likely that the old method of estimating mean plot size and the number of plots under different crops, on basis of returns from chiefs would be continued. The Department also intends continuing case studies and mitalla (sub-parish) surveys.

A proposal is also under consideration in Uganda for obtaining from outside sources the services of an agricultural economist and anthropologist to examine the social and economic factors limiting the production of peasant cultivators. Another economist is starting a study of local marketing facilities, including the existing marketing network, the pattern of crop movements, the financing structure of trade, etc.

Need for More and Better Agricultural Statistics

A census of agriculture providing information on the basic structure of agriculture is badly needed in Uganda. The various systems of land tenure, particularly outside of Buganda, make it less urgent to obtain statistics of holdings and areas operated under different tenure systems. Information on the size distribution of holdings or of cultivable land is, however, urgently needed to obtain a better picture of farming in the country. Similarly, there is a need for statistics on land use. Statistics on the structural relationship between cropping patterns, livestock numbers, average yields, etc., are also needed.

As Uganda is a member of the International Coffee Agreement, it is of great importance to have an accurate estimate of coffee production as early in the season as possible. A coffee survey giving the number of trees by age group in different parts of the country and their relationship to yield would therefore be of great use. Similarly, the Lint Marketing Board has to have an accurate estimate of production early in the season for each of the 15 different zones in the country. Estimates of monthly cotton plantings from April to September together with an estimate of the average size of cotton plot are a prerequisite of the present forecasting system. Other methods of forecasting production directly may also be worth investigating.

Although Uganda appears to be able to meet its food requirements adequately, shortages of specific foods have been known to occur in
different parts of the country from time to time. Nutritional deficiencies have also been noted in the diets of the rural population, particularly in those parts where plantains and starchy roots form the principal food. For this reason, it is necessary to collect statistical information not only on the present and potential food production but also on the food consumption habits of different classes of the population.

For the economic and marketing projects, a study of the factors limiting agricultural production would be necessary and would require quantitative information regarding systems of farm management, cost of production, agricultural prices, etc.

The Project

Considering the need for various types of agricultural statistics and taking into account the previous statistical work and experience in the country, we propose that an integrated program for the development of agricultural statistics be undertaken in Uganda along the lines already proposed by FAO and the Uganda Government. From previous experience, it is quite clear that in order to provide better training for the limited number of suitable enumerators and to keep the cost of surveys within manageable limits, surveys would have to be conducted on the basis of statistical sampling. Sampling designs would necessarily have to be different for the different phases of the program. Thus, while a relatively large sample might be necessary and feasible for the general survey on land use and crop areas, the work on crop-cutting for estimation of crop yields of groundnuts, etc., might have to be restricted to a smaller sub-sample. The stratification and even the sampling designs might have to be altered for particular crops like coffee. While acreage and yield surveys need to be conducted on a national scale for the purposes of comparability, those on food consumption and farm management could only be tackled on small areas each year. Food consumption and income expenditure surveys require repeated and frequent visits to the households during various seasons of the year and cost of production inquiry requires the almost continuous presence of the enumerator near the selected farm.

These various phases of the entire project, planning field work, supervision, analysis, etc., would have to be fitted into one over-all program. This task will be facilitated after the 1960 acreage survey has been fully analyzed and calculations worked out on sampling
variances, time required for various stages of field work, cost analysis of the field operations, reliability of tax registers, dependence that can be put on the local Chief’s knowledge, etc. Preliminary calculations of manpower requirements and financial needs might have to be therefore adjusted somewhat at a later date.

Personnel for the project would be recruited both at home and abroad. The bulk of the field work particularly that connected with land use survey and acreage measurement, would be met by about 100 Agricultural Assistants stationed in the different gombololas. These Assistants were trained in the 1960 acreage survey. Because of the other duties which they have to attend to, it is not expected that they would be available for more than about a month in all over a single year. These Agricultural Assistants will be supplemented by about 20 full-time enumerators financed from local funds, particularly for rural household surveys and food consumption surveys. In addition to this, agricultural and economics students at Makerere College should be used as part-time field and computing assistants. Payment would be made to them from local resources. It is hoped that such an association with this project would give the students a much needed practical training in survey techniques. Past experience has shown that thorough and close supervision is absolutely essential to the success of a survey program of this magnitude. It will therefore be desirable to recruit 15 district supervisors on the basis of one per agricultural zone. The Uganda Statistical Unit would make available on full-time basis the services of one statistician and one statistical officer for this project. They would form the counterpart of a statistical team, comprised of one statistical coordinator, one statistician and one superintendent of tabulation and analysis, to be recruited abroad. Two statistical clerks would be provided by the Agricultural Department to be supplemented by five additional clerks from foreign resources.

As the project developed momentum, it might become desirable to send one or more local personnel for training abroad. Visits to similar surveys being conducted in neighboring countries might also be profitable. As a contribution to the project of the UN Economic Commission for Africa on the Statistical Survey of Africa, it might be advantageous to organize a study tour around the Uganda project for the benefit of participants from neighboring countries.

We believe that the project could be completed in four years and FAO has estimated total costs at £178,400. It is suggested that the Uganda Government obtain foreign assistance in financing at least
part of the project. If Uganda financed that portion of the project in which local personnel were primarily involved, and foreign aid sources that portion for which recruitment abroad were necessary, local and foreign costs would amount to £62,800 and £115,600 respectively, according to FAO.

For the detailed implementation of this program, the Uganda Government would be required to appoint a coordinating committee which would include the Government Statistician and representatives from the Agricultural and other Departments concerned. The Government Statistician, being responsible for the development of government statistical activities on a continuous and long-term basis, will be specially concerned with the detailed program. FAO would undoubtedly continue to make its experience available during the implementation of this program.
Until very recently, the production of Arabica coffee has been confined almost entirely to the areas around Mount Elgon in Bugisu. While output is relatively minor compared with Robusta coffee and amounts to less than 5 percent of total output, it is the major commodity produced in that area. In 1959/60 the value of output was £1,037,000. The concentration of production, homogeneity of producers and peculiar marketing problems have resulted in this coffee being marketed on a different basis from Robusta. The coffee is handled by a cooperative union which has a monopoly in the area. The Union has its own mill where it processes the coffee which is then sold through the coffee auctions at Nairobi.

The Union, an apex cooperative organization, which combined many primary societies, came into being in 1954 as the culmination of long efforts to bring the producers into the marketing of their product. When the Union was established, there was a Bugisu Coffee Board which acted as an overseer to the industry and was largely responsible for controlling the marketing of Arabica and providing technical assistance to growers of coffee. The affairs of the Board and the Cooperative Union soon became intertwined, and the Board’s responsibilities were of an amorphous nature. By 1957 the Board had accumulated £1.5 million. However, the Cooperative Union made some grievous errors of judgment in estimating the price of coffee and there was a heavy drain on the Union’s reserves, and by 1958 cash and bank balances in excess of £300,000 were converted to overdrafts in excess of £100,000. A Commission of Enquiry was appointed to investigate the affairs of the Union.

The Commission found many irregularities in the affairs of the Union and deficiencies in its operating conditions. In addition, the Commission found that the quality of Arabica was falling off due to poor quality control. The Commission made many recommendations, including one that the Union should take over many of the functions formerly exercised by the Board and another that the Cooperative Ordinance be amended to permit the Government to appoint a suitable person to direct the affairs of the Union. The Commission also recommended that the monopoly of the Union be broken and
that those producers who were dissatisfied with the services provided by the cooperatives be permitted to market their coffee elsewhere.

The Government did not accept the recommendation that the monopoly of the Union should be ended on the grounds that the Union was erecting a coffee mill of a capacity to handle all the coffee produced in the area. The Government also contended that it was essential to improve the quality of Bugisu coffee and that this could best be done by a high degree of control over processing and grading by channeling production through a single efficient organization.

The Board was abolished, its technical assistance functions were taken over by the Agricultural Department, and the financial arrangements were reorganized. Certain loans made by the Board, funds for working capital and some reserves were transferred to the Union. The balance of approximately £600,000 was transferred to a newly created Bugisu Price Assistance Fund which was vested in four trustees. The Fund was to be used in conjunction with price setting. There were to be seasonal fixed prices related to estimated world prices likely to be obtainable "subject to such adjustments as the Governor-in-Council may decide." The difference between estimated prices and the established price, if there was one, was to be met out of the Price Assistance Fund.

The Cooperative Ordinance was amended and a General Manager was appointed to the Union. This manager has greatly improved the financial position of the Union, but the appointment has met with considerable opposition from the elected committee of the Union and delegates from some of the primary societies. This culminated in the refusal of the general meeting of 1959 to elect a committee to cooperate with the appointed manager in running the affairs of the Union. The manager's appointment expires in 1962 and, unless action is taken to rectify the situation, there is likely to be a hiatus. Accordingly, the mission strongly recommends that there be standby legislation to ensure continuity of operation if there is no reconciliation between the committee and the management. We believe, however, that conciliation is possible if efforts are intensified to explain the contents of the findings of the Commission of Enquiry. Alternatively, the mission endorses the view of the Commission that a manager be obtained through FAO.

In view of the excess capacity of the mill now in operation and the program to increase Arabica production elsewhere in the country, we suggest that thought be given to the utilization of the mill for processing the latter coffee. We also recommend that some thought
be given to investigating the strains of coffee now being grown in Bugisu to examine whether a replanting program of higher yielding strains might not be advantageous. The mission also endorses the Government's recommendations that pulperies be provided at the primary society level in Bugisu and that these societies be reorganized to handle the pulperies. The pulperies are included in the subsidy program (see Chapter 6) and further funds for the pulperies could come from the accumulated reserves in the Price Assistance Fund.
We have already discussed copper, which is by far the most important mineral recovered in Uganda (see Chapter 10). There are in addition other minerals which we discuss in this annex.

**Tungsten (Wolfram)**

The three principal mines now operating are situated in the Kigezi district, where the first discovery was made by a prospector in 1931. Each of these mines was developed as one-man companies by their owner-prospectors and each represents an investment of some £200,000 to £250,000. The ore is low-grade and profitable recovery depends very much on world prices which tend to fluctuate between wide limits. Consequently, the industry has experienced many vicissitudes since its inception. During the Korean war, prices were high and supplies were short, so that good profits were made. Recovery at that time was by selective open-cast methods with quite simple mill treatment. Because of the world shortage, the Government put pressure on the owners to increase output by mechanizing the mines. In return, they were given a five-year guarantee of purchase for all their ore at a fixed minimum price. They therefore spent much of their profits in installing modern equipment but, not being mining engineers, they made many mistakes. None of the mines achieved its expected output, and before the new installations were running satisfactorily, prices dropped so low that production virtually ceased. One of the mines went bankrupt (though it is now in operation again on a much reduced scale) and the other two are still faced with demands for unpaid taxes.

Recently, wolfram prices have recovered somewhat, and there are prospects for a revival of the industry. To help in this, an ICA expert on wolfram mining visited Uganda in 1960, and his report\(^1\) indicates that with relatively simple technical improvements, operations should once again become profitable. He stressed, however, that the tax climate had to be improved, and was highly critical of the ordinances that in the past imposed heavy obligations on the mine owners and

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involved them in certain capital expenditure. Some of these criticisms are perhaps too severe, but the mission endorses the official encouragement that has since been given to help the industry prosper again. In its hey-day, it provided work for many hundreds of people in a district where unemployment is now a problem, and made an important contribution to exports and if it is possible to save the industry by such encouragement it is worth trying.

While there is a conflict of opinion over the magnitude of the ore reserves, there is little doubt that plenty of wolfram still remains to be won, if only by reworking the large dumps of waste material resulting from previous hand-picking operations. This is the principal reason why the Uganda Development Corporation is taking over one of the mines (Kirwa) whose owner wished to leave the country. The intention is that Kilembe Mines Ltd. will operate the property as managing agents. This may serve as a means of perpetuating a valuable asset which might otherwise be abandoned. At the present juncture, no outside mining company is likely to be interested, and the experience of KML in Uganda should increase the chances of making this a profitable enterprise.

Gold

Occurrences of gold have been found in many areas since the first was discovered in 1931, but payable values only at Kigezi, Ankole (the Buhweju goldfield) in Western Province and Bukedi in Eastern Province (the Busia goldfield). The total value of exports up to the end of 1959 was £990,000, though since 1949 the average annual value has been below £10,000. In Kigezi and Ankole, gold was mostly found in small alluvial pockets and mined by small workers. At Busia, which is thought to be an extension of the goldfields of Kenya and northern Tanganyika, the gold occurs in reefs which have been worked both by open-cast and underground methods. Large-scale work stopped here in 1949, but it is possible that the field has not been fully explored. Two small companies are again operating, and one of them intends to reopen the old underground workings. Production is already showing signs of increasing.

Tin

Up to 1957 when the first copper was exported, tin was easily the most important mineral in Uganda, though it was replaced by tungsten in 1957, and since then its value as an export has steadily declined.
Small deposits of cassiterite have been found in southwest Uganda, and the largest mine, at Mwirasandu (Kigera Mines Ltd.) operated continuously for almost 30 years, producing in that time some 3,000 tons of concentrates. A few small mines are still being worked close to the surface, and when they are apparently exhausted, it is common practice for their owners to move on to another area where they have found ore in outcrops. Further prospects depend on the discovery of new deposits by systematic prospecting and the exploration of the small workings at depth, but both processes demand capital expenditure beyond the scope of the present workers.

**Beryllium**

This metal has become increasingly important in recent years, not only for its uses as an alloy with copper and other metals, but also because of specific properties of value in the field of nuclear energy. Its metallurgy is difficult, but if it were in plentiful supply, it would have a bright future. The ore, beryl, occurs in some of the pegmatites of Ankole and Kigezi. In its massive form it is easily identified and hand-picked, but by mining in this way, a large amount of finer beryl is left behind. Production reached 209 tons in 1959 and reached its highest level of 419 tons in 1960. With the recent discovery of larger deposits at Ishasha in Kigezi, flotation plants may be practicable for the recovery of fine beryl. Uganda might then become an important producer of this mineral.

**Lead-Zinc**

Galena-bearing quartz veins have been found at various points in the southwest, and extensively explored by individual prospectors, the Geological Survey and by mining companies. Only Kitaka proved worthwhile exploiting, and a mine there operated from 1947 to 1959 when the deposit was exhausted. Geochemical search failed to reveal new ore-bodies and operations have ceased. However, this country is extremely difficult to prospect, and it is thought that with the continued use of modern techniques other finds are still possible.

**Columbium (Niobium) and Tantalum**

Both metals are noteworthy for their corrosion-resistant properties at high temperatures, and hence have applications for atomic energy,
jet engines and guided missiles. World demand is therefore expected
to expand steadily. They occur together as columbite and tantalite,
and small but workable deposits have been found in the southwest,
responsible in the last 20 years for exports of some £100,000. A
potentially large source exists in the phosphate deposits at Sukulu,
Eastern Province, which contain significant amounts of pyrochlore
and magnetite. With present values, their development appears to be
only marginally economic, but they may be of great importance in
the future, and are discussed in a later section.

Other Metals

Small quantities of bismuth, lithium and silver (from refining of
gold and lead) have been produced and exported. Cobalt concentrates
are obtained at Kilembe (see Chapter 10), but it is not economic to
treat them further to obtain a saleable product. High quality iron
ores occur in several parts of Uganda, particularly in Kigezi. This
latter deposit is probably large enough to justify working, when and
if other basic conditions for an iron and steel industry can be satisfied.
(The Kigezi reserves are thought to total perhaps 30 million tons, but
have not yet been proved.) The magnetite contained in the Sukulu
phosphate would also be interesting in this eventuality. The ores of
other metals such as aluminum, magnesium, chromium, manganese,
titanium and many others, have all been found in small amounts,
but none so far in commercial quantities. Radio-active minerals, par-
ticularly those of thorium, are fairly widely spread, but again are not
yet worth exploiting.

Phosphates

The deposits at Sukulu, referred to above, were discovered in
1950 by the Geological Survey. Careful measurements have proved the
existence of at least 200 million tons, with more probably in reserve.
The deposits lie near to the railway and main power transmission line
to Kenya and could be easily mined by surface methods. UDC made
strenuous attempts, in association at one time or another with various
overseas companies, to prove the commercial value of this consider-
able national asset. In the course of this work, pilot plant studies
have shown that the valuable constituents can be efficiently separated,
with the production particularly of a phosphate concentrate contain-
ing 40-42 percent $P_2O_5$ and a niobium concentrate up to 55 percent.
Plans and estimates have been drawn up for various scales of production, up to 400,000 tons a year of phosphate and 3 million pounds of niobium concentrate, all of which would be shipped to Mombasa for export. However, rail and ocean freights are a very large proportion of the value of the phosphate, and with niobium prices also relatively low, no scheme can be shown to be profitable enough to attract the private capital needed.

In the meantime, another similar, but smaller deposit, at Bukusu, also in Bukedi, has been mined for some years. About 3,000 tons a year of the mineral, averaging over 25 percent \( P_2O_5 \), are exported to Kenya for conversion into "soda-phosphate" by fusion with Magadi soda. This product is a good fertilizer for certain types of soils, but only commands a local market in Kenya.

UDC has now decided, with government approval, to develop unaided the Sukulu deposit, on a smaller scale than originally hoped. A new company, Tororo Industrial Chemicals Ltd., has been formed for this purpose (see Chapter 10). The plan is now to produce 25,000 tons a year of single superphosphate, involving the mining of 87,500 tons of soil to be concentrated to 13,900 tons of apatite. The capital cost is estimated to be £400,000, including a plant to make 10,000 tons of sulphuric acid a year from imported sulphur. The East African market is expected to absorb the whole production of superphosphate and some excess sulphuric acid will be available for sale. No revenue from niobium is envisaged.

**Fuels**

The rock formations of Uganda are not in general favorable for the occurrence of coal measures. Such drilling as has been carried out has revealed small amounts both of semi-bituminous coal and of lignite in various places, but none of economic value. Prospects for future discoveries are poor.

Surface indications of oil are evident in several parts of the Lake Albert Rift Valley. Some drilling has been done in the most favorable areas (Kibuku and Kibiro) and oil shales found at various depths. The results have not been encouraging, but exploitation so far has by no means been exhaustive. While there is no present case for advocating government expenditure in this direction, it can be pointed out that in 1959, about 145,000 tons of liquid fuels and oils, valued at nearly £2 million, were imported into Uganda. For East Africa as a whole, the figures were about 1,100,000 tons with a value of about
£11 million. This quantity is large enough to justify the oil refinery which is now being planned for Mombasa in Kenya.

**Industrial and Building Minerals**

There are few places where granite, quartzite, or other rocks suitable for aggregate and crushed stone, are not readily available. Well-established quarries exist near most of the more populous centers. Sands are plentiful, but qualities fit for concrete mixing are more difficult to find away from the shores of the larger lakes, and often require washing to remove silt and clay. A high-grade silica sand comes from the Kome Islands in Lake Victoria, and about 500 tons a month are exported to Kenya for glass making. Clays suitable in varying degrees for brick and tile making are widespread throughout the country, and an active industry exists. One factory at least is modern and makes first-class products. Pottery clays, including kaolin, are also common. One particular deposit at Kisai, near Masaka, has potentialities not only for ceramics, but also as a filler in several industries. High grade limestones are rare, as is usual in countries where the rocks are dominantly pre-Cambrian in age. In Uganda, the best deposit known is to be found at Hima, not far from the Kampala-Kasese Railway. Another is at Sukulu, where a cement factory has been built, but its quality is inferior, and the high phosphate and magnetite contents tend to affect the quality of the cement.

**Other Minerals**

Mica is found in the Northern Province and in Buganda, the former being the more promising source. In the Labwor Hills in Karamoja, several thousand pounds worth have been won and exported. The best quality has a high value in relation to its weight, but grading is a skilled occupation and great care must be taken if the best prices are to be realized. Equipment needed is quite simple. This mineral has good possibilities, particularly for the small operator.

Nearly all the indigenous production of salt (sodium chloride) comes from Lake Katwe in Toro, where it has for long been worked by the Toro native government. The brine is concentrated by solar evaporation and its origin is not clear. Three grades of salt are produced, none being very pure, with a total output between 9,000 and 10,000 tons a year. Impurities are chiefly sodium sulphate and carbonate, and potassium chloride and sulphate. The Development
Division of UDC has shown that the constituents could probably be separated on an industrial scale but without an assured market for the by-products and more information about the size of the reserves, commercial exploitation is improbable.

Many common minerals, such as barytes, diatomite, felspar, talc, pyrites, which would be of value in a more highly industrialized society, are probably to be found in Uganda in large quantities. Others such as asbestos, graphite, gypsum, kyanite, vermiculite, etc., are known to occur but so far not abundantly. Topaz, garnet and corundum have also been reported. Finally, a few small diamonds have been discovered in the gold-bearing gravels of Buhweju. It has been suggested that the Kimberlite pipe of Tanganyika might extend into Uganda, but so far no indications thereof have been found. A company specializing in diamond mining has recently examined the area and does not consider it to be promising.
Functional Organization of Technical Ministries

In Chapter 11 the mission refers to a form of organization of a technical ministry which has proved successful elsewhere. For present purposes this organization could perhaps best be described by showing how it would deal with a particular problem, namely applying to a financial agency for a loan to construct some so-called "feeder" roads.

On being asked to deal with the case, the ministry, constituted as suggested in the main report, would take action as follows. On its secretarial side it will begin consultation with other concerned ministries and, in due course, would address district administrative officers as required. Simultaneously, the technical side of the ministry would scrutinize the recommendations of the district and provincial road conferences, previously referred to, and pick out possible "feeder" roads. They would then warn the provincial engineers likely to be concerned, decide on tentative standards and possible junction points, etc., and take preliminary steps to select staff for the required surveys. (Perhaps the nomination of one junior engineer in each province and two or three teams of subordinate surveyors would be all that would be necessary at this stage.) Both sides of the Ministry would work together and internal noting in the Ministry would be avoided to ensure that all notes on files and letters issued are the product of joint discussion and agreement. This would be signified by the initials of the concerned technical and secretarial officers at all appropriate levels on every file and at every stage of development of the case.

A tentative list of roads would thus emerge based on the opinions of the district administration officers, the recommendations of the road conferences, and the views of the provincial engineers on costs and suitable alignments. On acceptance of the list by the other ministries concerned, preliminary surveys will be undertaken under the orders of each provincial engineer who will make his own suggestions, in consultation with other district and provincial officers, on possible alternative alignments. Chain and compass preliminary surveys using Abney levels will be sufficient at this stage to give a very fair indication of costs.

On receipt of the preliminary surveys and estimates, the original list would be reviewed in consultation with other ministries and
priorities fixed. Standards would then be finalized having regard to probable traffic needs and the topographical data contained in the preliminary estimates. Regular surveys would then be ordered. All this could be done within a few months.

The essential feature of the organization described is that the technical and secretarial sides of the ministry work in “parallel” and all advice to the Minister is joint advice. This is in contrast to what has been called the “colonial” or “tier” system of administration when the secretariat exists as a separate entity and deals with “departments” through notes on incomplete files or even by correspondence. Under the outmoded “colonial” system (now abandoned in Uganda but still tending to persist within individual ministries), the full implications of proposals made to the Minister are not always realized either in the secretarial or technical sides of the ministry. If technical advice is given without full knowledge of all aspects of a case it is likely to be defective. If, further, this advice is incorporated in the final proposals put to the Minister without the knowledge of the technical advisers, it is liable to appear in a form which misinterprets what was intended.

The main function of the secretarial side of a modern ministry is to see that the correct procedure is followed, that all ministries and concerned interests are consulted, and that the Ministry of Finance is kept in the picture at all stages. This side has also a contribution to make in the joint drafting of letters and in matters of general administration. In fact, it acts as secretary to the ministry. The technical side is responsible not merely for the technical examination and initiation of proposals but for the assessment of the conditions, economic, social and administrative, on which the technical proposals are based. It is clear that no technical proposal of any value can be made in a vacuum. Under the “parallel” system suggested the heads of both the technical and secretarial sides of a technical ministry must be in a position to explain personally to the Minister all aspects (and not merely the technical aspects) of their joint proposals. In practice, the two sides of the Ministry almost invariably arrive at their joint proposals as a result of personal discussion and differences of opinion do not emerge or the matter is settled by changes in personnel.

Road Maintenance

Road maintenance expenditure (chargeable to revenue) includes three main functions: ordinary maintenance (or housekeeping) consisting of clearing drains, maintaining verges (or berms), clearing vegetation growth, maintaining road signs and similar jobs; periodical renewals of worn-out surfaces; and the occasional carrying out of
special repairs, restoring excessive flood damage, renewing surfaces worn out of turn, easing curves and generally removing major defects revealed as traffic develops, etc.

The work done on ordinary maintenance should remain constant over a long period of years. The yearly budget provision would, however, have to take into account expected rises in wages since as much as 90 percent of the expenditure is on labor. In the period 1955-60 wages increased on an average by 20 percent.

The amount of renewals required depends very largely on traffic intensities which increase by various amounts (sometimes very rapidly) on different roads. The budget provision will be based each year on the estimated renewal requirements after visual inspection of each road. Newly upgraded roads will probably require a seal coat within the first five years after upgrading but the second and subsequent seal coats will probably be required at increasingly longer intervals. Once in 15 years is not uncommon in well established roads but much depends on the growth of traffic intensities.

The provision of special repairs is a matter of judgment based on past experience and visual inspection of the roads. It is usual to keep a reserve of about 15 percent of the total maintenance budget for special repairs, the money being allotted during the year to the executive officers as occasion arises.

Contractors

The present policy of putting out large road construction works to contract is sound as it ensures that the highest degree of specialization and efficiency is attained. Moreover, it frees government from the necessity of maintaining expensive road plant and trained staff. To give effect to this policy, however, the road plans must be so designed as to enable long-term and large-scale contracts to be made with firms that keep reserves of modern road plans and trained staff. The reasonable certainty that the long-term road plan will provide for substantial expenditures on road upgrading etc., will facilitate making use of the specialized services of contractors with the resultant economy that specialization brings about. The mission considers, however, that contractors should not be employed on road surveys: this should be done by departmental staff.

Supervision of Secondary Roads

We suggest in Chapter II that the proposed Ministry of Transport, Communications and Works should assume responsibility both for giving policy directives and technical assistance to local adminis-
trations and for seeing that grants from the central government are properly utilized by these authorities. If accepted, this suggestion should be implemented with tact on the lines followed by the Federal Bureau of Public Roads in the U.S.A. or the Central Ministry of Transport in India.

The Government should take more interest than at present in the development and maintenance of secondary roads. As an indication of the present position in parts of Uganda, an examination of a sample survey, made in 1959/60, of the works organization of one local administration (that of the Ankole district of the Western Province) might be helpful. For present purposes the relevant statistical information relating to the Ankole district is as follows: area 5,928 square miles; population 531,335; value of local administration's buildings about £536,000; length of roads 847 miles; construction plant includes one grader, seven trucks and four tippers; the 1959/60 budget provision includes £38,733 for new buildings (revised provision £58,000), £21,500 for road development, £9,925 for building maintenance (plus construction of temporary buildings) and £23,950 for road maintenance.

The supervisory technical staff consists of one qualified supervisor of works, one assistant supervisor (not properly qualified), and a few unqualified overseers and inspectors. The technical staff is not responsible for roads except for bridges and for some supervision of the grader. Road works are the responsibility of the District Commissioner aided by Saza and Gombola chiefs. No technical advice or supervision of road development and maintenance is apparently available or sought.

The state of the roads was described as generally very poor; maintenance gangs were below strength; some alignments were defective and the roads otherwise not up to standard; the grader was not used to the best advantage nor were the trucks; and, most important, several roads appeared to be unnecessary as they were hardly ever used. Accounting of the supervisor's building vouchers appeared fairly satisfactory except that he had no control over allocations of expenditure to estimates. How road expenditure was accounted for was not ascertained.

The mission saw enough evidence of apparently unnecessary roads and of poor alignments and low standards of construction and maintenance of many of the secondary roads, to suggest that the Ankole district might not be unique. We suggest that a full inquiry should be carried out in the near future by an experienced engineer officer
whose status would be such as to ensure the cooperation of local officials. A senior superannuated officer in good health might be suitable. This officer should be required to work out proposals for giving policy directions and guidance to local administrators and controlling their expenditure without unduly interfering with local autonomy.

**Personnel**

On the technical side, there is perhaps a tendency to overcentralize in Entebbe. Certainly, properly qualified road engineers are very thin on the ground in the districts and provinces. If these engineers were given greater powers of approving estimates (prepared in their own offices and the offices of local bodies), there would be more uniform employment throughout the year of the increased engineering staff proposed. When work is in full swing there will be little time for preparing estimates but these can be well dealt with when construction work is slack.

There is also a very serious shortage of the qualified overseer or supervisor type of subordinate who would be competent to take levels and prepare simple plans and estimates (without the help of an engineer). This type of subordinate should also be able to collect information for the preparation of larger projects. It is possible that with the decrease in high-class building activity that may be expected in future and the increase in other activities now contemplated, there will be less need for the well qualified Supervisors of Works and Inspectors of Works (mostly expatriate and numbering 107 in all) now employed. These experts could be gradually replaced by the type of overseer referred to at the beginning of this paragraph.

About 80 general-purpose subordinates are in employment. They are the product of the old P.W.D. engineering school and were wrongly styled Engineering Assistants. Their technical training did not reach a high level and, in recent years, an effort has been made to train more suitably qualified subordinates who would be capable of relieving the engineer officers of routine duties. It is estimated that up to 250 well-qualified subordinates of this type will be required under the reorganized Ministry instead of fewer than 200 as at present, including the supervisors and inspectors referred to in the previous paragraph.
As far as can be judged from the railway Goods Rate Scale chart, the present minimum tariff for 100 miles is about 12.5 cents per ton/mile (full wagon loads) and the maximum 38 cents. The EARHA's road service in Uganda, operating presumably at the same load factor as the railway, costs about 46 cents per ton/mile. Public road carriers in Uganda admit to costs to themselves of between 37 and 86 cents per ton/mile depending on the load factor. Tenders for the carriage of goods by road on behalf of government range from 45 to 100 cents per ton/mile depending on the condition of the roads and the load factor. It will be seen that road transport costs are much higher on the average than charges by rail. Road transport has other definite advantages in spite of high transport costs.

Road tariffs will probably increase during the next few years because of the recent heavy increase in the tax on motor fuel and the "fiscal levies" proposed by the mission (see Chapter 11), if these are accepted. On the other hand, the growth of specialized transport which the increased taxes will encourage and the ever increasing efficiency of modern road vehicles will tend to reduce tariffs because of the greater efficiency of professional operators who will take advantage of all favorable circumstances. There will apparently be no corresponding increase in railway costs because no tax burden is borne by the railway and because its operational efficiency, which has improved considerably in recent years, will presumably continue to improve under effective management as at present.

The present railway rate structure appears in general very reasonable. The freight charges for the principal exports, cotton and coffee, are low, perhaps less than the normal world-market fluctuations in the prices of these commodities. A slight increase in these freights, should this ever become necessary, would probably have less effect on the marketing of these commodities than even very minor variations in world-market prices. Probably nearly as important in this connection are variations in the heavy road transport charges on the handling of these raw commodities (which weigh two or three times as much as the products handled by rail) from the field to the processing stations and on the processed product to the railway. These charges
at present are very high though it is understood the position is being reviewed.

The mission agrees that the railway should be freed in Uganda from some of its statutory common-carrier and other obligations. Probably easing of conditions on the lines recently adopted in the United Kingdom would be found to be sufficient. The question appears to require further examination.
ANNEX VII THE ESTABLISHMENT OF AN EAST AFRICAN VETERINARY COLLEGE

There has been a Veterinary School at Makerere College for a number of years. But, whereas all other faculties at the College have been developed since World War II to provide qualifications of full professional status, the Veterinary School still only offers a diploma course which is regarded as a sub-professional qualification. The reasons for this are partly lack of funds but principally technical and legal difficulties arising from the law concerning registration. Under present legislation it is almost impossible for anyone who is not a member of the Royal College of Veterinary Surgeons of the United Kingdom to be registered as a practitioner and hence to be eligible for senior appointments in the Uganda Veterinary Service. Because of the unfavorable status that arises from studying veterinary science at Makerere College, only those who have failed to secure admission to any other faculty enter the Faculty of Veterinary Science and even this relatively low-quality intake has been dwindling in recent years.

The first priority should be to raise the status of the qualification to be obtained at Makerere College. The latter has been planning to establish a degree course in veterinary science and the mission heartily endorses this objective. If such a course is to attract students of a sufficiently high caliber, however, the Uganda Government (and presumably the governments of the other East African countries) would have to make provision for a locally-awarded qualification to be registrable. On its part, Makerere College (or its successor, the University of East Africa) would have to see to it that the course would be worthy of such recognition. It is possible that the Royal College of Veterinary Surgeons would eventually also recognize the East African qualification, but whether or not it did so should not inhibit the Uganda Government from recognizing the locally-awarded qualification provided that the Government were convinced that the course and the professionals so produced were of adequate standard to meet the needs of veterinary practice in Uganda.

Under Makerere College's plan, the degree course would be of four years' duration. Students would be required to hold a Higher School Certificate (involving successful completion of two years of Sixth Form after passing from secondary school) in which chemistry,
biology, and possibly physics, were of major emphasis. The four-year degree course would include preclinical, paraclinical and clinical work. In addition, special courses during vacations would be required. The objective would be to obtain a throughput of 12-20 students yearly by the late 1960's and step this up to 30 during the 1970's. (Only perhaps one-third of these students would be from Uganda, the others coming from elsewhere in East Africa.)

To meet this objective a good deal of new building and equipment would be required and additional staff would have to be engaged. Makerere College assumes that the capital expansion program would be phased over four or five years. If it were initiated before the end of 1962, it could possibly be completed by June 1965. Capital costs are estimated at just over £492,000. The College is hoping to obtain external financial assistance for this program and the mission believes that there should be a good chance of obtaining it. Assuming little delay in instituting the expansion program, additional recurrent expenditures might rise to about £71,000 more in 1965/66 than is at present envisaged in the quinquennial appropriation for veterinary studies. The mission is not in a position to comment on whether adjustments in that appropriation are likely or possible or whether there would also be an opportunity to obtain external assistance with respect to these amounts also.
STATISTICAL APPENDIX
### TABLE S.1: Population by Race

(De facto as at mid-year in '000)

<table>
<thead>
<tr>
<th>Year</th>
<th>Indo-Pakistani</th>
<th>Other non-African Population</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African and Goan</td>
<td>European</td>
<td>Arab</td>
</tr>
<tr>
<td>1948</td>
<td>4,900.0</td>
<td>36.3</td>
<td>3.7</td>
</tr>
<tr>
<td>1954</td>
<td>5,682.0</td>
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<td>7.7</td>
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<tr>
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</tr>
<tr>
<td>1958</td>
<td>6,272.0</td>
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<td>10.4</td>
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<tr>
<td>1959</td>
<td>6,429.0</td>
<td>72.9</td>
<td>11.0</td>
</tr>
<tr>
<td>1960</td>
<td>6,590.0</td>
<td>76.2</td>
<td>11.7</td>
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</table>

**Sources:** Uganda Protectorate, *Statistical Abstracts.*

### TABLE S.2: Population by Main Tribes, 1959

(in '000)

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percentage of Total</th>
</tr>
</thead>
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<td>Acholi</td>
<td>141.6</td>
<td>143.3</td>
<td>284.9</td>
<td>4.4</td>
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<td>Alur</td>
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<td>61.1</td>
<td>123.6</td>
<td>1.9</td>
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<tr>
<td>Badama</td>
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<td>50.7</td>
<td>107.4</td>
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<tr>
<td>Baganda</td>
<td>508.7</td>
<td>536.1</td>
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<td>163.9</td>
<td>165.3</td>
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<td>Bagwere</td>
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<td>238.7</td>
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<td>265.5</td>
<td>519.5</td>
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<tr>
<td>Banyaruanda</td>
<td>212.4</td>
<td>166.2</td>
<td>378.6</td>
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</tr>
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<td>Banyole</td>
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<td>32.1</td>
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<td>Lango</td>
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<td>Lugbara</td>
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<td>Rundi</td>
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<td>51.2</td>
<td>138.8</td>
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<tr>
<td>Other Tribes</td>
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<td>Total</td>
<td>3,236.9</td>
<td>3,212.7</td>
<td>6,449.6</td>
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**Source:** Census figures contained in Uganda Protectorate, *1960 Statistical Abstract.*
### TABLE S.3: African Population, Main Tribes by Province and District, 1959

*(in '000)*

#### BUGANDA

<table>
<thead>
<tr>
<th>Tribe</th>
<th>East</th>
<th>Mengo</th>
<th>West</th>
<th>Mengo</th>
<th>Masaka</th>
<th>Mubende</th>
<th>Total</th>
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<tr>
<td>Baganda</td>
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<td>268.7</td>
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<td><strong>Total</strong></td>
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<td>688.2</td>
<td>440.2</td>
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#### EASTERN PROVINCE

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<th>Tribe</th>
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<th>Busoga</th>
<th>Mbaale</th>
<th>Teso</th>
<th>Total</th>
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#### NORTHERN PROVINCE

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<th>Lango</th>
<th>West Nile</th>
<th>Madi</th>
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#### WESTERN PROVINCE

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<th>Kigezi</th>
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* Less than 0.05. **Source:** Uganda Protectorate, *1960 Statistical Abstract.*
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* Forecast.  
Source: Uganda Statistical Office.
**TABLE 5.5: Income of African Households by Districts, 1959**

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<th>District</th>
<th>African Population as at Aug. 19, 1959 ('000)</th>
<th>Cash Income</th>
<th>Of which: Cotton &amp; Coffee</th>
<th>Subsistence Production Per Head</th>
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<td></td>
<td></td>
<td>£ million</td>
<td>£</td>
<td>£ million</td>
<td>£</td>
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<td>7.9</td>
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**Source:** Uganda Statistical Office.
### TABLE S.6: Gross Capital Formation by Sector

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TABLE S.7: Export Values (Excluding Re-Exports) by Principal Commodities*  
(in £ '000)

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<td>240</td>
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<td>268</td>
<td>303</td>
<td>309</td>
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<td>119</td>
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<td>18</td>
<td>5</td>
<td>5</td>
<td>21</td>
<td>45</td>
<td>99</td>
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<td>281</td>
<td>356</td>
<td>950</td>
<td>1,062</td>
<td>891</td>
<td>1,081</td>
<td>979</td>
<td>1,186</td>
<td>1,453</td>
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<td>11,543</td>
<td>13,478</td>
<td>20,134</td>
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<td>21,587</td>
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<td>674</td>
<td>782</td>
<td>562</td>
<td>765</td>
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<td>1,578</td>
<td>1,699</td>
<td>977</td>
<td>734</td>
<td>1,034</td>
<td>888</td>
<td>599</td>
<td>322</td>
<td>681</td>
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<td>281</td>
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<td>950</td>
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<td>891</td>
<td>1,081</td>
<td>979</td>
<td>1,186</td>
<td>1,453</td>
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<td>1,578</td>
<td>1,699</td>
<td>977</td>
<td>734</td>
<td>1,034</td>
<td>888</td>
<td>599</td>
<td>322</td>
<td>681</td>
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<td>41,588</td>
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* Exports to countries outside East Africa, mostly f.o.b. Mombasa.

Sources: Uganda Protectorate, Statistical Abstracts.
TABLE S.8: Domestic Exports, Value of Principal Commodities by Principal Countries of Destination, 1960

<table>
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<th>COMMODITY</th>
<th>Cotton, Raw</th>
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<th>Animal Feeding Stuffs</th>
<th>Oil Seeds, Oil Nuts and Oil Kernels</th>
<th>Tea</th>
<th>Hides, Skins and Fur Skins, Undressed</th>
<th>Vegetable Oils</th>
<th>Fish and Fish Preparations</th>
<th>Cement, Manufactured</th>
<th>Copper and Alloys, Unwrought</th>
<th>Metalliferous Ores</th>
<th>All Other Commodities</th>
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| Percentage of Total Domestic Exports | 20.1              | 16.2               | 8.1                   | 15.3                  | 2.7                 | 2.8                   | 3.5            | 1.7                        | 1.3                 | 28.3                     | 100.0             |

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<td>n.a.</td>
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<td>736</td>
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<td>Beans and Pulses</td>
<td>cwt.</td>
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<td>117</td>
<td>155</td>
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<td>58</td>
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<td>789</td>
<td>714</td>
<td>605</td>
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<td>1,253</td>
<td>1,681</td>
<td>1,574</td>
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<td>19</td>
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<td>45</td>
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<td>694</td>
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<td>997</td>
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<td>1,065</td>
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<td>1,506</td>
<td>1,347</td>
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<tr>
<td>Copper and Alloys, Unwrought</td>
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<td>n.a.</td>
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<td>74</td>
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<td>55</td>
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*1 ton = 20 cwt. (long ton); 1 cwt. = 112 lbs.

Sources: Uganda Protectorate, Statistical Abstracts.
**TABLE S.10: Import Values by Major Groups of Commodities**

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*Direct imports from countries outside East Africa, plus imported goods transferred from Kenya and Tanganyika, minus imported goods transferred to Kenya and Tanganyika; mostly c.i.f. Mombasa.

**Source:** Uganda Protectorate, *Statistical Abstracts.*
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<th>Germany</th>
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<th>South Africa</th>
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Source: Uganda Statistical Office.
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<td></td>
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<tr>
<td>Tobacco, Unmanufactured</td>
<td>2</td>
<td>—</td>
<td>34</td>
<td>358</td>
<td>806</td>
<td>708</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>17</td>
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<td></td>
<td></td>
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<tr>
<td>Cigarettes</td>
<td>1,680</td>
<td>2,771</td>
<td>3,138</td>
<td>570</td>
<td>327</td>
<td>324</td>
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<td>Tobacco, Manufactured</td>
<td>71</td>
<td>66</td>
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<td>1</td>
<td>1</td>
<td>12</td>
<td>15</td>
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<td>1</td>
<td>—</td>
<td>—</td>
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<td></td>
<td></td>
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<tr>
<td>Hides and Skins</td>
<td>85</td>
<td>57</td>
<td>23</td>
<td>96</td>
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<td>11</td>
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<td>—</td>
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<tr>
<td>Cottonseed Oil</td>
<td>166</td>
<td>264</td>
<td>344</td>
<td>344</td>
<td>682</td>
<td>821</td>
<td>23</td>
<td>98</td>
<td>116</td>
<td>189</td>
<td>153</td>
<td>164</td>
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<td></td>
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<tr>
<td>Hydrogenated Oils and Fats</td>
<td>—</td>
<td>18</td>
<td>64</td>
<td>42</td>
<td>205</td>
<td>219</td>
<td>—</td>
<td>3</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Cotton Fabrics of Standard Type</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<td>402</td>
<td>635</td>
<td>—</td>
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<td>17</td>
<td>203</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>All Other Commodities</td>
<td>182</td>
<td>82</td>
<td>154</td>
<td>240</td>
<td>548</td>
<td>728</td>
<td>82</td>
<td>92</td>
<td>226</td>
<td>215</td>
<td>259</td>
<td>340</td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>TOTAL</td>
<td>2,673</td>
<td>3,969</td>
<td>4,810</td>
<td>2,992</td>
<td>3,640</td>
<td>5,120</td>
<td>1,644</td>
<td>3,014</td>
<td>3,068</td>
<td>2,333</td>
<td>1,587</td>
<td>1,574</td>
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</table>

*From 1959 figures for the first time were computed exclusive of excise and other taxes; they are therefore not comparable with the previous years.

Sources: Uganda Protectorate, Statistical Abstracts.
### TABLE S.13: Uganda's Imports from Kenya

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Wheat Flour</td>
<td>388</td>
<td>669</td>
<td>416</td>
<td>601</td>
<td>535</td>
<td>497</td>
</tr>
<tr>
<td>Butter</td>
<td>75</td>
<td>139</td>
<td>144</td>
<td>179</td>
<td>175</td>
<td>185</td>
</tr>
<tr>
<td>Tea</td>
<td>49</td>
<td>78</td>
<td>10</td>
<td>119</td>
<td>151</td>
<td>114</td>
</tr>
<tr>
<td>Meat and Meat Preparations</td>
<td>44</td>
<td>72</td>
<td>160</td>
<td>209</td>
<td>139</td>
<td>130</td>
</tr>
<tr>
<td>Milk and Cream (Fresh)</td>
<td>—</td>
<td>68</td>
<td>129</td>
<td>366</td>
<td>344</td>
<td>266</td>
</tr>
<tr>
<td>Fruits and Vegetables (Fresh and Preserved)</td>
<td>46</td>
<td>83</td>
<td>69</td>
<td>80</td>
<td>102</td>
<td>111</td>
</tr>
<tr>
<td>Beer, Ales and Stout</td>
<td>73</td>
<td>213</td>
<td>320</td>
<td>263</td>
<td>100</td>
<td>121</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>—</td>
<td>75</td>
<td>65</td>
<td>1,603</td>
<td>751</td>
<td>788</td>
</tr>
<tr>
<td>Tobacco, Manufactured</td>
<td>1</td>
<td>8</td>
<td>492</td>
<td>195</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>46</td>
<td>79</td>
<td>125</td>
<td>107</td>
<td>216</td>
<td>280</td>
</tr>
<tr>
<td>Footwear</td>
<td>108</td>
<td>89</td>
<td>267</td>
<td>242</td>
<td>246</td>
<td>263</td>
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<tr>
<td>Household Utensils of Aluminum</td>
<td>77</td>
<td>45</td>
<td>82</td>
<td>64</td>
<td>102</td>
<td>120</td>
</tr>
<tr>
<td>Wood and Timber</td>
<td>13</td>
<td>32</td>
<td>133</td>
<td>83</td>
<td>61</td>
<td>45</td>
</tr>
<tr>
<td>Cement</td>
<td>58</td>
<td>121</td>
<td>61</td>
<td>80</td>
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<tr>
<td>Steel Doors and Windows</td>
<td>—</td>
<td>2</td>
<td>43</td>
<td>98</td>
<td>115</td>
<td>127</td>
</tr>
<tr>
<td>Metal Containers</td>
<td>5</td>
<td>33</td>
<td>115</td>
<td>27</td>
<td>93</td>
<td>59</td>
</tr>
<tr>
<td>Bags and Sacks for Packing</td>
<td>157</td>
<td>68</td>
<td>124</td>
<td>136</td>
<td>222</td>
<td>307</td>
</tr>
<tr>
<td>Paper Bags, Cardboard Boxes and Containers</td>
<td>30</td>
<td>33</td>
<td>81</td>
<td>117</td>
<td>140</td>
<td>162</td>
</tr>
<tr>
<td>Biscuits</td>
<td>8</td>
<td>15</td>
<td>84</td>
<td>12</td>
<td>50</td>
<td>59</td>
</tr>
<tr>
<td>Coffee Roasted</td>
<td>21</td>
<td>35</td>
<td>67</td>
<td>44</td>
<td>43</td>
<td>54</td>
</tr>
<tr>
<td>All Other Commodities</td>
<td>542</td>
<td>810</td>
<td>995</td>
<td>1,122</td>
<td>1,929</td>
<td>2,228</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,741</strong></td>
<td><strong>2,767</strong></td>
<td><strong>3,490</strong></td>
<td><strong>6,044</strong></td>
<td><strong>5,784</strong></td>
<td><strong>6,163</strong></td>
</tr>
</tbody>
</table>

*From 1959 figures for the first time were computed exclusive of excise and other taxes; they are therefore not comparable with the previous years.

**Sources:** Uganda Protectorate, *Statistical Abstracts.*
### TABLE S.14: Uganda's Imports from Tanganyika

(in £ '000)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tinned Meat</td>
<td>1</td>
<td>8</td>
<td>14</td>
<td>10</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Ghee</td>
<td>—</td>
<td>38</td>
<td>18</td>
<td>102</td>
<td>69</td>
<td>58</td>
</tr>
<tr>
<td>Fish, Salted Dried and Smoked</td>
<td>62</td>
<td>14</td>
<td>43</td>
<td>84</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Rice</td>
<td>13</td>
<td>—</td>
<td>11</td>
<td>24</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Maize, Unmilled</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>86</td>
<td>2</td>
</tr>
<tr>
<td>Millet, Unmilled</td>
<td>—</td>
<td>28</td>
<td>5</td>
<td>47</td>
<td>91</td>
<td>33</td>
</tr>
<tr>
<td>Meal and Flour of Maize</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>18</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>Beans, Peas and Pulses</td>
<td>8</td>
<td>20</td>
<td>28</td>
<td>32</td>
<td>56</td>
<td>27</td>
</tr>
<tr>
<td>Sugar, Unrefined</td>
<td>—</td>
<td>1</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Tobacco, Unmanufactured</td>
<td>106</td>
<td>72</td>
<td>120</td>
<td>49</td>
<td>94</td>
<td>37</td>
</tr>
<tr>
<td>Copra</td>
<td>—</td>
<td>46</td>
<td>28</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Wood and Timber</td>
<td>17</td>
<td>11</td>
<td>10</td>
<td>—</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Coconut Oil</td>
<td>6</td>
<td>113</td>
<td>127</td>
<td>70</td>
<td>146</td>
<td>121</td>
</tr>
<tr>
<td>Paints and Varnishes</td>
<td>—</td>
<td>6</td>
<td>27</td>
<td>10</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>All Other Commodities</td>
<td>92</td>
<td>50</td>
<td>51</td>
<td>64</td>
<td>69</td>
<td>106</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>245</td>
<td>402</td>
<td>477</td>
<td>511</td>
<td>726</td>
<td>450</td>
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</tbody>
</table>

*From 1959 figures for the first time were computed exclusive of excise and other taxes; they are therefore not comparable with the previous years.

**Sources:** Uganda Protectorate, *Statistical Abstracts.*
TABLE S.15: Central Government, Current Revenues*

<table>
<thead>
<tr>
<th></th>
<th>Value in £ '000</th>
<th>Percentage Share of Total</th>
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</thead>
<tbody>
<tr>
<td><strong>Direct Taxation:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Income Tax</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-African Poll Tax</td>
<td>46 66</td>
<td>93 121</td>
</tr>
<tr>
<td>Non-African Education Tax</td>
<td>— 17</td>
<td>30 45</td>
</tr>
<tr>
<td>Estate Duty</td>
<td>24 36</td>
<td>7 20</td>
</tr>
<tr>
<td>African Poll Tax</td>
<td>662 454</td>
<td>506 407</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,085 1,234</td>
<td>2,421 3,772</td>
</tr>
<tr>
<td><strong>Indirect Taxation:</strong></td>
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<td></td>
</tr>
<tr>
<td>Export Taxes</td>
<td>1,012 4,000</td>
<td>4,000 4,000</td>
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<tr>
<td>Customs Duties</td>
<td>1,343 2,080</td>
<td>3,308 4,064</td>
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<tr>
<td>Excises and Licenses</td>
<td>658 863</td>
<td>1,333 2,741</td>
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<tr>
<td><strong>Total</strong></td>
<td>3,013 6,943</td>
<td>8,641 10,805</td>
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<tr>
<td><strong>Earnings of Departments:</strong></td>
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<td></td>
</tr>
<tr>
<td>(Fees, Rents, Interests,</td>
<td>565 852</td>
<td>1,515 2,417</td>
</tr>
<tr>
<td>Miscellaneous)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Public Debt:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reimbursements and Amortization</td>
<td>43 81</td>
<td>320 509</td>
</tr>
<tr>
<td><strong>Foreign Grants:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 220</td>
<td>343 1 13</td>
<td>12</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>4,826 9,349</td>
<td>13,240 17,504</td>
</tr>
</tbody>
</table>

* The Uganda fiscal year starts on July 1; prior to 1954 it coincided with the calendar year.

**Approved Estimates.**

* Transfer item; debt service payments mostly by Uganda Electricity Board which also appear on the expenditure side.

**Sources:** Ministry of Finance; Uganda Protectorate, Statistical Abstracts.
<table>
<thead>
<tr>
<th></th>
<th>Value in £ '000</th>
<th>Percentage Share of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Taxes</td>
<td>—</td>
<td>167</td>
</tr>
<tr>
<td>Earnings of Departments</td>
<td>35</td>
<td>177</td>
</tr>
<tr>
<td>Public Debt - Reimbursements</td>
<td>11</td>
<td>825</td>
</tr>
<tr>
<td>and Amortization(a)</td>
<td></td>
<td></td>
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<tr>
<td>Contributions from Local Funds</td>
<td>406</td>
<td>322</td>
</tr>
<tr>
<td>Foreign Grants</td>
<td>53</td>
<td>195</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>505</td>
<td>1,686</td>
</tr>
</tbody>
</table>

\(a\) The Uganda fiscal year starts on July 1; prior to 1954 it coincided with the calendar year.

\(b\) Approved Estimates.

Mostly transfer items which also appear on the expenditure side.

<table>
<thead>
<tr>
<th>TABLE S.17: Central Government, Current Expenditures*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value in £ '000</strong></td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td><strong>General Services:</strong></td>
</tr>
<tr>
<td>Administration, Defense</td>
</tr>
<tr>
<td>Law and Order</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Community Services:</strong></td>
</tr>
<tr>
<td>Roads</td>
</tr>
<tr>
<td>Urban Development</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Social Services:</strong></td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Medical</td>
</tr>
<tr>
<td>Community Development, Labor, African Housing</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Economic Services:</strong></td>
</tr>
<tr>
<td>Agriculture, Forests, Game and Fisheries</td>
</tr>
<tr>
<td>Geology, Rural Water Supply</td>
</tr>
<tr>
<td>Survey, Lands and Mines</td>
</tr>
<tr>
<td>Airport Services, Railways</td>
</tr>
<tr>
<td>Cooperative Movement</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Public Debt</strong></td>
</tr>
<tr>
<td><strong>Public Works Department, Building and Construction</strong></td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
</tr>
</tbody>
</table>

*The Uganda fiscal year starts on July 1; prior to 1954 it coincided with the calendar year.  
Approved Estimates.  
Includes Pensions, Gratuities, Passages.  
Sources: Ministry of Finance, Uganda Protectorate, Statistical Abstracts.
<table>
<thead>
<tr>
<th>General Services:</th>
<th>Value in £'000</th>
<th>% Share of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration, Defense</td>
<td></td>
<td></td>
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<tr>
<td>Law and Order</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>446</strong></td>
<td><strong>50.8 %</strong></td>
</tr>
</tbody>
</table>

| Community Services:                    |                |                  |
| Roads                                  | 456            | 5.4 %            |
| Urban Development                      | 48             | 0.5 %            |
| **Total**                              | **104**        | **1.1 %**        |

| Social Services:                       |                |                  |
| Education                              | 25             | 0.3 %            |
| Medical                                | 17             | 0.2 %            |
| Community Development, Labor,          | 1              | 0.0 %            |
| African Housing                        |                |                  |
| **Total**                              | **43**         | **0.5 %**        |

| Economic Services:                     |                |                  |
| Agriculture, Forests, Game and         |                |                  |
| Fisheries                              | 1              | 0.0 %            |
| Geology, Rural Water Supply            | 1              | 0.0 %            |
| Survey, Lands and Mines                | 1              | 0.0 %            |
| Airport Services, Railways             | 12             | 0.1 %            |
| Commerce and Trade                     |                |                  |
| Cooperation Development                |                |                  |
| **Total**                              | **15**         | **0.2 %**        |

| Public Debt                            |                |                  |
| Public Works Department, Building      |                |                  |
| and Construction                       |                |                  |
| Miscellaneous                          |                |                  |
| **GRAND TOTAL**                         | **878**        | **100.0 %**      |

The Uganda fiscal year starts on July 1; prior to 1954 it coincided with the calendar year. 

b Approved Estimates.

**SOURCES:** Ministry of Finance; Uganda Protectorate, *Statistical Abstracts.*
### TABLE 8.19: Local Governments, Total Revenues

<table>
<thead>
<tr>
<th></th>
<th>1956/57</th>
<th>1957/58</th>
<th>1958/59</th>
<th>1959/60</th>
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<tr>
<td></td>
<td>£ '000</td>
<td>Percent</td>
<td>£ '000</td>
<td>Percent</td>
</tr>
<tr>
<td>Direct Taxation</td>
<td>2,478</td>
<td>41.8</td>
<td>2,737</td>
<td>41.1</td>
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<tr>
<td>Indirect Taxation</td>
<td>197</td>
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<td>171</td>
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<tr>
<td>Earnings of Departments</td>
<td>358</td>
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<td>Grants from Central Government</td>
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<td>Loans from Central Government</td>
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<td>Transfer from Funds</td>
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<td>Miscellaneous</td>
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<td><strong>TOTAL</strong></td>
<td>5,936</td>
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</table>

**Sources:** Ministry of Finance; Uganda Protectorate, *Statistical Abstracts.*
### TABLE S.20: Local Governments, Total Expenditures*

<table>
<thead>
<tr>
<th></th>
<th>1956/57 £'000</th>
<th>1956/57 Percent</th>
<th>1958/59 £'000</th>
<th>1958/59 Percent</th>
<th>1959/60 £'000</th>
<th>1959/60 Percent</th>
</tr>
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<tbody>
<tr>
<td><strong>General Services:</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Administration</td>
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<td>Law and Order:</td>
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<td>Judicial</td>
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<td>Police and Prisons</td>
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<tr>
<td><strong>Revenue Collection and</strong></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Financial Control:</td>
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<td>Treasury</td>
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<td>Roads</td>
<td>543</td>
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<td>752</td>
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<td>Urban Development</td>
<td>12</td>
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<td>10</td>
<td>0.1</td>
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<td><strong>Total</strong></td>
<td>556</td>
<td>10.1</td>
<td>762</td>
<td>10.4</td>
<td>602</td>
<td>8.6</td>
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<tr>
<td><strong>Social Services:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Education</td>
<td>1,781</td>
<td>32.5</td>
<td>2,929</td>
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<td>2,599</td>
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<td>386</td>
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<td><strong>Total</strong></td>
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<td>37.5</td>
<td>2,735</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Agriculture, Forests,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Game and Fisheries</td>
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<td>221</td>
<td>3.1</td>
<td>208</td>
<td>3.0</td>
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<td>1.8</td>
<td>130</td>
<td>1.8</td>
<td>127</td>
<td>1.8</td>
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<td>Veterinary</td>
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<td>82</td>
<td>1.1</td>
<td>61</td>
<td>0.9</td>
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<td>436</td>
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<td></td>
<td></td>
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<td>Pensions and Gratuities Obligations</td>
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<td>106</td>
<td>1.5</td>
<td>128</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>90</td>
<td>1.6</td>
<td>106</td>
<td>1.5</td>
<td>128</td>
<td>1.8</td>
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<tr>
<td><strong>Unallocable Expenditure:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Public Works Dept.</td>
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<td>458</td>
<td>6.8</td>
<td>435</td>
<td>6.2</td>
</tr>
<tr>
<td>Building and Construction</td>
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<td>143</td>
<td>2.0</td>
<td>119</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
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<td>2.9</td>
<td>142</td>
<td>1.9</td>
<td>156</td>
<td>2.2</td>
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<tr>
<td><strong>Total</strong></td>
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<td>13.3</td>
<td>782</td>
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<td>710</td>
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<tr>
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<td>100.1</td>
<td>6,967</td>
<td>99.8</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Gross Capital Formation</td>
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<td>1,775</td>
<td>24.3</td>
<td>1,321</td>
<td>19.0</td>
</tr>
</tbody>
</table>

* Includes transfers received by the local governments from the central government.

**SOURCES:** Uganda Protectorate, *Statistical Abstracts.*
### Table S.21: Central and Local Governments, Current Expenditures

<table>
<thead>
<tr>
<th></th>
<th>1956/57</th>
<th>1957/58</th>
<th>1958/59</th>
<th>1959/60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£ '000</td>
<td>£ '000</td>
<td>£ '000</td>
<td>£ '000</td>
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<td>5,758</td>
<td>6,214</td>
<td>6,287</td>
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<tr>
<td>Percent</td>
<td>26</td>
<td>27</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Community Services</td>
<td>1,366</td>
<td>1,579</td>
<td>1,930</td>
<td>1,832</td>
</tr>
<tr>
<td>Percent</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Social Services</td>
<td>6,086</td>
<td>6,993</td>
<td>7,570</td>
<td>7,272</td>
</tr>
<tr>
<td>Percent</td>
<td>31</td>
<td>32</td>
<td>32</td>
<td>34</td>
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<tr>
<td>Economic Services</td>
<td>2,678</td>
<td>2,987</td>
<td>3,106</td>
<td>3,045</td>
</tr>
<tr>
<td>Percent</td>
<td>14</td>
<td>14</td>
<td>13</td>
<td>13</td>
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<tr>
<td>Miscellaneous</td>
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<td>4,428</td>
<td>4,796</td>
<td>4,130</td>
</tr>
<tr>
<td>Percent</td>
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<td>20</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>19,384</td>
<td>21,725</td>
<td>23,616</td>
<td>23,021</td>
</tr>
<tr>
<td>Percent</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Sources:** Ministry of Finance; Uganda Protectorate. *Statistical Abstracts.*
<table>
<thead>
<tr>
<th></th>
<th>1956/57 £'000</th>
<th>Percent</th>
<th>1957/58 £'000</th>
<th>Percent</th>
<th>1958/59 £'000</th>
<th>Percent</th>
<th>1959/60 £'000</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Services and Administration</td>
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<td>15</td>
<td>1,454</td>
<td>19</td>
<td>1,523</td>
<td>23</td>
<td>1,144</td>
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<td>2,523</td>
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<td>2,356</td>
<td>30</td>
<td>1,940</td>
<td>30</td>
<td>2,076</td>
<td>33</td>
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<td>19</td>
<td>1,624</td>
<td>21</td>
<td>1,511</td>
<td>23</td>
<td>1,708</td>
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<tr>
<td>Economic Services</td>
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<td>13</td>
<td>796</td>
<td>10</td>
<td>477</td>
<td>7</td>
<td>507</td>
<td>8</td>
</tr>
<tr>
<td>Miscellaneous</td>
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<td>21</td>
<td>1,580</td>
<td>20</td>
<td>1,086</td>
<td>17</td>
<td>828</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,873</td>
<td>100</td>
<td>7,810</td>
<td>100</td>
<td>6,537</td>
<td>100</td>
<td>6,263</td>
<td>100</td>
</tr>
</tbody>
</table>

**Sources:** Ministry of Finance; Uganda Protectorate, *Statistical Abstracts.*
### TABLE S.23: Loan Activities of Uganda Credit and Savings Bank

<table>
<thead>
<tr>
<th>Year</th>
<th>Balance of Loans Outstanding a</th>
<th>Purposes for which Loans were Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agriculture</td>
<td>Trade</td>
</tr>
<tr>
<td>1951</td>
<td>126</td>
<td>44.6</td>
</tr>
<tr>
<td>1952</td>
<td>248</td>
<td>36.2</td>
</tr>
<tr>
<td>1953</td>
<td>306</td>
<td>22.3</td>
</tr>
<tr>
<td>1954</td>
<td>252</td>
<td>5.8</td>
</tr>
<tr>
<td>1955</td>
<td>216</td>
<td>1.5</td>
</tr>
<tr>
<td>1955/56</td>
<td>169</td>
<td>6.1</td>
</tr>
<tr>
<td>1956/57</td>
<td>153</td>
<td>12.2</td>
</tr>
<tr>
<td>1957/58</td>
<td>249</td>
<td>6.8</td>
</tr>
<tr>
<td>1958/59</td>
<td>348</td>
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</tr>
<tr>
<td>1959/60</td>
<td>302</td>
<td>14.4</td>
</tr>
<tr>
<td>1960/61</td>
<td>445</td>
<td>28.6</td>
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</tbody>
</table>

* a Until 1954, balances are shown as of December 31; thereafter balances are shown as of June 30.

**Sources:** Uganda Protectorate, *Statistical Abstracts;* Uganda Credit and Savings Bank.

### TABLE S.24: Loan Activities of African Loans Fund

<table>
<thead>
<tr>
<th>As at June 30</th>
<th>Loans Approved During the Year</th>
<th>Number of Loans Issued During the Year</th>
<th>Balance of Loans Outstanding (£'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955/56</td>
<td>268</td>
<td>35</td>
<td>237</td>
</tr>
<tr>
<td>1956/57</td>
<td>358</td>
<td>51</td>
<td>230</td>
</tr>
<tr>
<td>1957/58</td>
<td>1,112</td>
<td>135</td>
<td>1,115</td>
</tr>
<tr>
<td>1958/59</td>
<td>895</td>
<td>161</td>
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<tr>
<td>1959/60</td>
<td>673</td>
<td>105</td>
<td>809</td>
</tr>
<tr>
<td>1960/61 a</td>
<td>649</td>
<td>99</td>
<td>762</td>
</tr>
</tbody>
</table>

* a As of June 30, 1961, there were 1,124 loans outstanding totaling £159,000 from the International Cooperation Administration's Revolving Loan Fund's First Grant, and 389 loans totaling £42,000 from the Second Grant.

**Sources:** Uganda Protectorate, *Statistical Abstracts;* Uganda Credit and Savings Bank.
### TABLE S.25: Commercial Banks, Liabilities and Assets

<table>
<thead>
<tr>
<th>Year</th>
<th>Deposits</th>
<th>Balances Due from</th>
<th>Loans, Advances and Bills Discounted</th>
<th>Total Liabilities or Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Demand Banks Abroad</td>
<td>Banks Abroad</td>
<td></td>
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<tr>
<td>1938</td>
<td>751</td>
<td>n.a.</td>
<td>542</td>
<td>2,490</td>
</tr>
<tr>
<td>1946</td>
<td>4,552</td>
<td>n.a.</td>
<td>800</td>
<td>6,419</td>
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<td>1951</td>
<td>10,644</td>
<td>557</td>
<td>4,859</td>
<td>6,377</td>
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<td>1952</td>
<td>18,164</td>
<td>678</td>
<td>8,880</td>
<td>6,154</td>
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<tr>
<td>1953</td>
<td>15,842</td>
<td>1,049</td>
<td>8,476</td>
<td>7,360</td>
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<tr>
<td>1954</td>
<td>16,360</td>
<td>866</td>
<td>8,283</td>
<td>9,580</td>
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<tr>
<td>1955</td>
<td>15,019</td>
<td>1,272</td>
<td>4,048</td>
<td>12,885</td>
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<tr>
<td>1956</td>
<td>12,926</td>
<td>813</td>
<td>5,808</td>
<td>12,075</td>
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<tr>
<td>1957</td>
<td>10,885</td>
<td>1,402</td>
<td>5,598</td>
<td>12,421</td>
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<td>1958</td>
<td>12,208</td>
<td>1,399</td>
<td>3,873</td>
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<td>1959</td>
<td>11,773</td>
<td>550</td>
<td>2,109</td>
<td>13,124</td>
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<td>1960</td>
<td>8,965</td>
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<td>1,751</td>
<td>14,150</td>
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</table>

**SOURCES:** Commercial Banks in Uganda.
### TABLE S.26: Employment, by Industries, 1960

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<th></th>
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<th>Europeans</th>
<th></th>
<th></th>
<th>Asians and Others</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Public</td>
<td>Total</td>
<td>Private</td>
<td>Public</td>
<td>Total</td>
<td>Private</td>
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<td>Industry</td>
<td>Services</td>
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<td>Services</td>
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<td>Agriculture</td>
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<td>49,366</td>
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<td>113</td>
<td>156</td>
<td>511</td>
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<td></td>
<td>4</td>
<td>557</td>
<td></td>
<td>557</td>
<td></td>
<td>4,591</td>
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<td>4</td>
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<td>2,951</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,654</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>5,175</td>
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<td>194</td>
<td></td>
<td>194</td>
<td>177</td>
<td></td>
<td>177</td>
<td></td>
<td>5,693</td>
</tr>
<tr>
<td>Manufacture of Food Products</td>
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