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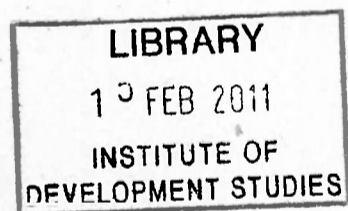
Working Paper No. 91

A HISTORY OF POPULATION GROWTH IN KENYA & UGANDA

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March, 1973

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RN 322336

IDS



095430

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Notes:

I would like to make a preliminary point to the readers of this I.D.S. paper.

This paper was written for an audience which had little or no demographic knowledge. I have therefore tried to spell out the meanings of the technical language which one is forced to use, although I have tried to keep it to a minimum. If this process exasperates you as a reader, bear with me and put me right where I go wrong.

## A History of Population Growth in Kenya & Uganda

### Introduction

The population growth rate in both Kenya and Uganda has been increasing at a rate of between 2.9% to 3.5% per year since the first census was taken in 1948. This rate of growth is rapid by any standards, historical or contemporary, it is at least as high as any known population has grown at any time in history and in any other place. The question is why are these rates so high? Demographers tend to answer these questions in terms of changes in Birth, Death and Infantile mortality rates. The census will tend to show changes which occur in these rates and explanations follow. But changes in birth and death rates cannot explain why the rate of change has been so rapid compared to other parts of the world. Even if it could be shown that there had been an unprecedented drop in death rates, it still needs to be shown why death rates had previously been so high and why population rates continue to remain so relatively high.

I believe that we need to pay more attention to the pre census date of 1948 and we need a great deal more research on the pre colonial populations in East Africa if we are to fully understand the existing demographic situation. The hypothesis I am advancing here is that the social and economic nature of East African societies in the pre colonial era were characterised by potential high population expansion. The evidence I present suggests that

during the 19th century and up to the late 1880's that population growth throughout the area of East African was rapid. How rapid we cannot begin to guess. But among most peoples the social tradition was one of expansion; births were encouraged through early marriage and other social mechanisms. Population expansion involved the taking in of new lands, of pioneering and starting new subclans. There were of course checks on this expansion through famine and disease and it must be remembered that we do not know the extent of those checks on the population growth.

During the early colonial period it seems from the evidence that the growth of population was brought to a halt and possibly declined to some extent between 1890 and the early 1920's. From around 1923/1924 the growth of population began to recover slowly until the early 1940's, when the rapid population increase of the 19th century again began to reassert itself. During the intervening period medical advances had certainly removed or reduced certain killer diseases, but it does seem that the earlier conditions of early marriage and plenty of land which had encouraged a high birth rate had not fundamentally altered. It would seem therefore that an explanation of East Africa's present high population increase, can be found in the social traditions of population expansion of the pre colonial era.

#### Pre Colonial Population Changes

Can we say anything useful which is more than a wild guess about the growth or declines of pre colonial East African population. We have no statistics of any kind to guide us, but so long as we assume that the East African population behaved like other populations, we can put forward some prepositions.

We know for instance that peoples whose mode of production is hunting and gathering need a comparatively larger area for a given number of people than would pastoralists, while agriculturalists can accommodate (i.e. feed) an even larger numbers of people on the same area (presuming the area is ecologically suitable for agricultural production). In the late 19th century East Africa still accommodated a smallish number of hunters and gatherers in the forest zones; and pastoralists still existed

over wide areas of potential agricultural land. -- The Kikuyu were for instance settling Kiambu, while much of the fertile parts of the Rift Valley was used by the pastoralist Maasai or Samburu. This process of agricultural settlement was still in progress when Europe erupted into the area. (35, 36)

It is not unreasonable to assume, therefore that as the means of production and the means of inheritance, land and stock, were in plentiful supply, that most ethnic groups were ordered in such a manner as to encourage rapid population increases. The age of marriage for instance was regulated for both men and women by initiation and there is no doubt that in periods of adversity, for instance after a war when many young men had died, the period of initiation would be brought forward in order to encourage the earliest possible marriages to replenish the people lost in the war. In one sense therefore the initiation ceremonies was a sensitive mechanism of social adjustment which regulated the age of marriage. The age of marriage regulated the period of time when a woman could legitimately produce children in pre colonial society.

In general it seems that women tended to marry well before they were 20 years old and often much earlier. The point here is that there was no shortage of the means of production, land was nearly always available for inheritance, or new unused land could be opened up. There is no evidence that there was any shortage of land in East Africa which might in any way have limited marriage opportunities. Marriage could therefore be regulated according to the social rather than the economic needs of the society. Moreover once married the social mechanics of East African societies worked towards as large a number of children as possible. Even if a husband died, the responsibility for the woman's welfare, including her sexual welfare was transposed on to brothers or close kin of the husband. East African societies in general were organised for very rapid population increase.

The constraints on growth were both social and natural. Birth control in the form of abstinence, particular during the period after birth when a child was feeding from its mother's breast appears to have been widespread. Secondly, giving birth before marriage seems to have been severely frowned upon and to

led to social estracism. The natural checks on the rate of increase included. disease, dysentery, and malaria and famine. But the land scarcity was not a check as unlike the situation one finds in much of pre capitalist Europe or Asia.

There were one or two areas where population densities had led to technical innovations especially irrigation works which allowed a higher numbers of people to exist of a given area than would otherwise have been the case - the Arusha are a case in point, but these were the rare exception. The main increases in population seemed to occur when an advanced mode of production took over from less advanced one; for instance when agricultural peoples cleared the forest of hunters and gatherers. But in general pressure of population on land had not led to any fundamental alterations in agricultural technology.

The argument then is that there was a direct relationship between the character of economic production and the social mechanics of population control. An interesting case of their type of relationship has recently been outlined by Paul Spencer.<sup>(34)</sup> He illustrated how the different modes of production of the Samburu and the Rendille <sup>led</sup> to quite different attitudes to population increase. The Samburu have been cattle herders for many years, they aim to increase their stock as rapidly as possible. With luck and good management a herd can be doubled every five years or so, while drought may half a herd every 10 years or so. They aim to achieve uninterrupted growth in animals which would lead to more wives and children.

The Rendille herd cammels which give abundant milk supplies, but they require very extensive herding which limits herding to the young fit men only. Camels only calf half as fast as cattle and are prone to a number of prevalent diseases (anthrax and trypanosomiasis). So the Rendille problem is to maintain the existing size of their herds, rather than increase them as with the Samburu.

The Rendille are generally mogamous and the whole herd is inherited by the eldest son in order to keep the precious herd

intact Rendille women marry later than Samburu, sometimes waiting until they are 30 years and above. A practice which limits population growth. The Samburu practises are geared towards population growth, marrying early and preferring large families.

Over time both men and women have been squeezed out of the Rendille economy and have been adopted into the Samburu culture and society. Rendille girls have married into Samburu clans which is consistent with the latter's polygamous propensity and desire for population expansion. This pattern of relating population and mode of production of the Samburu and Rendille according to Spencer relates back at least as far as 1830 and possibly longer. Both these groups have maintained their pre colonial economy and so their pre colonial social customs, despite many recent changes, as have many of the pastoral nomadic peoples. But this example should illustrate how modes of production facilitate or negate social customs to increase or simply maintain their human population.

It is difficult at this stage of our knowledge to say much more than this on pre colonial population trends. It is fairly certain that by 1900 there was still considerable room for population expansion given the existing modes and techniques of production over most of East Africa.

As elsewhere in the world it is very probable that there was both a high death rate and a high birth rate in the pre-colonial era. How high we cannot estimate, but there were few societies in East Africa which did not place a very high value on women's fertility, which provides a clear indication on the importance of large numbers of children. The Colonial argument that constant tribal wars, starvation diseases and infant mortality kept the population down has never been justified empirically and for our purposes such sweeping assertions can be ignored as worthless.<sup>(21)</sup> It would seem probable that the history of migration and settlement of the East African peoples had an over-population question somewhere in the background. Otherwise why should people have bothered to move? But it is really extremely hard to say anything significant. The populations of East Africa probably increased in an irregular way. Yet we don't even know what were the main limitations on population increase, disease or famine or both?



Any historian should be interested in the characteristics of the human population he studies. But unless Governments arrange censuses and are themselves interested in demography, historians can only make wild guesses at changes in population. Governments seem to become interested when it appears that the numbers of people begin to increase rapidly. For instance it was no coincidence that the 1st British census took place in 1801 and that Malthus the most famous name among demographers published his major work in 1798 which suggested (wrongly) that the increase in the numbers of people would outstrip available food supplies unless people stopped sexual activity. He called it moral restraint.

In East Africa from the beginning of the Colonial period Governments were interested in the numbers of people in east African territory because they wanted to know the amount of tax revenue they could obtain and the number of young men who could be labourers. The Land problem also raised the question about the numbers of people in relation to land availability. From about 1926 a few voices began to suggest that the population was rising very rapidly but there was no widespread alarm and so no proper census taken. (2.10.29) Then, after 1945, with the acceleration of economic development throughout the area a proper census became essential if economic planning was to make any sense at all. Industrialists wanted to know the size of the market, i.e. the number of people who might buy their products and government wanted to know how many people there were in relation to education social services, urbanisation and so on. Thus censuses have been taken in 1948 throughout East Africa, in 1959 in Uganda, 1962 in Kenya, 1969 in both Kenya and Uganda.

Our purposes are not the same as industrialists or governments and we don't have to ask the same type of questions. Our concern is with change and development and so we want to know if more people are living longer lives. If they are this is surely progress, if less babies die over time and more people live to old age, then surely something has been achieved.

#### The European demographic experience

It is widely known that East Africa in the last 20 years or so has been experiencing a very rapid increase in the rate of the population growth. The population has doubled in numbers over the last 20 or 25 years at the present rates of growth. We shall later

examine the ramifications of this increase, but first it would be useful to look for comparisons at the causes and extent of the growth of population in Europe and with special reference to Ireland over the 19th century. The reasons for making the comparisons will become apparent as the story unfolds.

Up to about 1750 or so the population of Europe as elsewhere in the world, experienced a high rate of deaths; equally they experienced a high rate of births. Everywhere, a large number of births (fertility) was strongly sanctioned; to be barren as a woman was a curse. The first censuses around 1750 showed that the number of death per year for every thousand people was about 28, by 1850 or so it was 20 and by 1900, 10. The levels of mortality declined more or less annually until around the end of the 19th century when the death rate stabilised and remained around 20 per 1000 of the population.<sup>(23)</sup> But when the death rate began to decline in Europe the birth rate remained as before at around 35 births per year per thousand of the population, known as the birth rate. It wasn't until after 1850 or so that the birth rate declined. This situation can be shown as follows:-

TABLE I.

	<u>Death Rate</u>	<u>Birth Rate</u>	<u>Natural increase per thousand</u>
1750	28	35	7
1850	20	35	15
1900	10	20	10

The death rate declined in most European countries until it stabilised around the turn of this century; the birth rate on the other hand began to fall very roughly 100 years after the death rate had begun to decline. Thus between 1750 or so, and 1900 there was a rapid growth of population in most countries of Western Europe. This growth was transitional as the drop in the birth rate soon caught up with the drop in the death rate so the rate of increase in population slowed down and has been in the region of 1% or less in the 20th century.<sup>(33)</sup>

In Europe the growth and slowing down of population growth occurred during the period in the growth of industry, when the increase was either absorbed in the industries or emigrated to the U.S.A. or the "Colonies". But East Africa has in sense experienced

a very rapid population expansion without industrialisation. These two conditions have been experienced by one European country which like East Africa was an exporter of agricultural products and importer of finished goods and which ~~throws~~ up interesting comparative perspectives. This country was Ireland between 1760 and 1846. Ireland is worth examining briefly, not as a direct parallel but as a country whose population history comes closer to the East African experience than the European.

Between 1775 and 1821 Ireland's population grew at around 2% per annum. In the decades before 1775 it has been estimated that it grew at only 0.25% to 0.7% per annum. There has been a great deal of debate as to why Ireland's population exploded over these 40 odd years. Ireland had been a British agriculturally settled colony since the 16th century. By the 18th century Ireland typically exported food products to England and was not experiencing the industrial changes occurring in Britain. The population seem to have increased during the years 1775-1821 because young people were able to marry at a much younger age than had previously been the case. The age of marriage in Ireland was determined by the availability of inheritance, land. In the period of rapid population increase the acreage under crops and potatoes increased very rapidly as the demand for food in Britain raised the price of food exports from Ireland. Land was available as Irish land was owned by English land-owners who rented it out in patches to anyone who could pay the rent. Under conditions of rising food exports a young man could obtain land and maintain a family with some ease. The result was earlier marriage and a rapid rise in the birth rate and the consequent population growth at around 2% per year. After 1821 the economic conditions altered, the price of food exports dropped and the easy access to rented land reduced. The age of marriage then rose and the population growth rate fell first of all to 1.5% per year between 1821 and 1831, and then 0.5% per year between 1831 and 41. But although the rates of marriages and births altered according to available economic opportunities, the large number of existing young people in the community created by the increase in the previous 40 years carried the population from 6.8 million people in 1821 to 8.2 million in 1841. After 1821 despite the fall in the birth rate the pressure of people on the agricultural resources increased dramatically. Ireland experienced a number of minor famines as the people became poorer and poorer. While the age of marriage increased, and the rate of

marriage fell, which reversed the trend of the previous 40 years,--the proportion of young people swelled the actual numbers of people. The growing number of young people had no alternative occupations in the towns or in industries; the increase in the numbers of people had to be absorbed on the land, which naturally became in short supply. Thus when famine struck two years running in 1845 and 46 the population was decimated. In 1841 the Irish population had been 8.2 millions, in 1851 the numbers had dropped to 6.5 millions; over 1 million of whom had died from starvation, the rest had emmigrated.<sup>(11, 12)</sup> Ireland provide a vivid example of the "Malthusian" the situation when the increase on population outruns the resources of the community. Malthus said little about the historieal and political factors which led to the situation when population grew faster than food availability. The Irish population growth was a direct result of the Irish colonial relationship with Britain. The fact that land was owned by English landlords led directly to the rentier situation. The rising price of Irish food exports was a consequence of (a) Englands growing demand for food, (b) the colonial economic relationship which led to Ireland providing Englands food requirements. Finally it was the colonial relationship which severely limited Irelands opportunities to participate in the industrial revolution.

It is important to relaise that direct parallels of Ireland with East Africa are not useful. In the last ten years new means of increasing food production have developed very rapidly; new strains have been developed on maize and rice production which allows dry regions to be brought into use and two or more yields per year when only one had been previously possible. Moreover the conditions of colonization were different in 18th Century Ireland to 20th century Africa. Yet the Irish population disaster should be kept in mind, there was rapid population increase in an agricultural country without employment creating industrialization. Those conditions at least are parallel in East Africa.

The point of these brief outlines of the demographic history of the Industrial Europe and agricultural Ireland was not to make direct or simple comparisons, but to point to the differences between the East African demographic story and elsewhere. One conclusion that is worth drawing from both the examples given is that while both Ireland and Europe experienced considerable population expansion, both have in different ways and for different reasons experienced a rapid decline in their rates of population growth. There seems to be no reason to expert any significant decline in East Africa.

1890 - 1923 in East Africa

The first trained observers who began to make some suggestions on demographic conditions were of medical men in the 1920's (3,5,7) Let us examine some of these observations.

Early guesses at the population showed the following results:-

	Kenya	Uganda (6,18,28)
1878 Stanly		780,000
1897 A. Harding	2,500,000	
" Portal	450,000	
1902 Official Estimate	4,000,000	3,500,500

Clearly these figures provide us with no useful information, they cannot be proved or disproved, they were unformed guesses based on limited and unsystematic observations.

From the beginning of the Colonial era the method of estimating the extent of population was better than these guesses but not much better. The estimates were based on the tax returns. The earliest taxation was a Poll tax which was a tax on every able bodied male over the age of 16. Of course the collecting officers could not know whether a man was 16 years of age, one ready method was to look under his arms to see if he had any growth of hair in the arm pit.<sup>1</sup> The number of poll tax payers was said to represent 49% of all the male adults and so 51% was added to the figures for adult women. Of the total gained, 37% was then said to represent the number of children<sup>(19)</sup> e.g. The calculation was as follows.

Thus if the number of poll tax payers were "X"

TABLE II

<u>No. of adult men in the Community</u>	<u>No. of Adult women</u>	<u>Total Adults</u>	<u>No. of Children</u>
$\frac{x \times 49}{100}$	$\frac{x \times 51}{100}$	$\frac{x \times 49 + x \times 51}{100}$	$\frac{x \times 49 + x \times 51}{100} \times \frac{37}{100}$

Unfortunately when the the first census was taken in 1948 the 1947 estimates based on the poll tax returns were found to be at least 25% too small, they were wrong by over one million people in each of the three East African territories.<sup>(20)</sup>

Part of the reason for this error was that the proportion of children to adults was much higher than the 37% of the total adults that previous estimates had assumed. The 1948 census showed that 48% of the population were children.<sup>(25)</sup> Many demographers have therefore concluded that there is very little that can be usefully said about the population before 1948 as all earlier estimates were too low by 25% or possibly even more.

Certainly any population statistics based on the tax figures are open to considerable and unknown error. Taxes were collected by the District Officer who would tour his district annually. The sources of error that arose from the method of tax collection were firstly that in every village or area the headman would advise the DO on exemption for the aged and infirm. Venal headman were open to straight forward bribery. Secondly before the arrival of the DO, a paid government hut counter was supposed to make a count of all the huts in preparation for DO's visit. Very often in the hut counter made mistakes in adding up the totals "Here there are great and even absurd errors" as one DO put it who checked the addition.<sup>(17)</sup> Thirdly, as the men were moving backwards and forwards in regard to labour migration and as tax evasion became quite normal, the official tax returns were quite useless in attempting to estimate population. It is therefore impossible to assess the nature of the error in the tax returns. But we should not give up at this point. There are a number of clearly argued cases based on a number of years experience which should provide us with important indicators of the population trends.

It was argued by a number of medical men in the colonial government service that the population of Kenya and Uganda had been declining between 1900 or so, and 1922/23.<sup>(2,7,10)</sup> It is important to note that these were men who made arguments from observations and not from racial prejudice. A man in medicine should in principle have been a trained scientific observer and have been less likely to succumb to the wild prejudiced statements of so many lesser trained white colonists. It is therefore likely that population observations by medicals would have had greater validity than almost all other groups. Also it is worth noting that a few of the members of the administration medical department had a professional interest and concern with the local indigenous population, a concern rare at this time.

What is the evidence that population was declining. First let us examine the events between the years, from roughly 1890 to 1924. A period in which many people died. The significance of 1890 or so relates to (a) the widespread wars in Uganda in the last decades of the century and (b) the widespread nature of famine and diseases which followed the famine; The famine began in 1889 and in some areas continued sporadically until the end of the century. Rinderpest decimated cattle, drought and locusts upset crops, small pox and dysentery killed the people. It is very probable that considerable numbers of people died during these years. Secondly the "pacification" campaigns involved in conquest by the Europeans must have led to some deaths. Thirdly the early years of Colonial administration were accompanied by severe epidemic diseases. Between 1900 and 1905 sleeping sickness was particularly severe on both sides of the lake and continued to an extent up to the early 1920's. It must have claimed a large number of lives. Plague followed and small pox was persistently prevalent up to 1914. In 1913, a severe epidemic of cerebral spinal meningitis killed many Kikuyu peoples. Fourthly many people died during and immediately after the 1914 - 18 war. 350,000 porters were said to have been recruited from East Africa; 46618 officially died and another 40,645 were untraced at the end of the war, many of whom died. A total figure of 144,000 deaths from the war and the later famine was given for Kenya, but this was sheer guesswork based on false statistics, it could well have been double or treble that number. During the war many members of the carrier corps died from starvation and disease. In late 1918 and 1919 famine, influenza and plague struck the peoples of the whole area. A long epidemic of yaws was also particularly severe during the time. (17, 10, 17, 19, 28, 32)

Now if we try and add these events together the famines, disease, conquest, European wars and more famines and disease over only 30 years it would seem correct to suggest that the population of the whole area had probably declined in numbers considerably from 1890. It would be quite stupid though to attempt to estimate the fall off in population. Estimates by demographers based on inadequate evidence have a tendency to be proved utterly wrong and with the lack of exact information we have at present it would not be useful to add yet more guesses. But it does add confidence to the

discussions and writings of the medics in 1920's, Dr. N. Leys, Dr. A. Patterson and a District Officer S.H. Fazan who all tried to show that up to about 1924 or so the population of East Africa had been declining. Even the official estimates from Hut counts showed a declining population in Both Kenya and Uganda between 1911 and 1921. S.H. Fazan, who was also secretary of the Land Commission is more interesting than the rest. Fazan set about to systematically work out the history of the population in the Kikuyu Province in around 1930/32.<sup>(, 17)</sup> He found that the only reasonably accurate statistics provided by the taxation system were the hut counts; he checked the work of the hut counters in some cases by going around the country side by himself to see whether the number of huts counted was correct. He discovered the errors were in the adding up and not in the actual huts counted. He found this error was only around 1% which was extremely small. His statistics are useful therefore in illustrating trends. Hut counts of course only provided information about the women.

Between 1909, when the statistics first became useful, and 1923, he discovered that the number of wives and widows living in the Kikuyu Reserve was as follows:-

TABLE IV

	<u>Kiambu</u>	<u>Fort Hall</u>	<u>Nyeri</u>	<u>Total</u>
1909	23400	61200	35100	119700
1923	23900	44050	34890	102840

These figures therefore tell us nothing about the men. The number of women in the Reserve was declining. According to Fazan a part of the explanation of these statistics was that from 1913/14 people began to emigrate onto the surrounding European farms as squatters. He also provided statistics for wives and widows by districts in the surrounding white Highlands from 1921. He argued that by 1916 11006 and by 1921, 17700 Kikuyu women had left their homelands and moved onto adjacent farm lands. Between 1916 and 1921 the emigration was very high from Fort Hall. This he explains by the severity of the famine and epidemics (1919) in the area. Fazan's figures showed that there was an increase in the adult females



per annum of 0.5% in the Kikuyu reserve from 1909 - 1916, the figures decreased by 3.2% annually between 1917 and 1921, the really poor years, and increased by 0.75% annually between 1921 and 1931. (17)

Rate of change in adult female population in Kikuyu province per annum which includes squatter immigration.

	<u>Kiambu</u>	<u>Fort Hall</u>	<u>Nyeri</u>
1909 - 1916	8	8	8
	+2.1%	+0.90%	+1.1%
1917 - 21	-0.2%	-4.0%	-2.5%
1921 - 31	+2.6%	+1.0%	+1.4%

Clearly if the figures for the men had been available the decreases would probably have been considerably greater than shown in Table V as it was they who died during the war and who brought the diseases home in 1918/1919. Because it was the men who suffered most at this period, it is probable that many of the young fertile women remained alive; they it seems that the population as a whole began increasing very soon after the scourges of 1918/19 (by 1923/24) because the women who were probably less affected by the strains of the war and immediate post war period. East African society seems to have been particularly resistant to these disasters due to social practices. East African population growth tends to be encouraged by polygamy which ensures that all women are married and by other traditional practices unlike European countries.

#### Population growth since 1924

The evidence since the middle 1920's indicated that it was likely that population had continued to grow since then, slowly in the 1920's and 1930's and thereafter more and more rapidly. Certainly the amateur demographers mentioned above were particularly concerned about arising population from around 1923/24 10,29. The reason for this slow rise was probably a natural tendency for the birth rate to be above the death rate in an environment when the major scourges of famine drought and disease of the previous 30 years had been removed. The population was still not very healthy in the middle of the 1920's in Kenya. Dr. Gilk and Dr. Orr undertook the first major nutritional research project in 1926/27 and examined

dietary habits from a 12000 sample among Kikuyu and Maasai.<sup>(3)</sup> They concluded that both groups suffered from nutritional deficiencies, of diet. Whether this was due to the aftermath of the war and famine or simple part of traditional life is difficult to say at this stage of our knowledge. Other observations which were less systematically carried out reinforced these views.

There would therefore seem to be a case to be made for the fact that population growth rates were low in East Africa in the 1920's and 1930's primarily because nutrition was poor which would have meant left many people were lacking in resistance to epidemic diseases. Any diet can only be described as "poor" in relative terms, here we mean poor in relation to standards worked out on the basis of a good health from United Nations diets which included regular meat, fish, green vegetables and fruits. Yet despite low nutritional levels certain diseases were beginning to be held in check. Small pox was one of these diseases. Small pox vaccinations had become widely available at the end of the 18th century in Europe. By the early 20th century the vaccination was cheap. The officers of the medical department in Kenya vaccinated 1,702,000 people between 1916 and 1918. The inoculations were given to everybody without discrimination from 27 stations around the country in the most populated areas. A second widespread disease held in check was Yaws. Yaws was not a killer disease by itself but it seriously disfigured people and lowered their resistance against other diseases. Up to the early 1920's the cure for yaws was expensive to administer. But with the development of a cheap substitute yaws was virtually eliminated by the mid 1930's.<sup>(6,28)</sup>

Diseases which were not being held in check were Malaria tuberculosis and dysentery which continued to be widespread; they were carried into the rural areas by returning labourers. Migratory labourers were often exposed to new diseases particularly from insanitary labour lines on European farms. In this manner disease was spread more widely than previously. It is of course not possible to assess whether the removal of small pox and yaws as major scourges compensated in any for the prevalence of malaria, dysentery and tuberculosis. We must wait for a medical historian to comment on this subject.

Whatever were the forces effecting this population. All the statistics which are available indicate that population was rising at around 1% to 1.55% per annum in the 1920's and 1930's (4, 22)

D.A. Lury's <sup>(x)</sup> backward projections illustrate these trends as follows:

	1921	1931	1939	1948	1962	1969
Kenya	3.7	4.1	4.8	5.7	8.8	10.9
Uganda	3.4	3.6 <sup>x</sup>	4.2	4.9	7.2	9.5

In Uganda, one of the major reasons for the increases in population unlike Kenya, was immigration. People entered Uganda from the surrounding territories, in particular the Banyarua and Burundi in order to find wage labour. Between 1936 and 1951 somewhere in the region of between 50,000 and 100,000 men and women entered Uganda from Ruanda and Burundi to find work some stayed while remained for only a few months so it is difficult to estimate the effect this group had on the total population. (32)

In 1931 a count of the people was taken in Uganda. It has been widely accepted to have been inaccurate. But how inaccurate is another matter. If one took the false population count from 1921 tax returns estimate and compared it with the 1931 count, the population of Uganda had increased 21.3% or over 2% per annum. According to the 1931 count and 1948 census, population increased by 39.06% or 2.3% per annum. It seems unlikely that these rates of population growth were accurate because with our knowledge from other territories where there were still many natural checks on the population growths rates tend to be for lower. It seems from all our knowledge that both the 1921 tax count figures would have been too low by 25% or more and it has been argued that the major problem with the 1931 count

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x Close to the 1931 Census figure

Source <sup>(x)</sup> D.A. Lury "African Population Estimates: Backward Projections of Recent Census Results" in East African Statistical Review

The figures 1921, 1931 and 1939 must remain speculative but they are the best we have available to date.

were inaccuracies of omission of areas and that it too was low by up to 10%. If this argument is correct then the rate of growth of population was more probably around 1% to 1.5% per annum. Once again we are brought up against the many possible facts and the gross lack of data. (4, 14, 6, 20)

There is one area however where we do have satisfactory statistics. The European and Asian populations were counted in a 4 censuses in 1911, 1921, 1926 and 1931 as well as of course in the later censuses 1948, 1962 and 1969. (31) The growth of these groups was as follows:-

TABLE VI  
European and Asian Population in Kenya and Uganda

	<u>European</u>		<u>Asian</u>	
	<u>Kenya</u>	<u>Uganda</u>	<u>Kenya</u>	<u>Uganda</u>
1911	3175	1269	12000	2216
1921	9650	1269	23000	5000
1926	12529	2001	41140	5000
1931	16812	2001	57135	14150
1948	29660	3448	97528	35767
1959-U	55759	10866	17,531	71933
1962-K				
1969	40,593*		139,039*	

\* European figure includes 3889 white Kenyan Citizens.  
Asian figure includes 60994 Kenya Citizens.  
Sources: "Censuses of the Non Native Population", 1911, to 1948,  
"Statistical Abstract"; Kenya 1971, Uganda 1969.

These figures vividly reflect the different forms of colonisation that occurred in the two territories. Not till 1948 did Uganda have as many Europeans as Kenya had had in 1911, 37 years earlier. The considerable differences in the size of the European population between the two territories was not simply that Kenya was an agricultural settler colony; the agricultural settlers in Kenya represented less than 20% of the total white population. But that once a handful of settlers had arrived a whole range of service industries sprang up to support the settlers, in particular government services, professional and Commercial services, (doctors, lawyers, land agents etc). By 1931 over 5,000 Europeans (twice the size of the agricultural settler population) were involved in these services trades and industries.

The very much larger white population in Kenya was due indirectly to the settlers, and to the supportive economic activities that were concomittant to an European way of life. Equally the large size of the immigrant Asians can be put down to similar type of reasons. By 1921 over 3,000 Asians were employed in the Government machinery although this number decreased as government jobs became the preserve of the whites. Industrial and commercial occupations at first and later on professional jobs became the avenues for Asian existence.

#### The Growth of the Population Since 1948

In 1948 the first important and reasonably accurate census was taken throughout East Africa. C.J. Martin the Government's demographer planned the census like a vast military exercise. No full census had ever been taken before in East Africa and many Europeans doubted that it was possible <sup>(18, 19)</sup>.

Long and detailed planning over 18 months had gone into the 1948 census; 3½ million huts had been counted in an area of 640,000 square miles. In many respects it was a great achievement to have been carried out at all. Martin reckoned that the results were correct within a margin of plus or minus 5%.<sup>(20)</sup> Despite many problems in taking the census it would be probably safe to assume that a 5% error, probable 5% on the low side, was a reasonably estimate.

The 1948 census was the beginning of detailed population knowledge in East Africa. The second major census was taken in 1959 in Uganda and 1962 Kenya. <sup>(25, 26, 27)</sup> With these two census it should have been possible to provide a reasonably argued explanation for the rapid increase in population that was occurring throughout the Region. But in order to answer the question of, why is the population growing? We needed to know how many children were being born, and how many children and adults were dying every year in relation to the total population. The ratio between the proportion of children born and the proportion dying will give us the rate of increase. Hence in order to answer these

types of questions we also needed to know people's ages. The reason for wishing to know ages is straight forward enough, as for instance the age of marriage will effect the number of children born, while the age of death effects the death rate, and the proportion of children in the total population will effect the potential population increase as in the earlier Irish example.

The problem faced by the census enumerators in 1948 and 1962 census was that the majority of people did not exactly know how old they were or even their children. The enumerators were therefore trained to estimate ages by references to local historical events. (26) This was a difficult and sophisticated job at the best of times. In the 1948 census, children were categorised into the following groups, under 1, 1-5 years, 6-15 years; and adults 16-46 years. In the 1962 census the groups were categorised by 5 year periods, 1 to 5 to 10 to 15 years. and so on. (25, 26)

But certain deep seated problems arose when an analysis was attempted on the raw data / <sup>as</sup> the accuracy of the information on ages was very poor. In the 1962 census it was suggested that there were serious distortion as follows. The 0 to 5s were under enumerated; there were too many 10s to 14s among the boys, presumably to hide the over 16's against having to pay taxes. With the girls it worked the other way around, the 10 to 14s were put in the 15 to 19s and the 15 to 19s put in the 20's age groups. This was done presumably to make a girl ready for marriage earlier than would have otherwise been the case. Finally the old people tended to overstate their ages. Age distortions in censuses have been a common factor all over Africa. These distortions were also quite easy to spot because of the difference in the ratio between the boys and girls. The results of these distortion were considerable, it meant that all the statistics on fertility and mortality with the exception of the crude overall totals, would be wrong. Hence demographers have attempted to correct these distortions, but this of course does increase the potential errors. (26) The results of the 1948 census, showed that, 41% of the population were children below the age of 15 in Uganda, and 48% in Kenya. Martin has argued that the Kenya figure was likely to be inaccurate and it was more likely to be close to the Uganda proportion. Yet in 1962 the proportion of children shown to be under 15 in Kenya was around 46% of the population still a very high figure. As the boys

understated their age and the girls overstated. the proportion of children in the population as over 40% is probably correct.<sup>(18)</sup> These should be compared with the figures for England and Wales in 1950 where the proportion of children in the population was only 22% of the total. Thus East Africa between 1948 and 1962 had a birth rate which was nearly twice as high as Great Britain's.

Not only was the proportion of children in the population remarkably high compared to any European country which had a relatively stable population growth rate, (a low birth rate and low death rate), but the East African birth rates and the infantile mortality rates were both of the same high comparative order. First let us show the facts of the situation as shown from the censuses and the indications of a high proportion of children under 15, high birth rates and high infantile mortality rates.

In 1948 the Kenya material was too poor to show an accurate birth rate, but one demographer Goldthorpe worked out from the available statistics that the rate of births for every thousand members of the population was in the region of 49 to 50, an unprecedentedly high rate.<sup>(6)</sup> As the crude birth rate in 1962 was in the region of 47 to 51 per 1000 of the population the 1948 figures would probably seem to be correct. In Uganda the overall birth rate in 1948 and in 1957 for both censuses was 42 births per thousand of the population which had risen to 49 by 1969. The Uganda figures would have been higher in 1959 but for the Buganda province which had a birth rate of only 30 per thousand, a much lower level than the rest of the country.<sup>(15)</sup> Nonetheless both Kenya and Uganda have a comparatively high crude birth rate. In Asia between 1965 and 70 it was 38 and only 18 for Europe.

But not only is the Birth rate comparatively very high but the total fertility rate, the mean number of births for each woman passing through the reproductive stage is well over double the European levels. Both censuses for both countries showed that women produce on average 5 alive children during their lifetime. Clearly some women produce many more children than 5 while others are barren; young women will have produced less than older women. Moreover the total fertility rate appear to be increasing. In Uganda it rose from 6.5 in 1959 to 7.1 in 1969. While a small proportion of urban based women would seem to be moving towards family planning this fact does not appear to effect the overall picture.

The above 3 facts, the proportion of children in the community, the relatively high birth rate and the continuingly high number of births per woman all point to the likelihood of a very high increase in the rate of the population. The possibility of the maintenance of a high growth rate can be emphasised through analysis of both of infantile mortality rates and the crude death rate.

The infantile mortality rate is the number of children who die before the age of one year, per thousand of the population. As the age statistics of the young have been so poor, the proportion of deaths among young infants provides better statistics than infantile mortality rates. The wastage of very young infants, probably infants still at the breast in 1948 was 184 per 1,000 live births in Kenya and 200 in Uganda. In the 1962 census in Kenya and the 1957 census in Uganda, the figures were 170 to 180 and 160 per thousand. By 1969 the reported infantile mortality rate was said to have dropped to 120 per thousand live births. Although if one takes into account the reticence of mothers over this type of information demographers in East Africa preferred a figure around 180 to 190.<sup>(x)</sup> Yet these infantile mortality statistics are only averages for the two territories. The regional pattern was quite different showing only 82 deaths in West Mengo, the most developed area of Uganda and reaching 200 or so in the more outlying areas. The explanation of these differences probably lies in (a) the availability of medical services, and (b) the educational level of the mothers.

If we compare these levels of infant mortality with levels in Western Europe the difference is startling. In Europe infantile mortality is around 20 per thousand. Yet only 70 years ago in 1900 these statistics were in the same region as East Africa today. Sweden had a rate of 96, Belgium 153, and Russia 260.<sup>(33)</sup> Thus although under contemporary values we should accept that East Africa has an extremely high infantile mortality, it was not so long ago that this was the actual rate in more areas of the world.

Despite what appears to be an extremely high proportion of very young deaths, the figures are very much lower than estimates made by interested observers in the 1920's when infantile mortality figures were mentioned in the region of 500 per thousand. Yet these

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(x) 120 per thousand in urban areas and up to 190 to 200 in rural areas.



early figures may not have been as entirely erroneous as appears at first sight. Martin worked out from the statistics of the 1948 census that roughly 40% of all children born, were dead by the age of 15;<sup>(20)</sup> while in the 1962 census for Kenya the proportion of dead children by the same age was 30 to 32% of the total.

One of the consequences of the low chances of survival when young is that the expectation of life at birth was only 42 years in Uganda in 1957 and 39 years, in 1962 in Kenya. (The difference between the two territories are small enough to be due to statistical error). The second consequence is that clearly it would be relatively simple with improved medical facilities and more extensive education among the women to reduce these levels of death among the young very rapidly indeed. If this happened then the potential rate of increase of the total population would rapidly rise.

Finally we need to examine the death rates, the numbers of people who die per thousand of the total population. (A figure which includes the deaths among the young.) Again the problem of accurate knowledge is difficult due to the reticence of people to count deaths. In 1948 there were relatively reliable figures for Kenya but only tentative figures for Uganda which showed a death rate of 25 per thousand. In 1962 the death rate for Kenya was given at between 18 and 24 people per thousand, but probably in the higher ranges. Those figures need to be compared to the United Nations figures of 15 for Asia and 10 for Europe and America. The East Africa figures are therefore remarkably high compared to world trends.

More important than crude death rates which include the whole population is the proportion of old people in the community. In Kenya only 8% of the people were over 50 years of age in 1962; there was 10% in Uganda in 1957. The proportion had hardly changed since the 1948 census. By comparison in England and Wales or in Sweden, there was 30% of the population over 50 years of age. Here again the possibilities of increasing the level of population growth

though improved medical facilities could lower the death rate among those aged around 40 very rapidly indeed.

The general shape of the distributions of the East African population is therefore as follows:-

Thus from this analysis we can conclude that the East African population has been growing very rapidly. The 1948 Kenya Census showed that there were 5,407,599 people; the 1962 census raised the figure to 8,365,942 people and the 1969 census 10,942,705 people. The population had doubled in 21 years. It was estimated that the population, despite all the possible errors in both the 1948 and 1962 censuses of both over and underenumeration had been increasing by at the rate of 2.8% to 3.0% per annum. It seemed clear that since 1948 that the rate of increase in the population had been increasing extremely fast. Such rates of population growth in terms of world experience were unprecedented as has already been shown.

The 1948 Uganda Census showed that there were 4,960,000 people; the 1959 census raised the figure to 6,537,000, and the 1969 census to 9,526,000. Like Kenya, Uganda's population had increased at around the same pace, and seemed to be progressively increasing, it had very nearly doubled in 21 years. These figures are set out below.

TABLE VII

	<u>000's Population</u>		
	<u>Uganda</u>	<u>Kenya</u>	
1948	4,960	5,407	
1959)	6,537	8,365	) Average annual increase
1962)			
1969	9,526	10,942	3% +

Certainly if the rate of increase continues at the same pace, (the if of course is always highly problematical in demographic studies)

then both territories will have 30 million peoples soon after the turn of the century around 2009, and an Irish type of situation could develop. These change could occur and if they do, it will be in the lifetime of most readers.

The possibilities and probabilities seem to be as follows. Up to the present, the death rate among the young and even among the "middle aged" is very considerable. - Any reduction, in the death rate at either end of the age groups which is quite feasible, would immediately increase the size of the already high rate of population increase even further than at present. On the other hand the average age of marriage in Kenya in 1962 was 24 years for the men and only 18 for the women. All the circumstantial and anthropological evidence also point to a similar story; that youthful marriage was a traditional practice. But it is quite possible that the age of marriage could substantially rise. The age of marriage depends very largely on whether the man can supply the woman with the means to existence; this implies he has access to land or jobs. Land is becoming high priced and is in short supply in many areas which could make it beyond the abilities of young men to purchase. While the situation of job shortage is too well known to need repeating. It seems quite possible that either the rate of marriage could decrease or that young people will start to marry later. If either happened the period of reproduction by the women would be likely to be reduced and which would then reduce the number of children she bore. Such reasoning depends upon the extent that children are born within marriage. If as could be that the proportion of children born outside marriage continue to increase then age of marriage might cease to be significant to demographers.

Another factor which could rapidly reduce the population growth rate is the more widespread use of contraception and the legalisation of abortion. The pill, intra uterine device and abortion in principle offer women control over their own reproduction, but in practice few East African women seem to have the freedom alone to choose whether or how many children to produce.

These therefore are the factors which could lead to an increase or decrease in the rate of population. It is of course speculative to estimate the various probabilities but critically important speculation, nonetheless.

Conclusions

Why then is the population growing so fast. Part of the explanation must lie in the improved medical facilities, the lowering infant mortality rates compared to the earlier parts of this century, the removal of small pox and other epidemic diseases. Furthermore the surge of famine for most people in East Africa has been removed by the more efficient transport system of the contemporary era. But can such facts as these adequately explain the high rate of population increase. I think not.

The answer I believe lies in the fact that the pre colonial clan patterns of relationships are only now being fundamentally altered and I am not even certain about this. Certainly initiation does not play the role it used to in the recent past in determining the age of marriage. But most women still appear to be marrying before they are 20 years of age and there still appears to be a widespread sentiment that large numbers of children is expected and hoped for. Children are expected to provide for their parents in old age, they are therefore the primary security.

In the old society children provided the security for old people and although changes have occurred in the rural areas the need for security in children does not appear to have fundamentally altered. But what has altered is the land situation. Provision of education now appears to have taken the place of provision of land. Education provides the means towards a new occupational opportunity. But as land and jobs become scarce and with no likelihood of increasing, it seems reasonable to expect that such scarcity will themselves effect demographic patterns. In particular, the availability of inheritance, land, or the means of livelihood, jobs, are in short supply. It seems reasonable therefore that we should expect the age of marriage to increase and so the rate of births to decline.

REFERENCES

1. S.H. Ominde Land and Population Movement in Kenya, Heinemann 1968 and Review in East African Journal May, 1969.
2. A.R. Paterson "Population in Kenya" in The Kenya Medical Journal February, 1926.
3. J.L. Gilks and J.B. Orr "The Nutritional Condition of the East African Native" in The Kenya and East African Medical Journal June 1927, also published in The Lancet March, 1927.
4. D.A. Lury Population "Estimates: Back Projections of Recent Censuses" in East African Statistical Review.
5. J.L. Gilks "The Incidence and Character of Syphilis and Yaws in Kenya" August, 1931.
6. East African Royal Commission 1953-55 Report. HMSO Appendix IV VI VIII.
7. N. Leys Kenya London 1924.
8. J. Huntingford Nandi Work and Culture.
9. S.H. Fazan "Report of the Committee of Native Land Tenure in Kikuyu Province" Nairobi 1929.
10. "Memorandum on Development in Kenya" cyclostyled in Kenya National Archives by A.R. Patterson 1926.
11. K.H. Connell The Population of Ireland 1750 - 1854 OUP 1950.
12. R.D. Crotty Irish Agricultural Production; its volume and structure Cork University Press, Ch. 1 & 2. (1968)
13. N. Humphrey "The Liguru and the land" Nairobi, 1947.
14. K.M. Barbour and R.M. Prothero (ed) Essays on Population Kegan and Paul 1961, chap. 3 and 5.
15. B.W. Langlands, "The Demographic Conditions of Uganda as a developing country", Dept. of Geography Makerere University 1970 Occasional paper No. 9.
16. S.H. Ominde "The Population Factor in Economic Development".
17. S.H. Fazan "Memorandum on the rate of population increase of the Kikuyu tribe", Cyclostyled in Kenya National Archives, 1932.
18. C.J. Martin, "Some Estimates of the General Age Distribution, Fertility and Rate of National Increase of the African Population of British East Africa" in Population Studies v 7 1953 - 54.
19. J.E. Goldthorpe. "Attitudes to the census and vital Registration in East Africa" Population Studies v 6 1952/53.
20. C.J. Martin "The East African Population census - 1948. Planning and Enumeration" Population Studies v 3 1949/50.

21. Evan de Walle "The Economic Implication of increase in rural density" in Seminar on Population growth and economic Development in Nairobi University Library 1969.
22. D.A. Lury. "Population Data in East Africa" IDS Discussion Paper No. 18 1966.
23. D.F. Heisal "The Rate of Population change as a variable in Development Planning", IDS Discussion paper No. 24.
24. D.I. Pool. The Development of Population Policies in The Journal of Modern African Studies 9.1.1971.
25. Geographical and Tribal Studies East Africa Statistical Dept. 1950.
26. Kenya Population census v II 1962.
27. Kenya Population Census v I 1969.
28. H. Fearn An African Economy OUP 1961 Chap 2
29. D.M. Etherington "Projected changes in Urban and Rural population Kenya..." IDS Discussion Paper No. 5 also in The East African Economic Review June 1965.
30. J.C.C. Blacker "Population Growth and Urbanisation in Kenya" in L.N. Bloomberg and G. Abrams United Nations Mission to Kenya on housing 1964.
31. R.S. Odingo The Kenya Highlands EAFH 1971.
32. A.I. Richards. Economic Development and Tribal change EAISR 1952.
33. C.M. Cipoka. The Economic History of World Population Pelican 1970.
34. Paul Spencer "Social and Demographic processes among the Rendille and Samburu..." U.K. African Studies Conference Paper 1972.
35. C.C. Wrigly "Population Density, Political and Economic Change in Pre Colonial Africa" U.K. African Studies Conference Paper 1972.
36. K.H. Hill "Population Trends in Africa" ibid