Trans. Inst. Indian Geographers
Vol. 13, No. 2 July 1991

SOME ASPECTS OF KENYA'S DEMOGRAPHIC TRENDS

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ABSTRACT: This paper examines two of the most important determinants of population trends. These are fertility and mortality. The total fertility ratio for Kenya rose from 6-7 in 1948 to 8.1 in 1989. The population growth rate according to the 1989 census was 4.2 per cent, the highest in the world.

There has been a decline in mortality. Crude death rate declined from 25 per thousand in 1948 to 12 per thousand in 1989. There has also been a sharp decline in infant mortality from 184 per thousand in 1948 to 72 per thousand by 1989. Mortality differentials by the level of formal education show that mortality for children whose mothers have no formal education is highest, and lowest for children whose mothers have secondary education.

The high population growth rate will have profound consequences on social cost burden such as education, health and employment. It is suggested that the most effective way to reduce the high fertility rate in Kenya is the adoption of effective family planning programe. The implementation of the family planning programme has not achieved any measure of success.

INTRODUCTION

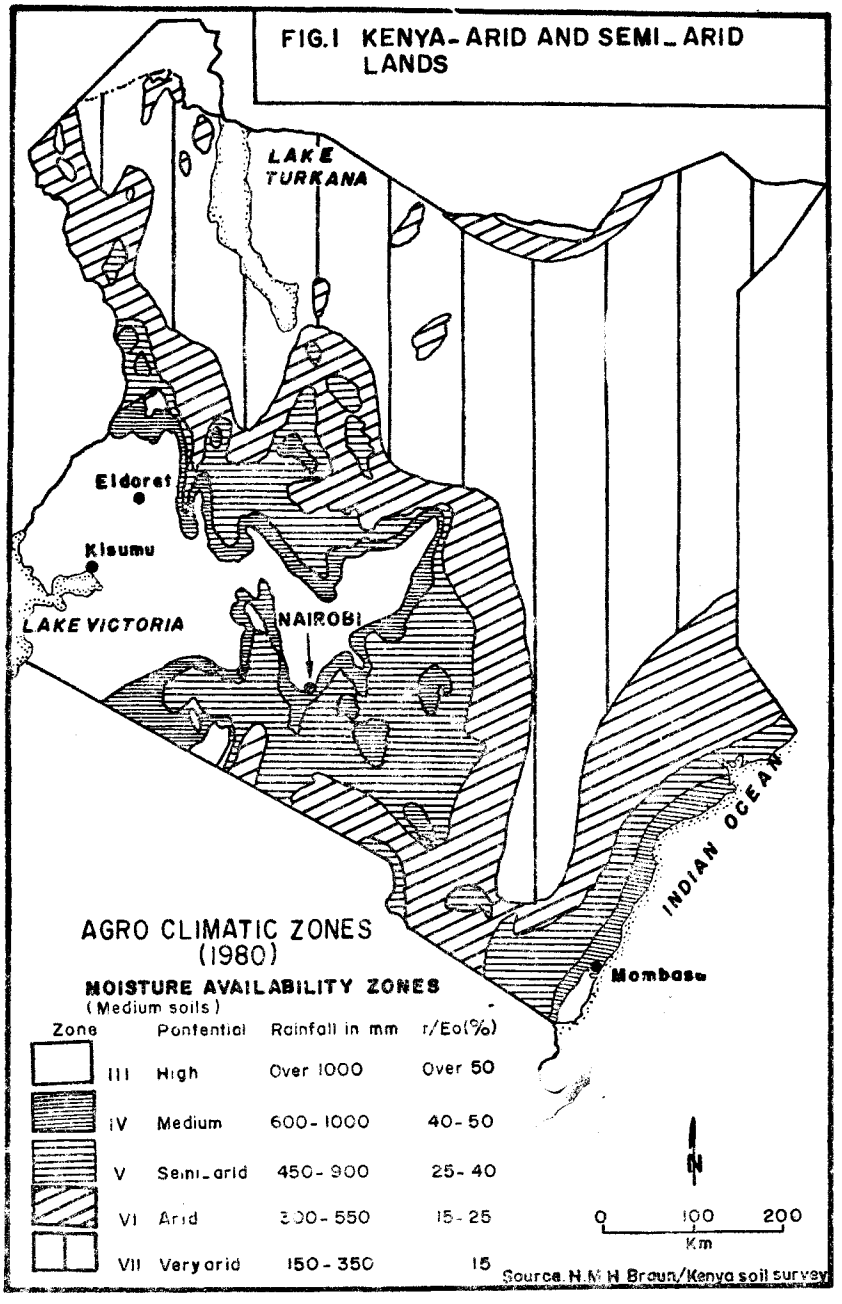
Africa is now the only continent where population growth poses a great threat to quality of life of its people, its cultural and economic progress as well as its ecosystems. It is against this backdrop that this paper examines some aspects of demographic trends which seemingly threaten to overwhelm Kenya's economic capacity to produce and provide for its people.

BACKGROUND

In order to understand the threat of Kenya's population explosion to economic development, it is imperative to know the general background of the country.

Kenya lies between longitudes 34°E to 42°E and latitudes 4½°S. to 4½°N. It has a total area of 582, 646 Km^2 and is bounded on the north by Sudan and Ethiopia, on the east by Somalia, on the west by Uganda and on the South by Tanzania.

The climate of the counntry is controlled by the north-south movement of the inter-tropical convergence zone (ITCZ). There are considerble variations in climate throughout the country. Areas around the equator experience double rainfall regime — the long rains (March-June) and the short rains (July-September). The climate is influenced by topography, altitude and precipitation. About 88 per cent of the country is arid and semi-arid (Darko, 1990). Mean annual rainfall in the dry areas is below 500 mm with some parts receiving below 250 mm (Fig 1).



The country's largest foreign exchange earner is tourism followed by tea and coffee. Less than one-third of the country is arable and this can be found in the highlands where crops such as coffee, tea, wheat, maize and potatoes are grown together with animal production. The arid and semi-arid areas account for about 35 per cent of the population and some 50 per cent of the country's livestock (Darko 1990).

POPULATION

Kenya consists of eight provinces — Western, Rift Valley, Nyanza, North-eastern, Eastern, Coast, Central and Nairobi. According to the population census of 1948, Kenya had approximately 5.4 million at a growth rate of 2.3 per cent. In 1962, the population had increased to 8.6 million with annual growth rate of 3.0 per cent. The 1969 census showed that the population had risen to 10.9 million with a growth rate of 3.3 per cent. The population continued to grow at, a fast rate and by 1979. the total population was 15.3 million at a growth rate of 4.1 per cent (Central Bureau of Statistics, 1983). The population at this growth rate is expected to double in about 17.5 years compared to 30 years in 1948. The population reached 23.5 million in 1989 at an annual growth rate of over 4 per cent which is currently among the highest in the world.

There are three components which determine population trends: fertility mortality and migration. Fertility precedes the other two variables as differences in fertility account for most of the varying pattern of population growth. For the purpose of this study, attention is focused on fertility and mortality leaving migration which compared with the other two variables is insignificant. The interplay of fertility and mortality has greatly influenced the general population change in the country and is likely to affect future demographic change.

FERTILITY

Table 1 shows fertility indicators for the period 1948 — 1979. It is self-evident that the fertility rate is high.

Table 1 Fertility indicators (1948-1979)

Year Census	Crude Birth rate (CBR)	Total Fertility Ratio (TFR)	Rate of Natural increase (RNI)
1948	50	6.0-7.0	2.5
1962	50	6.8	3.0
1969	50	7.6	3.3
1979	52	7.9	3.8

Source: Central Bureau of Statistics, Nairobi, 1984.

The table illustrates the crude birth rate (per 1000 population), the crude death rate (per 1000 population) and the annual growth rates since 1948. With regard to the censuses of 1948, 1962 and 1969, the crude birth rate stabilized at 50 per thousand while total fertility rate (TFR) of 6.7 children in 1948 increased to 7.6 in 1969. The crude birth rate increased to 52 per thousand and TFR to 7.9 during the 1979 census. In the 1989 census the birth rate further increased to 54 per thousand and the TFR to 8.1 (U.N. World Population Prospects, New York: 1989).

The high fertility rate in Kenya can be put down to improvements in the health of the people. These among other things include better nutrition and less vulnerability to diseases. These measures have reduced childlessness and more women are now capable of having more children. Another significant factor which has engendered high birth rate is the cultural beliefs of the people. Wives continue to bear children to their husbands so as to prove their value and to preclude the

husband from seeking another wife. It is also found that in a compound with a number of wives, the production of children is seen as a sort of jockeying for position in the affections of the husband by the wives. It is a common economic belief in the rural areas that children provide labour force at very early stages particularly in the pastoral societies (Glaser, 1987). Another important cultural factor is the low status of women in Kenyan society and their lack of say in deciding the size of the family. The only way to attain improvement in status is by producing a large number of children (Glaser, 1987). The improvement in medical services has succeeded in reducing mortality especially infant and child mortality. As a result, more children are able to attain adulthood. The interplay of these two factors has influenced the population age structure in such a way that children constitute the largest proportion of the population. Over 50 per cent of the 1989 population was under 15 years. Such a youthful age structure imposes an economic burden as a substantial share of resources must be available to meet their needs. Mean number of children ever born as reported at censuses and surveys by age between 1962 and 1984 is shown in table 2.

Table 2 : Mean number of children ever born as reported at censuses and surveys by age, 1962-1984

Age	1962 (census)	1969 (census)	1977	1977-78	1979	1984
15-19	0.36	0.35	0.33	0.35	0.32	0.35
20-24	1.65	1.88	1.83	1.84	1.85	1.96
25-29	3.01	3.65	3.72	3.76	3.65	3.96
30-34	4.20	5.11	5.55	5.55	5.38	5.70
35-39	5.07	6.00	6.67	6.82	6.47	7.04
40-44	5.61	6.44	7.25	7.59	7.02	7.84
45-49	5.90	6.69	7.46	7.83	7.17	8.15

Source: Central Bureau of Statistics Table 6.2 Reports in Projections, 1983.

The table indicates that the mean number of children by age 45-49 rose from 5.9 in 1962 to 8.15 by 1984. The trend is a rise not only by age but also the years. It is estimated that the total fertility rate for urban areas is 5 as against 8 for the rural areas.

MORTALITY

Declining mortality in conjuction with high fertility is a major determinant of rapid population growth in Kenya. As a result, natural increase-birth rates minus death rates in the country in 4.2 per cent (U. N. World Population Prospects,

New York: 1989). The declining mortality is due to modern science and technology as well as the improvement in the quality of life in the country. The crude death rate which illustrates the general mortality conditions in the population indicates a steady decline from 25 per thousand in 1948 to 12 per thousand in 1989. Of more importance with respect to population growth is the sharp decline in infant mortality which dropped from about 184 per thounsand in 1948 to 84 per thousand in 1979 and further dropped to 72 per thousand by 1989. Infant mortality rate is, therefore, a major influential factor in rapid population growth as more children survive at the young age thereby swelling the population. The decline in infant mortality has been found to be attributed to malaria control, improvement in nutrition and health services as well is parental care. Table 3 shows the proportion of children dead by age group of mother.

Table 3 : Proportion of Children dead by age group of mother

Age	1962	1969	1977	1978	1979
15-19	0.146	0.128	0.115	0.101	1.116
20-24	0.170	0.147	0.109	0.130	0.125
25-29	0.205	0.174	0.125	0.144	0.141
30-34	0.238	0.202	0.156	0.157	0.166
35-39	0.269	0.231	0.177	0.174	0.185
40-44	0.308	0.263	0.209	0.189	0.253
45-49	0.338	0.304	0.247	0.236	0.253

Source: Population Census 1979 Analytical Reports.

In 1962, 146 children out of 1000 died to women at age 15-19. The figure dropped to 128 in 1969 and further reduced to 116 by 1979. Similar trend can be identified in the other age groups.

Mortality differentials by province, mothers level of education and urban-rural residence survey for a period of 1979-1989 are illustrated in Table 4. Infant mortality was defined as the probability of dying between birth and exact age one. Childhood mortality as the probability of dying between age one and five and under five mortality as the probability of dying between birth and exact age five (Demographic and Health Survey, 1989). These rates were calculated on a period basis rather than on a birth cohort basis.

The table indicates that mortality in the rural areas is slightly higher than in the urban areas. The provincial rates show marked differences. The Coastal province has highest infant mortality rate

Table 4 : Infant and childhood mortality rates by background characteristics of the mother for 1979-89

Background Characteristics	Infant mortality rate	Childhood mortality rate	Under 5 mortality rate
Residence			
Urban	56.8	34.2	89.0
Rural	58.9	34.3	91.2
Region			
Nairobi	46.3	35.7	80.4
Central	37.4	10.0	47.0
Coast	107.3	54.5	156.0
Eastern	43.1	22.2	64.3
Nyanza	94.2	60.0	148.5
Rift valley	34.6	16.9	50.9
Western	74.6	62.9	132.8
Education			
None	71.7	39.9	108.7
Some Primary	59.1	38.3	95.2
Primary Complete	49.3	24.4	72.5
Secondary	41.8	23.4	64.2
Total	58.6	34.3	90.9

of 107 per thousand followed by Nyanza (94), Western (75), Nairobi (46) while Rift Valley has the lowest rate of 35 per thousand. With regard to childhood mortality, Western has the highest rate (63) followed by Nyanza with central having the lowest rate (10). Under 5 mortality rate, Coast has the highest (156) followed by Nyanza (149), Western (133) and Central, the lowest (47) (Fig. 2).

Mortality differentials by the level of formal education of the mother (Fig. 2)

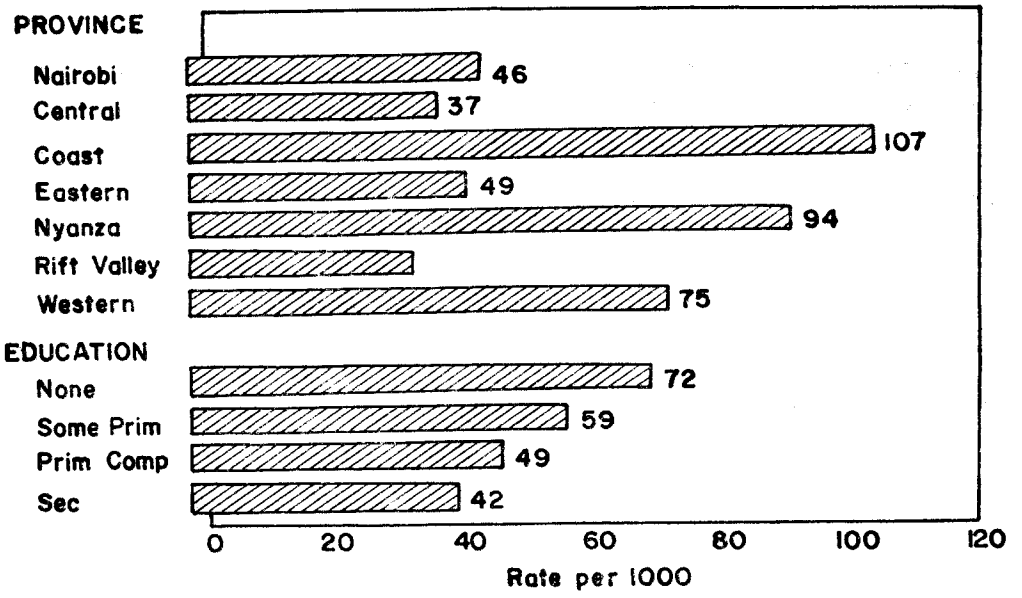


FIG. 2 : INFANT MORTALITY BY PROVINCE AND EDUCATION

show that mortality is highest for children whose mothers have no education and lowest for children whose mothers have secondary education. Table 5 represents mortality differentials by sex, mothers age at birth, birth order and length of the previous birth interval. Mortality rates according to the table are lower for females than for males. Mortality rates for age of mother are highest for children born to mothers under 20 years, and reduce as the age of mother increases. Similarly, infant mortality rates for birth order show that mortality is highest for first birth and declines for second and third up to six and sharply shoots up for seven and above.

The length of birth intervals also influences the infant and childhood mortality rates. Infant mortality rates are highest for births occurring at intervals of less than 2 years and declines as the length of intervals increases. Childhood mortality also declines as the length of intervals increases.

SOCIO-ECONOMIC IMPLICATIONS OF HIGH POPULATION GROWTH

It has been demonstrated that Kenya's population has increased over the years and it is likely to continue to rise for some time until an effective family planning programmes on fertility have been attained. The determinants of future population growth as pointed out are the young age structure, the stable and high fertility rates and the gradual declining mortality particularly at the young ages. The future population projections for the country show that Kenya's total

Table 5 : Infant and childhood mortality rates by selected demographic characterstics for 1979-1989

Demographic Characteristics	Infant mortality rate	Childhood mortality rate	Under 5 mor. tality rate
Sex of Child			
Male	63.0	35.4	96.1
Female	54.3	33.2	85.7
Age of mother at birth			
20	67.5	43.8	108.3
20-29	54.8	35.8	88.6
30-39	60.2	26.4	85.0
40-49	58.3	15.0	72.5
Birth order			
First	65.3	37.5	100.3
2-3	54.8	32.5	85.5
4-6	49.7	33.4	81.5
7+	71.9	36.4	105.6
Previous birth interval			
2 years	75.6	41.1	113.6
2-3 years	47.7	32.6	78.7
4 years or more	35.9	17.9	53.2

population will be between 34.7 and 37.5 million by the year 2000 (Population Projections for Kenya 1980-2000 UNICEF, 1983).

Any attempt at drastically reducing the high fertility rate in Kenya will be thwarted by a battery of factors. These include the propensity of Kenyan women for large families as a result of slow socio-cultural changes in the fertility habits of the population, early age at marriage and early age at first birth. About 85 per cent of women at the age 15-49 had

already married by age 30. Levine (1984) noted that average small holding size among the Gusii people of Kenya fell from 7 to 3 acres between 1956 and 1974 as both fertility and population size rose. Others migrated to less settled areas while others depended on remittances from family members working in cities. Limiting family size was an option not considered at all. He further noted that Gusii always looked to children for economic, social and spiritual security and would think of strategies for adapting to new conditions that would include children rather than strategies for limiting their number.

Some major consequences of high population growth in Kenya are the burden on social costs such as education, health and employment. With a population growth rate around 4 per cent a year, about 16 per cent of the national income will need to be invested to keep things as they are. This will be a considerable investment in an economy with low per capita income. It is a difficult task mobilising savings required to maintain the standard of living. This eventually may lead to a drop in the real income per capita as is happening in other countries in Africa. As about 50 per cent of Kenya's population is under 15 years, it will be a great task for a relatively small working population that is not very productive to create jobs and provide social services for the coming generation. The present demographic trend of Kenya shows that school populations will double by the end of the century and this will call for higher budget appropriations which in all probability will have to double in about 15 years time.

Kenyan Government economic and social projections show a worst-case unemployment level of 20 per cent, most of it concentrated in urban areas (Glaser, 1987). In 1948, the urban population comprised 5.1 per cent of the total poputation. In 1962, the urban population rose to 7.8 per cent and in 1969 it further increased to 9.9 per cent with an urban growth rate of 7.1 per cent (Wanjiku, 1980). It is estimated that about 25 per cent of the population will be urban by the year 2000. Public service employment cannot absorb the surplus population. The tide of rural migration to urban areas is steadily increasing in recent years. In 1969, Nairobi had slightly less than 50 per cent of the total urban population and about 5 per cent of total population. In order to stem the tide of rural-urban migration, an all-out programme is needed to promote employment opportunities in the rural areas. The rural migrants in the urban areas will also need assistance to become economically self-reliant through access to credit to finance some income generating activity.

Another major task facing the Government is the production of food for the growing number of mouths to be fed. What is making food production crucial is the fact that about 88 per cent of the country is arid and semi-arid. The high potential arable land constitutes about 12 per cent of the total land area. This area stretches from southeast of Nairobi to Lake Victoria plus a narrow coastal strip. These are the areas which receive adequate rainfall for crop production. Morever, they are the areas of highest population concentration in the country. These areas have therefore been subjected to over-exploitation of resources and inevitably are experiencing declining yields due to soil exhaustion. Food and Agriculture Organization (FAO, 1989) has

estimated that by the year 2000, 60 per cent increase in food production would be required to sustain current consumption patterns in the world. Other surveys suggest that about 50 per cent of all young children in developing regions may be inadequately nourished. This therefore poses a great challenge to the Government of Kenya in its effort to increase food production.

COPING WITH THE PROBLEM

The foregoing illustrates the consequences of high demographic growth rate on social and economic development of Kenya. If the present population growth rate continues unchecked, it will be extremely difficult for the Government to maintain even living standards attained since independence. One of the most effective ways of reducing the high fertility rate in Kenya is the adoption of effective family planning programme. The success of this programme is bound to have a profound effect on fertility. In spite of the usefulness of this programme, it has not achieved a spectacular measure of success in Kenya as there is low level of use of contraceptive technology (Muganzi, 1988). The Contraceptive Prevalence Survey (CPS) showed that the user rate had increased from 7 per cent among married women in 1977/78 to 17 per cent in 1984. It was also shown that the average family size of 6 was still high. The reduction of family size can be achieved through the concerted efforts in the promotion of education and motivation by societies such as churches, women organizations, local leaders etc. It is also essential that the Government ensures availability and accessibility of family planning service to all couples or individuals seeking such services freely or at reduced prices.

It is most likely that death rates will continue to decline because of continued improvement in health conditions and also because the population is composed of young age structure where risks of deaths are less. A substantial decline in infant and childhood mortality is sine qua non for fertility decline.

CONCLUSION

The foregoing analysis of Kenya's demographic trends shows that at a growth rate of about 4.2% a year, the population is likely to double in about 17.5 years to about 47 million. Total fertility rate was 8.1 as at 1989. The high fertility and the declining mortality rates can be attributed to great improvement in medical service, less diseases, and good nutrition. Cultural beliefs have also sustained the high fertility rate.

The interplay of fertility and mortality rates has influenced the age structure where greater than 50% of the total population is under 15 years. Mortality rate dropped from 25 per thousand in 1948 to 12 per thousand in 1989. There has also been a sharp decline in infant mortality from 184 per thousand in 1948 to 72 per thousand in 1989. Mortality in rural areas is slightly higher than in the urban areas.

The high population growth rate will put burden on social costs, education, health and employment. At a growth rate of 4.2% a year, about 16% of national income will have to be invested to keep things as they are now and this is likely to lead to a decline in real income. With more than half of the total population below 15 years, it will be extremely difficult to create more jobs and provide social services for the coming generation.

It is estimated that about 25% of the population will become urban by the year 2000. This will increase the tempo of rural-urban migration unless an attempt is made to generate employment opportunities in the rural areas.

Food production is another major task facing the Kenyan Government as it has a growing number of mouths to feed. About 88% of the country is arid and semi-arid and the high potential arable land constitutes only 12%. This area also has the highest concentration of population in the country. The excessive taxation of resources in this area has led to signs of declining yields, due to soil exhaustion, deforestation and land fragmentation.

In order to cope with the high fertility rate, there must be an effective and comprehensive family planning programme to reduce the family size. The current family planning programme has not achieved any great success due to cultural factors associated with fertility and the desire for large families in the rural areas where most women live (Khasiani, 1988). Reduction of family size can also be achieved through concerted effort in the promotion of education and motivation by societies such as churches, women organizations and local leaders.

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