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Kenya's Increasing Older Population: A Case for Retooling Our Perspectives

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This paper, which is an extract from a major study conducted by the author, makes an attempt to understand Kenya's changing demographics in the light of burgeoning numbers of the older persons over the 1979-1999 census years[1]. With a study population of older persons aged 60 years and above in Lamu, Turkana and Nairobi districts, a sample of 100 older persons from each of the areas was drawn using both respondent-driven and random sampling techniques. The ageing population progression experiences of these districts easily portray the extent and intensity of the ageing phenomenon in Kenya. The paper seeks to answer the question on the extent of the ageing phenomenon and its regional distribution as well as the attendant ramifications. Are the numbers worth considering in Kenya's current policy decisions? The seemingly steady increase of older age groups in national populations across the globe has major consequences and implications in all spheres of day-to-day human life. Such increases are often accompanied by declines in the proportions of younger persons aged 15 years and less. Whereas the declining fertility and mortality are welcome signs of relief for an already overpopulated world, a swelling older population often points to unique challenges both in the economic and social spheres. An examination of the speed, intensity and direction of the ageing phenomenon in Kenya points to a rapid growth in this population segment. This presents the society with the need to re-examine these changes with a view to rethinking and reorienting our paradigms and adequately addressing the inherent challenges for posterity.

Key words: Older persons, ageing phenomenon, regional distribution, retooling, developing countries, Kenya's population.

INTRODUCTION

Globally, populations are growing older and older over time. Thomas [1] notes that during the 20th century, the world population experienced an unprecedented transition from high mortality and high fertility to low levels leading to major changes in the age-structures of populations. Shrinking total populations and swelling elderly numbers have huge attendant pressing development issues particularly in the socio-economic and political realms. Whereas it is relatively easy to control spiraling populations through fertility and mortality regulation, efforts to increase already shrinking populations especially in developed countries have realized minimal success. An evenly segmented population across various age groups would be a blessing to a country given that the effects of such populations tend to be spread fairly evenly across socio-economic strata. Whereas developed countries are experiencing more elderly populations with at least one fifth of their populations aged 60 years or older in the year 2000 and expected to reach one third by 2050, the UN [2] indicates that developing countries have younger populations with only 8 per cent of the population currently over the age of 60 and expected to rise to nearly 20 percent by 2050.

The demographic transition to low fertility leads to a period during which the population of working age increases faster than the consuming population. This first 'dividend' tends to boost per capita income. Lower

[1]This paper is an extract from a study on 'Population Ageing in Rural and Urban Kenya' conducted by the author prior to the 2009 Kenya Population and Housing Census.

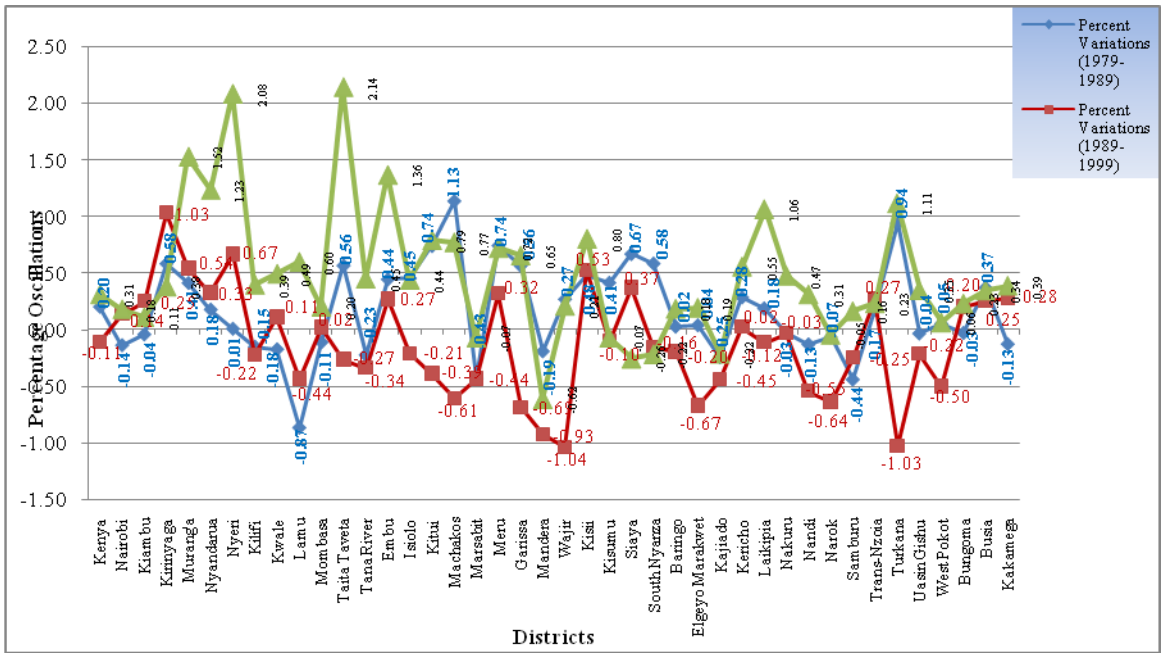


Figure 1. Kenya's Older Persons (%) Oscillations 1979-2009 Census Years.
Source: Omoke [10].

mortality produces longer lives. As people live longer, they need to accumulate more wealth to defray consumption in old age. The higher the proportion of older persons, the higher the wealth per capital. With more wealth per worker, productivity and asset income increases, leading to a long long-"dividend". To realize this second dividend, wealth must be accumulated as savings or assets. Ronald [3] notes that to the extent that older persons depend on family transfers or public pension, the second dividend is reduced. Most of the older persons especially in the developing world, given the high poverty levels, mostly depend on family transfers and small public pensions for their livelihoods.

A quick glance at the pace of ageing in the developing world points to a fairly fast process owing to rapid fertility declines coupled with increasing life expectancies due to advances in human well being. According to WHO [4], between 1990 and 2025, some developing countries such as Kenya, Colombia, Malaysia and Ghana are expected to experience an increase of between 200 and 300 percent in their elderly populations!. With such tremendous increases in the numbers of the elderly, there is need for these countries to rethink their policies and institute relevant mechanisms to address attendant implications. Such populations are certainly not insignificant. Kenya's total population reached 38,610,097 in the 2009 national population and housing census [5]. Of this, the elderly aged 60 years and above were 1,926,051 constituting about 5 percent of the total population. Figure 1 clearly depicts the overall percentage variations of the population aged 60 years and over during the 1979, 1989, 1999 and 2009 census years across the country. As evident, the aged absolute population oscillated between 1979 (703626) and 2009 (1,926,051) and increased by 1,222,425 for only thirty years pointing to a burgeoning population whose socio-economic implications are worth considering.

MATERIALS AND METHODS

This paper draws on research conducted to examine the role of demographic and spatio-temporal factors in explaining observed variations in the age-structure ageing trends in the respective leading and lagging district of Lamu and Turkana as well as Nairobi in Kenya. It utilizes a wide palette of data collection and analytical tools. The requisite data was collected from primary sources using standardized questionnaires and personal observation(s) and secondary sources from both published and unpublished secondary sources. With a target population comprising of people aged 60 years and above in Lamu and Turkana districts as well as Kibera Division of Nairobi district [6], a sample of 100 individuals from each of the areas, thus totalling 300, was drawn using both the Respondent- Driven Sampling [7] and Simple Random Sampling [8] procedures. Kalton [9] posits that sample size does not depend at all on the size of the population and given this a drawn sample size of 100 old persons from each study area was deemed large enough to estimate population parameters. According to the 1999 Kenya population and housing census, Lamu

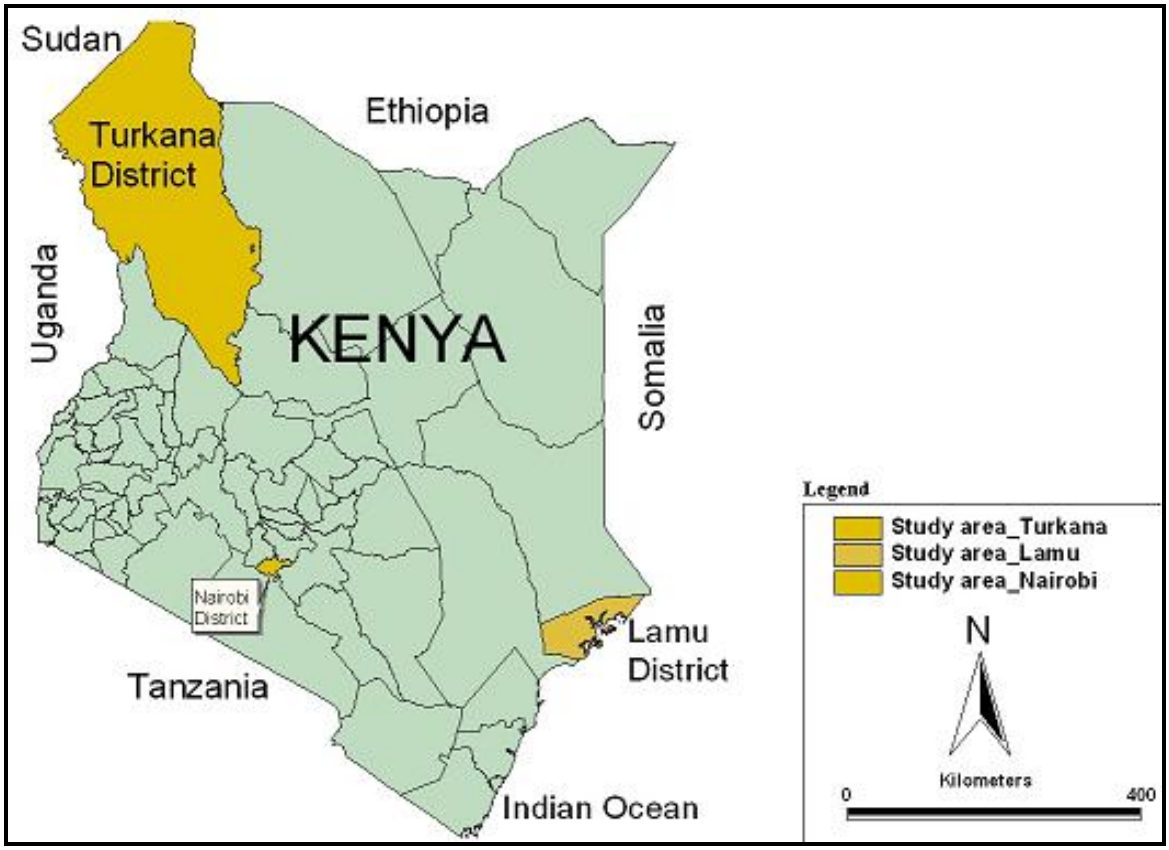


Figure 2. Study Areas in Kenya.
Source: Compiled from Survey of Kenya.

district had 3,455, Turkana 11,438 and Nairobi 37,401 older persons aged 60 years and above. Figure 2 shows the districts of Lamu and Turkana, as well as Kibera Division in Nairobi district in Kenya.

For Turkana district, considering that the ageing process is a function of both spatial and economic activities such as fishing, agricultural, urban and pastoral engagements, the sampled study areas were Lokichar and Katilu, Oropoi and Kakuma, Loima and Turkwel, Kerio and Kalokol, and Lodwar [5]. Whereas most of the areas practice mainly pastoral activities, Katilu and Turkwel practice both agricultural and pastoral activities, Kalokol is a fishing area, and Lodwar is an urban area. For Lamu district, all the administrative divisions namely Mpeketoni/Witu, Hindi/Kiunga, Matondoni/Faza, and Amu were considered. Economic considerations necessitated the inclusion of Kibera division in Nairobi district as the main area of study owing to the fact that its population could with ease be divided into high income (Lang'ata/Karen locations) and low income (Kibera location) categories for purposes of comparison with the mainly rural districts of Lamu and Turkana. The enormous amount of data collected from the field was processed, analysed (both qualitatively and quantitatively) and presented using a number of relevant demographic tools such as measuring the speed and/or intensity of ageing, the ageing index, the elderly dependency ratio, and population growth rates as well as both descriptive and inferential statistical tools.

RESULTS AND DISCUSSIONS

Using Lamu and Turkana as the leading and lagging ageing districts in Kenya respectively, and Nairobi as an urban district for comparison purposes, progression in terms of speed, intensity and direction of the ageing phenomenon in Kenya points to a rapid growth of this population segment. This is presented as follows:

Variability of Population Aged 60 Years and Above

Variations in the growth of population aged 60 years and above in the Lamu, Turkana and Nairobi districts contrasts significantly, with some areas such as Nairobi district registering tremendous growth between 1989 and 1999, and others like Lamu district, recording a fairly even growth. As indicated in Figure 3, Nairobi district with

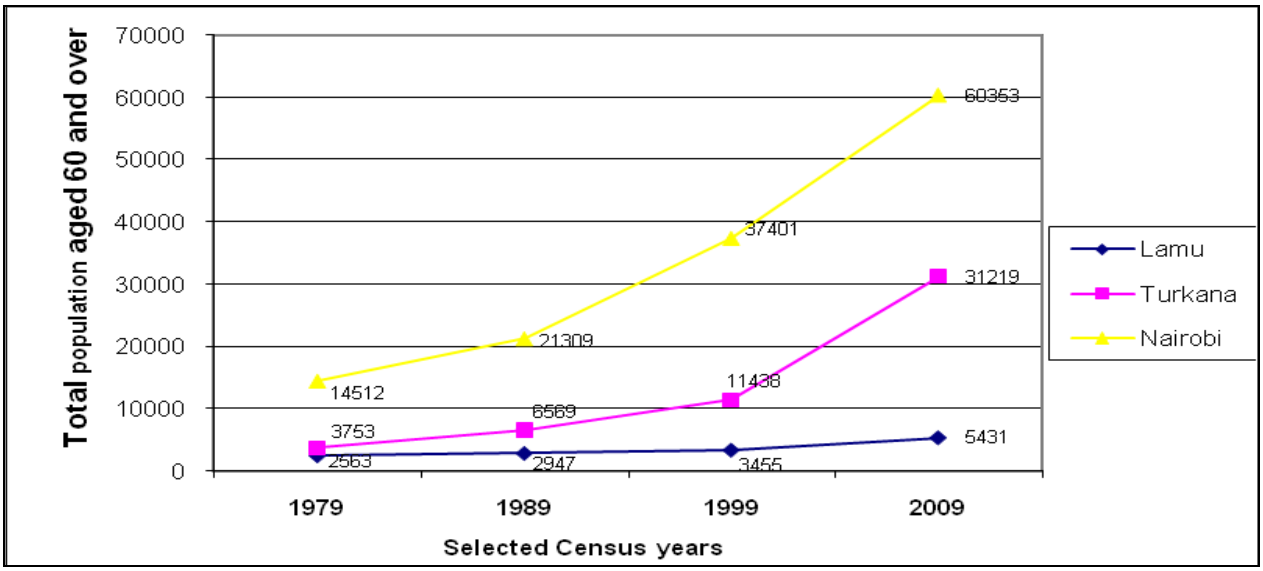


Figure 3. Change in Total Number of Older Persons Aged 60 Years and above in Lamu, Turkana and Nairobi Districts.
Source: Omoke [11].

a total population of 14,512 persons aged 60 years and above in 1979 [10] increased to 21,309 in 1989 [11], 37,401 in 1999 [12] and 51833 in 2009 [5] representing slightly more than 3.5 fold increase in a period of only thirty years! For Turkana district, this segment increased from 3,753 in 1979 to 6,569 in 1989, 11,438 in 1999 and 31245 in 2009 representing a more than 8.3 fold increase! Lamu district, with a total of 2,563 in 1979, 2,947 in 1989, 3,455 in 1999 and 5,431 in 2009 experienced a fairly even change of 2.1 fold increase in its elderly population during this period. Although the elderly population in Turkana district increased significantly over the 1979-1989 and 1989-1999 periods, this increase was fairly low compared to the total population. In Lamu district the elderly population was high although the overall increase was insignificant. In Kenya, the elderly population increased tremendously from 703,626 in 1979 to 1,926,051 in 2009. The increases in the elderly population of the selected areas, and Kenya in general, represent a segment of the total population that requires special opportunities and services.

An examination of the total population percentage change by age category in Lamu, Turkana and Nairobi districts for the 1979-1999 census years shows that whereas Lamu district's mean population change by age category varied from 43.7 percent for ages between 0-14 years, 50.9 percent for ages 15-59 and 5.4 percent for those aged 60 years and above, Turkana district had 43.9 percent population between ages 0-14 years, 53.1 percent between ages 15-59 years and only 3.1 percent for persons aged 60 years and above. Nairobi district's population also varied from 32 percent between ages 0-14 years, 66 percent between 15-59 years and 2 percent above 60 years of age. Kenya's mean population change varied from 46.8 percent for the 0-14 years segment, 48.5 percent for those aged 15-59 years to 4.7 percent for the elderly population This is illustrated in Figure 4. As is evident (Figure 4), whereas in the 0-14 years age category, Turkana district had more population than Lamu and Nairobi districts, in the 15-59 years category Nairobi district had more people followed by Turkana and Lamu districts. This is perhaps explained by the prevalent rural-urban migration trends in the country. In the 60 years and above age category, Lamu district with 5.4 percent is leading followed by Turkana district and Nairobi district trails. The national mean for the 0-14 age category is the highest among all the areas, though the mean for the 15-59 years category lags. However, the national mean for those aged 60 years and above is only second to that of Lamu district. As can be deciphered from Figure 4, Lamu district had more elderly persons and Nairobi district had the least in 1999. These variations in the mean population percent across the broad age segments are indicative of the underlying explanatory demographic factors mainly fertility, mortality and migration.

Progression from one age segment to another in the population exhibits remarkable changes as demonstrated by the percentage population change (Figure 5) in individual age categories during the 1989-1999 inter-censal period. In the 0-4 years age category, Nairobi district has the highest population at 14.1 percent. The rest of the areas, even as compared to the national level, have relatively small percentages. The high percentage witnessed in the 0-4 segment drastically reduced to 8.6 percent for Lamu district, 10.1 for Nairobi district and 7 percent for Kenya. Notably, Turkana district's population aged 5-9 years increased to 16.1 percent only to peak at

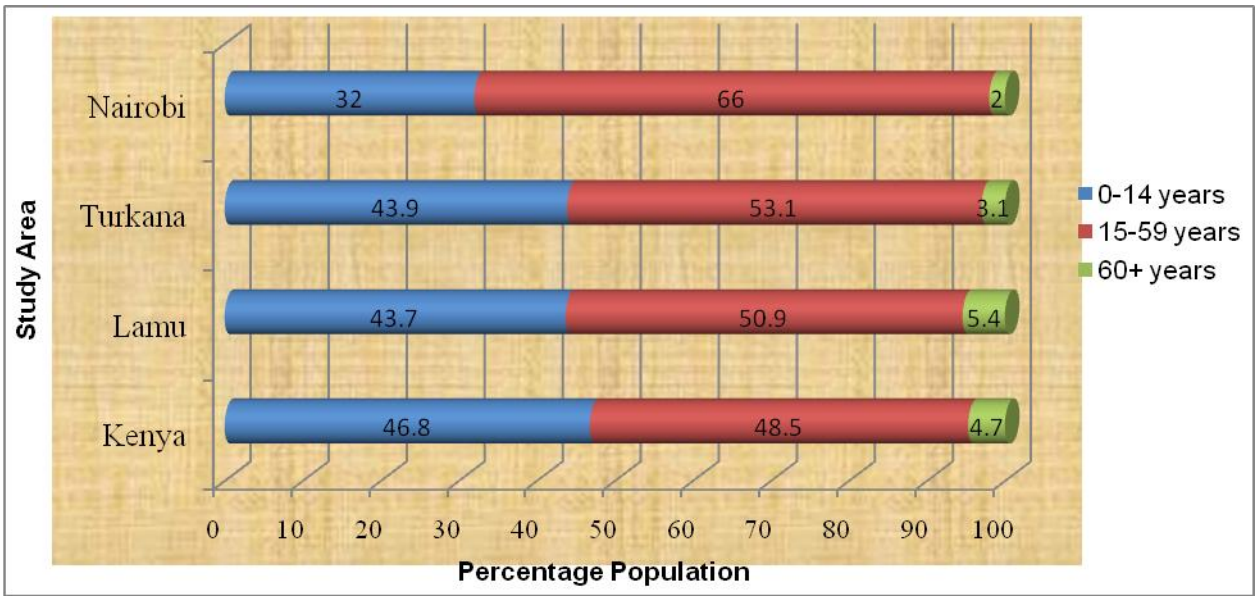


Figure 4: Mean Population Change by Age Category 1979-1999.
Source: Omoke [11].

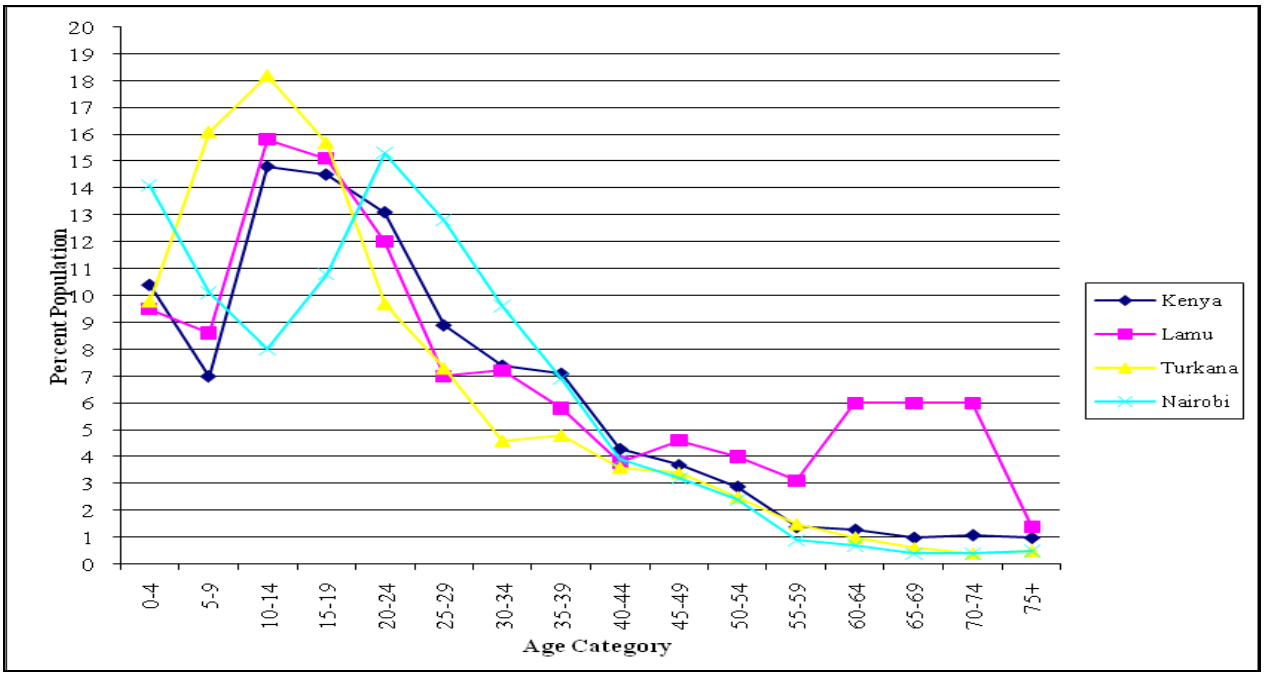
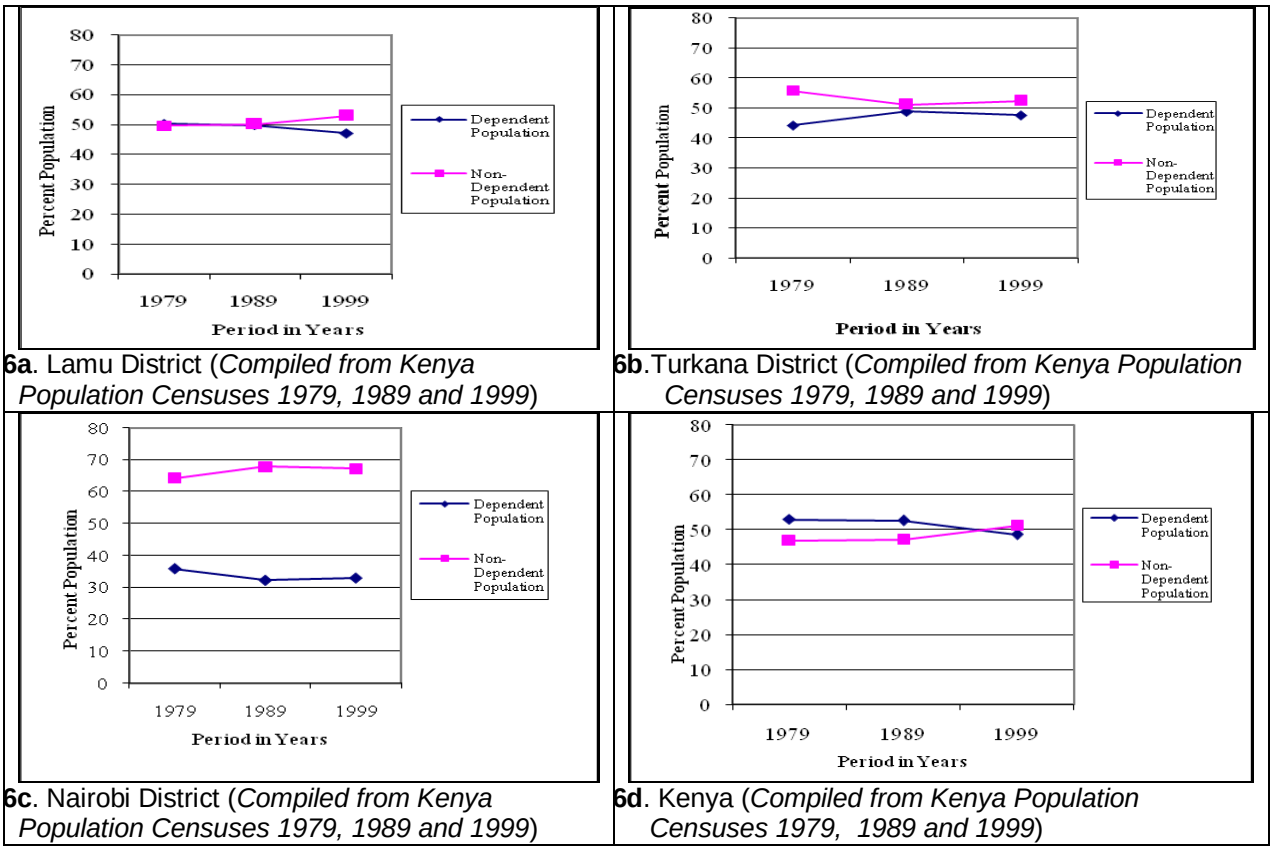


Figure 5. Percent Population Change by Age Category by Area 1989-1999.
Source: Omoke [11].

18.2 percent in the 10-14 years category. With an exception of Nairobi district which registered tremendous population increase in the category 20-24, perhaps due to in-migrations, the rest of the areas registered reductions in their populations. Notably, Lamu district recorded tremendous growth in the population aged 55-74 years. However, this progression nosedives in the 75 years and above age segment. For the rest of the areas, except Nairobi district, the age category 10-14 years was the fastest growing segment of the population and the slowest was the 75 years and above age segment. This growth is possibly attributed to high fertility for the former



6a. Lamu District (*Compiled from Kenya Population Censuses 1979, 1989 and 1999*)

6b.Turkana District (*Compiled from Kenya Population Censuses 1979, 1989 and 1999*)

6c. Nairobi District (*Compiled from Kenya Population Censuses 1979, 1989 and 1999*)

6d. Kenya (*Compiled from Kenya Population Censuses 1979, 1989 and 1999*)

Figure 6. Dependent and Non-dependent Populations in the Study Areas 1979-1999.
Source: Omoke [11].

and high mortality for the latter populations.

Population Dependency Ratios

In terms of age dependency ratios, the existing variations in the dependent – non-dependent percentage population are depicted in Figures 6a, 6b, 6c and 6d. As portrayed in figures 6a, 6b, 6c and 6d, Lamu district experienced fairly similar proportions of the dependent and non-dependent populations between 1979 and 1989, but the situation has since changed with the gap between the two population proportions widening with the non-dependent population increasing to 52.9 percent at the expense of the dependent population. This indicates more growth in the populations aged 15-59 years than those aged 0-14 years and 60 years and above. In Turkana district over the same period, the dependent and non-dependent population proportions varied significantly in 1979 with the earlier population being less than the latter (44.2:55.8), but almost converged in 1989 (48.9: 51.1), though the non-dependent population was slightly more than the dependent population. This trend seems to continue with the non-dependent population becoming more and more and the dependent population becoming less and less in 1999. Nairobi district's scenario is a case of more non-dependent population than the dependent population throughout the selected census years. This has more to do with in-migration than fertility and mortality factors [13]. Between ages 15-59 years, more people tend to move to Nairobi, propelled by inherent push factors in their places of origin, such as land shortage, scarce education resources and job opportunities as well as pull factors in Nairobi, such as better opportunities for their labour in the formal and informal sectors and education, among other considerations [14]. In Kenya, the dependent and non-dependent populations exhibited interesting variations in the entire 1979-1999 period. Whereas the 1979-1989 period was characterized by more dependent than non-dependent populations (53:47), with a reducing dependent population to the ratio of 52.7:47.3, in 1999, the non-dependent population exceeded the dependent population in the ratio of 48.7: 51.3. This is perhaps an indication of the general reduced fertility rates across the country.

Population Ageing Trajectories

The trajectories of population ageing that is the processes of shifts in population age structures in relative

Table 1. Changing proportions of the young and old persons by period and district, 1979-1999.

District	Age	A=*Average absolute yearly change (%)* Periods		B=*Average relative yearly change (%)* Periods	
		1979-1989	**1989-1999**	**1979-1989**	***1989-1999***
Lamu	<15	+0.11	-0.24	+0.11	*-0.55*
	>60	-0.09	-0.04	-1.61	*-0.81*
Turkana	<15	+0.39	-0.08	+0.90	*-0.17*
	>60	+0.05	-0.03	+1.77	*-1.01*
Nairobi	*<15*	-0.35	+0.06	-1.08	*+0.19*
	>60	-0.01	+0.01	-0.56	*+0.57*
Kenya	*<15*	*-0.10*	*-0.4*	*-0.11*	*-0.85*
	>60	*+0.02*	*-0.01*	*+0.41*	*-0.18*

Source: Omoke [11].

growth to the proportions of higher age groups, is largely influenced by the demographic processes that determine the age composition of the population. These factors are fertility, mortality and migration. Table 1 provides a summary of the population oscillations exemplified by the increases and decreases of population percentage witnessed in the age structures of the populations in the areas of Lamu, Turkana and Nairobi districts, as well as Kenya in general. In terms of absolute average yearly percentage change in the proportions of the population less than 15 years of age and the elderly aged 60 years and above during the 1979-1989 decadal period, whilst these populations in Lamu and Nairobi districts decreased by 0.13 percent and 0.29 percent respectively, Turkana district gained by 0.31 percent. That is, the populations in Lamu and Nairobi are becoming older and the population in Turkana becoming younger. However, in the population aged 60 years and above during the 1979-1999 period, whereas Lamu district's population decreased by 0.05 percent, the same population in Turkana gained by 0.02 percent and Nairobi district's population remained unchanged. Overall, there is more ageing in the lower age categories than in the higher categories. Variability in the mean speed and intensity of the ageing phenomenon indicates that in Lamu district, whereas the age category 5-9 years records the highest speed of change of 0.12, other age categories namely 20-24 years and 60-64 years show no change at all. The rest of the age categories reveal insignificant variations. In Turkana district, the age category 20-24 years records the highest speed of 0.16 followed by the age category 30-34 years which records a speed of 0.11. The lowest speed is noticeable in the category 70-74 years. Nairobi's variations in the speed of ageing indicates the highest speed being in age categories 30-34 years (0.36), 20-24 years (0.30), together with the age category 5-9 years and 35-39 years both of which have a speed of 0.23. Ageing in Nairobi is lowest in the elderly populations aged 60-64 years (0.05), 65-69 years (0.01) and 70-74 years (0.01). This could, among other considerations, be attributed to returnee migrants particularly of retirees who opt to go back to their rural homes. For Kenya, the ageing speed varies from 0.12 percent in the age category 15-19 years to 0.01 percent in the 55-59 years and 65-69 years categories. These variations in the speed of ageing in the study areas are illustrated in Figure 7.

As shown in Figure 7 the average yearly speed of demographic ageing for the period 1979-1999 in the areas of Lamu, Turkana and Nairobi districts, as well as Kenya oscillates significantly over the various age categories and areas. Whereas the speed of ageing is greatest between the 00-04 and 05-09 age categories in Lamu (0.12), Turkana 20-24 years (0.16) and Nairobi 30-34 years (0.36), the age category 70-74 records an insignificant speed of between 0.00 and 0.01. That is, the ageing process is fastest in the age category 5-9 years for Lamu district, 20-24 years for Turkana district and 0.36 for Nairobi district. The slowest ageing speed is realized in the age category 70-74 years for Lamu, Turkana and Nairobi districts.

Population Growth Rates Variability

During the 1979-1989 period, the annual growth rate of Lamu district across the selected broad age categories reduced from 3.1 percent in the 0-4 years segment to 3.0 percent in the 15-59 years category and 0.9 percent in the 60-74 category, and then increased tremendously to 3.1 percent in the 75 years and above category. Thus, the fastest growing sections of the age structure of Lamu district were the less than 5 year olds and the 75 years and above category. Comparatively, for Turkana district during the same period, the growth rates varied from 3.4 percent in the under 5 years category to a low of 1.7 percent in the 15-59 years category and a high of 4.9

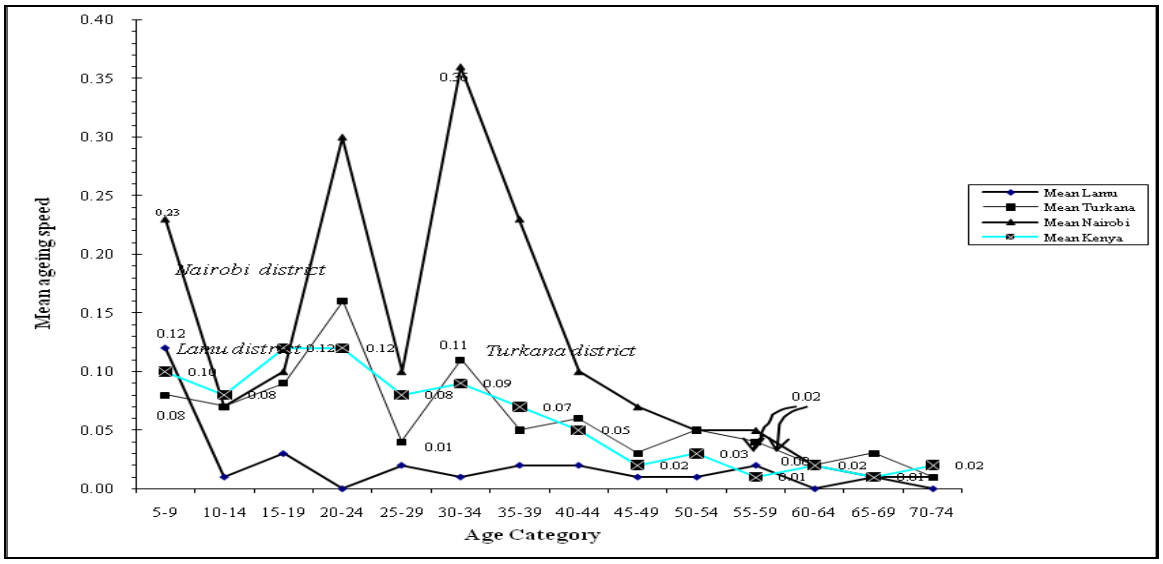


Figure 7. Mean Speed of Ageing by Age Categories and by District, 1979-1999.
Source: Omoke [11].

percent in the 60-74 years category. The growth rate was lowest in the 75 years and above category.

For the 1989-1999 period, the growth rates increased more in Turkana district than in all the other selected areas. This phenomenon is followed by the scenario in Nairobi district that also registered remarkable changes in the growth rates of the selected age categories. Growth rates in Lamu district indicated that among the elderly, age 75 years and above grew faster than age category 60-74 years. In Kenya, the fastest growing segment was the 15-59 years category. Variability in the selected broad age segments during the entire 1979-1999 period shows that Turkana district experienced a positive change in its growth rates in all the age categories. Even with this indication, the district still lagged behind in its elderly population in the country. Lamu district experienced negative growth rates in its 0-4 category during the 1979-99 period and modest positive growth rates in the rest of the categories. However, there was more growth in the 60-74 years category than in all other categories. Whereas Nairobi district experienced positive growth rates in all the age segments, Kenya experienced negative growth in the 0-5, 60-74 and 75 and above years. These changes are indicative of the underlying demographic processes in the study areas.

Doubling Time of Population Age Categories

An examination of the amount of time it will take the various population age segments to double themselves shows that the various age categories would take varied times to double in size. Whereas in the 1979-1989 period it would take the 0-14 years population category in Lamu district 22.6 years to double itself, this duration increases to 36.8 years during the 1989-1999 period. This is indicative of the reduced numbers of the population in this age category. An examination of the working population aged 15-59 years in Lamu district in the 1979-1989 period shows that it would take 23.4 years to double itself. This time slightly reduces to 22.6 years in the subsequent 1989-1999 period, reflecting an increase in this population. Whilst it would take 76.9 years for the population in the 60-74 years category in Lamu district to double itself in the 1979-1989 period, it would take only 57.4 years in the subsequent time period. Noticeably, this doubling time reduced is reflective of the increased numbers of the elderly in the district. However, the population aged 57 years and above requires more time (26.1 years) in 1999 to double itself as opposed to the 22.6 years it would take this population to double itself in 1989. This increased time is suggestive of the reduced numbers of the elderly in these higher ages of the elderly.

In comparison with the situation in Turkana district, the 0-14 years age segment required 20.6 years to double itself in 1979-1989 period and this time reduced tremendously to only 8.9 years in the 1989-1999 period, reflecting increased fertility and reduced infant mortality rates in the latter period. Compared to the situation of those aged 0-14 in Lamu district in the two time periods, this age segment in Turkana district required a much shorter time to double itself. The working population aged 15-59 years in Turkana district also varied in doubling time from 41.7 years in the 1979-1989 period to only 8.6 years in the subsequent period. This trend is also exhibited in the 60-74 years category where the doubling time reduced from 14.4 years to only 11.1 years. Interestingly, whereas it would take those aged 75 years and above remarkably long (823.5 years) to double itself

Table 2. Acceleration or Deceleration of Doubling Time By Age Category By Area 1979-99.

Time Period / Area & Age Category	*1979-1989*	*1989-1999*	*Change in time*	*Change in population*
Lamu District				
0-14 years	22.6	36.8	Time acceleration	Reduction in population
15-59 years	23.4	22.6	Time deceleration	Increase in population
60-74 years	76.9	57.4	Time deceleration	Increase in population
75+ years	22.6	26.1	Time deceleration	Increase in population
Turkana District				
0-14 years	20.6	9	Time deceleration	Increase in population
15-59 years	41.7	8.6	Time deceleration	Increase in population
60-74 years	14.4	11.1	Time deceleration	Increase in population
75+ years	823.5	6.5	Time deceleration	Increase in population
Nairobi District				
0-14 years	20.5	13.7	Time deceleration	Increase in population
15-59 years	13.8	14.7	Time acceleration	Reduction in population
60-74 years	20.4	13.2	Time deceleration	Increase in population
75+ years	12.8	10.4	Time acceleration	Reduction in population
Kenya				
0-14 years	21.5	34.9	Time acceleration	Reduction in population
15-59 years	20.3	19.1	Time deceleration	Increase in population
60-74 years	22.4	24.3	Time acceleration	Reduction in population
75+ years	12.6	32.2	Time acceleration	Reduction in population

Source: Omoke [11].

in the 1979-1989 period, it would only take 6.5 years for this population category to double itself in the 1989-1999 period.

Overall, in comparing the variations of doubling time across the areas and age structures, it is indicated that whereas Nairobi district's population would take the shortest time of 20.5 years to double itself, Lamu district's population would take 22.6 years to double itself. In the 60-74 years category, it would take Turkana district only 14.4 years to double itself and Lamu district 76.9 years. In the 75 years and above category, the shortest doubling time of 22.6 years would be taken by Lamu district and the longest time of 823.5 years by Turkana district population. The population doubling time phenomenon has implications particularly with regard to planning for the various services required by the various population segments. This information is summarized in Table 2.

Population Ageing Indices

An examination of the ageing indices of the areas show the variations in the numbers of the aged persons in the areas which compares well with the national ageing index variability. This unevenness in the ageing index in relation to the specified census years is depicted in Figure 8. As shown in Figure 8, the number of people aged 60 years and above per 100 youths under age 15, known as the ageing index, is less than 100 in all the three areas. This is indicative of the small numbers of aged persons in the areas in relation to the youths in those areas. Notably, variability in the ageing index is more pronounced in Lamu District with 2.5 percent as compared to Turkana with 0.6 percent and Nairobi with 0.5 percent. This compares well with the national ageing index variability of 1.2 percent. Put differently, Lamu district has more aged persons than Turkana and Nairobi districts, as well as Kenya as a whole.

Conclusion

From the foregoing discussion of results, it is apparent that Kenya's elderly population, though constituting only 5 percent of the total population by 2009, is destined to increase tremendously owing to the high speed and intensity of the age-structure ageing process. The ageing process is both a function of declining fertility and reducing mortality mostly in urban areas. Whereas Lamu district leads in the ageing population, Turkana district

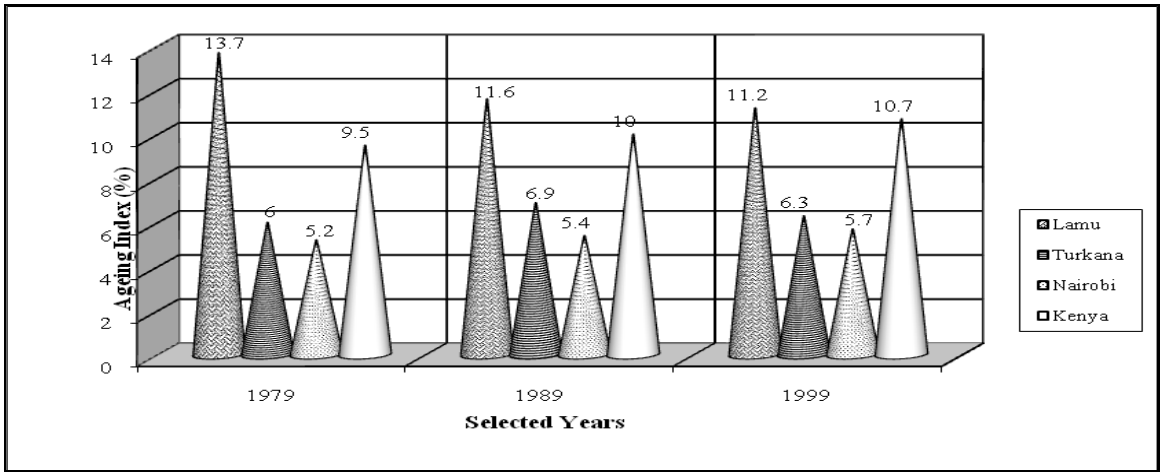


Figure 8. Ageing index variability 1979-1999.
Source: Omoke [11].

lags in the same. The generally growing numbers of the elderly is accompanied by reducing numbers of the young, a situation that has implications on the socio-economic and political facets of life. The need to address this nascent process in the nick of time, with a view to providing necessary balance in the population is critical. This calls for a change in societal traditional perspectives both from individuals and government agencies dealing with population issues in Kenya. Population ageing presents many opportunities if we address the challenges it posses.

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