# POPULATION DYNAMICS OF RURAL ETHIOPIA

By

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## 1. Introduction.

Ethiopia is one of the few countries of the world which are statistically undeveloped. In the field of population studies, it has neither conducted even a single population census nor established a vital atatistics registration system. The only comprehensive deographic data available in the country are the results of the two rounds of the nationalsample surveys which were carried out by the central statistical office during 1964-67 and 1969-71 respectively.

The availability of population data in the country are not only scanty but also defective. However, in the light of the existing data with some adjustments, attemts will be made in this paper to briefly examine the degree of urbanization, age structure and population dynamics of rural Ethiopia, The data that will be utilized are largely those obtained from the results of the second Round National Sample Survey.

## II. Level of urbanization in Ethiopia:

As of January 1977, the total population of Ethiopia was estimated to be about 29 million and population in localities of 2,000 and over inhabitants to be about 4 million. The proportion of population living in localities of 2,000 and over inhabitants out of the total population of the country is, therefore, about 14 percent and this indicates that Ethiopia has low level of urbanization. However,

the urban areas of the country have been experiencing high growth rates and there has been unbalanced urban population distribution in the country (see table 1).

III. Age structure of the Rural Population of Ethiopia

In rural Ethiopia, international migration was negligent in the 1970's and the age structure can safely be assumed to be the results of past trends of fertility and mortality conditions.

In order to draw the callent features of the age structure of rural Ethiopia, the five year age groups are expressed in broader age brackets, namely 0-14, 15-64 and $65^{+}$. The proportions in these are groups out of the total population, as reported and adjusted by stable population model,

Table 1.

Estimated urban population of Ethiopia by size-class, degree of concentration in certain localities and growth rates

| Size-class of urban areas | Number of urban areas | Population size | Percent out of 2,000 inhabitants | Growth rates |
|---|---|---|---|---|
| 2000+inhabitants | 255 | 3,590,917 | - | 5.6 |
| 5000+ " | 126 | 3,172,019 | 88.3 | 5.5 |
| 20,000+ " | 22 | 2,232,046 | 62.2 | 5.7 |
| 100,000+ " | 2 | 1,457,200 | 40.6 | 5.8 |

Source Compiled from C.S.O. Himco.

are shown in table 2 and the age structure of rural Ethiopia is in consonance with the age structure of other developing societies, showing a youthful population, an indicative of high fertility and a moderately declining mortality conditions.

Table 2:

Percentage distribution of rural population of Ethiopia by broad age group.

| Functional age group | Reported | | | Adjusted | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| 0-4 | 18.3 | 18.9 | 18.6 | 17.3 | 17.1 | 17.2 |
| 0-14 | 47.6 | 45.2 | 46.4 | 43.8 | 43.1 | 43.5 |
| 15-64 | 49.5 | 52.7 | 51.1 | 53.8 | 53.9 | 53.8 |
| $65^{+}$ | 2.9 | 2.1 | 2.5 | 2.4 | 3.0 | 2.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

IV. Reported fertility and mortality levels of Rural Ethiopia:

The reported fertility and mortality levels of the rural population of Ethiopia have been derived from the questions asked on:

1) Children ever born and Surviving by women in the childbearing ages
2) Children born by women in the childbearing ages during last 12 months preceding the Survey
3) Persons died in a selected houschold last 12 months preceding the Survey.

Based on the responses of these questions, the reported fertility and mortality levels have been examined.

The average number of children ever born by a woman in her childbearing age, children surviving, and age specific fertility rate of a woman are shown in table 3. There is a general tendency of decline in the proportion of children ever born per woman, stating from the age group 50-54. This decline could possibly be attributed to memory lapes on the part of older woman to recall the number of total children everborn alive upto the survey period. This estimate can at best be plausible up to the age group 45-49. Hence 68 percent of all children everborn alive by all women who completed their reproductive ages could survive and about 32 percent die. Assuming a cohort of women who have undergone through a constant fertility schedule some 30 years age preceding the survey is. Those who were in the age group 45-49 had the same fertility condition as those who were in the age group 15-19 during the survey; 40-44 as 20-24 etc., the age specific fertility rates in table 3 are summed up and the recorded total fertility rate of rural Ethiopia was found to be, on average, about 5 perwoman when she reaches her menopause and assuming a sex ratio at birth for rural Ethiopia to be 103 (UN 1967), the gross reproduction rate (number of daughters borne by women in the age group 15-49) per woman would be 2.5. The pattern of the age specific fertility of the rural population is in conformity with the conventional age specific fertility rates of other societies. The peak of the rate is in the age group 20-24, constituting about 25 percent of the total fertility of the women. Beyond the age group 20-24, the age specific fertility rate is declining. The mean age of fertility schedule of the women can be estimated by relating

the age specific fertility rate with the mid-point of each age group of the women by the following formula.

$$\bar{m} = \frac{\Sigma \, Wifi,}{\Sigma \, fi}$$

Where $\bar{m}$ = Mean age of fertility schedule,

Wi = the mid-point of the age of women at the i<u>th</u> age group,

fi = the frequency of births at the i<u>th</u> age group of women.

Hence, the mean age of fertility schodule is estimated to be 27.9, However, early age at marriage for females is a common practice in rural Ethiopia, ranging between 14-18 (C.S.O. 1971) . In view of this, the estimated mean age of fertility schedule seems upward baised, possibly due to switching age statements upward.

Age-Sex specific death rates can also be examined in table 4. Under normal mortality conditions (ie. in the absence of war, drought etc.) the age specific death rates typically show a bimodal pattern, similar to a parabolic curve. The rate is usually high at infant ages, decline to the lowest at the age bracket 10-14 and rises at the advanced ages. This phenomenon is generally true for rural Ethiopia, except that there are some inconsistencies in the pattern. This fluctuating behavior could possibly be due to age misreporting of the deceased or in the denominator or due to the numerous cells in the age groupings. Female mortality rates also seem to be higher than those of males, especially from the age group 45 and over. This may be due to reporting errors on the part of the female population.

Table 3.

Reported average number of children Everborn Surviving and age specific fertility rate of a women by age group

| Age group of women | everborn alive per woman | surviving per woman | percentage surviving | Age specific fertility rate per woman | Age specific fertility in percent |
|---|---|---|---|---|---|
| 15-19 | .4416 | .3759 | 85 | .7265 | 14.2 |
| 20-24 | 1..6526 | 1.3544 | 82 | 1.2815 | 25.0 |
| 25-29 | 2.9190 | 2.2771 | 78 | 1.1770 | 22.9 |
| 30-34 | 3.9793 | 3.0076 | 76 | .8390 | 16.4 |
| 35-39 | 4.7192 | 3.4879 | 74 | .6675 | 13.0 |
| 40-44 | 4.9750 | 3.5487 | 71 | .2845 | 5.5 |
| 45-49 | 5.2852 | 3.6094 | 68 | .1535 | 3.0 |
| 50-54 | 4.9359 | 3.2152 | 65 | - | - |
| 55-59 | 4.8998 | 3.1326 | 64 | - | - |
| 60-64 | 4.8075 | 2.9095 | 61 | - | - |
| 65-69 | 4.4194 | 2.6953 | 61 | - | - |
| 70-74 | 4.7339 | 2.8214 | 60 | - | - |
| 75+ | 4.4403 | 2.5152 | 57 | - | - |
| Total | 2.8935 | 2.0937 | 72 | 5.1295 | 100.0 |

Source: Compiled from C.S.O., The Demography of Ethiopia, Vol,1. Addis Ababa Jan.1974.

Table 4

Reported age-sex specific death rates of the rural population of Ethiopia per 1.000 persons.

| Age Group | Male age specific death rate | Female age specific death rate | Age specific death rate for both Sexes |
|---|---|---|---|
| 0 | 88.0 | 91.0 | 90.0 |
| 1-4 | 22.0 | 17.0 | 19.0 |
| 0-4 | 34.0 | 31.0 | 32.0 |
| 5-9 | 6.0 | 5.0 | 6.0 |
| 10-14 | 4.0 | 4.0 | 4.0 |
| 15-19 | 3.0 | 5.0 | 4.0 |
| 20-24 | 4.0 | 6.0 | 5.0 |
| 25-29 | 2.0 | 6.0 | 4.0 |
| 30-34 | 5.0 | 7.0 | 6.0 |
| 35-39 | 3.0 | 5.0 | 4.0 |
| 40-44 | 7.0 | 7.0 | 7.0 |
| 45-49 | 8.0 | 11.0 | 7.0 |
| 50-54 | 7.0 | 10.0 | 8.0 |
| 55-59 | 9.0 | 13.0 | 11.0 |
| 60-64 | 20.0 | 23.0 | 22.0 |
| 65-69 | 21.0 | 20.0 | 20.0 |
| 70-74 | 36.0 | 48.0 | 41.0 |
| 75-79 | 24.0 | 31.0 | 26.0 |
| $80^{+}$ | 58.8 | 70.3 | 63.8 |
| N. S | 215 | 193.0 | 204.0 |
| Total | 12.0 | 12.5 | 12.3 |

Sourcel : C.S.O. The Demography of Ethiopia Vol.1, Addis Ababa, Jan. 1974.

Furthermore, the results of the questions asked on livebirths and deaths during last 12 months, preceding

the survey period, can indicate the extent of the levels and differentials of fertility and mortality conditions of the country. Table 5 shows the main measures of fertility and mortality conditions that could be sempiled from the results of livebirths and deaths collected through the survey. The table shows differentials in fertility and mortality conditions among the regions of the country, the fertility parameters for Bale, Gamu Gofa, Hararghe and Sidamo seem to be plausible, whereas the parameters for other regions, especially for Illubabor, Wellega and Wello are deemed unrealistic in view of the fertility experience of other developing societies. As regards to mortality conditions, the parameters are significantly low and generally reflect the mortality conditions of a developed society, except in Kefa and to some extent, in Bale where the crude death rates are about 22 and 18 per, 1,000 persone respectiveiy, However, the rate of natural increase is generally plausible in all the regions, except in Arsi (1.7 percent), Illubaber (1.4 percent) and Kefa (1.7 percent).

In the light of the available data, the crude birth rates of African countries range from 33 in Gabon to 52 in Niger and most of the countries have rates that range from 42 to 51, with a modal of 45-49 (ECA 1975). Estimates of crude death rate for rural and urban Africa combined together also shows a range of 14-27,with a modal value of 20-25 and average infant mortility rate is about 150 per 1,000 livebirths (E.C.A. 1975). But the reported crude birth rate (38.2) crude death rate (12.3) and infant mortality rate (90) of rural Ethiopia fall short of the averages for African countries.

Some measures of fertility and mortality conditions of some selected countries of the world are also shown in table 6 for comparison. The crude birth rate and general fertility rate of the developing countries are at least three times higher than those of developed ones. The crude death rates and infant mortality rates are also higher by at least twice and eight to ten times than those prevailing in the developed countries. In the same table, it can be soon that very considerable measures of reducing infant mortality rates have been made in the developed societies of the world. The reported low level of fertility and mortality conditions, especially the crude birth, crude death and infant mortality rates, of rural Ethiopia can mainly be explained by the inaccuracies of the quality of data on fertility and mortality.

## V. Adjusted Estimates of Fertility and Mortality levels of Rural Ethiopia:

In the absence of vital Statistics registration system and due to the defectiveness of data from censuses and survey returns in Africa and other developing contries, one has to resort to indirect analytical techniques of estimating vital rates. The techniques which have widely been applied for estimating vital rates are those developed by Brass, as thoroughly discussed in Brass W.et.al (Brass,W.et.al., 1968) and stable population.

Table 5

Reported fertility and mortality measures of rural Ethiopia by Region

| Region | General Fertility Rate | Total Fertility Rate | Gross Reproduction Rate | Crude Birth Rate | Crude Death Rate | Infant Mortality Rate | Child Mortality Rate | Rate of Natural Increase |
|---|---|---|---|---|---|---|---|---|
| Arsi | 176.0 | 5.2 | 2.6 | 37.7 | 10.6 | 56.0 | 27.4 | 17.1 |
| Bale | 192.0 | 5.8 | 2.8 | 43.5 | 18.0 | 128.0 | 62.7 | 25.5 |
| Gonder | 168.0 | 5.2 | 2.5 | 37.7 | 10.4 | 51.0 | 28.7 | 27.3 |
| Eritrea | - | - | - | - | - | - | - | - |
| Gamu Gofa | 199.0 | 6.2 | 3.0 | 49.3 | 16.1 | 83.0 | 35.4 | 33.2 |
| Gojam | 173.0 | 5.3 | 2.6 | 37.6 | 13.7 | 85.0 | 35.6 | 23.9 |
| Hararghe | 213.0 | 6.2 | 3.0 | 46.5 | 9.7 | 57.0 | 19.6 | 37.8 |
| Illubabor | 106.0 | 3.3 | 1.6 | 28.7 | 14.5 | 69.0 | 31.0 | 14.2 |
| Kefa | 154.0 | 4.7 | 2.3 | 39.3 | 22.0 | 137.1 | 73.0 | 17.3 |
| Shewa | 131.0 | 4.9 | 2.4 | 35.0 | 10.0 | 43.0 | 28.0 | 25.0 |
| Sidamo | 174.0 | 5.7 | 2.8 | 42.4 | 15.3 | 70.0 | 38.0 | 27.1 |
| Tigray | 172.0 | 5.3 | 2.6 | 38.3 | 7.9 | 46.0 | 23.0 | 30.4 |
| Wellega | 125.0 | 4.6 | 2.2 | 34.8 | 13.1 | 50.4 | 34.7 | 21.7 |
| Wello | 133.0 | 3.9 | 2.0 | 32.0 | 9.0 | 55.0 | 28.8 | 23.0 |
| Country | 167.7 | 5.1 | 2.5 | 38.2 | 12.3 | 90.0 | 32.0 | 25.9 |

Source: Compiled from C.S.O. The Demography of Ethiopia Vol 1, Addis Ababa Jan. 1974

models, from which the estimates of vital rates can be derived, have been established (Coale-Demeny 1966).

The ratio of the average parity (p) to the cumulated age specific rate (F) of females in the age group 20–24 is applied as a correction factor to adjust the total fertility rate and other current fertility rates like the crude birth rate and the age specific fertility rates. Brass made the choice of the age group 20–24 on the assumption that in this age group only a small proportion of the women who entered the reproductive period have died, the possible effect of a differential fertility of the dead is slight and a great majority of the birth to women aged 20–24 years will have taken place within a few years of the census or survey (Brass, W. et.al., 1968).

Table 6

General fertility, crude birth rate, crude death rate, infant mortality rate and rate of natural increase of some selected countries (around 1970-1975)

| Country | Crude Birth Rate | General Fertility Rate | Crude Death Rate | Infant Mortality Rate | Rate of Natural Increase |
|---|---|---|---|---|---|
| Ethiopia | 38.2 | 167.7 | 12.3 | 90.0 | 25.9 |
| Egypt | 35.5 | 189.3 | 12.4 | 100.4 | 23.1 |
| Gabon | 32.2 | 115.6 | 22.2 | 229 | 10.0 |
| Ghana | 48.8 | 203-224 | 21.9 | 156 | 26.9 |
| Guinea | 46.6 | 227.8 | 22.9 | 216 | 23.7 |
| Nigeria | 49.3 | 217.8 | 22.7 | - | 26.6 |
| Uganda | 45.2 | 187 | 15.9 | 160 | 29.3 |
| Tanzania | 47 | 217 | 22 | 160-165 | 25 |
| India | 34.5 | 136.4 | 14.4 | 122 | 20.1 |
| Mixico | 42.0 | 198.8 | 8.6 | 49.7 | 33.4 |
| China | 26.9 | 112.5 | 10.3 | - | 16.6 |
| Cuba | 20.7 | 89.8 | 5.4 | 27.3 | 15.3 |
| USSR | 18.1 | 55.5 | 4.3 | 27.7 | 8.8 |
| Bulgaria | 16.5 | 67.9 | 10.0 | 23.2 | 6.4 |
| Poland | 19.5 | 71.3 | 8.9 | 23.8 | 10.6 |
| USA | 14.7 | 58.5 | 8.9 | 15.1 | 5.8 |
| France | 13.6 | 72.0 | 10.5 | 10.3 | 3.1 |
| UK | 12.1 | 55.7 | 12.2 | 14.3 | -0.1 |
| Sweden | 11.9 | 56.4 | 11.0 | 8.7 | 0.9 |
| GDR | 10.8 | 45.3 | 14.3 | 15.8 | -3.5 |
| GFR | 9.8 | 41.3 | 11.9 | 19.8 | -2.1 |

Source: UN Demographic Year Book 1976, Table 5

The coale-Demeny Stable population model is also applied for selecting model life tables for estimating mortality and fertility levels. There is a problem of selecting a model life table which fits the population in question for

countries, like Ethiopia, which don't have the intercensal population growth rates and reliable gross reproduction rates. However, Brass suggested that there is some reationale for accepting the west model as a best guess of the prevalent patterns of mortality for any population in the absence of contrary evidence, and alternatively, at moderately high levels of mortality (such as is found is African population), estimates of birth rates based on North model tables are little different from the west family.... ..... (Brass, W.Et.al. 1968). Furthermore, Brass Contended that the mortality level implied in the first two years of life can reliably represent other mortality measures, because it is derived from the retrospective reports of children dead to the age groups of mothers (20-24 years) whose experience is most recent and reliable (numbers for mothers aged 15-19 are too small); the relationship to death rates at later ages is more consistent from population to population for mortality under 2 years than under 1; and the proportion surviving to age 2 is a guide for the selection of an age distribution in stable population models (Brass, W. et.al. 1968).

Thus, the adjusted estimates of fertility and mortality levels, as depicted by the west model life table (level 11) and derived by Brass techniques, for rural Ethiopia are shown in table 7.

Recent data on fertility and mortality conditions wwere also collected by the Ministry of Agriculture through its Agricultural Sample Survey carried out during 1977/78. The Survey covered about 5,000 peasant households, consisting of about 20,000 population.

The reported and adjusted estimates of fertility and mortality levels, applying Brase technique and West stable population model (level 11.7), are given in table 8. The reported general fertility, total fertility, crude death and infant mortality rates are relatively more plausible than those obtained from the Second Round National Sample Survey. However, reported crude birth and childhood mortality rates seemed underreported during the Agricultural Sample Survey too.

Table 7:

Estimates of fertility and mortality measures for Rural Ethiopia, for both sexes

| Parameters | Reported | Adjusted | |
|---|---|---|---|
| | | Brass Method | Stable population Model |
| Crude birth rate | 38.2 | 42.8 | 44.7 |
| General fertility rate | 167.7 | 188.0 | - |
| Total fertility rate | 5.1 | 5.8 | 6.2 |
| Gross reproduction rate | 2.5 | 2.8 | 3.0 |
| Crude death rate | 12.3 | - | 19.8 |
| Infant mortality rate | 90.0 | 155.0 | - |
| Child mortality rate | 32.0 | 247.0 | - |
| Life expectancy at birth (C:) | - | - | 43.5 |
| Rate of Natural Increase | 25.9 | - | 24.9 |

Source: Compiled from C.S.O. The Demography of Ethiopia, Vol.1 Addis Ababa Jun. 1974.

In the light of the base data information and the available techniques of adjustments for defective and incomplete data, the fertility and mortality conditions of rural Ethiopia could be summarized as follows:

| | |
|---|---|
| Crude birth rate: | 43-50 |
| General fertility rate: | 188-232 |
| Crude death rate: | 19-20 |
| Total fertility rate: | 6-7 |
| Gross reproduction rate: | 3-4 |
| Infant mortality rate: | 155-175 |
| Child mortality: | 236-247 |
| Expectation of life: | 44-45 |
| Rate of natural increase: | 24-30 |

VI. Population Movemente in Rural Ethiopia:

The main questions recommended for migration statistics are "place of birth," " place of previous residence", and "length of residence in the present place". In the Second Round National Sample Survey, only temporary absence from the usual place of residence and reason for absence during the 12 months preceding the survey, were asked. The information collected can not show migration trends, levels and patterns. It can at best throw some light on the temporary seasonal mobility of the population. Table 9 can give some idea of the movemrnts of the rural population. About 13 percent of the surveyed rural population was subjected to mobility. In the 1970's, the regions which indicated high percentage of out migration from usual place were Shewa (29), Tigray (27), Wellega (9) and Wello (9) and Kefa (9); whereas those gained were Addis Ababa (22), Gonder (14), Hararghe (12) and Ertirea (10). The inter-regional movements and mobility

Table 9:

Number and percent of population absent during the pre survey period by region of origin and destination

| Region | Origin of the absent population | | Destination of the absent population | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Arsi | 2,800 | 2.3 | 1,300 | 1.1 |
| Bale | 1,800 | 1.5 | 4,200 | 3.5 |
| Gonder | 2,700 | 2.3 | 17,001 | 14.3 |
| Eritrea | - | - | 12,100 | 10.1 |
| Gamu Gofa | 400 | 0.3 | 3,910 | 3.3 |
| Gojam | 3,500 | 2.9 | 4,130 | 5.5 |
| Hararghe | 916 | 0.8 | 14,550 | 12.2 |
| Illubabor | 3,220 | 2.7 | 9,370 | 7.9 |
| Kefa | 10,275 | 8.6 | 5,400 | 4.5 |
| Shewa | 34,680 | 29,1 | 1,810 | 1.5 |
| Sidamo | 3,400 | 4.5 | 1,320 | 1.1 |
| Tigray | 31,900 | 26.8 | 800 | 0.7 |
| Wellega | 11,130 | 9.3 | 1,840 | 1.5 |
| Wello | 10,560 | 8.9 | 3,600 | 3.0 |
| Addis Abeba | - | - | 26,585 | 22.3 |
| N/S | - | - | 10,195 | 8.5 |
| Abroad | - | - | 1,250 | 1.0 |
| Total | 119,281 | 100.0 | 119,281 | 100.0 |

Source. C.S.O The Demography of Ethiopia, Vol.1 Addis Abeba, Jan, 1974 to Addis Abeba might have largely been by the differentials of commercial activities, commercialized agricultural sectors etc. existing in the country, as could partly be learnt from the reasons for being absent in table 10. A significant proportion of the mobility was motivated by trading in other things than the cash crop (31 for males and 16 percent for females), and labouring, type of work was not known, contributed about 37 percent (36 for males and 58 for females) of all reasons for being absent from usual place of residence. These persons might have destined

in some of the urban areas of the country, for there is an evidence from the results of the first and Second Rounds National Sample Surveys that rural Ethiopia has been losing about 100,000 persons annually to the urban areas of the country (C.S.O 1972).

Table 10:

Number of population absent during the 12 months preceding the Survey by Sex and reason for absence

| Reason for absence | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | Number | % | Number | % | Number | % |
| To cultivate or pick own coffee | 7,895 | 6.9 | 200 | 4.4 | 8,095 | 6.8 |
| " " " " " cotton | 400 | 0.3 | - | - | 400 | 0.3 |
| " " " harvest own crop | 4,785 | 4.2 | 300 | 6.6 | 5,085 | 4.3 |
| To graze own live stock | 3,400 | 3.0 | - | - | 3,400 | 2.9 |
| To trade in coffee | 4,940 | 4.3 | - | - | 4,940 | 4.1 |
| " " in other things than coffee | 35,786 | 31.2 | 710 | 15.8 | 36,496 | 30.6 |
| Employment as coffee picker | 5,650 | 4.9 | 200 | 4.4 | 5,850 | 4.9 |
| " " Cotton " | 1,310 | 1.1 | - | - | 1,310 | 1.1 |
| " " sugar cane harvester | 500 | 0.5 | 100 | 2.2 | 660 | 0.6 |
| As a labourer (type of work not known) | 41,605 | 36.3 | 2,620 | 57.8 | 44,225 | 37.1 |
| Not stated | 8,420 | 7.3 | 400 | 8.8 | 8,820 | 7.4 |
| Total | 114,751 | 100.0 | 4,550 | 100.0 | 119,281 | 100.0 |

Source: C.S.O. The demography of Ethiopia Vol. 1, Addis Abeba, Jan. 1974

VXX. Conclusion

The Ethiopian population is predominantly rural. Agglomerations of 2,000 and over inhabitants constitute about 14 percent of the total population of the country. In view of the high proportion of localities with 20,000 and over inhabitants (62 percent), and city population with 100,000 and over inhabitants (41 percent for Addis Ababa and Asmara only), out of all localities with 2000 and over inhabitants, the population in the non-agricultural sector resides in a few towns and Ethiopia can be said one of the least urbanized countries and experiencing a sort of "urbanhypertrophy".

As regards the dynamics of population, the estimates of the vital rates could sufficiently indicate that rural Ethiopia has been experiencing high levels of fertility and mortality conditions in recent year.

In the statistics of vital rates of developed societies, it can be observed that fertility and mortality conditions have inverse relationships with the level of socic-economic advancement, is the higher the socio-economic development, the lower the fertility and mortality trends tend to be. For the Ethiopian case, there have not been any favourable conditions that could have acted as depressant effects on the fertility and mortality levels. In the Ethiopian society, marriage is a universal thing and early age at marriage for females is a common practice in all the Ethiopian regions. These factors usually favour high fertility conditions. Furthermore, in an agrarian society, like Ethiopia, a child birth is valued as an asset, a guarantee

for old age and since there exists high infant mortality rete, parents tend to produce more children to get some survivors. Little provision of social, economic and political opportunities for women also is one of the important factors favouring high fertility trends. On the other hand, in an agrarian society where there has been less modern technology, and inadequate health facilities mortality condition tends to be on the higher side. Epidemic diseases-such as malaria yellow fever, small pox, leprosy tuberculosis,choleral and other serious debilitating discases, insufficient maternal care serious nutritional problems, insanitary housing and inadequate water supply system have been rempant in the developing societies. the manifestations of these factors are then high mortality rates as being implied in crude death rate, infant and childhood mortality rates and the low expectation of life.

Programmes of short and long term nature of attempting to improve the level of living conditions of the society as could be implied by better nutritional level, health facilities, education, better housing, water supply etc. can have immediate impacts on reducing mortality levels of a society. Nevertheless, due to well established customs beliefs institutions,and a growth potential inherent in the age structure of the population of a developing society, like Ethiopia, a decline in fertility condition would take place gradually, and the prevailing high fertility level would remain constant for some decandes.

Prospects of population growth of rural Ethiopia, therfore, would be immense. At the rate of natural increase of between 2.4 and 3.0 percent per annum, the population would double in a matter of 24-29 years, whereas the doubling

periods for Africa at the rate 2.5 percent and for Europe, U.S.A., USSR and other developed countries whose populations have been recently growing at the rate of about 1 percent per annum would be about 28 and 70 years respectively.

Hence, as regards of population issues, the programmes of the National Democratic Revolution of Ethiopia will face the following main challenging problems to resolve.

1. Carrying out national population census in order to obtain basic information for socialist plan.
2. Mininizing or Curtailing the existing high urban growth rates which have led to the development of "urban-hypertroply".
3. Reducing the high mortality conditions prevailing in the country.
4. Meeting the demands of the rapidly growing population.
5. Mobilizing Ethiopian women to participate in the social, economic and political life of the nation in order to create favourable conditions for future fertility reduction.

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