

LAZARIST CATHOLIC SCHOOL

Geography Note for Grade 12C

DETERMINANTS OF POPULATION CHANGE IN ETHIOPIA

Determinants of population change, also called factors/dynamics of population change, are forces which collectively affect population size of a given country. They are fertility (birth), mortality(death) and migration.

Population change in any country is the result of the following

- The difference between fertility (births) and mortality (deaths), which is called ***natural increase***.
- The balance between immigration (in-migration) and emigration (out-migration), which is known as ***net migration***.

The following model can summarize the effect of population change determinants

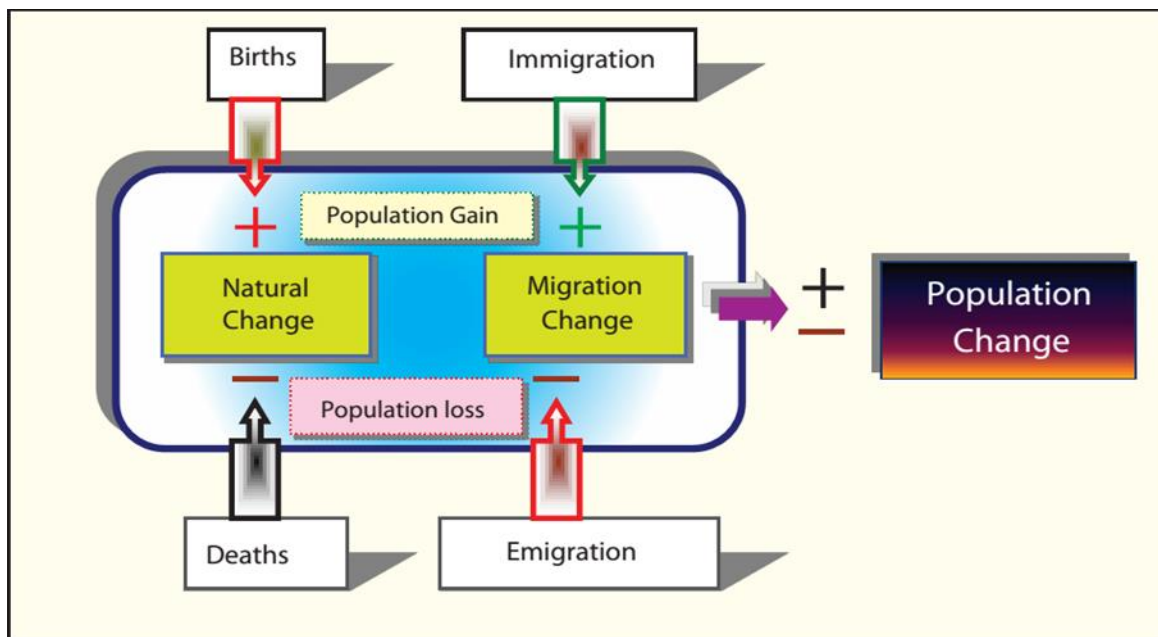


Figure 1. Population change and its determinants

Ethiopia is characterized by a high rate of population growth. Fertility and mortality are the most important factors contributing to high population growth nationwide. The effect of migration is insignificant.

1. Fertility in Ethiopia

Fertility is the occurrence of live birth in a given country. It affects the size and structure of population of a given country.

Measures of Fertility

Fertility can be measured by using different rates. Some of them are

➔ **Crude Birth Rate (CBR)**: this is the total number of births occurring in a given year, per 1000 population.

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- ➔ **General Fertility Rate (GFR):** this one is the number of births occurring in a given year per 1000 women in the reproductive ages (i.e., women aged 15-49).
- ➔ **Age Specific Fertility Rate (ASFR):** this is the number of births that occur in a given year per woman in the reproductive ages, presented in five-year age groups.
- ➔ **Total Fertility Rate (TFR):** this is the number of children a woman may have produced by the end of her reproductive period, given the current ASFR.

Fertility Levels and Differentials in Ethiopia

Ethiopia characterized by a high level of fertility. Demographic and health survey of Ethiopia (EDHS 2005) indicate that the fertility level of Ethiopia's population, as measured by TFR (5.4), GFR (179) and CBR (35.7), is among the highest in the world.

There is also significant variation in fertility levels between the urban and rural populations of the country. Fertility is considerably higher in the rural areas than the urban areas. For instance, EDHS 2005 showed that the TFR in rural areas was 6.0, which was almost two and half times higher than the 2.4 TFR in urban areas.

The total fertility rate (TFR) for Ethiopia is 5.4 children per woman. This means that the total number of children an Ethiopian woman would have by the end of her child-bearing period (reproductive age) is about 5.4 children.

In Ethiopia, there are also substantial differentials in fertility among regions, ranging from a low TFR of 1.4 in Addis Ababa to a high of 6.2 in Oromia. With the exception of Somali and SNNP, fertility levels in the other regions are lower than the national average (5.4). The following table can summarize this fact.

Regions	TFR
Ethiopia's average	5.4
Tigray	5.1
Afar	4.9
Amhara	5.1
Oromia	6.2
Somali	6
Benishangul	5.2
SNNP	5.6
Gambella	4
Harari	3.8
Addis Ababa	1.4
Dire Dawa	3.6

Table 1. TFR by region

The higher fertility rate in Ethiopia is related with the following **factors**:

- *Low levels of family planning practices, due to lack of awareness and religious beliefs;*

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- *Early marriage, particularly of females;*
- *Perception of high social and economic value of children;*
- *Low social status of women; and*
- *Relatively high infant and child mortality (death) rates, which leads parents to produce larger number of offspring, in compensation.*

2. Mortality in Ethiopia

Mortality is the occurrence of deaths in a given population.

Measures of Mortality

Mortality can be measured by the following rates:

- ✓ **Crude Death Rate (CDR):** this is the total number of deaths occurring in a given year, per 1000 people.
- ✓ **Child Mortality Rate (CMR):** this is the number of deaths in a year among children between one and five years of age, per 1000 children between the same ages.
- ✓ **Under-Five Mortality Rate:** this is the number of deaths in a year among infants and children between birth and five years of age, per 1000 live births.
- ✓ **Maternal Mortality rate (MMR):** this is the annual number of maternal deaths occurring during pregnancy, child birth, or within two months after the birth or termination of pregnancy, per 1000 women between 15 and 49 years of age (reproductive age).
- ✓ **Adult Mortality Rate (AMR):** this is the number of deaths in a year among adults between 15 and 49 years of age, per 1000 adults in the same age group.
- ✓ **Age-Specific Death Rate (ASDR):** this is the number of deaths that occur in a given year per 1000 of the population in five-year age group.

Levels and Differentials of Mortality in Ethiopia

In general, mortality rates have been declining around the world, including in Ethiopia. However, as in most countries in sub-Saharan Africa, Ethiopia is still characterized by a high level of mortality.

Demographic and health survey of Ethiopia (EDHS 2005) showed that the mortality level of Ethiopia's population, as measured by IMR (80), CMR (56), MMR (1.34) and AMR (5.99), is among the highest levels in the world.

IMPACTS OF RAPID POPULATION GROWTH IN ETHIOPIA

The size of Ethiopia's population has been growing very rapidly. The population growth rate is much higher and is increasing much faster than the economic growth rate and is growing beyond the carrying capacity of the country's natural resources, such as land, water, soil, forest, etc. These negative results of rapid population growth have caused many environmental and socio-economic problems.

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For example, population growth causes serious environmental degradation in the area where it occurs, including ***deforestation, pollution, soil erosion, depletion of resources***, etc.

A. Deforestation

Deforestation refers to the removal of forest cover of an area without adequate replacement. In other words, it is the process of the indiscriminate destruction of the natural vegetation cover of a forest area.

In Ethiopia, rapid population growth leads to deforestation mainly because of peoples' increasing needs for more:

- ❖ wood
- ❖ agricultural land
- ❖ settlement land
- ❖ grazing land

Such deforestation has various ***negative consequences***, both directly on the natural environment, and indirectly on the socio-economic conditions of the people. Its direct consequences include the following:

- It accelerates soil erosion.
- It destroys biodiversity.
- It affects rainfall by decreasing evapotranspiration.
- It results in shortages of wood supply.
- It affects the natural beauty of the affected areas.

B. Pollution

Pollution refers to any undesirable change in natural conditions of water, air, and other components of the natural environment that has negative effects on the health and activities of human beings and other living creatures.

In Ethiopia, rapid population growth leads to environmental pollution by increasing emission of the amounts of pollutants such as:

- ➔ Sewage, solid wastes, and pollutant gases generated by households.
- ➔ Pollutant gases, liquids, and solid chemicals generated by expanded industries.
- ➔ Pollutant gases generated by the increasing number of automobiles.
- ➔ Agricultural pollutants, such as fertilizers, pesticides, animal wastes, etc.