The Role of Population Data and Vital Statistics in National Planning and Development in Nigeria

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Abstract

Population data consists of variables that explain the features inherent in every population which include the size, distribution and the structure. Such data are significant for national economic planning. The study examines the role of population data and vital statistics in national planning and development in Nigeria. Data are obtained mainly from secondary sources; as such expo facto research design is used in the study. An extensive conceptual literature is reviewed to assess the significance, challenges and prospects of population data to national planning in Nigeria. The study concludes that no nation can effectively plan and develop without a reliable population profile obtained from population data and vital statistics.

Keywords:
Population Data,
Statistics,
National Planning
and Development

Background to the Study
Nigeria is one of the fastest growing countries in the world in terms of its population. Population data and vital statistics constitute vital role for planning and development process in any given country. Population data are critical for programmes that aim to identify areas eligible for housing assistance and rehabilitation, loans, job training and employment, community economic development etc. Population data consists of variables that explain the features inherent in every population which include the size, distribution and the structure. In population data and vital statistics, information such as age, sex, marital status, educational status, occupation, birth rate, death rate, migration is captured. Apparently, integrating these variables into development planning is critical

for programmes in planning and development that are targeted at identifying areas eligible for interventions e.g. provision of social infrastructure such as road network, safe drinking water, health centres, skill acquisition centres, housing, market etc that are geared towards empowering the beneficiaries depending on the objectives of the service provider and would be for the purpose of development.

Population data and vital statistics are used to generate baseline data that would be used for the measurement of changes that may occur as a result of development interventions in communities. The intention of this paper is therefore, to look at the role of population data and vital statistics in national planning and development in Nigeria after examining the conceptual definitions of terms like population, census data, population data, vital statistics etc in relationship with available resources, and finally bring up the role of population information in national planning and development in Nigeria.

Objective of the study
The objective of this study is to examine the role of population data and vital statistics in national planning and development in Nigeria

Conceptual Literature
The following conceptual issues and variables are discussed.,

Population:
The word population has various definitions. It all depends on the circumstances in which the concept is used. For example, one hears of population of ants, population of lizards, population of rats, population of stones, population of people etc. In statistics, population is the quantification of objects – living and non-living. That is, anything that can be seen touched and counted. For the purpose of this write-up, we are concerned with the population of people (human population). F. Fajana et al (1990) in their book "Countdown to Economics", define population as "the total number of people living in a place or country during a given period of time." Aderinto and Abdullahi (1984), define population as "the number of people living in a particular geographical region. When we talk of the population of Nigeria, for example, we mean the total number of Nigerians living in Nigeria and elsewhere at a particular point in time." Udu and Agu (1989), define population as "the number of persons living in a country or in a given geographical area at any point in time." The Oxford Advanced Dictionary of Current English defines population as "the number of people living in a place, country…." In the light of the foregoing, population is taken to mean the total number of people living in a particular geographical area at a particular time.

From economic point of view, population could be classified into three – under population, optimum population and overpopulation. Under population results when the available natural resources of a country are under utilized (under employed) as a result of inadequate or shortage of manpower or human resources.

According to International Encyclopedia of the Social Sciences, "optimum population denotes a population of such size that given this population, a specific indicator of "welfare" is maximized. That means that population has to go along with a country's wealth in such a way that there will be at least a level of happiness in the country.

Overpopulation occurs when the population is beyond the optimum size. The population here is too large compared to other resources of land and capital. There are more people than can make the best use of the available natural resources.

Census Data:
Census is an enumeration exercise conducted in a defined territorial boundary to generate data that constitutes the total number of people living within the country at a given period, usually at the interval of ten (10) years. The essence is to ascertain the size of the population in terms of location – settlement/density and the structure which has to do with age groups, sexes, dependency ratio, occupation, education etc. This kind of information is generated during the census exercises. The census exercise is conducted in such a way that the enumeration is taken simultaneously in every part of the country within a specific period of time to avoid chances of double counting. During this period, human movement is restricted to barest minimum.

Population Data:
Population data is the structure of population of a nation – age distribution of the population such as 0-14 years, 15-64 years and 65 years and above. The structure of population tells what fraction of the population and gender fall within each age distribution.

Population data has a crucial role in national planning and development of any nation as such data gives the structure of the population of the country. The country knows the structure of its population and what percentage belongs to a particular age group. Such knowledge will put the government in a position to know what goods and services are to be provided to each age distribution. For example, the 2011 population estimate gives the population of Nigeria as follows:

0-14 years 40.9% (male – 32,476,681, female – 31,064,539)
15 – 64 years 55.9% (male - 44,296,228, female – 42,543,542)
65 years and above 3.1% (male – 2,341,228, female – 2,502,355)
And population growth rate is 1.935% (2011 estimate and 2.553% (2012 estimate)

Vital Statistics:
Vital statistics in population refers to the continuous recording of vital events as they occur such as births, deaths, marriages, divorces, separations and migration. In most cases, birth and death rates as well as migration are the major factors that influence the population growth of a country. Birth rate otherwise known as fertility rate is the rate which measures the number of births (children born) per annum in the country expressed as so many per thousand of the total population. It is expressed mathematically thus:

Number of birth x 100
Total Population

The Nigerian birth rate is given as: 43 births/1,000 population (2008 estimate)
36.65 births /1,000 population (July, 2009 estimate)
39.23 births/1,000 population (2012 estimate)
If a country has a high fertility or birth rate, it will experience rapid population growth. Death rate, also known as mortality rate measures the total number of deaths recorded per thousand of people in a given population per annum. It is expressed mathematically as:
Number of death x100
Total Population

If a country's mortality rate is high, the country will experience a decline population. The death rate in Nigeria is given thus: 18 deaths/1,000 population (2008 estimate), 16.56 deaths/1,000 population (July, 2009 estimate), 13.48 deaths/1,000 population (July, 2012 estimate).

Amangwai (1999) observed that in Nigeria, the birth and death rates are the major factors influencing population growth as he said: "Right from the sixties to the present time, there has been a growing margin of births over deaths and as such an accelerating rate of population growth. For example, the birth rate between 1971 and 1975 in Nigeria was about 49% while death rate took a downward trend of 21%. A sharp rise in the level of birth rate or a decline rate affects economic development adversely. Slow changes in fertility rate and mortality rate have moderate consequences but abrupt changes have effects that are intensive and often persist over a long time period." Migration is the movement of people in and out of a country. The movement of aliens or foreigners into a country is called immigration. While the movement of people out of a country is referred to as emigration

Demography:
Demography is a science of that deals with human populations. Louis (1976), said "demography means the statistical study of population or, other words, the application of statistics to human population and has to do with physical characteristics, the case with population structure and changes falls within the scope of demography". The United Nations Multilingual Dictionary defines demography as "the scientific study of human populations, primary with respect to size, the structure, and their quantitative point of view".

The role of population data and vital statistics in national planning and development in Nigeria:
In the light of the foregoing, the role played by population data and vital statistics in Nigerian national planning and development is discussed below.

Determination of the Density of Population:
Population data gives the country an idea of which parts of the country are densely populated. Comparison of population densities is necessary to determine the actual situation in one part of the country as compared to other parts. This knowledge will enable the government plan as to what goods and services or amenities are to be provided in such areas.

Determination of Growth Rate:
This enables the government determine how fast the population of the country is growing. If the rate of population growth is too high in a country, a much higher effort by the government will be required to maintain the standard of living of the people. The population growth rate in Nigeria is 2.5% and it is one of the highest in the world.

Development Planning:
Without detailed and extensive population data and vital statistics it would be difficult to undertake any meaningful economic planning. It is only when the population and its growth rate known, its variances can be integrated into development planning process for projection purposes, then can the government adequately undertake an economic planning that suits the area taking into consideration the peculiarities of their needs, for example, if it is a younger population, what do they need ? If aged, what are their priorities?

Estimation of Per Capita Income:
Population data and vital statistics are useful for the estimation of the rate of growth of national income and for the calculation of per capita income. When a country is able to estimate its rate of growth of national income and per capita income then can the country be able to plan accordingly to stimulate growth in certain areas that can lead to the growth of the economy.

Drawing up of Educational Programmes:
For government to be able to draw up educational programmes that will meet the needs of the children, it needs to have information on the number of children of school-age. The determination of the required number of schools, classrooms, teachers, equipment etc would be difficult without population data and vital statistics.

Provision of Medical Health Facilities:
Provision of medical health facilities is based on information obtained from population data and vital statistics. What are the prevailing rates of diseases/infections, births, deaths, pregnancies? The need for antenatal care, beds/wards to be provided, number of doctors to be recruited and other facility gaps that exist can only be tackled if information on population data and vital statistics is available.

Determination of Occupational Distribution and Estimates of Labour Force:
Government requires population data and vital statistics not only for the determination of occupational distribution and estimation of available labour force, but also for effective manpower planning.

Allocation of Revenue:
Nigeria being a federating state, revenue allocation among States is done based on the population of each component unit – revenue is allocated proportionate to the population of each State in the federation.

Conclusion
Population data and vital statistics are important to national planning and development to any nation and as such Nigeria is no exception. No nation can effectively plan and develop without a reliable population profile obtained from population data and vital statistics. Such data enable the government to identify areas eligible for attention such as housing, rehabilitation, job training and employment, provision of goods and services, community economic development etc.

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