POPULATION GROWTH IN INDIA

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ABSTRACT

One of the most serious problems in the contemporary world community is the rapidly increasing pressure of population on the limited resources. **Zelinsky(1966)[1]** has remarked that the problems of population growth has a rate of change and the stress imposed upon society and habital are the major issues to be studied by the population geographers.

Population growth that is taking place today will accelerate in the near future if not checked owing to improvements in the medical technology. The developing societies are much more confronted with them while the developed countries are also facing the problems among the academicians, policy makers, administrators and planners. Although there is no dearth of literature with increasing pressure of population, very little detailed spatial indices of the growth of the population in small area has been done. This theme addresses itself to such current issues which may be helpful in suggesting the outline development programme in India, where the population growth and general poverty are sustaining one another. Population growth in an area can be very important index to its economic & industrial development. Its importance becomes apparent, often intimately related to its population growth and derives their meaning and significance from it. Take for example the growth of region in fields like housing, road construction, transport and communications, education etc. These can not grow much or grow at all if the population of a region is static or actually declining. Moreover the relative backwardness or stagnation of a region can be explained on the basis of study of its population growth pattern. An important consequence of substantial growth in population in modern times is urbanization. This is very interesting phenomenon, since regions with a good industrial and economic growth show a higher rate of population growth which leads to further industrial and economic growth, conversely regions suffering from industrial and economic stagnation have a negligible or even negative population growth rate

The population of India has more than doubled it self since 1951. It has increased from 360 million in 1951 to 1028.24 million in 2001. On an average, it has been increasing at a growth rate of 2% per anum. Such an unprecedented increase in the country's population in the last 50 years may be attributed to large scale

developmental activities in different parts of the country, improving conditions of food supply, and improving medical service, all of which have been responsible for braining further fall in the mortality rate. The estimated mortality rate declined significantly from 27 per thousand in 1951 to 8 per thousand in 2001.

Keywords: Population Growth, Population, of India

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Population growth that is taking place today will accelerate in the near future if not checked owing to improvements in the medical technology. The developing societies are much more confronted with them while the developed countries are also facing the problems among the academicians, policy makers, administrators and planners. Although there is no dearth of literature with increasing pressure of population, very little detailed spatial indices of the growth of the population in small area has been done. This theme addresses itself to such current issues which may be helpful in suggesting the outline development programme in India, where the population growth and general poverty are sustaining one another. Population growth in an area can be very important index to its economic & industrial development. Its importance becomes apparent, often intimately related to its population growth and derives their meaning and significance from it. Take for example the growth of region in fields like housing, road construction, transport and communications, education etc. These can not grow much or grow at all if the population of a region is static or actually declining. Moreover the relative backwardness or stagnation of a region can be explained on the basis of study of its population growth pattern. An important consequence of substantial growth in population in modern times is urbanization. This is very interesting phenomenon, since regions with a good industrial and economic growth show a higher rate of population growth which leads to further industrial and economic growth, conversely regions suffering from industrial and economic stagnation have a negligible or even negative population growth rate

Determinants of Population Growth:

Among the demographic factors that control fertility, age composition, sex composition, degree of organisation, duration of marriage and working, non-working status of females are prominent. The age

structure in a population has is one of the basic determinants of human fertility, because the proportion of population in reproductive age group will have a direct bearing of birth rates. The countries having youthful population are the leading contributors to the world's population growth. Most of the countries of Asia, Africa & Latin America fall in this group.

Closely associated with this factor of age – structure is the factor of duration of marriage. Longer the duration of marriage, greater is the fertility rate. In countries like India where incidence of early marriage is quite common, a positive correlation between fertility and duration of effective marriage has been observed (**Smita, 1983, p.11**) [2].

Similarly, sex composition is another basic demographic determinant of fertility. A balanced sex ratio would create normal conditions for an average birth rate. The role factor of sex composition becomes more obvious when the birth rates of populations having unbalanced sex ratios are examined. For instance, in India, the urban centres that largely attract in-migrants and thus suffer from paucity of females exhibit low birth rates.

It leads us to the factors of residence or the degree of urbanization. It has often been observed that the urban dwellers have low birth rates in comparison to their rural counterparts. The requirements of urban living are very much different from those of rural life. A variety of socio-economic factors create an ethos for low birth rates in urban areas.

The working, non working status of the females has also been found to have its bearing upon the human fertility. A negative correlation between fecundity index and degree of participation of females in economically gainful activities has been often talked about. The participation of females in economic activities, on the one hand, it exposes them to outside world and makes them socially and economically more awakened. At times, even the type of occupation they are engaged in many influence their fertility behavior. There is less incompatibility when employment is based on family-owned enterprise.

Population Growth In India:-

The Indian demographic history of the present century can be divided into three distant periods of 1) Pre Independency Period 2) Post Independency Period and 3) Modern Indian Period.

Census Year	Population in Millions	Decadal Growth of Population in Millions	Decadal Growth of Population in Percentage
1901	238.39	--	--

1911	252.09	13.70	5.75
1921	251.32	-0.77	-0.31
1931	278.98	27.66	11.00
1941	318.66	39.68	14.22
1951	361.09	43.43	13.63
1961	439.23	78.14	21.64
1971	548.16	108.93	24.80
1981	683.33	135.17	24.66
1991	846.42	163.09	23.87
2001	1028.74	182.32	21.54
2011	1210.19	181.46	17.64
2021 (Estimated)	1380.00	170.00	14.05

Source: Census of India

From 1901 to 1951 We observe slow growth of population except the census year 1921, the only negative population growth among these census years. During this period, India's population increased from 238 million to only 361.09 million. The slow population growth was due to high mortality rate. Such a high mortality rate was the function of recurring epidemics, famines, food – shortages etc. Consequently birth rate and death rate cancelled out each other and left very little scope for population numbers to increase. The year 1921 turned out to be a significant demography divide as in the post - 1921 period the population started showing signs of steady increase.
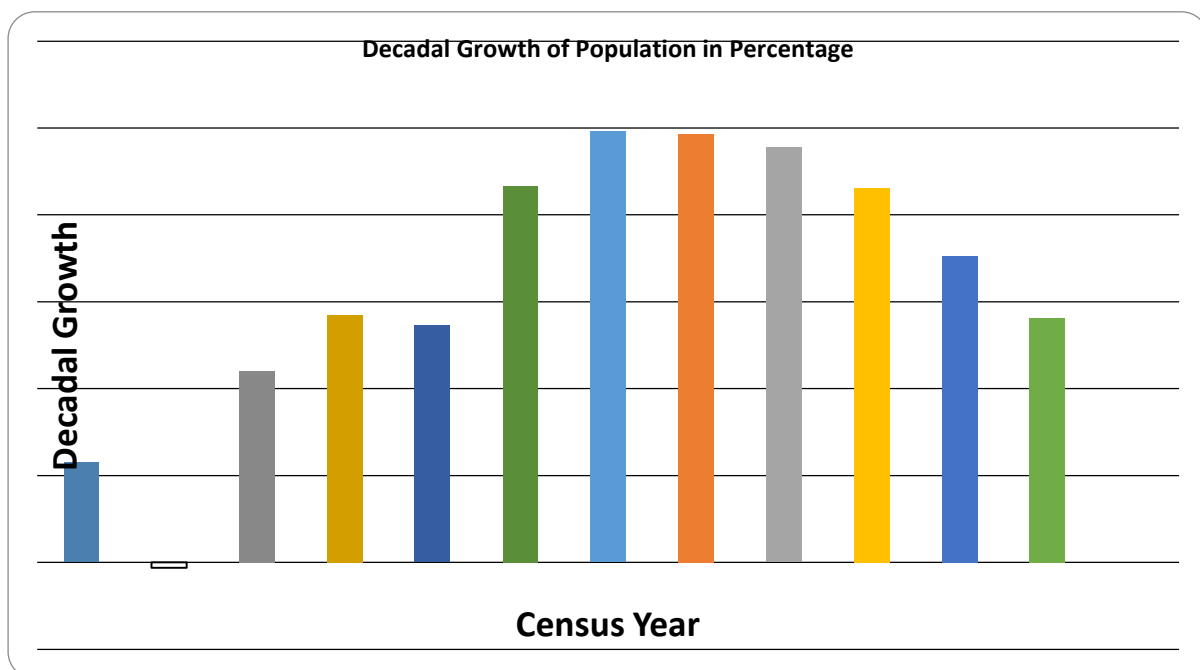
In the later census from 1921 to 1951 the Indian demographic was witnessed a significant changes during this period, due to the increasing control over abnormal deaths caused by epidemics, famines etc. The distributional network was strengthened to meet the emergency calls of food shortage in different parts of the country. The economy was developed, particularly the agricultural sector, with a view to improving the food situation. General conditions of sanitation and medical facilities were improved significantly with a view to bringing down the mortality rates. Thus, the steady increase in population in India during 1921 – 1951 was the result of a sharp decline in the mortality rate of the country, where as the fertility rate still remain high around 40 per thousand.

The population of India has more than doubled it self since 1951. It has increased from 360 million in 1951 to 1028.24 million in 2001. On an average, it has been increasing at a growth rate of 2% per anum. Such an unprecedented increase in the country's population in the last 50 years may be attributed to large scale developmental activities in different parts of the country, improving conditions of food supply, and improving medical service, all of which have been responsible for braining further fall in the mortality rate. The estimated mortality rate declined significantly from 27 per thousand in 1951 to 8 per thousand in 2001. Since the fall in the fertility rate still continued to be gradual, the sharper fall in mortality rate yield still greater natural increments. **(R.C.Chandna P.203, 204)** [3]

But from the graph of population growth from 1901 to 2021 we can notice that in the initial stage from 1901 to 1951 there is a slow increase population while from 1961 to 2021 it appears to be increase in population but decadal population growth rate is gradually decreasing. i.e. during 1961 decadal population growth rate is 21.64% but decreased to 14.05%. This fall in population growth rate is due to the many control measures taken by the Government of India i.e. continuously encouraging people to restrict people to have 2 kids and to have family planning, giving awareness programs regarding ill effects of uncontrolled population growth. Even though we are witnessing decrease in population growth, some experts are thinking that it is not sufficient mentioning to give further emphasize to control population growth. They think that controlling population growth is essential because uncontrolled population growth will create many socio-economic problems. It may be difficult to provide all essential services to all people equally thereby creating gap between rich and poor people and imbalance the society.

On the contrary some people think that huge population in India can become human resource and contribute in the development of country. In the present days our country has large number of young aged population than other countries and therefore our country is young in the world. Thus there will be more contribution by young human resource in the socio economical development of country.

Population Projection:

Population Projections are estimated or future based upon certain assumptions. With the help of computers and developed programming methods, population projections can be fairly accurate. There have to be 2 or 3 alternative sets of assumptions and hence 2 or 3 projection figures. Though population projections may fail yet since every one needs them they will continue to be made. The present & future mortality, fertility & migration patterns are to simulated as accurately as possible. There will be different rates of changes and they have to be understood well before making projections.

Logistic curve can be used for projecting future population provided it can be drawn accurately on simulation basis. Growth component method is the most dynamic & complete method, as far as a projection method can go. The accuracy of this method will depend upon correct estimation of the year to year changes in the age-specific fertility and mortality, in correctly estimating the "exit" and "entry" populations of different age groups, and in projecting the future contraceptive behavior also.

The arithmetic method can be used for short period projections if the conditions are fairly static. The geometric method can take care of exponential (cumulative effect) growth of population in a quasi-dynamic or quasi-static setup. The ratio method is good for sub-national projections for short period under static conditions about net migration. Multiple regression method can be used to incorporate several changing variables under certain assumptions.

Population projections (American's call them 'forecasting') have several limitations. Demographers go wrong because assumptions go wrong. Many a times the "estimates" turn out to be mere "guesstimates".

Forecasting is much more difficult than demographic research. However, the subject is so important that no planner can do without it. Even the governments of non-planned economics require figures for projected populations.**(J.P.Yadav, Population Geography Vol-II)**

The population projections based on arithmetic method are calculated for Haveri & Shimoga districts from 2021 to 2031and are listed in the below table. The arithmetic method used to calculate population projection is

$$P_n = P_o + \frac{n (P_o - P_m)}{M}$$

Where P_n = Projected Population.

P_o = Present Population or recent census population

P_m = Previous population or past census population

m = Number of years between present & previous population

n = Number of years between present & projected population

Table 5.15 Population Projection India

During Next 5 Years 2021 - 2025

Sl.No.	Year	Projected Population in Millions
1	2021	1391.64
2	2022	1409.79
3	2023	1427.94
4	2024	1446.09
5	2025	1464.24

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    Geography", Prentice Hall inc.

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