POPULATION GROWTH AND GENERAL CHARACTERISTICS IN INDIA

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Abstract.
The number of people who live in a given geographic region depends on the location, advantages and fertility, mortality and mobility factors. Population growth refers to the increase in the number of individuals in the population of a region. The present paper aims to analyze the total and zone, (states)-wise growth of population and causes of factors affecting density, dynamics of population distribution, growth rateamong the states and union territories of India. The study also highlights on the population growth and general characteristics in India withthe growth rate of the population depending upon its fertility (birth rate), mortality (death rate) and mobility (migration). The growth of population in India is more a function of fertility and mortality rates. Migration is an important factor in the growth of some selected urban and industrial regions. The entire research work is based on secondary sources of data, collected from census of India publications (1901-2011), New Delhi. The boundary of a state/union territory (UT) has been taken as the study. The researchers have made an attempt to analyze the population ranging behavior by considering the decadal population data.

Keywords*: Population explosion, density, dynamics, fertility.*

Introduction

India, the second highest population country after China, houses about 1.24 billion people. The present study intends to examine the state wisevariations in growth of population in India from 1901 to 2011. It discusses the spatial pattern of population growth in India after 1961-71.The Study is based on secondary data obtained from Census of India. The study observes four distinct phases in the demographic history of India, i.e., 1901-21, 1921-51, 1951-81, and 1981 and onwards. Each phase is characterized by varying fertility and mortality of population. Both fertility and mortality varied from the highest 45% in 1901-21 to the lowest 7% in 2011. Similarly, the growth rate also varied from the lowest 5.41% in 1901-21 to the highest 89.24% in 1951-71. The study reveals that the 2001-11 is the fourth decade in succession since 1971-81, when India witnessed decline in overall growth. The study reveals remarkable variations in growth pattern across the country. The Northern India has shown both high growth and high natural increase of population. The study also shows significant rural-urban divide in the growth patterns.

Location aspects of the Study area

India is a country of great geographical extent. It sprawls from the range of the Himalayas in the north to the shores of the Indian Ocean in the south. It belongs to Asia which is the largest continent of the world. India extends from 8^0 4' north to 37^0 6' north latitude and 68^0 7' east to 97^0 25' east longitude. India is the second most populous country in the world after China. India is a vast country with geographical diversity (topographical, climatic, biological and cultural). It has total area of 3,287,263 sq. kms.

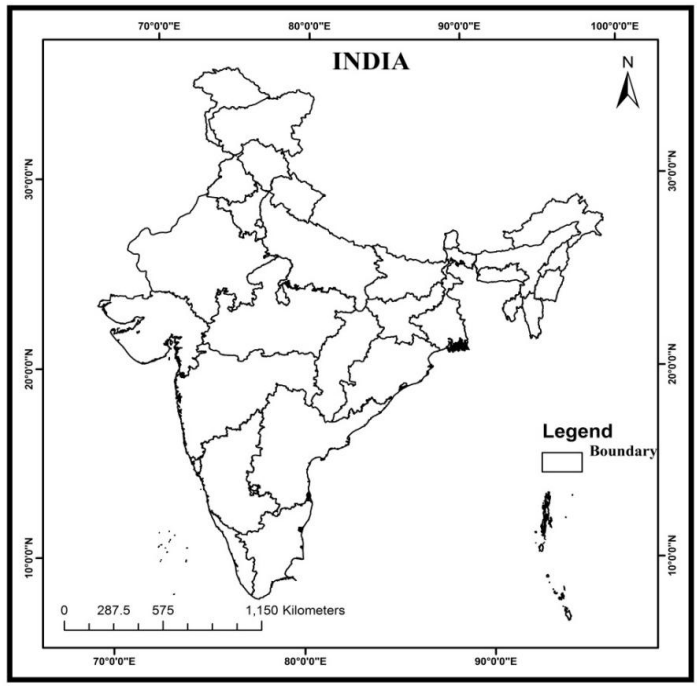

Figure 1. Location aspects of India and the Study area

Objectives

The paper aims to: Analyze the trends of population growth in India. To study efforts to enumerate the population of different parts of the country began during the first half of the nineteenth century. To identify the spatial and temporal distribution of population in India. To find out the trends of basic concepts like Natural growth, Migratory growth, Positive and Negative growth, Comparison of population of some Indian states with that of some large countries of the world

Data base and Methodology

The data used for the analysis has been drawn from a wide variety of sources like the Census of India 1901-2011, Office of the Registrar General of India.This paper uses the quantitative and qualitative methods-based on the Marxian theory and the Malthusian theory.Population explosion, demographic transition, growth andpopulation characteristics, etc., have been studied. Since the first Indian census was 1881.

Census data (1901 to 2011) on migration were obtained only through the particulars of birth place. Information on migration was also obtained through the reasons for migration from place of last residence and the duration of residence at the place of enumeration. All reasons have been classified into various groups namely, employment, business, education, marriage, moved after birth, moved with household and others. The rapid growth of the Indian population over the past one hundred years results fromthe difference between the rate of birth and the rate of death. The fall in death rates that is decline in mortality rate is

one of the fundamental causes of overpopulation. Due to new discoveries in nutritional science, we have been able to bring in increase in the fertility rates of human beings. Thus, science has led to an increase in birth rate. Immigration is a problem in some parts of India.
Illiteracy is another important cause of overpopulation. Total Fertility Rate (TFR) is one of the key measures of a nation's population growth. Infant mortality rate is an important parameter affecting future growth of a population. Life expectancy is the average age that a new-born infant is expected to attain in a given country. The average life expectancy over the globe has risen from 40 to 65.5 years over the past century. In India, life expectancy of males and females was only 22.6 years and 23.3 years respectively in 1900. Demographic transition is usually related to economic development. There occurs a typical fall in death rates and birth rates due to improved living conditions.

Dynamics of population distribution

The spatial pattern of population distribution does not necessarily remain unchanged over time.Although the major areas of high and low density of population have remained more or less the same over the last few decades, there have been variations in the ranks of various states in terms of density of population. Theoretically such changes in the pattern of population distribution can occur due to varying rates of growth either due to the differences in the rates of natural growth or due to migrations. Most of these changes in India, however, are a result of different regions. The most conspicuous example of this difference during 1991-2001 is that of Kerala and Bihar. While Kerala had a higher population density than Bihar in 1991, Bihar overtook Kerala in 2001-mainly due to an increase in the density of population of Bihar due to the higher growth rate of population. The case of Punjab and Tamil Nadu is also similar. While Tamil Nadu had a relatively higher density in 1991, Punjab surpassed it in 2001. The ranks of the top ranking regions like Delhi, Chandigarh, Pondicherry and Lakshadweep, however, remained the same during the period.

Growth of population

The growth rate of population is an important demographic characteristic which not only helps in understanding the population change that a society has undergone, but also helps in predicting the future demographic characteristics of an area. Therefore, it is useful to study the pattern of population growth, and analyze this pattern to identify the major factors that determine growth rate of population in a particular region.
The population of India has been growing continuously since the beginning of the twentieth century. The total population of the country in 1901 was 238 million which grew to 1.027 million over a period of one century, showing a cumulative growth rate of 320.8 percent over the 1901 figure. It was only during1901-21that population recorded a marginal decrease, and ever since it has been continuously rising. The year 1921 is considered a great divide in the growth rate of population in India. Before 1921, the growth rate had been very low and functioning and from this year onwards till 1971, the population grew in an accelerating mode. The growth rate in 1901-11 was only 5.75 percent falling to -0.31 in following decade.
In the next decade (1921-31), the growth rate was 11.0 percent 1921-31 which amounted to 24.08 percent during 1961-71. There had been a marginal decline in the growth rate since 1971, through the growth rate is still above 21 percent. Another decade during which the growth rate showed a marginal decline from 14.22 percent of 13.31 percent had been the period of 1941-51.
However, in spite of these marginal declines, the average number added to the population has been increasing since the great divide of the 1921. There was a variation in the decadal

growth rate and the average annual exponential growth rate during various censusesof decades since 1901, the growth rate of population was increased from 11 percent in 1921-31 to 24.08 percent during 1961-71. The population of the country more than doubled itself during the half century from 1921 to 1971 and within 80 years (1921-2001) it quadrupled. Such growth in population is phenomenal by any standards. Uttar Pradesh and Maharashtra, the two most populous states in 2001, have more population today than the population of the whole country just 80 years back in 1921.

One positive aspect of the growth rate since 1971 has been the slow but steady decline in the decadal growth rate of population. During the last three census decades, the decadal growth rate has come down from 24.80 percent to 21.34 percent. However, it does not mean that the growth in the population in century has come down in the absolute terms. Since the base population has been increasing during every decade, the total number of people added per decade during these last thirty years has also been increasing. While about 13.5 million people were added to the population during 1971-81, the number of people added during 1991-2001, in spite of a lower growth rate has been about 17.5 million. Thus the absolute number of people added during successive decades has been increasing even though the rate of growth shows some slackening.

Table 1. Growth Rate of Population in India

Sl. No	Census of years	Population	Decadal Growth Rate. (percent)	Average Annual Exponential Growth Rate. (Percent).
1	1901	23,89,96,237	-	-
2	1911	25,20,93,390	5.75	0.56
3	1921	25,13,21,213	-0.31	-0.03
4	1931	27,89,77,238	11.0	1.04
5	1941	31,86,60,580	14.22	1.33
6	1951	36,10,88,090	13.31`	1.25
7	1961	43,92,34,771	21.64	1.96
8	1971	54,81,59,652	24.80	2.20
9	1981	68,33,29,097	24.66	2.22
10	1991	84,33,87,888	23.86	2.14
11	2001	1,02,70,15,247	21.34	1.93
12	2011	1,21,01,93,422	17.64	-

Source: Census of India (2011), Provisional Population Totals

Factor Affecting Growth Rate

The growth rate of a population depends upon its fertility (birth rate), mortality (death rate) and mobility (migration). The growth of population in India is more a function of fertility and mortality rates. Migration is an important factor in the growth of some selected urban and industrial regions, but it does not have a significant impact on the national average. Hence, the high growth rate of population in India is primarily a result of the widening difference between the birth rate and death rate. Though both these rates show a decline the national level, the rate of decline in the death rate has exceeded the rate of decline in birth rate, thereby widening the gap between the two rates in favor of a rapid expansion of the population. We have been able to bring the death rate quite low with better health care and nutrition standards and through a control over big killers like famines and epidemics. Presently, the death rate is under the 10 thousand of population, while the birth rate still remains as high as above 26 per thousand. However, there are variations in the birth and

death rates in different parts of the country. While the gap between the two rates is the lowest in states like Kerala and Tamil Nadu and in state like Uttar Pradesh and Bihar, this gap is relatively high.

Table 2. Population of ten most populated countries of the world:

Sl.No	Country	Reference date	Population (in millions)	Percentage of Total World Population
1	China	01-11-2010	1,341.0	19.4
2	India	01-03-2011	1,210.2	17.5
3	USA	01-04-2010	308.7	4.5
4	Indonesia	31-05-2010	237.6	3.4
5	Brazil	01-08-2010	190.7	2.8
6	Pakistan	01-07-2010	184.8	2.7
7	Bangladesh	01-07-2010	164.4	2.4
8	Nigeria	O1-07-2010	158.3	2.3
9	Russian Fed	01-01-2010	140.4	2.0
10	Japan	01-10-2010	128.1	1.9
	Other countries	01-07-2010	2,844.1	41.2
	World	01-07-2010	6,908.7	100

Source: census of India (2011) Provisional Population Totals

Table 3. India's Population is so large that, Population of some state is larger or almost equal to the total population of several large countries of the world.

Comparison of population of some Indian states with that of some large countries of the world. Population in millions (2011).		
	Indian States	Countries
1	Uttar Pradesh:190.7	Brazil:190.7
2	Maharashtra:112.4	Japan:128.1
3	Bihar:103.8	Philippines:98.0
4	West Bengal:91.3	Germany:82.3
5	Madhya Pradesh:72.6	Egipt:73.0
6	Gujrath:60.4	Italy:59.3
7	Odisha:41.9	Argentina:41.0
8	Kerala:33.4	Iraq:33.0 afganistan;32.9
9	Chhattisgarh:25.5	Ghana:25.4, Australia:21.9
10	NCT of delhi:16.7	Angoa:16.3

Census of population

Data regarding population are collected through censuses all over the world. A census count offers a spectrum of population at a particular point in time covering a wide range of demographic, social and economic attributes of population. The year 1872 marked the beginning of census taking in India. Although it marked an auspicious beginning, it was neither a synchronous project nor did it cover the entire country. The first complete and synchronous census covering the entire country and providing vital demographic data was conducted in 1881. Since then, the census in India has been conducted regularly after every

ten years. The 2011 census represents the fifteenth census of India as reckoned from 1872 and seventh after independence. With a view to widen the scope and improve the quality of census data, modifications in its schedule and questionnaire have been introduced from time to time.

The combined Population of Uttar Pradesh and Maharashtra is about 312 million which is substantially greater than the Population of USA, the third largest country of the world with Respect to the Population.

Population growth since 1901:

Trends in population growth since 1901 have been given and there have been demographic divides as far as trends in population growth are concerned. These significant turning points are the census year 1921, 1951, and 1981.Thus, the demographic history of India can be charted and classified into the following four distinct phases.

Period of Stagnant Population (1901-1921)

During the most of the 19th century, India witnessed sporadic, irregular and slow growth of population which drifted into twentieth century until 1921. Thus the population growth during this period can be termed more or less stagnant when compared to the growth rate observed during the consequent periods. The high birth rate was counterbalanced by high death rate. The progressive growth rate in 1921 over 1901 was only 5.42 per cent. In fact, the census year 1921 regarding a negative growth rate of –31 per cent which happened only once throughout the demographic history of India, is because of this decline in place of rise in population that the year 1921 is called demographic divide in the demographic history of India. The high mortality during this period was the product of large scale abnormal deaths due to epidemics of influenza, plague, small pox, cholera, etc. influenza alone claimed 12 million lives in 1918. Food shortages causes by severe drought in 1911, 1913, 1915, 1918 and 1920 claimed their own toll. In addition, thousands Indian soldiers lost their lives during the World War 1 (1914-18). Lakhs of people emigrated to a number of countries in Africa.

From the view point of population studies, India has been divided into six zones. They are:

(I)NorthernZone: (Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Chandigarh, and Delhi),

(II)Eastern Zone: (Bihar, Jharkhand, Sikkim, West Bengal, Orissa and Andaman and Nicobar Islands),

(III)North-east Zone: (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura),

(IV)Central Zone: (Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Uttarakhand),

(V)Western Zone: (Gujarat, Maharashtra, D&N Haveli, Daman and Diu)

(VI)Southern Zone: (Andhra Pradesh, Telangana, Pondicherry, and Goa).

During the period 1901-1921, the northern zone suffered a net loss of 1.4 per cent of its population due to various and epidemics. In contrast, the north-eastern zone registered a very high growth rate mainly due to large scale immigration and to some extent lesser suffering from famines and epidemics.Assam, Manipur, Tripura, and Nagaland, experienced very high population growth. Assam attracted large numbers of immigrants in its tea gardens. The southern zone experienced normal growth rate of 11.1 per cent because it did not suffer from famines and epidemics. However, Kerala was an exception which registered a sharp growth of 22 per cent.

Period of steady growth (1921-51):
During 1921-51, the population of India wasincreased from 251 million to 361 million.
This duration of 30 years has thus registered a growth of 47.3 per cent. Therefore, this period is called the period of steady growth rate. The mortality rate started showing downward trend as a result of improvement in general health and sanitation conditions after 1921. These developments helped in controlling epidemics like plague, cholera and malaria. The crude death rate which stood at a high of 47 per thousand in 1921 Decline to 27 per thousand in 1951, on contrary the crude birth rate continued to stay at an abnormally high level and decline only to 40 per thousand in 1951 as against 48 per thousand in 1921.Death rate was also housed achieved partly through the improvement in the distribution system as a result of improved transportation so that timely supplies of food could be made available to drought and famine stricken areas. The combined effect of those factors was that the population started increasing steadily. Since crude death rate declined considerably and crude birth rate remind very high, the population growth during this period, is called mortality induced growth. During this period, the northern, eastern and southern zones registered the growth rates close to the national average. The central zone registered comparatively low growth rate of 35.6 mostly due to higher rate of mortality and substantial out migration. The western zone experienced high growth rate of 56 per cent partly due to national growth and mainly due to immigration caused by industrial growth in Mumbai, Ahmadabad, Vadodara and Suratt.

Period of rapid high growth (1951-81):
After 1951, there was a steep fall in the mortality rate but the fertility remained stubbornly high. Therefore, this period experienced very high rate of population growth and is often referred to as the period of population explosion. As a matter of fact, the birth rate increased from 40 per thousand in 1951 to 42 per thousand in 1961. In contrast, death rate fell rapidly from 27 per thousand in1951to 12 per thousand in 1981. Consequently the natural rate of growth, which fell slightly from 14.0 per thousand in 1931 to 13 per thousand in 1951, rose steeply to 4 per thousand in 1971 and remained at the same level in 1981, also. The total population of the country increased from 361.09 million in 1951 to 683.3 million in 1981 recording an increase of 89.36 percent in a short span of thirty years. This unprecedented growth rate was due to the accelerated developmental activities and further improvement in health facilities. The living conditions of the people improved enormously. Death rates declined much faster than the birth rates. During this period, the northern zone experienced the highest growth rate of 111 per cent whereas the southern zone, which had higher the national average during 1901-1921 and 1921-1951, had the lowest growth rate during 1951-1981.

Period of high growth rate with definite signs of slowing down (1981-2011): The last phase of 20th century and the early phase of 21st century i.e., the period between census years 1981 and 2011 is known as the period of high growth with definite signs of slowing down. Although the rate of growth was still very high, it started declining after 1981. The highest ever growth rate of 2.48 per cent was recorded in 1971 and remained at a high of 2.46 in 1981. It declined to 2.38 per cent in 1991, 2.15 per cent in 2001 and further to 1.76 in 2011. Thus, the growth rate registered low in the decade 2001-2011. During the period 1981-2011, the northern zone and the southern zone had the highest and lowest growth rates respectively. This declining trend marks the beginning of a new era in the country's demographic history. During this period, birth rate declined rapidly, from 36 per thousand in

1981 to 22.5 per thousand in 2009. Declining trend of death rate continued but at a slower rate, the difference between birth and death rates narrowed to 15.2 per thousand. This, declining trend is a positive indicator of theofficial efforts of birth control and peoples own inclination to opt for the smaller families. Although population growth rate in India continues to decline since 1971 census year, yet India's population growth rate is much higher as compared to that china, USA, Japan, Brazil, Indonesia, Bangladesh, etc., Russian Federation and some other European countries have recorded negative growth. During 2001 and 2011, Indian population increased to 181.45 million which is slightly less than that of Bangladesh, Nigeria, Russian Federation or Japan. These countries are amongst the ten most populated countries of the world. In fact, each year we are adding to our population which is almost equal to the population of Australia.

Population growth, 2001-11

The recentdecline in the rate of growth of population in India heralds a new era of stabilization of population in India. The resent census has revealed a perceptible change in the country's demographic scene, especially in growth rate.For the first time in recent census history, there has been a marginal decline in increase in absolute numbers being added to the country's population. Ever since 1921-31, the country had been adding more people every decade in comparison to previous decade, but the decade 2001-11, for the first time, added 182 m to the country's population in comparison to 184 m added during the preceding decade of 1991-2001. Even if it is only a marginal decline of 2 m yet it heralds a new era of smaller absolute increment of the country's population and a reversal of the trend of increasingly absolute addition decade after decade for almost a century.

Consequently, there was also a perceptible change in terms of percentage increase as the decade recorded a growth rate of only 17.64 percent in country's population in comparison to 21.54 percent during the preceding decade 1991-2001. Thus, although the growth rate of population in the country had been declining marginally since 1971-81, the decade 2001-11 for the first time recorded a significant fall in growth rate of population to the tune of 3.90 percentage points. It signals the beginning of a new era, a vivid step towards stabilization of country's population. The growth of population in any area has to be seen in the context of its vital rates. The latest SRS data on vital rates reveal that the average fertility and mortality rates for the year 2011 were 21.6 and 7.0 respectively, yielding a natural growth rate of 14.6 percent. The mortality dominated demographic scene in India is a new history. It was true until the fertility rate remained stubbornly and continued to stay at a high level.

Different states of India could be categorized into three categories of states. One of those isstates where mortality has declined to below 17 per thousands.Such states and union territories include Tamil Nadu, Kerala, West Bengal, Himachal Pradesh, Punjab, Manipur, Nagaland, Goa, Pondicherry, Lakshadweep and Chandigarh. These states accounts for one-fifth of the country's total population. The second is the states and union territories where fertility still stood at higher level, above 24 per thousand.Theseincluded Uttar Pradesh, Rajasthan, Madhya Pradesh, Jharkhand, Chhattisgarh, Maharashtra, Meghalaya, Arunachal Pradesh, Dadra and Nagar Haveli. These areas together account for over two-fifth (44percent) of the country's population, thethird is the states such as Bihar, Orissa, Assam, Haryana, Karnataka, Uttaranchal, Andhra Pradesh, Mizoram, Sikkim and National Capital Territory of Delhi in India (NCT) had a fertility ranging between 17 and 27 per thousand that is in close proximity of national average of 21.06 percent.

These areas together accounted for 36 percentage of the country's total population. A perusal of recently released SRS data reveal the decline in mortality has sharply decelerated; the mortality has almost stabilized at a low level which is fairly comparable to

that of the most developed countries; the fertility decline has gradually accelerated; low fertility levels are really more widespread in the country covering most of the states and (Union Territories) UTs; the decline in fertility has become well established; and in most of the states and UTs, the total fertility rate is either close to or below the replacement level of 2.1 percent. Since mortality has stabilized at the low level, it is the trend in fertility that is going to determine the growth of population in different states in coming decades. Thus, the recent inter-censual period of 2001-11 has emerged as the most significant turning point in 100 years of India's demographic history and has herald the new era. The country's demographic ethos seems to have undergone a sea change.

Another notable feature of India's demographic scene has been the increase in life expectancy at birth. The country had a life expectancy of 32 years at the time of its independence and 58 years about 2 decades ago in 1991 and now in 2011 it had a life expectancy of 67 years which was fairly comparable with many developed countries. Again the female life expectancy of 68.01 percent outmatched the male life expectancy of 65.08 percent. This feature also shifts the country from the list of developing countries to the list of developed nations. In the developed world male mortality rate is more than the female mortality rate, therefore, on an average, females there live longer than males while reverse is the case with less developed countries.The fact that the female mortality rate in India has become lower than that of males will become clear only when the relevant data available but the higher female life expectancy in it is a significant feature of the country's changing demographic scenario which is likely to have far reaching implications.

All those developments establish beyond doubt that the country is fast approaching the final stage of the demographic transition model. The process of demographic evolution which started in 1921-31 has been accentuated during the last two decades 1991-2011 due to the improving literacy rates, particularly of females, improving levels of educational attainments, increasing age at marriage and increasing strain on the individual's purse coupled with higher level of socio-economic awakening of the general masses. Given the present rapidly declining fertility and the changing socio-economic milieu, it would not be risky to expect that the country's goal of population stabilization may be achieved by 2041 when the country reaches the final stage of its demographic transition. By than the fertility levels will be less than 15 and mortality levels will be less than 10 per thousand and the burden of demographic momentum shall also get diminished.

Table 4. India: Comparative Growth of Population of EAG and NONEAG States, from 1951-2001

Sl. No	Decade	India	EAG states	NON_EAG states
1	1951-61	21.64	19.91	23,00
2	1961-71	24.80	23.01	26.17
3	1971-81	24.66	25.43	24.08
4	1981-91	23.87	25.12	22.92
5	1991-2001	21.54	24.99	18.90
6	2001-2011	17.64	20.92	14.99

These statistics reveal the area of concern as far as the process of demographic evolution in the country is concerned. India being a large country with wide socio-cultural diversity, there are wide spatial variations and sometimes even spatial contrast in various demographic attributes of great significance for the transformation.

In spatial terms, table 05 shows that among various states, Meghalaya, with 27.82 percent, recorded the highest growth rate following by Arunachal Pradesh 25 .92 percent, Bihar 52.07 percent, Jammu and Kashmir 23.71 percent, Mizoram 22.78 percent, Chhattisgarh 22.59 percent, Jharkhand 22.34 percent, Rajasthan 21.44 percent, Madhya Pradesh 20.30 percent, Uttar Pradesh 20.09 percent, all of which had a growth rate of more than 20 percent in their population during 2001-11.

Table No 05.Growth of Population in India, 2001-2011

India	17.64
States	
Meghalaya	27.82
Arunachal Pradesh	25.92
Bihar	25.07
Jammu and Kashmir	23.71
Mizoram	22.78
Chhattisgarh	22.59
Jharkhand	22.34
Rajasthan	21.44
Madhya Pradesh	20.30
Uttar Pradesh	20.09
Haryana	19.90
Gujarat	19.17
Uttaranchal (Uttar Khand)	19.17
Manipur	18.65
Assam	16.93
Maharashtra	15.99
Karnataka	15.67
Tamil Nadu	15.60
Tripura	14.75
Orissa (Odisha)	13.97
West Bengal	13.93
Punjab	13.73
Himachal Pradesh	12.81
Sikkim	12.36
Andhra Pradesh	11.10
Goa	08.17
Kerala	04.86
Nagaland	-0.47
Union territories	--
Dadra and Nagar Haveli	55.50
Daman and Diu	53.54
Pondicherry	27.72
Delhi	20.96
Chandigarh	17.10
Andaman and Nicobar Islands	06.68
Lakshadweep	06.23

Source: census of India (2011),**Provisional Population Totals**

Thecensusof India 2011 has, for the first time introduced the concept of empowered Action Group of states which includes 8 states, namely, Rajasthan, Uttar Pradesh, Uttaranchal, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Orissa. Table no. 4 compares the trend of population growth rate in EAG and NONEAG states since 1951, say since independence. Interestingly, the growth rate of population in EAG states was lower than that of NONEAG states during the first two decades of 1951-61 and 1961-71 mainly because of both mortality and fertility rates in EAG states the decline in mortality was faster than the decline in fertility resulting in comparatively higher rate of natural increase. The decade 1971-81 was a turning point in the demographic transformation of the country because during this decade the growth rate declined in most of the states due to decline in fertility as well as mortality rates. However, since in case of EAG states the decline in fertility was less pronounced than that in NONEAG States.Therefore, in the following three decades of 1981-2011, the population growth rate in non-EAG states displayed a faster decline in growth in comparison to that of EAG states. No wonder, the actual growth rate of population during 1981-2011was comparatively high in EAG states because in case of non EAG states, the growth rate declined much more sharply.

Other states that have higher growth rate than the national average of 17.64 percent include Manipur (18.65 percent), Uttaranchal (19.17 percent), and Gujarat (19.90 percent). At the other end of the scale was Nagaland, the only state to have registered a negative growth in its population. It recorded a growth rate of -0.47 percent. It was a steep fall from its growth rate of 64.53 percent during the previous decade of 1991-2001. There seems to be enumeration correction. Otherwise, it is difficult to understand such a steep fall in the state's population growth rate in a single decade. It is authenticated by the fact that the districts of Longleng(58.39 percent) and Kiphire (30.54 percent) of Nagaland had the distinction of registering highest decline in their population during 2001-2011 where the enumeration correction was most obvious. Kerala (4.86 percent), Goa (8.17 percent), Andhra Pradesh (11.1 percent), Punjab (13.73 percent), Punjab (13.73 percent), west Bengal (13.93 percent) and Orissa (13.97 percent) were the other states to record slow growth rate of population during 2001-11.

Conclusion

According to United Nations Population Report, released on June 13, 2013, India would after China as the most populated country in the world by2028 when India's population will be about 1,448 million as compared to china's population 1443 million's. The report based on the new fertility data says that India's population would increase to 1,620 million till 2,050 and then decline to around 1,540 million by the end of the 21st century. China would enter the downturn era in population from 2025 onwards and lose its top spot to India in 2028.

Growing longevity will be another major factor responsible for population growth as the life expectancy at birthwould increase from 64.9 year in 2013 to 80.6 year in 2100 and would just be one percent point below the global average. Now it is 2.2 per cent points below the world average of 67.1 years. However, the fertility rate per women will fall below 2 in 2050 to 1.84 in 2100. It would result in proportion of the children below the age of 14 years to fall by 10 percentage points between 2013 and 2050. Even this fall will not help India much in controlling the population growth because the base population would be too large for any desired results.

The report also says that India will have one of the worst sex ratio in the world. India's sex ratio could be behind only the Middle East. Presently, India has 107 men for every 100

women, a ratio worse than that Pakistan, Bangladesh, and Sri Lanka. The world population will increase from 7162 million in 2050.

The country's journey from first stage of the demographic transition model to the final stage is likely to be completed shortly in the coming decade to two. The country's population growth rate declined for the first time in 1981-91 in comparison to previous decade and this declined has continued since then. However, the decade 2001-11 has witnessed the sharpest decline of 3.9 percentage points in comparison to the previous decade, which was highest since independence. The average annual exponential growth rate of population in India, which had reached its peak of 2.22 percent, in 1981 has since then been on the decline and has reached a level of only 1.64 percent in 2001-11. The decade 2001-11 was the first decade except 1911-21, that has added lesser population than the previous decade. The decade of 1911-21, had exceptional situational context. 15 states and union territories accounting for 85 percent, the country's total population recorded an average annual exponential growth rate less than 2 percent. 9 out of every 10 Indian lived in a state/union territory that has experience decline in its population growth rate during 2001-11 in comparison to previous decade. The inter-state variations in the growth rate of population during 2001-11 were quite wide ranging between -0.47 percent in Nagaland to 27.82 percent, in Lakshadweep to 55.05 percent in Dadra and Nagar Haveli. The growth rate of population during 2001-11 was much higher in case of eight EAG states 20.92 percent in comparison to non-EAG states 14.99 percent. It may be of special interest to point out here that the EAG states had lower growth rate of population until 1961-71 due to high mortality and high fertility rate. It was only since 1971-81 decade that their growth becomes higher than that of NONEAG states due to sharp decline in their mortality rates while their fertility rates stood on high. The North-South divide that existed in the pattern of growth rate of population inthe country until 1991-2001 now seems to be narrowing down because the states in North India too have now recorded a steep fall in their growth rate of population.

The states still experiencing comparatively high growth rate of population obviously had comparatively higher proportion of child population (0-6 years). The sharp decline in the country's growth rate of population during 2001-11 was the product of the fact that mortality rate in the country had reached quite low below 10 per thousand, since long and any further decline in its fertility rate got reflected in the country's growth rate of population. Such a trendhas likely to get sharpened in the decades to come. The rural-urban differential in the natural rate of increase of population too seem to have been narrowed down further. Future performance of the country, however, shall depend upon how for the EAG states succeed in controlling their fertility level. Since the country's literacy especially of females has increased significantly, it is expected that it may not be difficult to control fertility rates even in the case of EAG states. The district of Kurung Kurmey 111.00 percent of Arunachal Pradesh recorded the highest growth rate of population during 2001-11. It was followed by the district of Yanam 77.15 percent of Pondicherry. The district Longleng -58.39 percent of Nagaland had the lowest growth rate of population. The population of the district declined by 58.39 percent during 2001-11 it was followed by another district of Kiphire -30.54 percent of same states where too the population declined by almost one-third just in a single decade. It however, appears to be an enumeration correction. India as a whole was in the third stage of demographic transition model with a steep decline in birth rate and stabilized low level death rate. However, there are number of states and union territories that have already reached the final stage of the transition model, while some still continue to be in the third stage. The coming two decades are going to be most critical for the control for the country in this regard. It is also obvious that in four contiguous southern states the fertility decline seems to have stabilized at a significantly low level and it is now stretching to Maharashtra and Gujarat in

the West and Orissa and West Bengal in the East.Kerala took five decades from 1961-71 to 2001 -11 to bring down its growth rate of population from 26.03 percent to 9.43 percent. The EAG states still have a growth rate of from more than 20 percent. Thus, there is time lag of 40 years between Kerala, Tamil Nadu and EAG states. But because now the mortality in EAG states has declined significantly and stabilized at low level any further decline in their fertility in the coming decades is likely to get reflected in their growth rates.

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