



IAS 100

A Civil Services Chronicle Initiative

POPULATION AND RELATED ISSUES



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By 2028, India is predicted to overtake China as the world's most populous nation. In an already overcrowded world, richer countries are being asked to share responsibility for the problem of this population explosion, which to a large extent is due to poverty.

Population of India as per 2011 provisional totals of census 2011 is 1,210,193,422 compared to a total of 1028,737,436 in 2011. Of the total provisional population of 1210.2 million, the number of males was pegged at 623.7 million and the population of females stood at 586.5 million. The percentage growth in 2001-2011 was 17.64 – males 17.19 and females 18.12. India's population accounts for world's 17.5 per cent population.

In absolute term population of India has increased by more than 181 million during the decade 2001-2011. The absolute addition to the population during the populous decade 2001-2011 is slightly lower than the population of Brazil, the fifth most populated country of the world.

India in World Population

Population of India, at 1210.2 million, is almost equal to the combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh and Japan put together. The population of all these six countries totals 1214.3 million, the silver lining is that 2001-2011 is the first decade with the exception of 1911-1921 which has actually added lesser population compared to the previous decade. In other words we can say that population of India is larger than the combined population of North America, South America and Australia put together. Such a large population of India invariably puts pressure on its limited resources and is responsible for many socio-economic problems in the country.

A point that is striking is that India accounts for 2.4 per cent of the world surface area of 135.79 million square kilometers; it supports and sustains a whopping 17.5 per cent of the world population. In contrast, the USA accounts for 7.2 per cent of world surface area with only 4.5 per cent world

population. As such, among the ten most populous countries of the world, only Bangladesh has higher population density compared to India.

With more than 1.2 billion people, India contains about 17.5 per cent (every sixth person in the world is an Indian) of humanity. China is the only country with a larger population, with 144 million more people. The United Nations has estimated that the Indian population grew at an annual rate of 1.43 per cent during 2005-10. In comparison, China registered a much lower annual growth rate of 0.7 per cent during corresponding period. In fact, the population growth is now almost at par with that of the developed nations.

Analyzing the provisional Census, 2011 data which says that India had 1189 million people whereas China's has 1338 million. Nearly 27 million children are born every year in India and only 16 million in China. In the last 20 years, India's population has increased by more than 350 million, while China's has increased only by 210 million.

World population was transformed in the 20th century as technological and social changes brought steep declines in birth rates and death rates around the world. The 20th century began with 1.6 billion and ended up in 6.1 billion mainly because of unprecedented growth after 1960. The momentum created by this population growth may carry the world population past seven billion by 2015. It is almost certain that all the future population growth will occur in the developing regions of the world. Urban areas in these regions will absorb most of the additional people.

It is a generally accepted phenomenon that poor tend to have larger families because of high infant mortality and the notion that more hands more income. In developing countries, a "Youth Bulge" ensures that the absolute number of birth will rise even as couples are having fewer children.

Population Momentum

Even when total fertility declines, there is a lag period before the rate of natural increase declines. This is because people who have already been born

build momentum into the population. Think about what happens when you slam on the brakes of a moving vehicle.

Do you stop right away? No, you continue to move because of momentum. The same is true of population growth. ***Population momentum refers to the tendency of a population to continue to grow beyond the time when replacement levels of fertility are achieved. Replacement rates are the number of births necessary to simply replace the current population.*** Momentum introduces a lag between achieving replacement levels of fertility and a levelling off of natural increase.

At the other extreme, most countries in Europe now have a “Youth Dearth” after decade of low fertility. Stagnant growth or even population decline is challenging more countries as fewer workers must support expanding pension and social security systems for their ageing citizens. Governments have crafted a range of population policies to address these and other issues over the last half-century. In developing countries, policies include support for family planning and reproductive health Programmes and efforts to improve women’s status, to enable women to have the number of children they want. In developed countries, particularly Japan and parts of Europe, Governments have implemented policies to promote gender equality in the workplace and ease the burden of childrearing—all to encourage women to have more children. The factors that drive childbearing trends—such as the economy, education, gender relations, and access to family planning—are numerous and complex, and public policies and programmes to influence population trends must address many issues at once. Demographic changes often take years to be evident, making it difficult to predict how today’s actions will affect the future size and distribution of populations. Small changes in childbearing trends today have huge implications for future population size.

POPULATION GROWTH: INDIA 1901 TO 2011

Growth:

Government of India has been conducting census in every 10 years since 1891. The latest census took place in 2011. The total population in each of these censuses and the average exponential growth rate is presented in Table 1 to look at the growth pattern of India’s population:-

Table-1

Year	Total population (in million)	Average annual exponential growth rate (in percent)
1891	235.9	-
1901	238.4	0.11
1911	252.1	0.56
1921	251.3	-0.3
1931	279.0	1.04
1941	318.7	1.33
1951	361.1	1.25
1961	439.2	1.96
1971	548.2	2.20
1981	683.3	2.22
1991	843.4	2.14
2001	1027.0	1.97
2011	1210.1	1.64

The history of population growth since 1891 can be divided into four distinct phases, the points of division being 1921, 1951 and 1981.

- I. 1901 to 1921: Stagnant population growth
- II. 1921 to 1951: Steady growth
- III. 1951 to 1981: Rapid growth
- IV. 1981 to 2011: High growth with definite sign of slowing down.

Population growth during 1891 to 1921:

- ❖ The year 1921 is called the great divide because it distinguishes the earlier period of population growth.
- ❖ This period (1891-1921) is referred as the period of stagnant or stationary phase of growth of India’s population.
- ❖ In this period growth rate was very low, even recording negative growth rate during 1911-1921. Both the birth and death rates were very high.
- ❖ High mortality rate levels due to widespread famines and epidemics were responsible for variable rate of population growth.
- ❖ For example, during 1911-21, due to influenza epidemic, 7% of the total population died.

Population growth during 1921 to 1951:

- ❖ This was the phase of steady population growth.
- ❖ Population grew from 251 to 361 million.
- ❖ Improvement in medical care and initial industrial growth had been the influencing factors in reducing the mortality rate.

- ❖ The crude birth rate remained high in this period leading to higher growth rate than the previous phase. This is impressive at the backdrop of Great Economic Depression, 1920s and World War II.

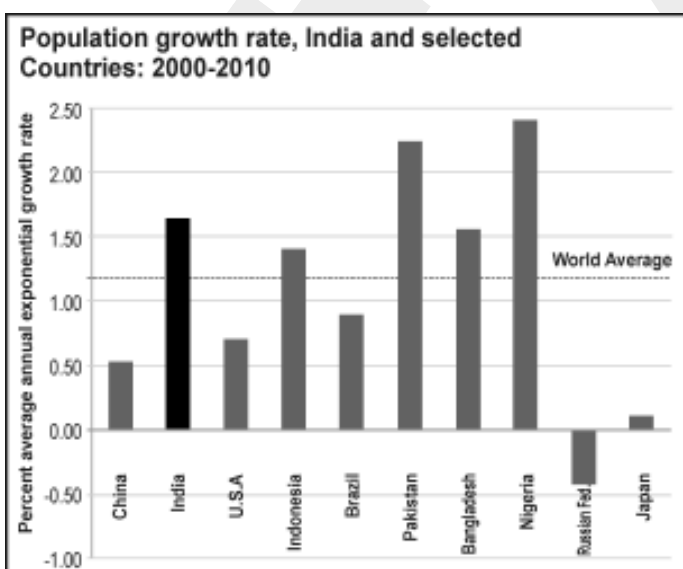
Population growth during 1951 to 1981:

- ❖ During this thirty years period, India's population almost doubled (see table)
- ❖ This period was referred as the period of population explosion in India.
- ❖ Northern zone experienced the highest growth.
- ❖ Independence, industrial growth and growth in health sector may have been the driving forces.
- ❖ The average annual growth rate was as high as 2.2%.

Population growth during 1981 to 2011:

- ❖ In the post 1981 till present, the growth rate of the country which remained high, started slowing down gradually.
- ❖ However, in the last 30 years period one finds that growth rate has declined from 2.22 in 1981 to 1.64 in 2011.
- ❖ In the last decade i.e., between 2001 to 2011, total decadal growth has been less than that of preceding decade. Such trend is recorded for the first time in India.
- ❖ Population polices, improved education and economic conditions could bring down the birth rate along with death rate.

Comparing India's population growth rate one finds, it is one amongst the top in the world along with Nigeria and Pakistan. The following figure shows the growth rates of top ten populous countries.



Source: Census of India 2011

India's population growth is fairly in tune with classical theory of demographic transition, which suggests that population of a country passes through different, more or less well-defined stages in terms of their levels of fertility and mortality. It starts with stage of high fertility and high mortality in a simple agrarian society, which finally transform into a condition of low fertility and low mortality after going through different stages. India is currently at the third stage where the birth rate falls but population continues to grow because of large number of people in the productive age group due to large fertility in the previous generation (Census of India, 2011)

One of the important features of the present decade is that, 2001-2011 is the first decade (with the exception of 1911-1921) which actually added lesser population compared to the previous decade. It implies that as a result of the combination of population momentum and somewhat impeded fertility, although India continues to grow in size, its pace of net addition is on the decrease.

In absolute terms, the population of India has increased by about 181 million during the decade 2001-2011. Although, the net addition in population during each decade has increased consistently, the changes in net addition has shown a steady declining trend over the decades starting from 1961. While 27.9 million more people were added between the decades 1981-1991 than between 1971-1981, this number declined to 19.2 million for the decades between 1981-1991 and 1991-2001. The provisional results of 2011 shows that between 2001 and 2011, the net addition is less than that of the previous decade by 0.86 million.

AGE COMPOSITION

Age composition of a population is the number of people in different age groups in a country. It is one of the most basic characteristics of a population. A person's age influence what he needs, buys, does, and thinks. Numbers and percentage of a population within the children (young) adult (middle aged) and the aged (old) groups determine population's social and economic structure.

According to age composition population of a nation is grouped into three broad groups:

Children (0-14 years):

- They are economically unproductive.

- (b) They need food, clothing, education and medical care.

Adults (15-59 years):

- (a) They are economically productive.
(b) They are biologically reproductive.
(c) They comprise the working population.

Aged (60 years and above):

- (a) They are mostly economically unproductive though some of them are still economically productive.
(b) They need medical care.

Dependency Ratio:

High percentage of children affects the dependency ratio. Children are not producers; they depend upon working population for their sustenance.

POPULATION GROWTH RATES: EAG (EMPOWERED ACTION GROUP) STATES AND NON-EAG STATES:

After the Aryan migration about 3500 years ago, there occurred a fundamental shift in the demographic centre of gravity from the Indus valley into the Gangetic plain. The growth of India's population has, since then, followed a pattern similar to those observed in this area. To analyze this a bit more closely, the growth rates of eight States popularly referred to in administrative parlance as the eight Empowered Action Group (EAG) States, namely, Rajasthan, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Orissa is compared with the rest of the States and Union Territories. The EAG group, from 1951 till 2011, have hosted between forty three to forty six per cent of India's population. Between 1951 and 1971, both the EAG and non-EAG States and Union Territories have grown resulting in an increase in the overall population of India. During this phase, the growth rate for the non-EAG States and Union Territories was more than that of the EAG States. From 1971 onwards, as a result of fertility decline in the non-EAG States and Union Territories there was a continuous fall in their growth. The growth rates in the EAG States stagnated around twenty five per cent till 1981-1991.

As a result, the decadal growth rate of India, till 1991, was almost at a constant level fluctuating around twenty four per cent. During 1991-2001, the growth rate for the EAG States remained same

as that in the previous decade, whereas there was continuous reduction in the growth rate of non-EAG States and Union Territories.

During 2001-2011, for the first time, the growth momentum for the EAG States gave the signal of slowing down, falling by about four percentage points, together with a similar reduction in the non-EAG States and Union Territories, brought down the rate of growth for the country by 3.9 per cent. Census 2011 marked a milestone in the demographic history of the country, as perhaps for the first time, there was a significant fall in growth rate of population in the EAG States after decades of stagnation. Among the EAG States, Uttarakhand and Orissa seem to be performing better than the rest, with the latter registering consistently lower growth rates than the Nation since 1971.

During 2001-2011, the growth rates of almost all States and Union Territories have registered a lower figure compared to the previous decade, namely, 1991-2001. The percentage decadal growth rates of the six most populous States, namely, Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh and Madhya Pradesh have all fallen during 2001-2011 compared to 1991-2001, the fall being the lowest for Andhra Pradesh (3.5 percentage points) and highest for Maharashtra (6.7 percentage points). Tamil Nadu (3.9 percentage points) and Puducherry (7.1 percentage points) have registering some increase during 2001-2011 over the previous decade. The growth of Orissa also started to fall from 1971, and its growth rate during 2001-2011, at fourteen per cent, is lower than the average of the non-EAG States. On the other, among the non-EAG States, the growth rates of Gujarat, Haryana, Delhi and Jammu & Kashmir are higher than the current National average. The reasons for the same might be different for different States.

Population Growth: All States and Union Territories:

It is significant that the percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. It declined from 23.87 per cent for 1981-1991 to 21.54 per cent for the period 1991-2001, a decrease of 2.33 percentage point. For 2001-2011, this decadal growth has become 17.64 per cent, a further decrease of 3.90 percentage points. Similarly, the average exponential growth rate for 2001-2011 has declined to 1.64 per cent per annum from 1.97 per cent per annum during 1991-2001. The average annual exponential growth rate during 1981-1991 was 2.16.

Uttar Pradesh continues to be the most populous State in the country with almost 200 million people living here, which is more than the population of Brazil, the fifth most populous country in the world. The combined population of Uttar Pradesh and Maharashtra (the second most populous State), at 312 million, is substantially greater than the population of USA, the third most populous country of the world. Twenty States and Union Territories now have a population of over ten million. On the other extreme, there are five States and Union Territories in the country that are yet to reach the one million mark. While Uttar Pradesh (199.6 million), Maharashtra (112.4 million), Bihar (103.8 million), West Bengal (91.3 million) and Andhra Pradesh (84.7 million) have all held on to the top five slots in terms of their ranking in 2011 as compared to 2001, Madhya Pradesh (72.6 million), which has moved on to take the sixth position from its seventh position, pushing Tamil Nadu (72.1 million) now to the seventh spot. A little more than six of every ten Indians live in one of these seven States.

Exactly half of the twenty most populous States, each with a population of ten million or more, have added lesser persons in the decade 2001-2011 compared to the previous one. Had these ten States added the same number of persons during 2001-2011 as they did in the previous decade, everything else remaining the same, India would have added another 9.7 million more persons during this decade. The phenomenon of low growth started to spread beyond the boundaries of the Southern States during 2001-11, where in addition to Andhra Pradesh, Tamil Nadu and Karnataka in the South, Himachal Pradesh and Punjab in the North, West Bengal and Orissa in the East, and Maharashtra in the West registered a growth rate between eleven to sixteen per cent in 2001-2011 over the previous decade. The Provisional Population Totals of Census 2001 predicted this: "It is also obvious that in the contiguous four major South Indian States fertility decline appears to have well established, stretching to neighbouring Maharashtra on the west and Orissa and West Bengal in the east, whereas in other regions it is rather scattered". Among the smaller States and Union Territories, Dadra and Nagar Haveli and Daman and Diu registered very high growth rates of more than fifty three percentage points. In contrast, Lakshadweep, Andaman & Nicobar Islands and Goa have registered single digit decadal growth. Nagaland is the only State which has registered a small negative growth during 2001-2011 after very high growths in all the previous decades.

The percentage decadal growth has declined during the census decade 2001-2011 as compared to the previous census decade in all the States and Union Territories except Chhattisgarh, Tamil Nadu and Puducherry, which together constitute about 8.17 per cent of India's population. A decline of more than five percentage points in decadal growth rate from the previous census decade was recorded for fifteen States and Union Territories, namely, for the States Jammu & Kashmir, Punjab, Haryana, Rajasthan, Uttar Pradesh, Sikkim, Nagaland, Manipur, Mizoram, Maharashtra and Goa, and also for the Union Territories of Delhi, Chandigarh, Lakshadweep and Andaman and Nicobar Islands. These fifteen States and Union Territories together account for more than thirty nine per cent of the country's population. Among the larger States and Union Territories, Delhi registered the sharpest drop of twenty six percentage points during the said period followed by Haryana (8.53), Rajasthan (6.97) and Maharashtra (6.74).

The remaining seventeen States and Union Territories have shown a decline of one to five percentage points in their growth rates during 2001-2011 as compared to 1991-2001. These seventeen States and Union Territories together account for more than fifty two per cent of total population. Thus more than nine out of every ten Indians live in States and Union Territories which have shown a declining trend in population growth.

The number of States and Union Territories with percentage decadal growth below eighteen per cent, the current National average, increased substantially from ten in 1991-2001 to seventeen in the decade 2001-2011, whereas the number of States/Union Territories with percentage decadal growth more than eighteen per cent reduced significantly from twenty five to eighteen. The sum total of the population of the States and Union Territories that registered less than the national growth rate has shown an impressive increase from about thirty four per cent in 2001 to forty seven per cent in 2011. Twelve States and Union Territories, with a combined population amounting to a little more than twenty four per cent of India has grown by less than fifteen per cent during 2001-2011. The number of such States and Union Territories was only three during 1991-2001.

It took four decades for Kerala to reach a decadal growth of less than ten per cent from a high growth rate of 26.29 per cent during 1961-71

to 9.43 during 1991-2001. Although Kerala has continued with this impressive show to register a growth rate of just above 4.9 per cent during 2001-2011, the decadal growth rates in Bihar, Chhattisgarh, Jharkhand, Rajasthan, Uttar Pradesh and Madhya Pradesh are still above 20 per cent, a level where Kerala and Tamil Nadu were forty years ago. However, the International experience is (European Fertility Project) that once the fertility transition had been established in a linguistic or cultural area, it spread rapidly and independently of socioeconomic level achieved. Perhaps the policy measures taken in the decade have prepared the basic ground for a similar situation in India and, one may expect a faster rate of fall in growth rates in the remaining States and Union Territories with increase in literacy and child care facilities and a reduction in poverty. The road to a stationary population before 2060 is long and arduous and would require intense efforts.

Rural Population:

The rural population has shot up by nearly four times since 1901 whereas the urban population has risen nearly fifteen times. The 2011 census reveals that for the first time the urban population of the country, which is increasing at a rate of over 12 per cent has led to an absolute increase in numbers compared to the rural areas. The trend of increase in the urban population continues, mainly on the back of migration from rural to urban areas. However, the total number of villages in India has increased from 6,38,588 (2001 Census) to 6,40,867 (2011 Census), representing an increase of 2,279 villages.

An analysis of the distribution of urban population reveals that the process of urbanization in India has been large city-oriented urbanization is crucially linked to migration. In India migration not only occurs due to economic reasons, but a host of social- cultural and other factors. The Indian census collects the data on migration using two questions asked to individuals, namely place of birth and place of last residence. The place of the last residence provides better situation of current migration as it captures the latest move in case a person has migrated more than once. It is also able to capture the return migrants. Despite the increase in urban population, India remains rural, with nearly 69 per cent of the Indian population still residing in villages. Out of the total of 1210.2 million population, the size of the rural population is 833.1 million.

Majority of the Indian population still depend on agriculture and related activities despite the shift from rural to urban areas. In this issue, we discuss how the changing demography is affecting the lives of people living in the rural areas. Tackling rural poverty still remains a pressing challenge for rural India. The sex ratio has increased from 946 in 2001 to 947 in 2011. While the overall sex ratio has improved from 933 in 2001 to 940 in 2011, there is concern over the fact that the child sex ratio has slipped to its lowest since India's independence. the sex ratio (the number of females per 1,000 males) for the 0-6 age group has dramatically dropped to 914 in 2011, from 927 in 2001. This means in a decade when the country enjoyed unprecedented economic growth, it also became a terrifyingly hostile place to be conceived or born as a girl. The heartening factor is that the overall population growth rate is 17.6 in 2011 which is significantly lower than 2001 when it was 21.15 per cent. It was only in 1911-1921 that the population growth had fallen.

Characterizing the Development demography of Rural India: At A Glance

Some Unchanged Features

- ❖ India still remains overwhelmingly rural, with nearly 69% of the Indian population still residing in villages. Out of the total of 1210.2 million population in India, the size of rural population is 833.1 million (or 68.84% of the total population). During 2001-11 the growth of rural population has been 12.18%. From 74.3 million (2001 Census), it has increased to 83.3 million as per Census 2011 which is an increase of 90.4 million.
- ❖ Majority of rural inhabitant still find it difficult to ensure their basic amenities of life like food, cloth and shelter
- ❖ Chronic hunger and malnutrition are still wide-spread in some parts rural India
- ❖ The total number of villages in India have increased from 6,38,588 (2001 Census) to 6,40,867 (2011 Census); an Increase of 2,279 villages
- ❖ Tackling rural poverty still remains a pressing challenge for rural India. Inspite of intense efforts towards this direction, rural poverty still causes concern for the overall growth of our nation.
- ❖ Still majority of population in rural India sustains on agriculture and linked occupations

and so rural economy is still predominantly dependent on agriculture.

- ❖ Searching jobs for the millions still remain a challenge for rural India; livelihood opportunities which are currently available to the people in villages are not dramatically different from what they were a couple of decades ago.

Progress: Some Major Achievements in Recent Years.

- ❖ The literacy rate of rural India has increased significantly in recent years as the Census data shows that rural literacy has grown from 58.7% in 2001 to 68.9% in 2011.
- ❖ A steady increase from 46.1% in 2001 to 58.8% in 2011 in female literacy rate has reduced the gender gap in rural education significantly. Pace of increase in female literacy rate is perceptibly higher in rural areas.
- ❖ The annual Status of education report 2010 report shows that for the age group 6 - 14 years in all of rural India, the percentage of children who are not enrolled in school has dropped from 6.6 per cent in 2005 to 3.5 per cent in 2010.
- ❖ The Mahatma Gandhi National Rural Employment Guarantee Act has directly led to the creation of 987 crore person-days of work since inception. In Financial Year 2010/11, (MGNREGA) provided employment to 5.45 crore households generating 253.68 crore person-days.
- ❖ Under Pradhan Mantri Gram Sadak Yojana roads have resulted in significant benefits to rural households because of better connectivity to markets and also easier access to health and educational facilities.
- ❖ Rural India has made remarkable progress in promoting women's political empowerment at the local level - with over 1.2 million elected women representatives across rural India
- ❖ The coverage of rural settlements under the national rural Drinking Water programme has shown an impressive rise, with almost universal coverage being reported. Dramatic improvement has also been evident in sanitation. The coverage of rural households provided with individual latrines has improved sharply from 27 per cent in 2004 to 62 per cent presently.
- ❖ The Indira Awas Yojana (IAY) programme has provided houses to 22.5 million BPL households.

- ❖ More than 3.5 million SHGs have been formed under the swarnjayanti gram swarozgar yojana (SGSY). The coverage under the national Social assistance programme which provided a pension for the BPL population over 65 had increased to 21.6 million beneficiaries by 2009/10.

Rural-Urban Composition of Population:

The latest census data provide a vivid picture of the changing pattern of rural-urban demography in India. total rural population of the country which was 212.5 million in 1901, went up to 833.1 million in 2011 i.e. nearly by 4 times, reflecting average growth rate of 2.65 per cent per annum. on the other hand, urban population shot up from 25.9 million to 377.1 million i.e. nearly by 15 times witnessing a whopping growth rate of 12.33 per cent per annum during the same period . For the first time since independence, the absolute increase in population has been more in urban as compared to rural areas. The urban population of the country shot up at such a high rate due to (i) migration of population from rural to urban areas (ii) inclusion of new areas under urban and (iii) due to natural increase in urban population. the proportion of rural population in total was 89.1 per cent in 1901 which gradually came down to 82.7 per cent in 1951 and further slid down to 68.8 per cent in 2011. It is evident that rural-urban population ratio was very high i.e. 8.2 in 1901. It came down to 4.8 in 1951 and ultimately slid down to 2.2 in 2011.

Rural-Urban Sex Ratio:

The number of females per one thousand males in India was 972 in the year 1901. It declined to the lowest level of 926 in 1991 but ultimately improved and reached at 940 in 2011. It is clear from the table that rural sex ratio which was 979 in 1901 declined to the lowest level of 938 in 1991. But during the subsequent period it improved and reached at 947 in 2011. On the other hand prior to the year 2011, sex ratio in urban areas always stood less than 900 (except for the year 1901).

In 2011 it improved considerably to the level of 926 In fact, sex ratio in rural areas always stood higher than that in urban areas. It indicates that the urbanization process in India failed to bring about the desired social and attitudinal changes towards women. easy excess to modern & advanced technology influence the urban masses to terminate the girl child in the foetus itself. On the contrary, the lack of sex determining facilities

and hence less female foeticides have proved to be a boon in maintaining comparatively higher level of sex ratio in rural areas. The rural-urban gap in sex ratio which was 69 points in 1901 widened to the highest level of 131 in 1941. But after 1961, it narrowed down and stood at 21 points in 2011.

Rural-Urban Literacy Rate:

Education plays the role of foundation stone in the overall socio-economic development of a country. It is an effective tool for the empowerment of a community. In 1901 only five per cent of our total population was literate. The overall effective literacy rate in the country improved to 33.11 per cent in 1961 and finally to 74.04 per cent in 2011. The rural literacy rate which was 24.48 per cent in 1961, improved to 68.91 per cent in 2011 reflecting an average growth rate of 0.89 per cent per annum during the last 50 years.

On the other hand, urban literacy rate also went up from 58.59 per cent to 84.99 per cent, showing the average annual growth rate of 0.53 per cent during 1961-2011. A positive development during the reference period has been that the literacy rate improved at a faster rate in rural as compared to urban areas. As a result, the gap in rural urban literacy rate narrowed down from 34.11 percentage points in 1961 to 16.06 percentage points in 2011. Despite several measures taken by central and state governments, literacy rate remains to be low in India, particularly in rural areas, calling for reduction in poverty and unemployment in the hinterland.

Challenges

India's illiterate population largest in the world UNESCO report:-

Education For All Global Monitoring Report (GMR) acknowledges the headway made by India in improving access to education but the country's population of illiterate adults has been identified as the drag factor. India currently has the largest population of illiterate adults in the world with 287 million. This is 37 per cent of the global total. While India's literacy rate rose from 48 per cent in 1991 to 63 per cent in 2006, "population growth cancelled the gains so there was no change in the number of illiterate adults. There are better tidings for India at the pre-primary and primary level. India features among the countries likely to achieve the pre-primary enrolment target of at least 70 per cent by 2015 along with countries like Australia,

Austria, Canada, Denmark, Norway, Sweden and United Kingdom.

Similarly, India is in the top bracket of countries likely to achieve a primary enrolment target of at least 95 per cent by 2015. This league includes Australia, Belgium, Finland, France, Germany, Japan, Netherlands, New Zealand, Norway, Sweden, United Kingdom and United States.

However, the report questions the quality of education; placing India among the 21 countries facing an "extensive" learning crisis. Referring to the new analysis, the GMR said less than half of the children were learning the basics in 21 of the 85 countries with full data available. India features in this list along with 17 countries from sub-Saharan Africa, Mauritania, Morocco and Pakistan.

Part of the learning crisis has been attributed to the ambitious curriculum drawn out for children in India; including disadvantaged learners. Contrasting this to Vietnam — where the curriculum focuses on foundation skills and is closely matched to what children are able to learn, especially disadvantaged learners — the report pointed out that India's curriculum "outpaces what pupils can realistically learn and achieve in the time given".

According to the Report, India — despite spending a considerable amount on education — reduced its expenditure on education from 13 per cent of the entire government budget in 1999 to 10 per cent in 2010.

Gap in Rural-Urban Literacy Rate in India (1961-2011)

YEAR	RURAL	URBAN	OVERALL	RURAL-URBAN DIFFERENCE
1961	24.8	58.59	33.11	34.11
1971	30.30	64.56	37.32	34.26
1981	35.17	69.06	43.57	33.89
1991	44.01	73.08	52.21	29.07
2001	58.73	79.92	64.83	21.19
2011	68.91	84.97	74.04	16.06

Total Fertility Rate:

The total fertility rate (TFR) is a more direct measure of the level of fertility than the crude birth rate, since it refers to births per woman. In 2000, the country established a new national population policy to stem the growth of the country's population. One of the primary goals of the policy was to reduce the total fertility rate to 2.1 by 2010. The present total fertility rate in India remains at

the high number of 2.62. thus, India's population will continue to grow at a rapid rate. The U.S. Census bureau does predict a near-replacement total fertility rate of 2.2 to be achieved in India in the year 2050. Demographers expect India's population to surpass the population of China, currently the most populous country in the world, by 2028. At that time, India is expected to have a population of more than 1.53 billion while China's population is forecast to be at its peak of 1.46 billion (and will begin to drop in subsequent years). To conclude, although India has created several impressive goals to reduce its population growth rates, it has a long way to go to achieve meaningful population controls to reap the benefits of our plans.

Maternal Mortality Rate:

Maternal Mortality Ratio (MMR) — number of women who die of pregnancy-related causes per 1,00,000 live births.

The latest Sample Registration Report of the Registrar-General of India that gives the new MMR estimates for the three-year period (2010-2012). According to the report, the new MMR estimate for the country shows an overall decline from 212 (in 2007-09) to 178 in 2012, resulting in saving lives of around 9,000 mothers per year. With the maternal mortality ratio (MMR) coming down to 178, India is inching forward to meet its global commitment to reduce the ratio to 109 by year 2015. The Millennium Development Goal now looks achievable. The figures are extremely encouraging and it shows that we have adopted the right strategies and are investing at the right places.

The eight Empowered Action Group (EAG) States, which traditionally had very bad health indicators, have shown remarkable achievements. Among these, Rajasthan has shown an annual decline of 16 per cent, with its figures falling from 318 to 255. Bihar/Jharkhand stands at 219 from 261, while 292 women still die in Uttar Pradesh from pregnancy-related deaths for every 1,00,000 live births. This figure is 230 in Madhya Pradesh/Chhattisgarh as against 269 in the 2007-09 survey. Kerala, Tamil Nadu and Maharashtra have achieved the country's maternal health Millennium Development Goal (MDG) which is 109 per one lakh live births by 2015. While Kerala's MMR stands at 66 per one lakh live births, Tamil Nadu and Maharashtra's MMR is 90 and 87, respectively.

The report has stated that India is 69 percentage points away from the MDG target. "Despite such

an impressive decline for three periods in a row (2004-2006, 2007-2009 and 2010-2012), India is likely to miss the MDG target," according to the report.

Infant Mortality Rate:

Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. India loses 4,200 children under the age of five every day. This figure is certainly unacceptable for any emerging country. The collective ache of losing so many newborns is worsened by the realization that many of these deaths are preventable. The country accounts for nearly a fifth of the world's child deaths. In terms of numbers, it is the highest in the world — nearly 16 lakh every year. Of these, more than half die in the first month of life. The reason for this is the absence of steps to propagate basic healthy practices relating to breast feeding and immunization. Also the large reproductive population remains bereft of care during the critical phases of pregnancy and post-delivery. Added to this is the prevalence of child marriages, anaemia among young women and a lack of focus on adolescent sanitation, all of which impact child death rates. In recent years, the Under Five Mortality Rate (U5MR) has declined sharply. In fact in the last two decades, it has fallen faster than the global average. While the global decline in child mortality was 35 per cent, India registered a healthier fall of 48.7 per cent between 1990 and 2010. In terms of numbers, 2010 saw U5MR decline by nearly half to 59 per 1,000 live births. The neonatal mortality rate has remained stagnant and has begun constituting an even larger proportion of the total number of child deaths. Given the vastness of the country, achievements in reducing child mortality are not uniform. While some States have done extremely well, there are others that have fallen behind.

State variations

While Kerala is the leader in reducing infant mortality by a wide margin, Tamil Nadu, Maharashtra, Karnataka and Andhra Pradesh have bucked the national average decline of 7.25 per cent between 2008 and 2010. Haryana and Bihar, with a decline rate of just over seven per cent, manage to just about touch the national average. Among the larger States that fare badly are Jharkhand and Madhya Pradesh (M.P.), with Assam for company. West Bengal, Punjab, Jammu & Kashmir, Uttar Pradesh (U.P.), Rajasthan and

Chhattisgarh are just below the national average. It is also equally important to forge inter linkages and package different interventions at various levels like linking child survival to reproductive health, family planning, and maternal health. According to national surveys, adolescents (15-19 years) contribute about a sixth of total fertility in the country. With the substantial unmet need of contraception — nearly a quarter of married adolescents (15-19 years) — and low condom use by them in general, girls in this age band are at a high risk of contracting sexually transmitted infections, HIV and unintended and unplanned pregnancies. All these impact the child mortality rate.

In addition to focusing attention to addressing disparities within States and among regions, there is an urgent need to bring health and child services under universal health coverage with a focus on special requirements of vulnerable and marginalized groups. Inexpensive lifesaving treatments remain inaccessible to a vast majority of Indian children, and especially those in the poorest groups within the country. All these challenges can only be met by State intervention.

Therefore, universalization of maternal health and child services, which includes special newborn care, skilled delivery, immunization and management of diarrhoea, seems to be the only answer if India is to achieve the high goals of reducing child deaths it has set for itself.

Millennium goals:- While India in recent years has made appreciable achievements in bringing down deaths per 1,000 live births (infant mortality), deaths within 28 days of birth (neonatal) and under-five mortality are the areas which can certainly do with some more attention.

Birth Rate:

The birth rate is often expressed as the number of live births per 1,000 of the population per year of a country. India has approximately 51 births a minute, 2000 in an hour, 48000 in a day which calculates to nearly 12 million a year. While resources are limited leading to making survival for a human being more and more competitive even for the basic necessities of life like food, clothing and shelter. The high birth rate is mainly due to :

(a) Poverty:

People who have to struggle to make two ends meet produce more children because more children mean more earning hands. Due to poverty, the

Infant mortality rate is much higher due to lack of facilities like food and medical resources. Thus they produce more children assuming that not all of them would be able to survive.

(b) Religious beliefs, Traditions and Cultural Norms:

In Indian society, children are considered as a Gift of God and due to preference for a son, a lot of families have more children than they actually want or afford resulting in increased poverty. So the reproduction goes on unless and until a male child is born.

Effects of Population Explosion: The rapid increase in population has greatly hampered the development of Indian economy. India is facing an intense crisis of resources. The available resources are shared by more people.

The increase in population has led to:

- ❖ Air pollution
- ❖ Water pollution
- ❖ Inflation
- ❖ Unemployment & Illiteracy
- ❖ Food problem
- ❖ Poor Quality of life

Gender Composition of Indian Population:

“Equality between women and men is a matter of human right and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace”. (UN) Imagine the world without women; India is a male dominating country. Dwindling sex ratio is a sensitive issue as 94 females against 100 males is not good enough number to be proud of.

Neighbouring countries like Sri Lanka, Nepal and Myanmar can boast of better ratios. About a quarter of India's 1.21 billion-plus population, which constitute one third of the world's poor, continue to live in poverty and over 68% of Indians live in deprived rural areas. The United Nations Development Programme has ranked India lower based on its life expectancy, access to education, and standard of living than many countries with comparable, or lower GDP per capital. One of the starkest indicators of Indian gender disparities is the phenomenon of its 'missing women'. As experts consider it natural for the number of women in a population to outnumber men, Indian female to male ratio of only 94 to 100 suggests that poorer health and nutritional care of girl children has led to millions of premature deaths.

Our total fertility rate is around 2.9 and according to 11th Plan it was to be reduced to 2.1. Only better education and economic empowerment generally reduce fertility rates and improve the health and nourishment of all children, in turn restoring more natural Gender ratios. once again Kerala provides an example of what is possible - its female-to-male ratio is comparable to western nations and its fertility rate at 1.3 is even lower than that of the U.S. which hovers just around 2%. Gender composition reflects natality, mortality and migration character of a given population. Distribution pattern of male and female in a population affects relative roles and economic relationships. In India sex ratio has increased to 940 which was 933 in 2001. However, in rural Sector it has marginally increased to 947 from 946. The major change was observed in urban areas where sex ration has increased by 26 to 926 currently. Although overall sex ratio presents encouraging trends across the country encompassing 29 States and Union Territories, the same is not true in the case of the girl child in the age group 0-6 years, which declined from 927 to 914 in 2011. The composition of population by gender is not uniform and shows diverse pattern across different countries of the world.

It was estimated that around the year 2011, the world will have 984 females against 1000 males. In USA, RUSSIA, Japan and Brazil female outnumber males. The situation in the immediate neighbourhood of India reveals a mixed picture. Myanmar (1048), Sri Lanka (1034) and Nepal (1014) have more females in their population where as in all other countries the sex ratio shows male dominations. The sex ratio in India has been unfavourable to females. The sex ratio declined consistently up to 1950.

In the post independence period, the trend continued, sex ratio slipped down for two consecutive decades after 1951 to reach 930 in 1971. After 1971 census trends were inconsistent, the State of Kerala and UT of Puducherry reported above 1000 sex ratio. These states have also shown considerable increase in 2011 as well. The number of State and Union Territories registering an upward trend in sex ratio has risen from 24 in 2001 to 29 in 2011. The improvement in overall sex ratio is largely in urban areas, though the urban child sex ratio is far worse than in the rural areas. Notably the States having historically low sex ratio such as Punjab, Haryana, Delhi and Chandigarh have shown appreciable increase in the sex ratio in census 2011. Majority of the states identified as gender critical for special attention and intervention

as part of the census 2011 have shown increasing trend in the sex ratio as per the provisional results.

As we know that declining sex ratio is a very sensitive issue. Although there is practice to worship Kanjaks (girls) in our society, but this is also true that maximum number of female foeticide cases are reported in India. The Planning Commission has set target to increase child sex ratio to 950 by 2016-2017.

Related Issues:

- ❖ 16 million teenage girls who give birth each year never had the opportunity to plan their pregnancy. Complications from pregnancy and childbirth can cause grave disabilities, such as obstetric fistula, and are the leading cause of death for these vulnerable young women.
 - ❖ 44% of country's population living in 21 States/UTs has already achieved replacement level fertility.
 - ❖ Youth population is 240 Million.
 - ❖ 52% of country's fertility is contributed by age group 15-24 years = 1.28 crore births every year.
 - ❖ 43% of Females aged 20-24 years married before 18 years of age.
 - ❖ The contraceptive prevalence rate among 15-24 years is 18.6% and below 10% in the districts of Uttar Pradesh, Bihar, Orissa, Madhya Pradesh and Rajasthan.
 - ❖ The unmet need among 15-24 years is 28.4% and is very high in the districts of Uttar Pradesh, Bihar, Jharkhand and Rajasthan.
 - ❖ More than 25000 young maternal deaths.
 - ❖ What can be done (Remedial Measures)
 - ❖ Invest in youth.
 - ❖ Keep adolescents in schools.
 - ❖ End child marriages.
 - ❖ Prevent teenage pregnancies.
 - ❖ Improve family planning for youth.
 - ❖ Provide information, supplies & services.
 - ❖ The question is not if India can afford to do it.
- The question is: Can India afford NOT to do it?

The Way Forward

"Demographic transition" is a model that describes population change over time. There are several expositions of demographic transition theory. The theory mainly describes and analyses

the transition from a stable population with high mortality and high fertility to a stable population with low mortality and low fertility. The stages of demographic transition have, however, been differently analyzed by different demographers. A commonly accepted theory defines four clear stages of population growth. The four stages are:

Stage 1: Typically seen in less developed countries where birth rates are high but a large number of people die of preventable causes leading to a stable population.

Stage 2: Death rates fall steeply as deaths from preventable causes are reduced by better food supply and improved public health, but birth rates remain high due to high fertility, poor social development and limited access to health and contraceptive services. It often leads to a spurt in population.

Stage 3: Birth rates fall but population continues to grow because there are a large number of people in the reproductive age group due to the high fertility of the previous generations.

Stage 4: Countries achieve a stable population once again with low birth and low death rates but at a higher level of social and economic development. Population is stable but higher than in stage one.

This transition from a stable population with high mortality and high fertility to a stable population with low mortality and low fertility is called demographic transition. India is currently at the third stage, with some of the States and Union territories already into stage 4.

The National Population Policy (NPP), 2000 adopted by the Government of India states that 'the long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environment protection'. The crucial question is when will this objective be achieved? It has been assumed in the policy document that the medium-term objective of bringing down the Total Fertility rate (TFR) to replacement level of 2.1 will be achieved. It was envisaged that if the NPP is fully implemented, the population of India should be 1013 million by 2002 and 1107 million by 2010.

The time bound objectives set out for the XIth 5-year plan also envisaged achieving a Total Fertility Rate of 2.1 by the year 2012. However, in 2001 itself, India exceeded the estimated population for the year 2002 by about 14 million and, the

provisional population in 2011 was higher by about 110 million compared to the target set for the year 2010. It will no doubt be an uphill task on the part of the Government and the people to achieve the much cherished goal of a stable population. Population variables are both determinants and consequences of the development process. However, a comparison among the ten most populous countries of the World, in terms of both the Human Development Index and the per capita GDP in PPP\$ shows India has a long way to go.

The provisional population totals of Census 2011 brings a ray of hope with definite signs that the growth rate of population is tapering off especially in areas where it had been stagnant for several decades. There is also a marked decline in fertility as evidenced by the declining proportion of child population in the age group of 0-6 years. Independent India, urged by the first Census Commissioner Shri. R.A. Gopalaswami, who referred to "improvident maternity" as the primary cause of the population problem became the first country in 1952 to establish a policy for population control. For the world as a whole, demographers are generally confident that by the second half of this century we will be ending one unique era in history – the population explosion – and entering another, in which population will level out or even fall. Population pessimists have warned the congenial optimists, not to believe that humanity will find ways to cope and even improve its lot. Still, Malthus noted: "the exertions that men find it necessary to make, in order to support themselves or families, frequently awaken faculties that might otherwise have lain for ever dormant, and it has been commonly remarked that new and extraordinary situations generally create minds adequate to grapple with the difficulties in which they are involved". A feature of both mortality and fertility transitions has been their increasingly faster tempo. Targeted programmes like those on female literacy, improving general health care, improving female employment rates, minimum years of schooling, advocacy through village groups, etc. is slowly redefining motherhood from childbearing to child rearing. Census 2011 was perhaps an indication that the country has reached a point of inflexion.

POPULATION POLICY OF INDIA

A growing concern regarding the adverse effects of population growth on development and

prosperity has been witnessed in the less developed parts of the world since the middle of the 20th century.

After independence, Indian decision-makers also realized the importance and need of population control as early as in 1951-52, though before independence a sub-committee on population was also appointed by Indian National Congress in 1940 under the chairmanship of renowned social scientist Radha Kamal Mukherjee to suggest ways and means to arrest the galloping population. After 1921, the population of India began to increase by rapid strides.

This Committee laid emphasis on self-control, spreading knowledge of cheap and safe methods of birth control and establishing birth control clinics. It also recommended raising the marriageable age, discouraging polygamy and an eugenic programme of sterilization of persons suffering from transmissible diseases. But, the Bhore Committee (1943) discarded the self-control approach and advocated 'deliberate limitation of family' approach as an effective way of birth control.

After independence, a population policy committee was created in 1952 which suggested for the appointment of a Family Planning Research and Programmes Committee in 1953. In 1952, India was the first country in the world to launch a National Programme, emphasizing family planning. A Central Family Planning Board was created in 1956 which emphasized sterilization. Up till 1960s a rigid policy was not adopted to arrest the fast growth of population. The policy framed in 1951-52 was ad hoc in nature, flexible, and based on a trial and error approach.

A full fledged Department of Family Planning was established within the Ministry of Health, which was designated as the Ministry of Health and Family Planning, and a Minister of the cabinet rank was placed in its charge. A cabinet committee of Family Planning, initially headed by the Prime Minister and later by the Finance Minister, was constituted at the central level.

When the First Five-Year Plan was formulated, it was enumerated in the Plan that the programme for family limitation and population control should:

- (a) present an accurate picture of the factors contributing to the rapid increase of population;
- (b) discover suitable techniques of family planning and devise methods by which knowledge of these techniques could be widely disseminated; and

- (c) give advice on family planning as an integral part of the service of government hospitals and public agencies.

Until the Fifth Plan, family planning programme concerned itself primarily with birth control but in this plan 'maternal and child health and nutrition services' were also included as an integral part of family planning programme. Despite all the Five-Year Plans (from First to Tenth) and policies, the population of India is growing at a faster pace and taking the shape of 'population explosion'.

In April 1976, the First National Population Policy was framed by the Union Ministry of Health and Family Planning which suggested a wide spectrum of programmes, including raising the statutory age of marriage, introducing monetary incentives, paying special attention to improving female literacy, etc.

- i. The Government proposed legislation to raise the age of marriage to 18 for girls and 21 for boys;
- ii. The Government would take special measures to raise the level of female education in the states;
- iii. As the acceptance of Family Planning by the poorer sections of society was significantly related to the use of monetary compensation as from May 1, 1976, to Rs. 150 for sterilization (by men or women) if performed with 2 children, Rs. 100 if performed with three living children and Rs. 70 if performed with four or more children.

Though this policy was endorsed by the Parliament, it was planned at a time when the Emergency was clamped all over India. Sanjay Gandhi, the then President of Indian Youth Congress, took the programme of sterilization overzealously which made the masses hostile towards the government led by Indira Gandhi as well as the programme. One of the reasons for this was said to be the excesses committed in the programme.

The term 'family planning' was replaced by 'family welfare'. While delivering a talk on 'Indian Population in the 1990s,' on February 8, 1991, the noted demographer Ashish Bose said that 'family planning programme has completely failed in the country and entirely a new approach is needed for its success'.

The progress to arrest population growth has been extremely slow as is evident when we compare it with China. Through vigorous family planning programme since 1970 and a more rigid policy of

having only one child per family in 1980, China has avoided the birth of more than 200 million children and brought the fertility rate down to 2.5 from 5.82 among eligible mothers. This is a classic example of the role of government policy in affecting birth rate. To check the alarming population growth, an attempt has been made to rejuvenate the National Family Welfare Programme. The Ministry of Health and Family Welfare revised the strategy in the last decade of the 20th century seeking to broaden the area of family planning.

It was emphasized that the population control programme would continue purely on voluntary basis as an integral part of a comprehensive policy package covering education, health, maternity and childcare, and women's rights and nutrition, including anti-poverty programme. It was made people's programme based on welfare approach.

This revised strategy particularly focused on the provision of family planning strives at the doorsteps of the people. It is with this objective that the age of marriage is proposed to be raised for women from 18 to 20 years as envisaged in National Population Policy document, 2000.

National Population Policy 2000

The immediate objective of the NPP 2000 is to address the unmet needs for contraception, health care infrastructure, and health personnel, and to provide integrated service delivery for basic reproductive and child health care. The medium-term objective is to bring the TFR to replacement levels by 2010, through vigorous implementation of inter-sectoral operational strategies.

The long-term objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection. In pursuance of these objectives, the following National Socio-Demographic Goals to be achieved are formulated:

- i. Address the unmet needs for basic reproductive and child health services, supplies and infrastructure.
- ii. Make school education up to age 14 free and compulsory, and reduce dropouts at primary and secondary school levels to below 20% for both boys and girls.
- iii. Reduce infant mortality rate to below 30 per 1000 live births.
- iv. Reduce maternal mortality ratio to below 100 per 100,000 live births.
- v. Achieve universal immunization of children against all vaccine preventable diseases.
- vi. Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age.
- vii. Achieve 80 per cent institutional deliveries and 100% deliveries by trained persons.
- viii. Achieve universal access to information/ counselling, and services for fertility regulation and contraception with a wide basket of choices.
- ix. Achieve 100% registration of births, deaths, marriage and pregnancy.

Contain the spread of Acquired Immuno-Deficiency Syndrome (AIDS), and promote greater integration between the management of Reproductive Tract Infections (RTI) and Sexually Transmitted Infections (STI) and the National AIDS Control Organisation.

- i. Prevent and control communicable diseases.
- ii. Integrate Indian Systems of Medicine (ISM) in the provision of reproductive and child health services, and in reaching out to households.
- iii. Promote vigorously the small family norm to achieve replacement levels of TFR.

Bring about convergence in implementation of related social sector programs so that family welfare becomes a people centred programme.

