

An Analysis of Demographic Features in India

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ABSTRACT

Key Words:

**Population,
Demography,
Economic Growth,
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Demographic features of a country simply mean the characteristics of populations like composition, growth, size, diversity, quality of population etc. It states the characteristics of population constitute the human resources of a country. The population is vital from the point of economic growth and resources of an economy. Because, it affects the society as well as the economy by many ways. Generally population is a positive factor regarding economic growth. Because it is the source of human resource, labour force, market demand etc. But it works in positive direction up to a limit. After crossing this limit it becomes evil for a country. Because, heavy population pressure creates various socio-economic problems in a country. Moreover, it creates additional burden to the state, since a huge amount of resource has to be diverted for take care of this growing population.

I . Introduction

Demographic features of a country simply mean the characteristics of populations like composition, growth, size, diversity, quality of population etc. It states the characteristics of population constitute the human resources of a country. The population is vital from the point of economic growth and resources of an economy. Because, it affects the society as well as the economy by many ways. Generally population is a positive factor regarding economic growth. Because it is the source of human resource, labour force, market demand etc. But it works in positive direction up to a limit. After crossing this limit it becomes evil for a country. Because, heavy population pressure creates various socio-economic problems in a country. Moreover, it creates additional burden to the state, since a huge amount of resource has to be diverted for take care of this growing population.

India is the second largest populated country in the world having one fifth of world's population. On the contrary India occupies only 2.4% of the total geographical area of the world. It means within the whole world only 2.4% geographical area is bearing the burden of about 20% (one fifth) of whole population in the world. India is in the 7th position regarding geographical area. Russia and Canada are in the 1st and 2nd position respectively, followed by United States, China, Brazil, Australia and India. But, regarding population size, India is in the 2nd position immediately after China. So, it is clear that the 7th largest country (regarding geographical area) of the world is bearing the 2nd highest amount of population of the world. On the other hand, the countries occupying the three top positions regarding geographical area are bearing the burden of small amount of population. For example, Russia, Canada and United States, which occupying three top positions regarding geographical area, are in the

9th, 38th and 3rd position respectively, regarding population size.

II. Objective:

The single objective of the paper is to analyze the various demographic features of India.

III. Methodology:

The paper is based only on secondary data. While preparing the paper, various census reports, research papers, books and journals were used as the sources of secondary data

IV. Literature Review:

Kumaresan, K. & Paramasivan C. (2016) conducted a study on demographic profile on Indian youth. In their work, they analyzed a comparative scenario of demographic profile of youth in India on the basis of Census data 2011. They observed literacy rate among the different aged youth group. Study revealed that Highest youth literacy rate is 11.32 % which is belongs to the age group of 18 in total, 12.30% which is belongs to the age group of 18 in rural, 10.02 % which is belongs to the age group of 20 in urban. Another observation of the study is that about 34% of India's GNP is contributed by the youth aged 15-29 years.

Bloom, D. E., (2011) in his work 'Population Dynamics in India and Implications for Economic Growth', showed the movement of demographic indicators towards positive directions since last few decades. He revealed that these demographic changes are economic opportunities for India. A positive sign he emphasized in his work is increase in the amount independent youth and he revealed that if these working-age people can be productively employed, India's economic growth stands to accelerate.

Pandey, M. M., Tiwari, R. & Choubey, A. (2015) conducted a study on short term and long term changes in the size and age composition of population along with the environmental and biological processes influencing on these. In

their work they broadly discussed about composition of Indian population including birth rate, death rate, sex composition, age composition, rural-urban ratio of population, immigration etc.

V. Results and Discussion

India's population goes on increasing day by day. According to 2011 census India's population is about 121 crore, which was about 103 crore in 2001, with about 17.6% decadal growth rate. If we move back to 1901, it was only 23.83 crore, with population density 77 per sq. K.M. But at present (according to 2011 census), population density increase to 382 per sq K.M. It reflects the rapid growth rate of population during the last century. India's present population scenario reflects the 2nd stage of demographic transition theory. According to this theory the population growth of a nation passes through three different stages as development proceeds. The first stage is characterized by high birth rate and high death rate, 2nd stage is characterized by high birth rate and low death rate, while the third stage is featured by low birth rate and death rate. In the first stage net population growth is zero. In the 2nd stage population increase at rapid rate and in the 3rd stage population become stable. Up to 1921, India was in the 1st stage of demographic transition theory. After 1921, India entered into the 2nd stage of demographic transition. During this period (1921-30), India's birth rate and death rate was 464 per thousand and 363 per thousand respectively. However, many of developing countries are still in the 1st stage of demographic transition theory.

India's demographic features possess the characteristics of developing nation. It includes various characteristics of population, viz., age structure, rural urban ratio of population, sex ratio, infant mortality rate, literacy rate, death rate and birth rate, population density, population growth rate, life expectancy etc.

All of these characteristics are different from that of the developed countries. These characteristics of population reflect the socio-economic condition of the country also. These characteristics of population vary state-wise in India. Some comparatively developed states like New Delhi, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Gujarat possesses a little bit good sign regarding demographic features, as compare to the low developed states like Bihar, Jharkhand, Uttarakhand, Assam etc. These demographic features of India are broadly explained below-

Growth Rate of Population: The population growth rate is the rate at which the number of individuals in a population increases in a given time period, expressed as a fraction of the initial population. India's population growth rate indicates the increasing trends of population. The trend of growth rate of population in India from 1891 to till date, can be categorized in four different categories. A summary picture of population growth rate in India is shown in the following table-

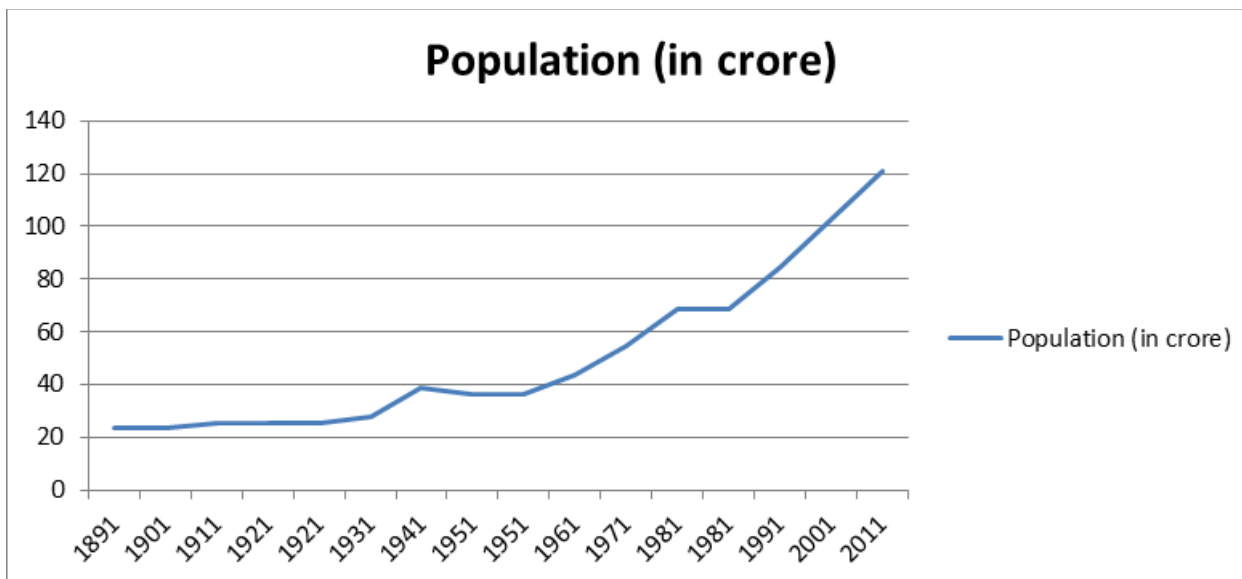
Table 1: Growth rate of India's population in four different periods

Period of stable population (1891-1921)			
Year	Population (crores)	Increase/decrease (Crore)	Decadal Growth (%)
1891	23.67	-	-
1901	23.63	-0.04	-0.16
1911	25.21	1.58	6.68
1921	25.14	-0.07	-0.27
Period of steady rise in population (1921-1951)			
1921	25.14	-	-
1931	27.89	2.75	11
1941	31.86	3.97	14.2
1951	36.1	4.24	13.3
Period of population explosion (1951 onwards)			
1951	36.1	-	-
1961	43.92	7.87	21.8
1971	54.81	10.89	24.8
1981	68.33	13.52	24.66
Period of declining growth rate (1981 onwards)			
1981	68.33	-	-
1991	84.64	16.31	23.87
2001	102.87	18.23	21.54
2011	121.01	18.14	17.64

Source: Different census data.

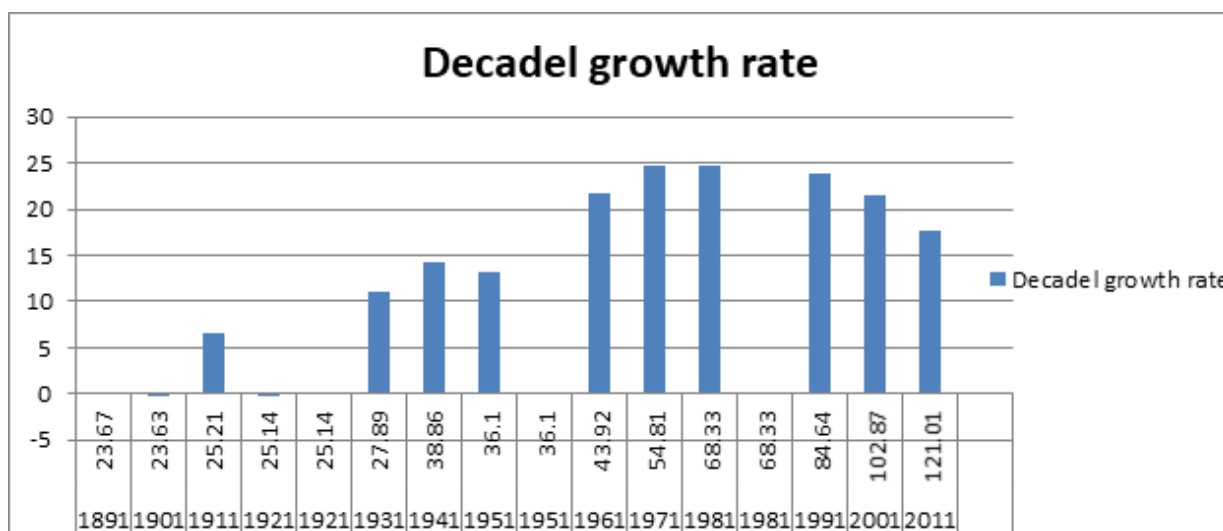
The trend in the amount of population growth and population growth rate in the four different periods are reflected in the following figures-

Figure 1: Trend in population growth in India (1891-2011)



Source: Census Data

Figure 2: Trend in the decadal growth rate of population in India



Source: Census Data

From the above figure it is clear that the population growth rate during the period 1891-1921, was very low or said to be almost stable. During this 30 years population of India increased only by 1.47 crore. The two decades 1891-1901 and 1911-1921 witnessed negative growth rate of

population. From 1921 onwards population started rising steadily. During this 30 years population of India increased by 10.96 crore in absolute number. During the period 1951-81, India witnessed population explosion. Increase in population in absolute number in India during this

period is 32.23 crore with annual average growth rate 2.15%. After 1981, growth rate of population has been falling. The annual average growth rate in 2011 was only 1.64%, which was 2.16% in 1991.

Population Density: Population density is a

measurement of population per unit area. Generally it is expressed as number of people per square kilometer. According to 2011 census population density in India is 382 per square km., which were 324 per square km in 2011. A summary picture of population density in India from 1901 is shown in the following table-

Table 2: Population density in India: (1901-2011)

Year	Population density	Growth rate	Year	Population density	Growth rate
1901	77	-	1961	142	21.36
1911	82	6.49	1971	177	24.64
1921	81	-1.2	1981	216	22.03
1931	90	11.1	1991	274	26.85
1941	103	14.4	2001	324	18.24
1951	117	13.5	2011	382	17.90

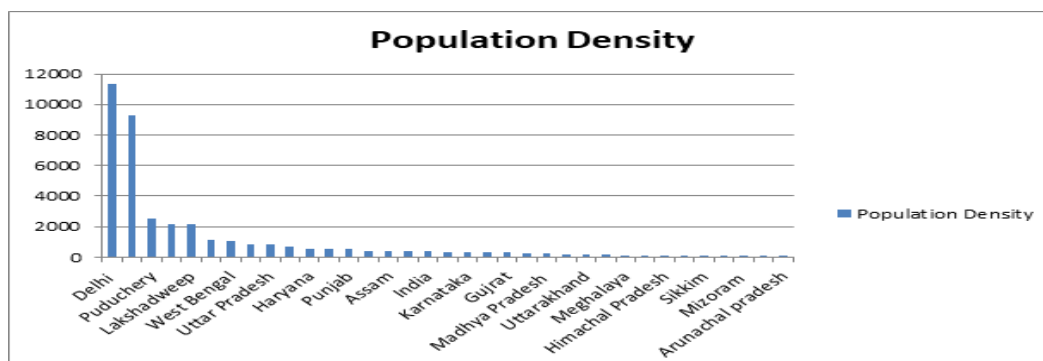
Source: Census data.

Above table reflects the population density in India since 1901. In 1901 population density in India was only 77 per square km, which increased up to 382 per square km in 2011. It means population density during this period increased by 305 per square km. If we consider the growth rate of population density, then it is seen that it had been continuously increasing from 1931 to 1971. On the other hand, the period

1991-2011, witnessed declining trend of growth rate of population density. This increasing trend of population density implies rapid population growth and heavy population pressure on land.

In India regarding population density, state wise variation is very common. This state wise variation is reflat in the following figure-

Figure 3: State wise variation of population density in India (2011 census)



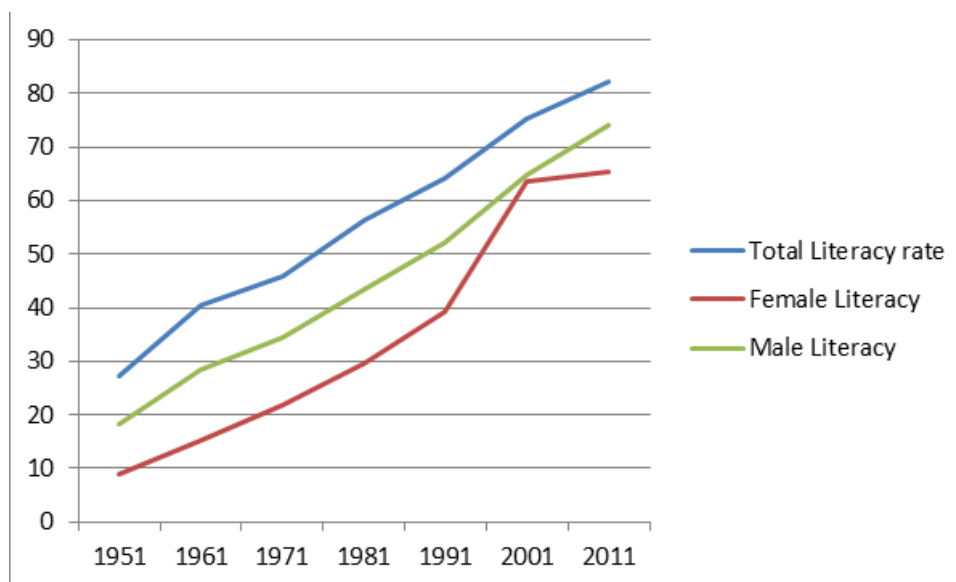
Source: Census data

In India, according to 2011 census, Delhi recorded highest population density, which was 11,320 per square km, followed by Chandigarh (9,258 per square km), Puducherry (2547 per square km), Daman and Diu (2191 per square km) and Lakshadweep (2149 per square km). On the other hand Arunachal Pradesh recorded lowest population density, with only 17 per square km. According to 2011 census, population density in the states (or union territory) of Delhi (11320), Chandigarh(9258), Puducherry (2547), Daman and Diu (2191), Lakshadweep (2149), Bihar (1106), West Bengal (1028), Kerala (860), Uttar Pradesh(829), Dadra and Nagar Haveli (700), Haryana (573), Tamilnadu (555), Punjab (551), Jharkhand (414), Assam (398) and Goa (394) are higher than the national average. On the other hand Tripura (350), Karnataka (319), Andhra Pradesh (308), Gujarat (308), Orissa (270), Madhya Pradesh (236), Rajasthan (200),

Uttarakhand (189), Chattisgarh (189), Meghalaya (132), Manipur (128), Himachal Pradesh (123), Nagaland (119), Sikkim (86), Jammu & Kashmir (56), Mizoram (52), Andaman and Nicobar (46) and Arunachal Pradesh (17) have the population density below the national average.

Sex Ratio: Sex ratio represents the number of female per thousand male. Lower sex ratio directly indicates gender biasness towards male or female deficiency. According to 2011 census, sex ratio in India is 940, indicating 60 female deficiencies. This is lower than the world sex ratio, which were 984 (in 2011). In India, regarding sex ratio, period 1901-1971 witnessed a declining rate, while the period 1991-2011, witnessed an increasing rate. It is shown in the following figure-

Figure 4: Trend of sex ratio in India (1901-2011)



Source: Census Data

Figure 4 reflects the decreasing trend of sex ratio during the period 1901-1991. In India sex ratio gradually increasing after 1991. But, India still has miles to go in this direction. Because, if we compare with the data of developed nations, India stands in much lower position. During

2011, sex ratio in some other developed countries like USA, Brazil, Russia and Japan were 1025, 1042, 1167 and 1055 respectively. On the other hand, during this period India's sex ratio was only 940. This picture of India directly reflects the prevalence of high rate of gender inequality or

gender biasness towards male.

If we consider state wise variation of sex ratio within India, according to 2011 census, Kerala is in the top position (1084), followed by Puducherry (1037), Tamilnadu (996), Andhra Pradesh (993) and Chhattisgarh (991). On the other hand the worst scenario was witnessed by Daman and Diu, which was only 710. Some other states (or UTs) below the national average are Dadra and Nagar Haveli (774), Chandigarh (818), Delhi (868), Andaman and Nicobar Islands (876), Haryana (879), Jammu and Kashmir (889), Sikkim (890) etc.

Rural Urban Ratio of Population: Rural urban

ratio of population plays an important role in economic development of a country. Expansion in urban areas leads to increase in economic and social infrastructural facilities, improvement in standard of living of people etc. The picture of rural urban ratio of population in India is not as appreciable as compare to the developed nations. Census 2011 reveals that about 83.3 crore population (68.8% of total population) live in rural areas and remaining only 31.2% live in urban areas. It reflects the picture of slow rate of urbanization. However, India's rural population growth is steadily declining. A trend of rural-urban ratio of population is shown in the following table-

Table 3: Rural-urban Ratio of Population in India (1991-2011)

Year	Urban Population (crore)	Rural Population (crore)	Rural -Urban ratio
1991	21.75	62.89	25.7:74.3
2001	28.7	74.3	27.8:72.2
2011	37.8	83.3	31.2:68.8

Source: Census Data

Table reveals that the growth rate of rural population in India is steadily declining since 1991. During 2001-11, out of total increase of 18.14 crore population, contribution of urban areas (9.1 crore) is higher than of rural areas (9.05). Moreover, during 2001-11, the growth in urban population is significantly higher at 31.8% than in rural population (12.18%). But, India still has miles to go in this direction. According to the latest report on "World Urbanization Prospects" prepared by United Nations (2010) the total population living in the urban areas in the world is more than those living in rural areas. Thus, India is still in much lower position as compared to the world scenario. Regarding concentration of urban population India has state wise variation. According to 2011 Census, the top ten states (or union territory) regarding

concentration of urban population are Delhi (97.5%), followed by Chandigarh (97.25%), Lakshadweep (78.08%), Daman and Diu (75.16), Puduchery (68.31%), Goa (62.17%), Mizoram(51.51%), Tamilnadu (48.4%), Kerala (47.7%) and Dadra & Nagar Haveli (46.62%). On the other hand, the states occupying the last three positions regarding urban population are Himachal Pradesh (10.04%), Bihar (11.3%) and Assam (14.08%).

Age Composition of Population: Age composition of population is an important factor of economic development of a country. The population Pyramid (age structure) in India is characterized by broad base and tapering top. In demographic terms such an age structure is called young population. It implies child

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characterized by broad base and tapering top. In demographic terms such an age structure is called young population. It implies child population is high in India.

Table 5: Age composition of population (1991-2011)

Year	% of population in different age group		
	0-14	15-59	Above 60
1991	36.5	57.1	6.4
2001	35.6	58.2	6.3
2011	29.5	62.5	8
2017	26.5	65.4	8.2

Sources: i. Census data, ii. SRS Statistical Report, 2017.

The above table shows the age composition of India's population. The table reflects a movement towards positive direction regarding age composition of population. The table witnessed a declining trend of dependent population and increasing trend of independent population. It is seen that the percentage of dependent population in 1991 was 42.9%, which declined to 41.9% in 2001, 37.5% in 2011 and 34.7% in 2017. On the other hand, percentage of independent population is continuously increasing from 57.1% in 1991 to 58.2% in 2001 and again to 62.5% in 2011 to 65.4% in 2017. But, In spite of this positive movement, the overall scenario in India is still unappreciable as compared to the other developing nations.

Infant Mortality Rate: Infant Mortality rate is

the number of deaths per 1000 live births of children under one year of age. The rate for a given region is the number of children dying under one year of age, divided by the number of live births during the year, multiplied by 1000. In India, according to 2011 census, infant mortality rate is 44. High rate of infant mortality reflects the backward scenario of health facilities and fulfillment of nutritional requirement. The infant mortality rate in India is much higher as compared to other developed nations. For example, when India witnessed infant mortality rate is equal to 44, Japan witnessed only 2 number of death of child per 1000 live birth under age one. However, in recent times India has registered a significant decline in infant mortality rate. This declining trend of infant mortality rate in India is shown in the following figure-

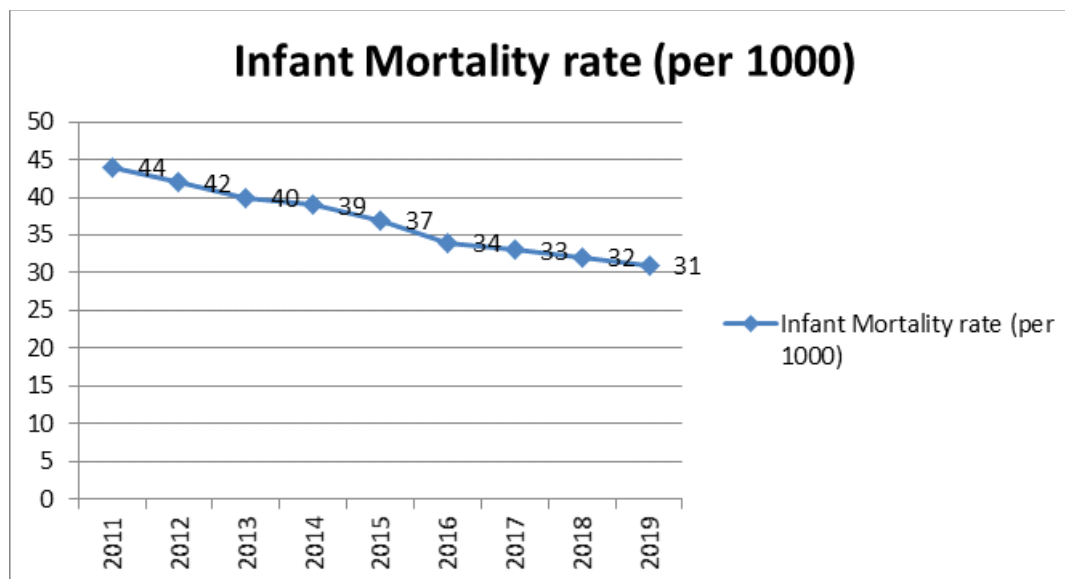
Figure 5: Infant Mortality rate in India**Source: NITI Ayog**

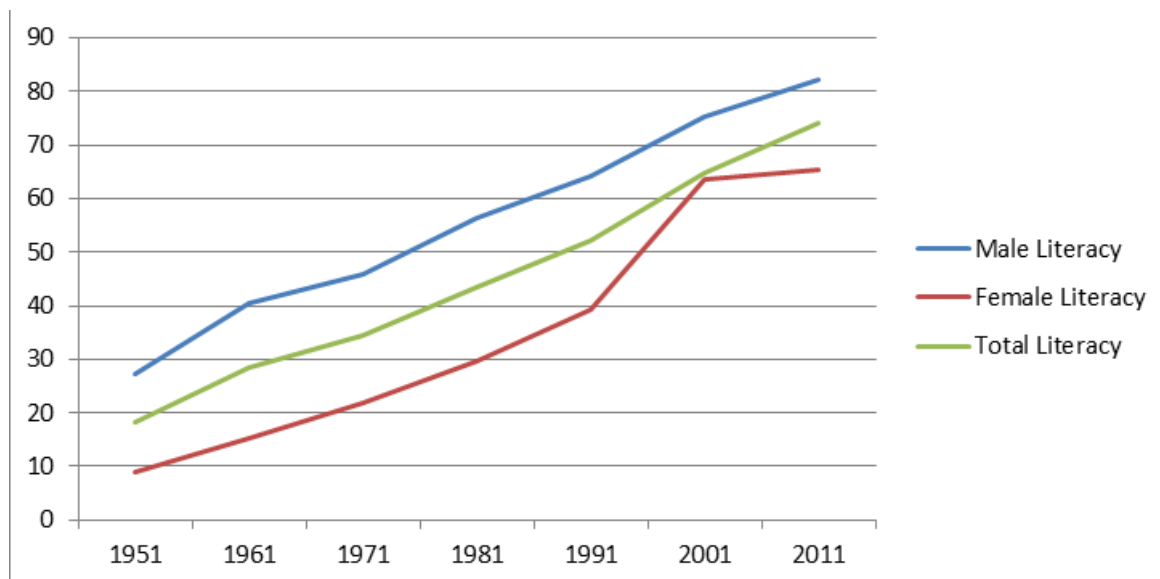
Figure reflects a declining trend of infant mortality rate in India from 44 in 2011 to 31 in 2019. It is said to be a significant achievement for India. On the other hand, in state wise comparison, regarding infant mortality rate, Kerala is in the top position (6 per 1000 live birth), while Uttar Pradesh is in the lowest position (41 per 1000 live births).

Literacy Rate: Literacy rate is an important requirement for economic development of a country. India's literacy rate according to 2011 census is 74.04%, with 82.14% and 65.46% male and female literacy respectively. A summary picture of trend of literacy rate in India is shown in the following table and figure:

Table 6: Literacy rate in India (1951-2011)

Census Year	Total Literacy Rate	Male Literacy Rate	Female Literacy Rate
1951	18.33	27.16	8.86
1961	28.30	40.40	15.35
1971	34.45	45.96	21.97
1981	43.57	56.38	29.76
1991	52.21	64.13	39.29
2001	64.83	75.26	63.67
2011	74.04	82.14	65.46

T Source: Census Data

Figure 6: Trend of Literacy Rate in India

Source: Census Data

Above figure reflects the trend of male literacy, female literacy and total literacy rate in India. It is clear from the figure that literacy rate in India is continuously increasing. But still, the overall literacy rate in India is not appreciable as compared to that of developed countries. Specially, female literacy rate is significantly low in India. Regarding female literacy rate a significant change was observed during 1991-2001. Regarding state wise comparison in India, According to 2011 census, Kerala is the most literate state, with 93.91% literacy rate and Bihar is the least literate state, with 63.82% literacy rate.

Death Rate and Birth Rate: Death rate and birth rate are the important determinant of size of population of a country. In India, prior to 1921 both birth rate and death rate were high. This period was termed as period of stable population. But after 1921, death rate starts to decline with comparatively stable birth rate. As a result of which, population starts to increase steadily. During 1951-81 death rate declined with increasing birth rate and thus population explosion started. After 1981, both birth rate and

death rate starts to decline, as a result of which overall population growth rate starts to decline. In India, according to 2011 census, death rate per thousand is 7.48, while birth rate per thousand is 20.97. On the other hand According to 'SRS Statistical Report, 2017' birth rate in India is 20.2 and death rate is 6.3. According to this report, Birth rate in the states of Haryana, Rajasthan, Bihar, Assam, Jharkhand, Chhattisgarh, Madhya Pradesh are more than 20 national average, while some other state like Tamilnadu, Kerala, Karnataka, Andhra Pradesh, Telengana, Maharashtra, Gujarat, Odisha, West Bengal, Punjab, Jammu & Kashmir have birth rate less than national average.

India's birth rate is much higher than that of the developed countries. For example, in the contrary of birth rate 20.7 per thousand in India, Germany and Japan have the birth rate 8.3 per thousand and 8.7 per thousand respectively in 2011.

Life Expectancy: Life expectancy is defined as the average number of years that a person can expect to live in "full health" excluding the

years lived in less than full health due to disease or injury. Life expectancy indicates the health status of population of a country. Life expectancy in India witnessed an increasing trend. But it is still very low as compare to the developed countries. During the decade 1951-61 Life expectancy in India was 41.2 years, with 41.19 years male life expectancy and 40.06 years female life expectancy. However, India witnesses a significance change regarding life expectancy at birth during last few decades. According to SRS based abridged life table 2013-17, India's life expectancy at birth has increase from 49.7 in 1970-75 with 50.5 male life expectancy and 49 female life expectancy, to 69 in 2013-17, with 67.8 male life expectancy and 70.4 female life expectancy. On the other hand, according to World Bank Report, 2015, India's life expectancy is 68.35 years, with 66.9 years male life expectancy and 69.9 years female life expectancy. During the same period life expectancy in USA and China is 78.74 years and 75.99 years respectively. Thus, India is far away from the developed countries regarding life expectancy. Here it is to be noted that in India life expectancy of female is comparatively higher as compared to male life expectancy. Regarding state wise comparison of life expectancy in India, according to 'SRS Based Abridged Life Table 2013-17' Kerala is in the top position (75.2 years, with 72.5 male life expectancy and 77.8 female life expectancy) and Uttar Pradesh is in the lowest position (65 years, with 64.3 male literacy and 65.6 female literacy).

Conclusion:

Thus, India possesses some specific demographic features which are typical in developing countries. Though, in recent times India is little bit approaching towards positive direction, regarding the indicators of demography, but she still has miles to go to reach the level of other developed countries. The scenario of Indian demography is still backward than that of many developed nations. As

population are vital from the view point of economic development, some necessary steps must be adopted by the central government and state governments to maintain the population level at desired level. Proper population policy, improved economic and social infrastructural facilities, people's awareness towards population control, removing of some social and religious beliefs, popularization of scientific birth control methods among the rural people, large scale spread of women education, etc. are some essential factors in this path. Another important fact is that, in India state wise variation is very common regarding demographic features. It directly reflects the prevalence of vast regional disparities regarding the factors which influence the demographic features of the country.

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