

## **POPULATION GROWTH OF INDIA: CAUSES AND IMPACT**

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### **ABSTRACT**

In terms of sociology, population is a collection of human beings. So, population was one of the most vital contributory factors in the early development of western countries. India is the second largest country in the world in perspective of population having 2.4% of global land and 17.5% of the world's total population. Rapid population growth of India results in prevailing high birth rates and a large decline in the death rate in our country. Sudden increasing population and continuous economic development also caused serious environmental degradation in India. Population studies has therefore, been an important subject area of discussion in our country. Now population phenomenon entered into the Indian syllabus as a separate discipline, 'population education'. Education plays a pivotal role to control the population growth in our country. Population education aims at assisting the individual to understand the causes and consequences of population phenomena. Thus the present paper deals with general analysis of causes and impact of population growth in India.

**Keywords:** Population, poverty, birth rate, death rate, population growth, population education, population explosion.

### **1. INTRODUCTION**

Population of a country is a pivotal factor in the development of its economy. We know increasing population provided additional hands to work, at the same time population growth becomes a drain on our economy's limited resources. The rate of population growth must be control by various measures to achieve any meaningful progress in the overpopulated and underdeveloped country like India. This rapid growth of population will lead more serious problems like environmental pollution, desertification, global warming, ozone depletion, etc. At present the world human population is 7.615 billion as estimated by the United States Census Bureau by March 2018. To control population in the country 'population education' is one of the welcome steps taken by the Indian government. According to UNESCO, "Population Education is an educational programme which provides for a study of population situation of the family, the

community, nation and world, with the purpose of developing in the student's rational and responsible attitudes and behaviour towards that situation."

## **2. OBJECTIVES OF THE STUDY**

The objectives of the present study are as follows:-

- To examine the impact of population growth in India.
- To analyze the causes of population growth in India.
- To discuss the various remedial measures to control population growth in India.
- To analyze the various components of population growth.
- To discuss the population density of India.

## **3. METHODOLOGY**

The study is descriptive and analytical in nature. The study is based on the secondary data derived from census reports, statistical abstracts, world population data book, literature derived from various books of environment and ecology, theses, journal and related websites.

## **4. MEANING OF POPULATION GROWTH**

Population growth is the increase in the number of individuals in a population. Population growth can be defined as the change in number of people of an area or any region over a specific period of time. This change may be positive or negative. The change in number can be measured in two ways.

- It can be calculated in terms of absolute numbers.
- It can be expressed in percentage.

## **5. DEMOGRAPHIC TRENDS IN INDIA**

India is the second largest country in the world in terms of the size of population. It is next to China in perspective of population. India's population constitutes nearly 15 percent of the total world population while her geographical area is only 2.4 percent of the world area.

**Table 1: Population growth of India (1911-2011)**

<b>Census year</b>	<b>Population (in million)</b>	<b>Percentage increase or decrease during the decade</b>
1911	252.1	5.7
1921	251.3	(-) 0.3
1931	279.1	11.1
1941	318.7	14.2
1951	361.1	13.3
1961	439.2	21.5
1971	548.2	24.8
1981	683.3	24.7
1991	846.3	23.8
2001	1028.0	21.5
2011	1210.2	17.6

**Source:** Compiled from Census of Population 2011 and earlier reports.

Table-1 highlight that, the rate population growth was moderate and irregular till 1921. From the year 1921, the rate of growth became alarming. The net increase of population during the 30 years from 1921 to 1951 was of the order of 110 million. According to the census report of India 2011, the population of India at present is 1,210,726,932. It is also evident from the data that the rate of population growth in India goes beyond the human control. The population rate of the country will also get doubled itself within coming 50 years.

**Table 2: Population trends for major religious groups in India (1951–2011)**

Religious group	Population % 1951	Population % 1961	Population % 1971	Population % 1981	Population % 1991	Population % 2001	Population % 2011
Hinduism	84.1%	83.45%	82.73%	82.30%	81.53%	80.46%	79.80%
Islam	9.8%	10.69%	11.21%	11.75%	12.61%	13.43%	14.23%
Christianity	2.3%	2.44%	2.60%	2.44%	2.32%	2.34%	2.30%
Sikhism	1.79%	1.79%	1.89%	1.92%	1.94%	1.87%	1.72%
Buddhism	0.74%	0.74%	0.70%	0.70%	0.77%	0.77%	0.70%
Jainism	0.46%	0.46%	0.48%	0.47%	0.40%	0.41%	0.37%
Zoroastrianism	0.13%	0.09%	0.09%	0.09%	0.08%	0.06%	n/a
Other religions	0.43%	0.43%	0.41%	0.42%	0.44%	0.72%	0.9%

**Source:** Census Report India 2011

India is a multilingual and multi religious country. From table 2, we can observe that in India Hindu group has highest population of 79.80% according to census data 2011. Whereas Jain group has lowest population in the country that is only 0.37%. Muslims are 14.23% in population in India which is quite good. Christians are 2.30% and Sikhs are 1.72% among the total population of the country. Buddhist people are also very low in population that is only 0.70% of the total population.

## 6. HISTORY OF GLOBAL POPULATION GROWTH

**Table 3: Global Population Growth**

<b>Year</b>	<b>Estimated Population</b>
8000 BC	5 Million
Up to 1 A.D	200 Million
middle of 18 <sup>th</sup> century (down of modern era)	800 Million
During 20 <sup>th</sup> century	6 Billion
21 <sup>st</sup> Century	7.6 Billion

**Source:** Historical Estimates of World Population - US Census Bureau

Table 3, highlight that at the dawn of agriculture about 8000 B.C., the population of the world was approximately 5 million. World population was so small up to the middle of 18th century which was the down of modern era. During the 20th century, the world population has grown from 1.65 billion to 6 billion. Population in the world is currently (2018) growing at a rate of around 1.09% per year. The current average population increase is estimated at 83 million people per year. World population will therefore continue to grow in the 21st century. Now at present the world population is 7.6 Billion. World population is projected to be 9 billion in the year 2050.

## 7. POPULATION EXPLOSION– AN OBSTACLE TO INDIA’S ECONOMIC DEVELOPMENT

Population Explosion refers the sudden and rapid rise in the size of population, especially human population. It is an unchecked growth of human population caused as a result of:

- Increased birth rate.
- Decreased infant mortality rate.
- Improved life expectancy.

In 21<sup>st</sup> century the world population is about 7.6 Billion and it is predicted to grow four times in the next 100 years. India today is grossly overpopulated. The census of population 2011 shows that India having one billion people now. This means that the country has to support over 16 percent of world population on just about 2.4 percent of total world area. If the current growth rates continue, it will become the most populous country by the year 2050 surpassing China. Population explosion is causing severe resource depletion and environmental degradation in our country India.

### 8. POPULATION DENSITY OF INDIA

Population density is a measurement of population per unit area or unit volume. It is a quantity of type number density. It is frequently applied to living organisms, and most of the time to humans. Population density is population divided by total land area or water volume, as appropriate.

**Table 4: Population density of India**

Sl. No	State	Area Sq. Km	Density 2011	Density 2001
1.	<u>Delhi</u>	1,483	11,320	9,340
2.	<u>Chandigarh</u>	114	9,258	7,900
3.	<u>Puducherry</u>	490	2,547	2,034
4.	<u>Daman and Diu</u>	111	2,191	1,413
5.	<u>Lakshadweep</u>	30	2,149	1,895
6.	<u>Bihar</u>	94,163	1,106	881
7.	<u>West Bengal</u>	88,752	1,028	903
8.	<u>Kerala</u>	38,852	860	819
9.	<u>Uttar Pradesh</u>	240,928	829	690
10.	<u>Dadra and Nagar Haveli</u>	491	700	449
11.	<u>Haryana</u>	44,212	573	478
12.	<u>Tamil Nadu</u>	130,060	555	480
13.	<u>Punjab</u>	50,362	551	484

14.	<u>Jharkhand</u>	79,716	414	338
15.	<u>Assam</u>	78,438	398	340
16.	<u>Goa</u>	3,702	394	364
17.	<u>Maharashtra</u>	307,713	365	315
18.	<u>Tripura</u>	10,486	350	305
19.	<u>Karnataka</u>	191,791	319	276
20.	<u>Andhra Pradesh</u>	275,045	308	277
21.	<u>Gujarat</u>	196,244	308	258
22.	<u>Orissa</u>	155,707	270	236
23.	<u>Madhya Pradesh</u>	308,252	236	196
24.	<u>Rajasthan</u>	342,239	200	165
25.	<u>Uttarakhand</u>	53,483	189	159
26.	<u>Chhattisgarh</u>	135,192	189	154
27.	<u>Meghalaya</u>	22,429	132	103
28.	<u>Manipur</u>	22,327	128	103
29.	<u>Himachal Pradesh</u>	55,673	123	109
30.	<u>Nagaland</u>	16,579	119	120
31.	<u>Sikkim</u>	7,096	86	76
32.	<u>Jammu and Kashmir</u>	222,236	56	46
33.	<u>Mizoram</u>	21,081	52	42
34.	<u>Andaman and Nicobar Islands</u>	8,249	46	43
35.	<u>Arunachal Pradesh</u>	83,743	17	13
	<b>India (Average)</b>	<b>3,287,240</b>	<b>382</b>	<b>324</b>

Source: Census Report India 2011 and 2001

Table 4, reveals the records of population density 2011 of India. It state that the population density 2011 has increased from a figure of 324 to that of 382 per square kilometer, which is considerably higher than the average population density of the world 2011, which are 46 per square kilometer. The records also reveal that along with the wide difference with the population density of the world, there are also huge differences in the population density of the various states of India.

## **9. CAUSES OF POPULATION GROWTH IN INDIA**

### **9.1 Decline in the death rate:**

The major cause of population growth is the difference between the overall birth rate and death rate in populations. If the number of children born each year equals the number of adults that die, then the population will stabilize in the country. But global population growth shows that there is decline in death rate in the whole world for which population increase.

### **9.2 Better medical facilities:**

Industrial revolution and technological advancement in the world were the biggest reason for population growth. Science was able to produce better means of producing food. Medical science made many discoveries which defeat many dangerous diseases. Combining the increase in food supply with fewer means of mortality tipped the balance and became the starting point of overpopulation in the world.

### **9.3 More hands to overcome poverty:**

For thousands of years, a very small part of the population had adequate money to live in comfort. The rest population faced poverty and would give birth to large families to make up for the high infant mortality rate. Families that have been through poverty, natural disasters or are simply in need of more hands to work are a major factor for overpopulation.

### **9.4 Technological advancement in medical science:**

By technological advancement and more discoveries in medical science, it has become possible for many couple who are unable to conceive and undergo fertility treatment methods to born their own babies. Today there are effective medicines which can increases the chance of conception and lead to rise in birth rate.

### **9.5 Immigration:**



Many people prefer to move to developed countries like US, UK, Canada and Australia where best facilities are available in terms of medical, education, security and employment. The end result is that those people settle over there and those countries become overcrowded. This can happen in our country also.

#### **9.6 Lack of family planning:**

Most developing nations have large number of people who are illiterate, live below the poverty line and have little or no knowledge about family planning. Those people are not conscious about population growth and lack of proper education which prompts them to avoid family planning measures and thus population increase.

#### **9.7 Lack of proper education:**

Illiteracy is another important cause of overpopulation. Lack of education among people fails to understand the need to prevent excessive growth of population. They are unable to understand the harmful effects of overpopulation.

### **10. EFFECTS OF POPULATION GROWTH IN INDIA**

- **Depletion of natural resources:** The first effect of population growth is the exhaustion of natural resources. The Earth can only produce a limited amount of water and food, which is now in scarcity of the current needs. Peoples are cutting down forests, hunting wildlife in a reckless manner, causing pollution and creating a host of problems. These all are the effects of population growth.
- **Environmental degradation:** The overuse of coal, oil and natural gas, has started producing some serious effects on our environment. Rise in the number of vehicles and industries have badly affected the quality of air. Rise in amount of CO<sub>2</sub> emissions leads to global warming. These are few of the consequences which our country facing due to environment pollution and ultimate leads to population growth.
- **Conflicts and wars:** Overpopulation in developing countries puts a pressure on the resources. Conflicts over water and oil are becoming a source of tension between countries, which could result in wars in the whole world. Starvation is a huge issue which now facing the world. Poverty is the biggest concern due to overpopulation.
- **Rise in Unemployment:** When a country becomes overpopulated, it gives rise to unemployment because there are fewer jobs to support large number of people. Rise in unemployment gives rise to crime as people follow unfair means to feed their family and provide them basic requirements of life.

- **Higher cost of living:** As difference between demand and supply of resources continues to expand due to overpopulation, it raises the prices of various commodities including food, shelter and healthcare. This means that people have to pay more to survive and feed their families. This will leads higher cost of living.
- **Poor Health:** If people do not get adequate food and nutrition due to over population, then they may suffer from poor health and will affect by various diseases. It will cause poor human health in our country.
- **Pollution and global warming:** Global climate change is identified as one of the greatest threats to the world. Over population causes too much pressure on earth, which rises excessive demand for finished products leading to over-industrialization and over-utilization of resources. The industrial discharge is the main cause for water and air pollution. Further, it will leads to global warming in the world including our country India.

## 11. REMEDIAL MEASURES TO CONTROL POPULATION GROWTH IN INDIA

- **Proper Education:** One of the first measures is to implement various policies reflecting social change in our country. Educating mass people about population education helps them to understand the need to have fewer children in their family. Proper education will make people aware about population growth in the country.
- **Awareness about Family Planning:** As population of the whole world is growing at a rapid pace, raising awareness among people regarding family planning and letting them know about serious effects of overpopulation can help to decrease population growth.
- **Knowledge of Sex Education:** Imparting proper sex education at elementary level should be made compulsory in schools. It will make aware about population growth among the students from the school.

## 12. COMPONENTS OF POPULATION GROWTH

Population growth or change of population can be measured both in terms of absolute numbers and in percentage. The basic components of population growth are: fertility, mortality and migration. These three components of population growth are discussed below:-

### 12.1 Fertility-

According to demographers fertility refers to the actual production of offspring. Fertility can also be measured. But it is very difficult to measure fertility. The various measures of fertility rate are:

- Crude Birth Rate

- General Fertility Rate
- Fertility Ratio
- Child-Woman Rate
- Standardized Birth Rate
- Total Fertility Rate

➤ **Crude birth rate** (CBR) - It is the most common measure of human fertility. The number of live births in a given year, per 1,000 people alive in the middle of that year may be known as crude birth rate.

**Table 5: CBR (Crude Birth Rate) by residence, India and bigger States, 2011**

India and bigger States	Total	Rural	Urban
India	21.8	23.3	17.6
Andhra Pradesh	17.5	17.8	16.6
Assam	22.8	24.0	15.5
Bihar	27.7	28.4	21.7
Chhattisgarh	24.9	26.3	18.3
Delhi	17.5	19.3	17.2
Gujarat	21.3	22.9	19.0
Haryana	21.8	22.9	19.5
Himachal Pradesh	16.5	17.1	11.2
Jammu & Kashmir	17.8	19.1	13.1
Jharkhand	25.0	26.3	19.0
Karnataka	18.8	19.7	17.2
Kerala	15.2	15.4	14.4
Madhya Pradesh	26.9	28.8	20.1
Maharashtra	16.7	17.3	15.8

Odisha	20.1	21.0	14.7
Punjab	16.2	16.8	15.2
Rajasthan	26.2	27.4	22.5
Tamil Nadu	15.9	16.0	15.7
Uttar Pradesh	27.8	28.8	23.7
West Bengal	16.3	18.1	11.5

**Source:** Census report 2011

From table-5 we can summarized that Andhra Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu and West Bengal are the major States having birth rate below 20 both in rural and urban areas. Madhya Pradesh and Uttar Pradesh both have the highest birth rate in rural areas (28.8).The lowest CBR in rural areas (15.4) in Kerala whereas it has been estimated (11.2) in urban areas of Himachal Pradesh.

- **General Fertility Rate (GFR)** – It is the number of life births per thousand woman of normal reproductive aged i.e., 15–44 in a year. It focuses on the potential mothers only, and takes the age distribution into account.

**Table 6: GFR (General Fertility Rate) by residence, India and bigger States, 2011**

India and bigger States	Total	Rural	Urban
India	81.2	88.9	62.0
Andhra Pradesh	60.7	63.6	54.4
Assam	82.8	88.8	51.3
Bihar	114.4	118.2	83.8
Chhattisgarh	91.9	99.1	62.3
Delhi	63.3	70.9	62.1
Gujarat	79.7	87.0	68.7
Haryana	80.7	85.7	69.9
Himachal Pradesh	57.3	59.3	37.8

Jammu & Kashmir	62.5	67.7	43.8
Jharkhand	96.1	102.9	69.2
Karnataka	65.8	70.3	58.2
Kerala	54.2	55.2	51.3
Madhya Pradesh	103.4	113.0	71.9
Maharashtra	61.6	66.6	55.5
Odisha	72.6	76.5	50.2
Punjab	59.9	62.2	56.2
Rajasthan	102.1	108.9	81.8
Tamil Nadu	56.4	58.2	54.2
Uttar Pradesh	109.3	115.1	86.6
West Bengal	57.9	65.0	39.4

Source: Census report 2011

Table 6, highlight the GFR for all-India and bigger States. At the national level, 81.2 children were born to every thousand women aged 15-49 years. This number varies from 62.0 in urban areas to 88.9 in rural areas. Among the bigger States, GFR varies from 54.2 in Kerala to 114.4 in Bihar.

- **Total Fertility Rate (TFR)** – It is the total number of children a woman would bear during her lifetime if she were to experience the prevailing age-specific fertility rates of women. This is an effective measure of age sex adjusted fertility.

**Table 7: TFR (Total fertility rate) by residence, India and bigger States, 2011**

India and bigger States	Total	Rural	Urban
India	2.4	2.7	1.9
Andhra Pradesh	1.8	1.9	1.7
Assam	2.4	2.6	1.5
Bihar	3.6	3.7	2.6

Chhattisgarh	2.7	2.9	1.9
Delhi	1.8	1.9	1.8
Gujarat	2.4	2.6	2.0
Haryana	2.3	2.4	2.0
Himachal Pradesh	1.8	1.8	1.2
Jammu & Kashmir	1.9	2.1	1.3
Jharkhand	2.9	3.2	2.1
Karnataka	1.9	2.0	1.7
Kerala	1.8	1.9	1.8
Madhya Pradesh	3.1	3.3	2.1
Maharashtra	1.8	1.9	1.6
Odisha	2.2	2.3	1.5
Punjab	1.8	1.8	1.7
Rajasthan	3.0	3.2	2.4
Tamil Nadu	1.7	1.7	1.7
Uttar Pradesh	3.4	3.6	2.6
West Bengal	1.7	1.9	1.3

Source: Census report 2011

The TFR for India in the year 2011 was 2.4 per woman and varies from 2.7 in rural areas to 1.9 in urban areas. Among the bigger States, it varies from 1.7 in Tamil Nadu and West Bengal to 3.6 in Bihar. For rural areas, it varies from 1.7 in Tamil Nadu to 3.7 in Bihar. For urban areas, such variation is from 1.2 in Himachal Pradesh to 2.6 in Bihar and Uttar Pradesh.

- **Child-Woman Ratio (CWR)** – It is the ratio of the number of children under 5 to the number of women aged between 15-49, times 1000.

## 12.2 Mortality-

Population growth depends largely on this mortality rate. Crude death rate is the simplest measure of mortality. It refers to number of deaths in a particular year per thousand of population. It is an important parameter affecting future growth of a population.

### **12.3 Migration-**

Migration is the movement by people from one place to another with the intentions of settling, permanently or temporarily in a new location. The movement is often over long distances and from one country to another.

### **13. CONCLUSION**

Rapid growth of population becomes a matter of concerns for the country as it leads so many serious environmental problems. There is a need to control population growth in the country for the conservation of natural environment. "National Population Policy in India – 2000" is a serious step taken by government toward population control in our country. The NPP, 2000 has stated various aspects of population control and education mechanisms and declares, "The overriding objective of economic and social development is to improve the quality of lives that people lead, to enhance their well-being, and to provide them with opportunities and choices to become productive assets in society". Poverty itself is also the main cause of rapid population growth in India. Poverty prevents better education and better living standard. Thus, population explosion is both a cause and an effect of poverty.

### **REFERENCES**

#### **Journals and books:**

- Kaushik, D. (2015). Growth of Population in India and Its Impact on Natural Resources. *Paripex Indian Journal of Research*, Vol. 4(12), pp 101-103
- Mazidbhai Vohra, S. (2015). Population Growth – India's Problem. *Paripex Indian Journal of Research*, Vol. 4(11), pp 65-67
- Pandey, M.M., Tiwari, R. & Choubey, A. (2015). Population Dynamics in India. *International Journal of Scientific & Engineering Research*, Vol. 6 (1), pp 2106-2133
- Sharma, R.K. (2004). *Demography and Population Problems*. New Delhi: Atlantic Publisher.

#### **Websites:**

1. [www.censusofpopulationofindia2011](http://www.censusofpopulationofindia2011)
2. [www.wikipedia.org/wiki/Population](http://www.wikipedia.org/wiki/Population)

3. [www.wikipedia.org/wiki/World\\_population](http://www.wikipedia.org/wiki/World_population)
4. [www.yourarticlelibrary.com/essay/population-essay/population-education-in-india-meaning-objectives-problems/45201](http://www.yourarticlelibrary.com/essay/population-essay/population-education-in-india-meaning-objectives-problems/45201)
5. [www.preservearticles.com/201105076336/meaning-and-definition-of-population-education.html](http://www.preservearticles.com/201105076336/meaning-and-definition-of-population-education.html)
6. [www.wikipedia.org/wiki/Population\\_dynamics](http://www.wikipedia.org/wiki/Population_dynamics)
7. [www.encyclopedia.com/social-sciences-and-law/sociology-and-social-reform/sociology-general-terms-and-concepts-63#A](http://www.encyclopedia.com/social-sciences-and-law/sociology-and-social-reform/sociology-general-terms-and-concepts-63#A)
8. [www.encyclopedia.com/social-sciences/encyclopedias-almanacs-transcripts-and-maps/population-dynamics](http://www.encyclopedia.com/social-sciences/encyclopedias-almanacs-transcripts-and-maps/population-dynamics)