

Research Paper



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POPULATION EXPLOSION IN ASSAM: AN ANALYSIS OF CENSUS DATA, 1901-2011

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ABSTRACT

Population growth is caused by birth rate, death rate and migration. Rapid growth in population is a major issue in the developing world including India as these economies have limited resources and consequently suffer from the problems of overpopulation via food shortage, poor health services, poor infrastructure, and environmental degradation and so on. If govt. of such economies makes expenditure to boost one area e.g. agriculture and then industry suffers due to shortage of resources. This necessitates urgent need for stabilizing population growth in such economies to get rid of the common problems of population explosion. Against this back ground, this paper examines population characteristics based on Census data for 1901-2011 in Assam state of India which has been suffering from the problems of population explosion for long. Based on census data and by applying observational method for analyzing the objectives of the study, we find that the rate of growth of population in Assam during the period 1901-2011 under study had been found to be 849 per cent which much higher than the national average of 408 per cent over the same period. The study also focused on density of population and sex ratio in Assam during 1901-2011. There has been increasing tendency in terms of density of population over the period of 1901-2011 while sex ratio has improved during the last three decades (1991-2011) although the number of females is still less than males in Assam.

KEY WORDS: Population, Population explosion, density of population, sex ratio.

INTRODUCTION

Assam is situated in the North-Eastern Region of India with a total geographical area of 78,438 sq. km. The political boundary of Assam changed several times after independence due to bifurcation of Nagaland (in 1963) and Meghalaya and Mizoram (in 1972). So, the present day Assam is a small part of what was known as Assam before bifurcation. However, even after decades of planned development in India, Assam remains one of the backward states of India. The percentage of people below the poverty line in the state (31.98%) was higher than the national of average of 21.92% in 2011-2012 (Statistical Handbook, Assam, 2015). The population of Assam stood at 3.11 crores in 2011 (Census 2011).

The high growth of population since independence in Assam has attracted the attention of the state govt., academician, research scholars and both the print and electronic media in the state. Each side is expressing concerns over the rapid growth of population in Assam. Especially the Assamese speaking people is worried about their identity in future in the state as many commentators in the Brahmaputra valley held Bengali immigration from the erstwhile East Pakistan (Now Bangladesh) responsible for change in the demography of the state. Considering the population explosion and its evil consequences in the state, the govt. of Assam has prepared Draft State Population and Women



Empowerment Policy 2017 to mitigate population growth in the state.

Against this backdrop, the present study makes an attempt to study the population in Assam based on census data during 1901-2011 with emphasis on analysing trends in growth of population, density of population, and sex ratio.

OBJECTIVES OF THE STUDY

The main objectives of the study are:

- 1) To examine the trends in growth of population in Assam vis-à-vis growth of population in India as a whole since 1901.
- 2) To analyse the major causes of population explosion in Assam.
- 3) To examine density of population and sex composition of population in Assam vi-a-vis India as a whole since 1901.
- 4) To suggest measures for control of population in Assam.

METHODOLOGY

The study is based on secondary data. Information relating to size of population, density of population and sex ratio in this study has been collected from secondary sources. Analytical tools like tables and graphs have been applied to examine the objectives set for the study.

TRENDS IN POPULATION GROWTH IN ASSAM, 1901-2011

The rapid increase in the size of population is known as population explosion. Change in population is caused by fertility, mortality and migration. Population growth has both positive and negative consequences. Population growth retards development process in a region having limited resources and space by creating pressure on food supply, space, ecology and other needs of life like health and education. Assam has been facing the problems of overpopulation for decades. All the benefits of development are eaten up by the newly added population in the state. This necessitates urgent need for controlling population.

A perusal of table 1 reveals that in absolute terms, between 1901 and 2011 population of Assam has raised nearly 9 fold with an increase of 279.16 lakhs indicating nearly 849 per cent increase in the size of population in the state over a period of 110 years. This shows a phenomenal increase in population in Assam during the period 1901-2011. A comparison of the trends in population in Assam (table 1) with that in India as a whole (table 2) reveals that during the period 1901-2011 India's population as a whole has increased by nearly

408 per cent indicating nearly 5 fold increase in its population. In absolute sense, India's population increased from 2,384 lakhs in 1901 to 12,105.7 in 2011 indicating net addition of 9721.7 lakhs to total population of India. Hence, we can say that Assam has experienced higher growth rate in population than the national growth rate during the last century. Assam has one of the highest growth rates in population among the Indian states. As a result, we observe that the share of Assam in India's population is on increasing from 1.38 per cent in 1901 to 2.6 percent in 2011.

In order to make an in-depth study of the trends in population in Assam and keeping in mind the objectives of the study, the whole period 1901-2011 can be divided into two categories, namely (i) pre independence period, 1901-1951 and (ii) post independence period, 1951-2011. In the pre independence period, 1901-1951 Assam's population increased by 47.4 lakh from 32.9 lakhs in 1901 to 80.3 lakhs in 1951. While in the post independence period, 1951-2011 the population of Assam increased from 80.3 lakhs in 1951 to 312.06 lakhs in 2011 implying an increase of 231.76 lakhs. This implies that population of Assam has tremendously increased in the post independence period mainly because of the fact that the decadal growth rate of population in Assam between 1951-1961 and 1961-1971 were as high as 34.98 per cent and 34.95 per cent respectively (table 1) as against 21.64 per cent (between 1951-1961) and 24.8 per cent (1961-1971) for India as a whole (table 2). Further, the birth in Assam was 22.8 as against death rate of 8 with natural growth rate of population at 14.8 in 2011 (SRS, 2011). Thus, the main factor behind such a phenomenal increase in population is obviously the high natural increase in population in the state.

It can be mentioned here that war of independence began in Bangladesh in 1971. It is commented that the conditions prevailing in Bangladesh during its liberation war forced many people specially Bengali Hindus to migrate to West Bengal, Assam, Tripura and other parts of India. Millions of East Pakistani refugees migrated to Assam during the liberation war and they were not repatriated by the Govt. of India after the war (Dutta, 2015). Therefore, the high growth of population in Assam in the post independence period supports the theory that migration is a major factor behind such a phenomenal growth of population in Assam (Bhattacharyya, 2004).

It is further observed that there emerges large difference in the growth rate of population between

Assam and India as a whole during last century. The difference in growth rates can be attributed to large scale migration of people from other parts of the subcontinent-particularly from the densely populated neighboring country of Bangladesh. Environmental crisis in Bangladesh and relatively greater opportunities of livelihood in Assam and other parts of India motivate the people for cross border migration (Nath & Nath, 2010).

From the foregoing analysis, it is clear that the major causes of population explosion in Assam are: (i) Natural increase in Population and ii) Migration especially from the neighboring country of Bangladesh.

DENSITY OF POPULATION

Density of population is considered as an important indicator of the pressure of population on the scarce land resources. An increasing trend in density of population implies heavy pressure of population on land. Demography tells us that density of population is the number of persons per square kilometer.

However, rightly observed that the concept of density of population is mostly divulging and is a useful tool in the analysis of diversity of man's distribution in space (Clark 1972, quoted in Pacharane, 2012).

A perusal of the census data relating to the density of population in Assam (table 3) shows that in the pre independence period (1901-1951), the density of population increased by 60 persons /sq.km. In the post independence period (1951-2011), it has tremendously increased by 296 persons/sq.km implying an increasing tendency in the density of population in the state. This has obviously has far reaching implications. Firstly, the land-man ratio is declining with increase in the density of population with time. Secondly, more population / sq.km means more demand for food, houses etc. leading to conversion of scarce agricultural lands into non-agricultural uses which may have adverse impact on agricultural production in the long run. Demand for land for residential uses driven by population growth can lead to decline in agricultural production through loss of valuable agricultural land (Barbhuiya, 2008). Thus, increase in population density causes environmental deterioration by clearing forests for agricultural and residential uses.

Similar increasing trend in India's density of population as a whole is rightly observed with an increase by 40 persons /sq.km and 265 persons /sq.km in the pre independence period (1901-1951) and the post independence period (1951-2011) respectively.

SEX RATIO

Sex ratio defined as the number of females per 1,000 males forms an important aspect of demographic/population characteristics. Sex ratio is helpful in understanding the gender related issues. Moreover, it is very helpful in policy formulation for educational, health, political and economic purposes. It directly affects the marital status, supply of labourers, fertility and indirectly affects the literacy, birth rate and death rate. Imbalance in sex ratio is harm to society structure.

However, as far as sex ratio is concerned, number of females has always been less than males in both Assam and India as a whole during the last century (table 4). This has an implication that our society has preference for male child. Moreover, low status of women in society, male dominated society, economic insecurity of women etc. can be held responsible for low sex ratio in our society.

CONCLUSION

The phenomenal growth of population in Assam since 1951 was mainly due to the natural growth in population driven by advancement in medical science and migration leading to various socio-economic challenges. Population explosion is, thus one of the burning issues in Assam. Population explosion has become a matter of concerns in a poor state like Assam which comes under special category states in India and is highly dependent on central grants-in-aid for executing its developmental projects. It is rightly observed that overpopulation in Assam is posing serious threats by creating pressure on the state govt. to maintain quality of life for its people on the one hand and is worsening the economic scenario in terms of food inflation, high unemployment and environmental degradation like climate change, deforestation etc. Thus, there is an urgent need for controlling population in Assam.

SUGGESTIONS

It is obvious that population growth is a major constraint to the growth of Assam's economy. The following measures can be undertaken as urgent need to curb birth rate in Assam.

1) Economic measures

i) Ensuring inclusive growth

Once all sections of the population have access to the development process, poverty is automatically reduced leading to low birth rate in the state. So what is mostly required to curb unabated population in Assam is to increase per capita income of the people as per capita income increase population decreases and vice versa.

ii) Developing agriculture

Assam is agriculturally a backward state in India. Assam's agricultural economy is suffering from both seasonal and disguised unemployment. Hence efforts should be made to provide employment during lean season in the rural areas. In this regard, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) can be helpful to provide employment when it is scarce if it is implemented properly. Further, agricultural productivity is to be improved in the state by adopting new agricultural technology. Irrigation network in the state should be enlarged to enhance multiple cropping which can make a direct impact on disguised unemployment in the agricultural sector.

iii) Developing industry

Employment opportunities can be generated by installing new industrial units. Assam is rich in natural resources. There is ample scope for employment generation through industrialization. The govt. should encourage inflow of capital from both domestic and foreign investors by improving infrastructural facilities and maintaining law and order in the state.

iv) Developing tourism industry

There are huge prospects of developing tourism industry in Assam. The Kaziranga National Park (famous for one horned rhino), Majuli (largest riverine island in the world), Kamakhya temple etc. are some examples of popular tourist destinations in Assam. In order to boost employment, tourism industry in the state should be developed by removing infrastructural constraints.

2) Non-economic measures**i) Adopting family planning**

Family planning measures are to be adopted properly. The two child norm as proposed in the "Draft Population and Empowerment of Women Policy 2017" can make a dent on birth rate in the long run if implemented properly.

ii) Spread of education

Spreading education especially among the downtrodden communities is need of the hour.

iii) Improving status of women

Even in the 21st century there is gender discrimination in our society. Measures relating to spread of education among females and ensuring more participation of females in the work force and decision making are to be taken.

iv) Stopping migration

Erecting barbed fencing along with Indo-Bangla border can be helpful in reducing migration. The Govt. of India has taken such initiative to seal Indo-Bangla border. The sealing of Indo-Bangla border is to be completed as early as possible to stop migration. Moreover, in order to identify illegal migrants in the state, the Govt. has taken a good step to complete National Register of Citizens (NRC). However, the govt. has failed to publish even the Draft NRC till date. Thus, the govt. of Assam should complete NRC updating in Assam as early as possible.

Table 1 Trends in Population in Assam, 1901-2011

| Year | Population (In Lakh) | Decadal Change | |
|-------|----------------------|----------------|------------|
| | | Absolute | Percentage |
| 1901 | 32.9 | - | - |
| 1911 | 38.5 | 5.6 | 17.02 |
| 1921 | 46.4 | 7.9 | 20.52 |
| 1931 | 55.6 | 9.2 | 19.83 |
| 1941 | 66.9 | 11.3 | 20.32 |
| 1951 | 80.3 | 13.4 | 20.03 |
| 1961 | 108.4 | 28.1 | 34.99 |
| 1971 | 146.3 | 37.9 | 34.96 |
| 1981* | 185.2 | 38.9 | 26.59 |
| 1991 | 224.1 | 38.9 | 21.00 |
| 2001 | 266.6 | 42.5 | 18.96 |
| 2011 | 312.06 | 45.46 | 17.05 |

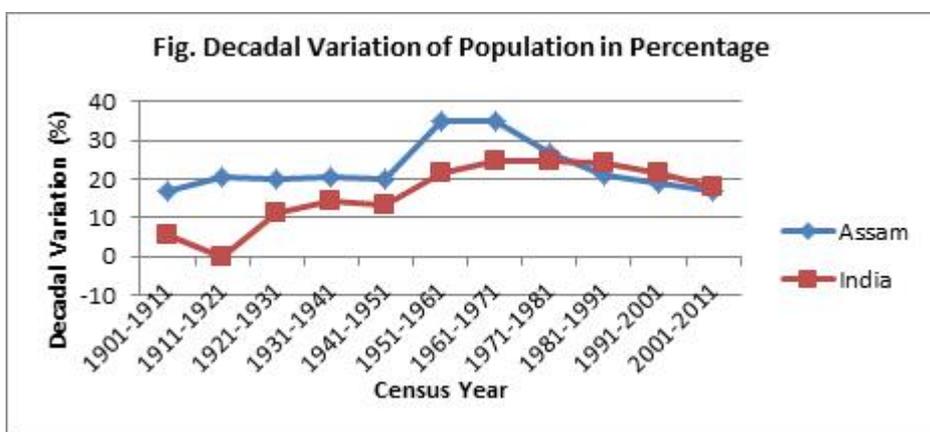
* Interpolated based on the figures for 1971 and 1991 as 1981 census was not held in Assam.

Source: Statistical Handbook of Assam, 2015 & self calculation by the author

Table 2 Trends in Population in India, 1901-2011

| Year | Population (In Lakh) | Decadal Change | |
|------|----------------------|----------------|------------|
| | | Absolute | Percentage |
| 1901 | 2384.0 | - | - |
| 1911 | 2520.9 | 136.9 | 5.75 |
| 1921 | 2513.2 | -7.7 | -0.31 |
| 1931 | 2789.8 | 276.6 | 11 |
| 1941 | 3186.6 | 396.8 | 14.22 |
| 1951 | 3610.9 | 424.3 | 13.31 |
| 1961 | 4392.3 | 781.4 | 21.64 |
| 1971 | 5481.6 | 1089.3 | 24.8 |
| 1981 | 6833.3 | 1351.7 | 24.66 |
| 1991 | 8464.2 | 1630.9 | 23.87 |
| 2001 | 10286.1 | 1821.9 | 21.54 |
| 2011 | 12105.7 | 1819.6 | 17.68 |

Source: Statistical Handbook of Assam, 2015 & self calculation by the author



Source: By the author

Table 3 Density of Population in Assam and India, 1901-2011

| Year | Assam | India |
|------|-------|-------|
| 1901 | 42 | 77 |
| 1911 | 49 | 82 |
| 1921 | 59 | 81 |
| 1931 | 71 | 90 |
| 1941 | 85 | 103 |
| 1951 | 102 | 117 |
| 1961 | 138 | 142 |
| 1971 | 186 | 177 |
| 1981 | - | 216 |
| 1991 | 286 | 267 |
| 2001 | 340 | 325 |
| 2011 | 398 | 382 |

* 1981 census was not held in Assam

Source: Statistical Handbook of Assam, 2015,

Table 4 Sex Ratio in Assam and India, 1901-2011

| Year | Assam | India |
|------|-------|-------|
| 1901 | 919 | 972 |
| 1911 | 915 | 964 |
| 1921 | 896 | 955 |
| 1931 | 874 | 950 |
| 1941 | 875 | 945 |
| 1951 | 868 | 946 |
| 1961 | 869 | 941 |
| 1971 | 896 | 930 |
| 1981 | - | 934 |
| 1991 | 923 | 926 |
| 2001 | 935 | 933 |
| 2011 | 958 | 943 |

* 1981 census was not held in Assam

Source: Statistical Handbook of Assam, 2015

REFERENCES

1. Barbhuiya, M.U. (2008), "Change in Land Use and Land Ownership in Agriculture: A Case Study of Banskandi Block of Cachar District", unpublished M.Phil. Dissertation, Department of Economics, Assam University Silchar.
2. Bhattacharyya, Minakshi (2004), "Economic Impact of Migration in Assam during post Independence Period", A Ph. D. Thesis, Available at Shodganga.inflibnet.ac.in.
3. "Census 2011 India", Available at www.census2011.co.in/
4. Dutta, Nabojyoti (2015), "Immigration in Assam: A Historical Perspective", *International Journal of Humanities and Social Science Invention*, 4(1), 30-32, Available at [www.ijhssi.org/papers/v4\(1\)/Version-1/G04101030032.pdf](http://www.ijhssi.org/papers/v4(1)/Version-1/G04101030032.pdf)
5. Govt. of Assam (2016), "Statistical Handbook of Assam 2015", Directorate of Economics and Statistics. Available at [atplanassam.info/contents_sub.php?username=&status..%20Statistics](http://planassam.info/contents_sub.php?username=&status..%20Statistics)
6. Nath, Hiranya K. and Nath Suresh Kr. (2010), "Illegal Migration into Assam: Magnitude, Causes and Economic Consequences", Working Paper, Department of Economics and International Business, Same Houston State University, Available at https://www.researchgate.net/.../228118982_Illegal_Migration_into_Assam_Magnitud...
7. Pacharane, Shivaji Ramchandra (2012), "A Study of Population Characteristics in Ahmednagar District", A Ph.D. Thesis, Available at Shodganga.inflibnet.ac.in
8. RGI (2012), "SRS Bulletin", October. Available at http://censusindia.gov.in/vital_statistics/SRS_Bulletin/SRS_Bulletin-October_2012.pdf