# Impact Of The Growing Population Pressure On Land In Assam

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# **Abstract**

Population growth is caused by birth rate, death rate and migration. Rapid enlargement in population is a major question in the developing world counting India as these economies have limited capital and therefore 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 expenses to boost one area e.g. agriculture and then industry suffers due to shortage of resources. This necessitates vital need for stabilizing population growth in such economies to get rid of the common troubles of population explosion. Against this back ground, this paper examines population characteristics based on population 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. The study also focused on solidity of population and sex ratio in Assam during 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 78,427 sq. km. The political boundary of Assam changed several times after independence due to bifurcation of Nagaland (in 1965) 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 21.93% in 2011-2015 (Statistical Handbook, Assam, 2015). The population The high growth of people 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 dale held Bengali immigration from the erstwhile East Pakistan (Now Bangladesh) responsible for change in the demography of the state. Considering the population detonation and its evil consequences in the state, the govt. of Assam has prepared Draft State Population and Women Empowerment Policy this backdrop, the present study.

# **OBJECTIVES OF THE STUDY**

The main objectives of the study are:

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

# **METHODOLOGY**

The study is based on secondary data. Information relating to size of inhabitants, density of population and sex ratio in this study has been collected starting secondary sources.

# TRENDS IN POPULATION GROWTH IN ASSAM

The rapid boost 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 heath and education. Assam has been facing the problems of overpopulation for decades. All the benefits of growth are eaten up by the newly added population in the state. This necessitates urgent need for scheming 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 representative nearly 849 per cent increase in the size of population in the state over a period of 110 years.

A comparison of the trends in population in Assam with that in India as a whole reveals that during the period of ninghty years 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 indepth 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 as against 21.64 per cent (between 1951-1961) and 24.8 per cent (1961-1971) for India as a whole . 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 .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. 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.

# **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 nonagricultural 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.

Population growth and Land use pattern: Total land area under cultivation in Assam has increased from 23.01 lakh hectares in 1950-51 to 27.04 lakh hectares in 1970-71 and then to 27.74 lakh hectares in 2001-02. Accordingly, the land under cultivation has increased from 26.0 per cent of the total geographical area in 1950-51 to 34.4 per cent in 1970-71 and then to 35.33 per cent in 2001-02. Simultaneously, total uncultivated area which constitutes 74.0 per cent of the total area in 1950-51 gradually declined to 65.6 per cent in 1970-71 and then to 64.66 per cent in 2001-02. Similarly the total fallow land has also declined from 4.65 lakh hectares in 1950-51 to 1.64 lakh hectares in 2001-02 and the total cultivable waste land has also declined from 3.80 lakh hectares in 1950-51 to 0.76 lakh in 2001-02. Finally total cropped area of the state has also increased from 18.13 lakh hectares (i.e. 23.1% of the total area) in 1960-61 to 39.8 lakh hectares (50.73 per cent) in 2001-02. Thus

due to huge amount land not available for cultivation, the net sown area in the State constitutes only 34.4 per cent as compared to that of all India average of 46.6 per cent. The impact of population growth on land is assessed from point of view of land- man ratio, which has particularly affected density and distribution pattern on one hand and the coverage of forest on the other. The area under forest has declined from 28.20 lakh hectares in 1950-51 to 21.15 lakh hectares in 1970-71 and then to 19.32 lakh hectares in 2001-02. Such decline in forest area will not only disturb the ecological balance of the region servely, but also bring down the resource potential of the state to a great extent, often at the cost of environmental welfare of the society.

# Agricultural holdings and operated area in Assam and its impact on population

Accordingly, the cultivators in the state has also increased from 23.83 lakh to 38.30 lakh, including 10.5 lakh marginal cultivators which indicates more pressure on cultivable land leading to rise in the number of small and marginal farmers that reduced the average size of land holding. The number of agricultural labor has also increased from 4.06 lakh to 13.62 lakh, including 6.27 lakh marginal agricultural labor during 1071-2001. The growth of landless labor force by about 21.2 percent is leading a large scale underemployment and unemployment among rural population. Aquite spectacular aspect of population growth in Assam is its wide variation from rural to urban areas; though maintain a considerable rate of increase, the growth rates do not deviate much from that of the population as a whole. The percentage of urban population in Assam as per 2001 census is 12.72%, the all India figure being 27.78%. It was 11.1% in Assam against the all India figure of 26.13% as per 1991 census. However, the decadal growth rate of urbanization in the state during the decade 1991-2001 was 36.24%, the all India rate was 31.13%. The urban growth of the state was the highest during the decade 1951-61 (126.57%). Thus the growth rate of urban population is much higher as compared to that of all India level. North East India, comprising of eight states has a unique distribution of having more than a hundred tribal communities who are at the various stages of development. The Schedule caste also contributes a considerable part of the population of this region. The backwardness of these two categories of this part of the country is totally different from

other parts of India. A common economic backwardness makes the general standard of life in all the states of the region. The region is richly endowed with natural resources, plain and forest land but lack of proper utilization has deprived the common people of its benifits. Out of the total population of Assam 6.9 percent are SC people and 12.4 percent are ST people as per the 2001 census.. This segment of people are found to be lying in perpetual darkness for years together in respect of availability of land holding, food security and all sort of facilities although govt. has initiated various schemes for the upliftment of their society. The average size of holding in respect of the SC and ST people is 1.06 1.39 hectares respectively as compared to the total average of 1.17 hectares of the state which shows that the SC people are still in low profile in this respect. Moreover the share of operational holding of SC and ST in the state as per 2001 census was 4.69 percent and 12.60 percent respectively against 4.79 percent and 12.94 percent in 1990-91. This shows that the SC and ST people are gradually being deprived of the facilities so far as land holding is concerned. The decrease in availability of land per person due to the tremendous pressure of population, leads to an immediate fall in food grains availability per person. This fall in food grains has to be met by bringing food grains from other states, there by not only increasing the dependence of the state, but also results in wasted of the scarce resources for feeding the unnecessary increase in the population scarifying the development of the state to that extent. It is also true that though per capita availability of agricultural land and food grains is decreasing every year, the total area under cultivation is actually increasing in terms of absolute area, focusing attention to the fact that every year the pressure of population compels additional land being brought under cultivation. The rich natural resources of the state instead of being utilized for the development of the state, is wasted away in feeding of her growing population. Thus the uncontrolled increase of population is actually acting as a big hindrance for the development of the economy.

# **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. Since, the rural areas of the state are most affected by any increase in population, some strategies of economic development should be chalked out, which will more effectively reduce or divert the pressure of population on land. It may be suggested that, all agricultural practices in the state should have a cropping pattern with maximum possible diversification. At the same time, living conditions in villages of the state should be improved by providing basic urban amenities as like electricity, medical & health facilities, education facilities, drinking water facilities etc. It is also imperative to create larger employment opportunities in villages and rural areas by setting up ancillary, agro based processing, and other small & cottage industries in the areas. Besides, a good network of transport and communication system should be laid for the movement of labor, firm produce and industrial raw materials from rural to urban center.

# **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 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) Noneconomic 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.

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