

## **Density and Growth of Population In Goa (Decadal and Annual)**

Good day students. I'm Charmaine A. Lewis e Pereira, Assistant Professor in Government College of Arts, Science and Commerce, Quepem, Goa.

This course is for Fundamentals of Population Geography. It is meant for students of Arts and Science Second Year opting for Generic Elective Geography, Semester III. The paper code is GEG107. In today's module we will be discussing Density and Growth of population in Goa from the decadal and Annual point of view. It is the 15th module of Unit II.

### **Outline**

In the outline we will be discussing the concept of density of population from the temporal and spatial aspects, and the growth of population in Goa from the decadal and annual point of view..

### **Learning outcomes**

After going through this module, students will be able to understand the concept of population density. They will be able to analyze the spatial and temporal aspects of density of population in Goa. They will also be able to examine the concept of growth of population with reference to Goa..

### **Introduction - Density of Population**

Let us begin with the Density of population in Goa. Population density is defined as the number of persons per unit area of land or per square kilometer of land. The density can be calculated using a formula. The total population divided by the total Geographical area, gives us the Density of population which is expressed in persons per square kilometer.

### **The temporal study of density in Goa**

If you have a look at the table, we can understand that the density of Goa has increased progressively from 128 persons per square kilometer in 2001 to 394 ppsk. in 2011.

There is a gradual rise in the density of population right up till 1961 which marks the pre-liberation era in Goa. After 1961, the density in Goa has been rising at a fast pace. This could be because the state has attracted people for employment opportunities who were migrating into the state for jobs and better employment opportunities as well as educational opportunities. Thus, we can say that the post-Liberation era in Goa has experienced a higher density of population, i.e., 394 persons per square kilometer recorded in 2011.

The density of Goa is much above the National Average. The National Average for India is 382 ppsk. The density in Goa has risen over the years and this tremendous increase in density is because of the influx of in-migrants into Goa for better prospects and facilities like employment, education, health and infrastructure.

### **The spatial dimensions of density in the population of Goa**

We can explain this with the help of an areal distribution map (Choropleth map). Based on the colors, we can identify that there are four Density zones. Zone I, Zone II, Zone III and Zone IV. It is very clear that Zone I and II include the Old Conquest, talukas of Goa invaded by the Portuguese initially. In Zone I, the highest density is recorded in Marmugao taluka. This could be attributed to its function as a port town, existence of an airport, providing large scale employment opportunities, and influx of migrants. Secondly, in Zone II, we can identify the talukas of Bardez, Tiswadi and Salcette where-in the density is also high and this could be because they are the coastal talukas which are attracting coastal tourism. Besides being a coastal taluka, Tiswadi also serves as the administrative capital of Goa, while Salcette is the commercial capital of Goa and therefore people flock to these areas for employment, health and education and business..

In the IIIrd density Zone we have the inland talukas of Bicholim, Ponda and Quepem where the density is lesser compared to the coastal talukas. Further beyond, we also have interior areas of Pernem, Sattari, Darbandora, Sanguem and Canacona where the density is very much lower. In fact, the density in Sangam taluka is the lowest with just 78 persons per square kilometer.

Glancing through the map one can identify that darker shades indicate higher density and lighter shades indicate lower density. Another noteworthy observation is that, as one moves from coastal talukas towards the interior talukas the density goes on decreasing.

### **The Growth of Population in Goa**

Population growth is pivotal to the region's demographic dynamism. When we speak about growth of population, we are not only referring to the increase in population, but we are also concerned with the decrease in population. Thus, it refers to the change i.e. both positive as well as negative growth.

There are various reasons contributing to the growth in population. Such as fertility rates, mortality rates or birth rates and death rates. These account for the natural factors or natural increase in population, besides this, migration is also a significant contributor leading to the growth of population. In areas experiencing in-migration, population increases or grows. While in areas experiencing outmigration, there is a decrease in the population.

The concept of Growth of Population in Goa can be better understood with the help of a figure and a supporting table. There has been almost a static rise in population growth right up till the year 1961, which is a very important year as it marks the liberation of Goa. In the post Liberation era i.e. after 1961 there has been an increase in the growth of population in Goa.

According to the 1881 Census, the population in Goa was 4,13,727, which has risen to 14,58,545 as per the 2011 Census. This constitutes 0.12% of India's population. After liberation in 1961, the population has risen from 5.90 lakhs to 10.07 lakhs in 1981. The decadal growth rate during the decade 1981 -91 and 1991- 2001 has declined from 16.08% and 15.21% respectively. The growth rates further reduced to 8.23% during the last census of 2011. This progressive fall in the decadal growth rate of the population in recent years can be attributed to the lower birth rates and increased trend of out-migration or emigration of Goan's to foreign lands in search of economic opportunities and educational facilities. Besides this

in-migration is also affected by employment opportunities or employment policies of the government, wherein one has to produce a domicile certificate for securing jobs in the state.

### **The Percentage Decadal Variation in Goa**

It has been observed that from 1911 to 1921 there has been a decline in the population. There has been minus 3.55 percentage decadal growth in the state of Goa and this is mainly because of the presence of epidemics like plague, spanish flu etc. In fact in the years to come when we record the population figures for the next Census in 2021 we might observe negative growth of population due to the outbreak of the coronavirus in 2019.

### **Conclusion**

Density helps us in understanding if an area is sparsely or densely populated. Goa has recorded a density of 394 persons per square kilometer as per the 2011 census. The population growth is an index of the region's economic development, social awakening, historical and cultural background, and political ideology. The density and growth of population has accelerated in the post liberation era mainly due to sudden expansion in almost all fields of activities and influx of migrants for economic opportunities, education and health facilities.

### **References**

You may refer to the Economic Survey (2016-17), a publication of Government of Goa, Directorate of Planning Statistics and Evaluation for further reference.

Thank you.