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**Title - "Population Trends and Food Security in Purvanchal, Uttar-Pradesh (1991-2001)"**

### **ABSTRACT**

**Keywords:**

Food Availability, Food Accessibility, Food Absorption, Nutrients, Population Growth, Food Security.

A nation's food security is defined as the responsibility of the government to devise ways and means and it depends on income level, income distribution, employment pattern, and prices of food. It has four basic components, viz. Food Availability, Food Accessibility, Utilization and Stability. Physiographically Purvanchal lies in the fertile Gangetic Plain its latitudinal extent is 23° 52' 46" N to 28 ° 17' 25" N, and Longitudinal extent is 81 ° 18' 3" E to 84 ° 34' 4" E

The primary objective of the present research is to find out the level of food security and to see that if there is any relationship between population growth and FSI during 1991 and 2001 in Purvanchal, to examine the level of Surplus and Deficit of Food grains, Cereals, Pulses and Oilseeds in absolute terms from 1991 to 2008, to assess the level of surplus and deficit in terms of energy (Kcal) and major nutrients, to find out the Food Security Index (FSI) in Purvanchal, and finally to analyze the relationship between population growth and food security.

For the calculation of Food Security Index (FSI) Max-Min (range estimation method) approach has been adopted. An index for each variable has been constructed. Different indicators included in three components (Availability, Accessibility and Absorption) of FSI have been scaled and normalized to take a value on a scale ranging from 0 to 1.

The present study spreads over seven chapters including introduction and conclusions. The population growth shows an increasing pattern and total population of Purvanchal is 70.9 million. Since the region is predominantly agricultural hence about 18.21 per cent population is working as agricultural labourers Varanasi and Sant ravidas nagar

are the most densely populated districts. The average annual population growth during 1991-2001 is 2.72 per cent which declined to 1.86 per cent during 2001-2008.

The surplus and deficit exercise in the first instance takes into account all the food-grain, cereals and pulses separately from 1991-2008. The study finds that about 26 per cent districts of Purvanchal are in deficit of cereals, 60 per cent in pulses. Change analysis of surplus and deficit regions reveals that about 50 per cent districts of the study area have recorded negative growth in terms of food grains and cereals during 1991-2001.

The FSI of composite index found that the Accessibility, Availability, Absorption and Food Security index during the period was 10.07, 30.43, 53.55 and 19.80 per cent respectively. The study found that the overall decadal population growth during the study period is 26.13 per cent but the availability of energy recorded a negative growth of -1.29. In terms of availability of energy and different nutrients like iron, carbohydrates and proteins etc. The region performed poorly but better in carbohydrates. The analysis of growth of these nutrients and population growth shows that the average growth in protein availability is -4 per cent in 1991-2001 and increased sharply to -13 per cent in 2001-2008. Carbohydrates which were in surplus in both periods also recorded a negative growth.

The analysis of population and FSI indicates that growth in population is quite high and need that it should be brought below 2 per cent. The very high population growth has adversely affected the level of food availability but at the same time it has given impetus to put sincere efforts to raise the production and ultimately availability of food.

The study further finds that the tarai districts though rich in water resources and soil yet performed badly on every front of food security. Another important finding is that the newly created districts with smaller area and population had better growth than the parent districts. It justified that smaller administrative units are the need of the day.

It may be concluded that though the population influences the FSI but in real terms it is the BPL, SC population and per capita income which act as the major determining factors as these reflect the individual's capabilities.