



Comparative Analysis of Change in Population and Food Crop Production in Jalna District

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Introduction:

Relationship between population and availability of food has been the subject matter of geographers since ancient time. Thomas Malthus worked the first economist, to raise this issue. He analyzed the relationship between growth of population and food production. Rate of intensive population growth rises, the pressure on food production. This increasing pressure is not sufficient to produce requested for the population. Food sufficient is very essential term in relation to population and food. The term food sufficiency refers to the levels of human satisfaction in respect of production of food stuff in areas occupied by a group of human individuals. In the food productivity, we are concerned with the amount of food stuffs, produced per unit of farm land or per worker engaged in its production. During last census, the population has increased rapidly due to industrialization and increasing urbanization.

Study Area:

For the study Jalna district has been selected. The district is located in the central part of Marathwada region in Maharashtra State. It is located between 19°15' and 20°32' North latitudes and 75°36' to 76°45' east longitudes. The north-south extension of Jalna district is 150 Kms and east-west stretch of the district is 110 kilometers. Jalna district has a significant location on Deccan plateau. Except Ajanta and Satamala range and river basins, majority part of the district comes under plateau region.



The region has major portion under flat topography, hence it supports high concentration of population. Jalna district comprising 8 tahsils, 4 sub-divisions and eight panchayat samities.

The geographical area of Jalna district is 7726 Sq. KMS. Out of the total geographical area, 98.07% is rural and 1.93% is urban. According to census 2011 the total population of Jalna district was 19,59,046. Out of this total population, the male population was 10,11,473 whereas women population was 9,47,573. Sex ratio of district was 937 as per 2011 census.

Change in Population and Food Crop production:

During the period 2001-2011, growth rate of population for the district as a whole was 21.46 percent. However, the growth rate of population of district was not uniform for the tahsils in the Jalna district. The highest growth of population was recorded for Mantha tahsil (28.56%) while the lowest was for Jafrabad tahsil and it was 18.77%.

Jalna tahsil is the most urbanized part of the district. Large numbers of people migrate to Jalna city in search of better employment opportunities, resulting in the high growth of population for Jalna tahsil. The tahsils like Bhokardan, Ambad, Ghansawangi, Partur and Mantha has the growth rate of population was higher than the district average besides, Jafrabad, Jalna and Badnapur tahsils has also shown much lower growth rate of population than the district average during the same period. (Table 1)

Table No. 1**Volume of Change in Population and Food Crop Production in Jalna District (2001-2011)**

| Tahsil | Population | | % Change in Population 2001-2011 | Production (M.T.) | | % Change in Production 2001-2011 |
|----------------|------------|---------|----------------------------------|-------------------|--------|----------------------------------|
| | 2001 | 2011 | | 2001 | 2011 | |
| Bhokardan | 256191 | 311303 | 21.51 | 53979 | 59321 | 9.90 |
| Jafrabad | 137345 | 163120 | 18.77 | 42449 | 46834 | 10.33 |
| Jalna | 432129 | 519018 | 20.11 | 55316 | 60721 | 9.77 |
| Badnapur | 131362 | 153772 | 17.06 | 43509 | 48018 | 10.36 |
| Ambad | 207142 | 255709 | 23.45 | 48229 | 52751 | 9.38 |
| Ghansawangi | 173082 | 211108 | 21.97 | 33403 | 37016 | 10.82 |
| Partur | 145495 | 177589 | 22.06 | 33861 | 37153 | 9.72 |
| Mantha | 130234 | 167427 | 28.56 | 26285 | 29585 | 12.55 |
| Jalna District | 1612980 | 1959046 | 21.46 | 337031 | 371399 | 10.20 |

Source: Computed by researcher.

Now, it is necessary to furnish simultaneously, the information about food crops production for the Jalna district from 2001 to 2011. It is noted from the table 1 that the food no doubt, has also increased for the same period only to 10.20 percent, which is much lower than the growth of population for the district as a whole. This is because of the land resources are same and cannot be expanded in future. In case, if they are expanded than the forest land is converted into agricultural land which is not desirable at all in the present situation, because in the district land under forest is already below 1% to total geographical area. The food crops production is increasing at much lower rate than population growth. In the district like Jalna there is below 1 percent area under good forest, hence, there is no scope of increasing land for higher production of food crops. Apart from this, there is no sufficient rainfall to raise agricultural productivity for the district as a whole. Total



food crops produce in 2001 was 337031 metric tons, which increased to 371399 metric tons in the year 2011.

The growth pattern of food crops production was also observed for different tahsils of the Jalna district. It was recorded highest for Ghansawangi tahsil because of better irrigation facilities and lowest for Bhokardan tahsil as a result of low irrigation facilities. The growth rate of food crops production varies enormously within the region. Jafrabad and Badnapur tahsils have shown higher growth rate of food crops production than the district whereas Jalna, Jafrabad, Mantha and Partur tahsils have shown lower growth rate of food crops production than the district as a whole.

In short, it may be concluded that during the last two decades, the population of Jalna district has increased more than forty percent, while food crops production has increased to only 25 percent during the same period. This gap between the population growth rate on the one hand and food crops production on the other hand is quite remarkable. It must be considered as a alarming problem before the region under study.

Agricultural production, inspite of various efforts are being made by the government of India to increase the per capita agricultural production to cater the food need of increasing population. No doubt the Jalna district is in position to make it self sufficient in food requirement, due to abundant irrigation facilities are being made available. At the same time subsidies are being made available for farmers to purchase fertilizer and high yield varieties of seeds, ensuring higher agriculture production per unit of land. Therefore, the changes in agricultural production for various food grains during the successive decades have also shown impressive increase.



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