

A Study of Per Capita Net Sown Area of Pune District (Maharashtra)

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Abstract:

Agriculture plays a vital role in the Indian economy, and the availability of net sown area is a crucial determinant of agricultural production. This study focuses on the per capita net sown area of Pune district, Maharashtra, to understand the spatial variation and the impact of population pressure on cultivable land. Using secondary data from the Agriculture and Statistical Departments of Pune (2010–11), the study analyzes tahsil-wise distribution of per capita net sown area. Findings reveal significant regional disparities, with Purandar tahsil (0.48 ha) recording the highest and Haveli tahsil (0.13 ha) the lowest per capita net sown area. The results suggest that population density, topography, and irrigation facilities play a decisive role in shaping these patterns. The study emphasizes the need for improving irrigation infrastructure, groundwater management, and adoption of modern agricultural practices to enhance land productivity and sustain food security in the district.

Key Words:- Per Capita, Population, Net Sown Area, Agriculture, Pune District, Irrigation.

Introduction:

Agriculture occupies an important role in the Indian economy. Its contribution to the national income in 1950-51 was up to 54%, which declined to only 18.50 per cent at present. Agriculture provides food, fodder, and raw materials and thus contributes to overall economic growth. Agriculture is the backbone of the Indian economy. The net sown area is land that is being actively filled for the rise of crops. This area has special significance in agricultural geography. Agricultural production in the region depends mostly on this type of land. The Pune district is one of the most significant cultivated districts in Maharashtra state. Tremendous population growth has resulted in a growing pressure on agriculture in India. With an increasing population, the net sown area must increase. Therefore, it is necessary to study the per capita net-sown area. Per capita net sown area is per capita land that is being actively filled for the rise of crops. It is calculated by dividing the total net sown area of the region by the total population of the respective region. This is mostly denoted per sector. Therefore, an attempt is made here to, "A study of per capita net sown area of Pune district (Maharashtra)."

Study Region:

For the present investigation, Pune District was selected as the study area. The Pune District is an agricultural district in Maharashtra State. Geographically, the Pune district is located between 17° 54' N and 19° 24' N latitude and 73° 19' E and 75° 10' E longitude. The total geographical area of Pune District is 15,642 sq.km. The proportion of the area of Pune district compared to Maharashtra is about five (5.08 %) percent. The district is surrounded by the Ahmदनगर district to the north and east, Pune district in the southeast, Satara district in the south, Raigarh district in the west, and Thane district in the northwest. It is administratively divided into 14 tahsils: Ambegoan, Baramati, Bhore, Daund, Haveli, Indapur, Junnar, Khed, Mawal, Mulshi, Pune City, Purandar, Shirur and Velhe. According to the 2011 census, the Pune District has 14 tahsils, 35 towns and 1877 villages. The Pune District is part of the Bhima basin. The average annual rainfall in the district was 722 mm. Owing to uneven physiography, rainfall was unequally distributed in the study region.

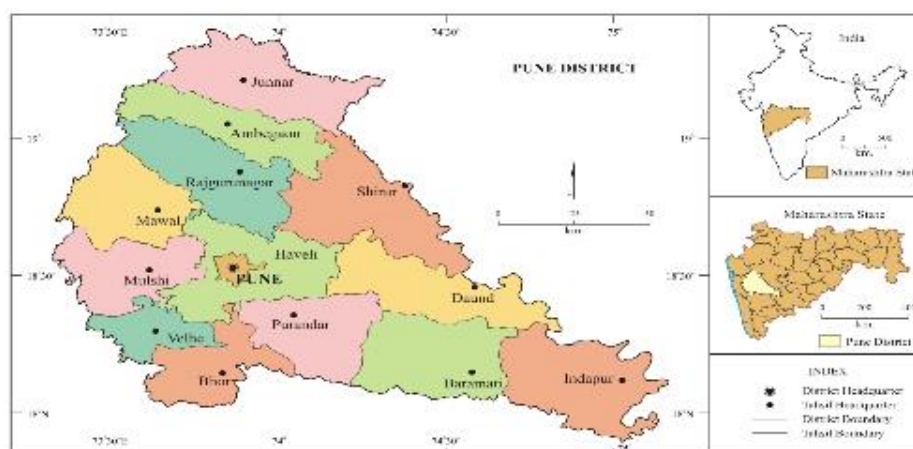


Fig. No. 01

Objective:

The main objectives of this paper are as following.

- 1) To study the per capita net sown area of Pune District.
- 2) To suggest solution to increases per capita net sown area in Pune district.

Database and Methodology:

The study was conducted in the Pune District of Maharashtra State. For this study, only secondary information was collected from different sources. Data included net sown area, population, cropped area, irrigated area, and geographical information collected through the Agriculture Department, the District Statistical Department of Pune, and the socio-economic abstract of Pune district in 2010-11. The per capita net sown area was calculated using the following formula:

Result and Discussion:

Per capita net sown area is per capita land that is being actively filled for the rise of crops. It is calculated by dividing the total net sown area of the region by the total population of the respective region. This is mostly denoted per sector. The per capita net sown area of Pune district has 0.23 hecter, which is much more of the state average. Following table no. 01 shows the overall per capita net sown area of the Pune district.

The spatial pattern of the per capita net sown area varies significantly within the pune district. The Purandar tahsils (0.48 hecter) recorded the highest per capita net sown area, while Haveli tahsils (0.13 hecter) recorded the lowest per capita net sown area during 2011. The entire region was classified into three sub-regions of per capita net sown area, as shown in figure No.02

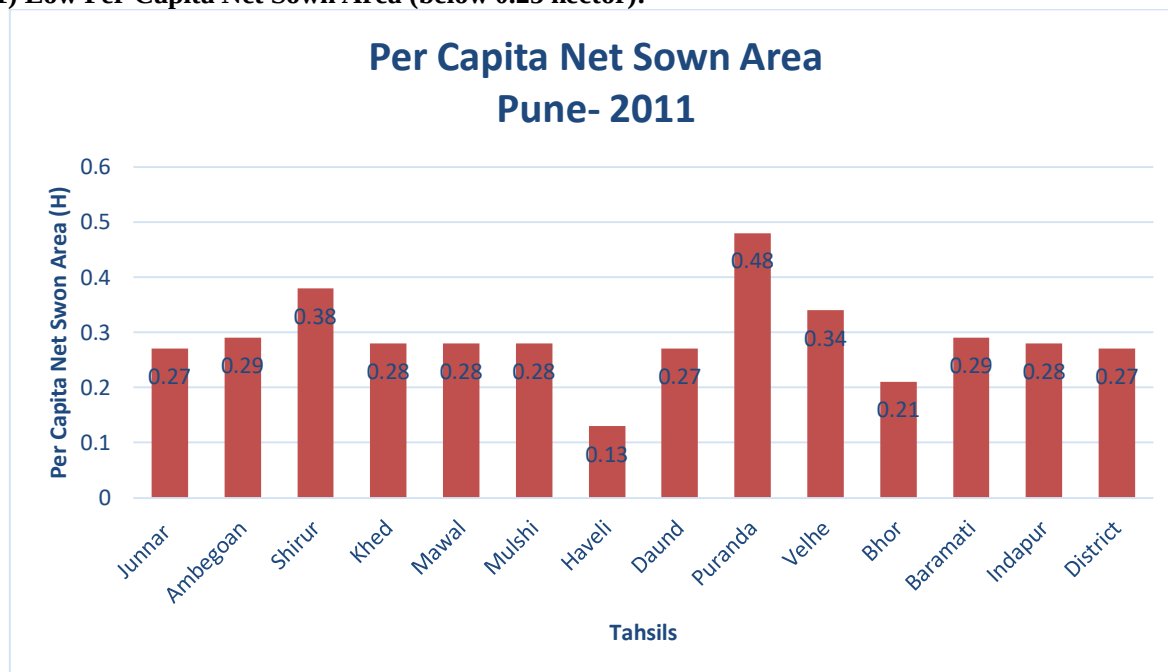
Table No.01**Tahsil Wise per Capita Net Sown Area of Pune District -2010-11**

Sr. No.	Tahsils	Per capita Net Sown Area
1	Junnar	0.27
2	Ambegoan	0.29
3	Shirur	0.38
4	Khed	0.28
5	Mawal	0.28
6	Mulshi	0.28
7	Haveli	0.13
8	Pune city	N
9	Daund	0.27
10	Puranda	0.48
11	Velhe	0.34
12	Bhor	0.21

13	Baramati	0.29
14	Indapur	0.28
	District	0.27

(Source: Compiled by researcher on the basis of Socio-Economic abstract of Pune District 2011)

1) Low Per Capita Net Sown Area (below 0.25 hectore):



This category consists below 0.25 hectore per a net sown area. The Tahsil Bhore and Haveli were included in this category. This is because Bhore Tahsil is a mountainous region, and the area under cultivation is also very low, so the per capita net sown area is less here. Tahsil Haveli is the nearest part of Pune City and has a higher population.

Figure No. 02

2) Moderate Per Capita Net Sown Area (0.25 to 0.30 hectore):

The moderate level per capita net sown area (0.25 to 0.30 hectore) was found in seven tahsils, including Junnar, Khed, Ambegoan, Mawal, Mulshi, Daund, Baramati, and Indapur. These tahsils have flat and plain topography, more irrigation facilities, and most of the land is under cultivation. Owing to the large-scale development of agriculture, the rural population is increasing. Therefore, the per capita net sown area is moderate.

3) High Per Capita Net Sown Area (above 0.30 hectore):

High level per capita net sown area (above 0.30 hectore) was found in three tahsils of the Pune district. Velhe (0.34), Shirur (0.38) and Purandar (0.48). This is because Purandar tahsil ranks fifth in area and tenth in terms of population. It is also situated near the Gunjawani dam, which provides drinking and irrigation water for agriculture. The Gunjawani Irrigation Project provided irrigation water for agriculture and significant utilization of groundwater resources. Therefore, the per capita net sown area was higher in the Purandar Tahsil.

Conclusion and suggestion:

From the above study, we can conclude that two tahsils, Bhore and Haveli, have low per capita net sown areas. This is because Bhore Tahsil is a mountainous region, which has a higher population concentration due to the nearness of Pune city. High level per capita net sown area (above 0.30 hectore) was found in three tahsils in Pune district: Velhe (0.34), Shirur (0.38), and Purandar (0.48). This is because Purandar tahsil ranks fifth in area and tenth in terms of population. The Gunjawani Irrigation Project provided irrigation water for agriculture and significant utilization of groundwater resources. Junnar, Khed, Ambegoan, Mawal, Mulshi, Daund, Baramati, Indapur. These tahsils have flat and plain topography, more

irrigation facilities, and most of the land is under cultivation. The decrease in per capita net sown area shows an increase in the pressure of population on land, which means that there is a need to increase the productivity of available land to meet the growing food needs in the district. It is possible to adopt new farm irrigation technologies, bringing the area under irrigation to the entire study region.

The empirical results suggest that if land and other uncultivable land, excluding the following land, are brought under cultivation by providing permanent irrigation facilities, effective irrigation methods, and recharging of the ground water table, the per capita net sown area will be extended in the study region.

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