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**A CASE STUDY OF AGRICULTURE PRODUCTIVITY OF  
AMBE VILLAGE OF JUNNAR TAHSIL, PUNE DISTRICT, MAHARASHTRA**

**DR. SHARAD B.KAPHALE**

Department of Geography Arts,  
Commerce & Science Collège,  
Narayangaon, Pune.

**PROF. MISS ASHWINI GAIKWAD**

Department of Geography Arts,  
Commerce & Science Collège,  
Narayangaon, Pune.

**Abstract**

A case study demonstrates how to address real-world problems using a methodical and structured approach. Using real-life examples, you may illustrate your expertise in a case study. As a researcher, you should use case studies to support your findings by providing instances of real-world scenarios.

Agriculture accounts for one-fifth of India's gross domestic product and considered as economic lifeline of India and will continue to be agriculture. However, regional differences in productivity and development in agriculture need more research. Agriculture productivity of Ambe village is calculated with the help of Kendall's Ranking Coefficient method, the Sapre and Deshpande's Weighted Rank index method, Enyedi's Agriculture Productivity index method, Coefficient Index of Shafi and Bhatia's Composite Agriculture Productivity Index method for the year 1995, 2005 and 2015 using Agriculture Census data and District Socioeconomic Abstract. The Junnar tahsil is northernmost tahsil of the Pune district and characterized by diverse physiography and climatic condition which causes variation in agriculture productivity. The research shows that agricultural production has changed over time.

**Keyword:** Case study, Agriculture, Productivity.

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**Introduction**

A village-by-village study of agricultural productivity is the best way to accurately assess agricultural resources. Accordingly, micro-level studies have taken place in communities that are representative of an agricultural production problem in the tahsils. It would be difficult to conduct a full study of every town because of the large amount of time necessary. Agricultural geographers came up with the idea of using sample surveys to analyses various aspects of agricultural resources in order to get around this obstacle. Our focus in this chapter will be on the current situation of the population, soil types and irrigation infrastructures; general land-use patterns; cropping patterns; the production of various crops; animals; and the challenges people face in the agricultural sector in order to save resources and human resources.

The village are selected in such a manner that they will represent the entire stretch of Junnar tahsil and also the different agriculture productivity regions. The selected village for the case study is "Ambe"

Agricultural productivity is influenced by a variety of factors including physical factors such as relief, altitude, climate, and soil, socioeconomic factors such as holding size, tenancy system, population occupational structure, literacy level, and technical factors such as irrigation, chemical fertilizers, high yielding varieties of seeds, and mechanization. Due to this Spatial-temporal variance in agricultural output, all of the aforementioned components are extremely variable and dynamic both in space and time (Munir, 1995). Several researchers have characterized agricultural production using their particular perspectives and disciplines. According to their goals, geographers, agronomists, agriculturalists, and economists have interpreted it in various ways. It is a dynamic notion that

**Study Area**

Ambe is a small settlement located on the north-western boundary of the Junnar Tehsil of Pune District, defined by coordinates 19°11'52.33"N latitude and 73°40'47.08"E longitude with an area of 806 hectares. It is well connected by road and about 29.9 km from tahsil headquarter and 119 km from the district headquarter. On the north, it shares boundary with Hatvij village, on the east it shares boundary with Bhivade Kh. and Ingaloon, on the south it shares boundary with Pimparwandi village and on the west, it shares boundary with Ambegaon tahsil.

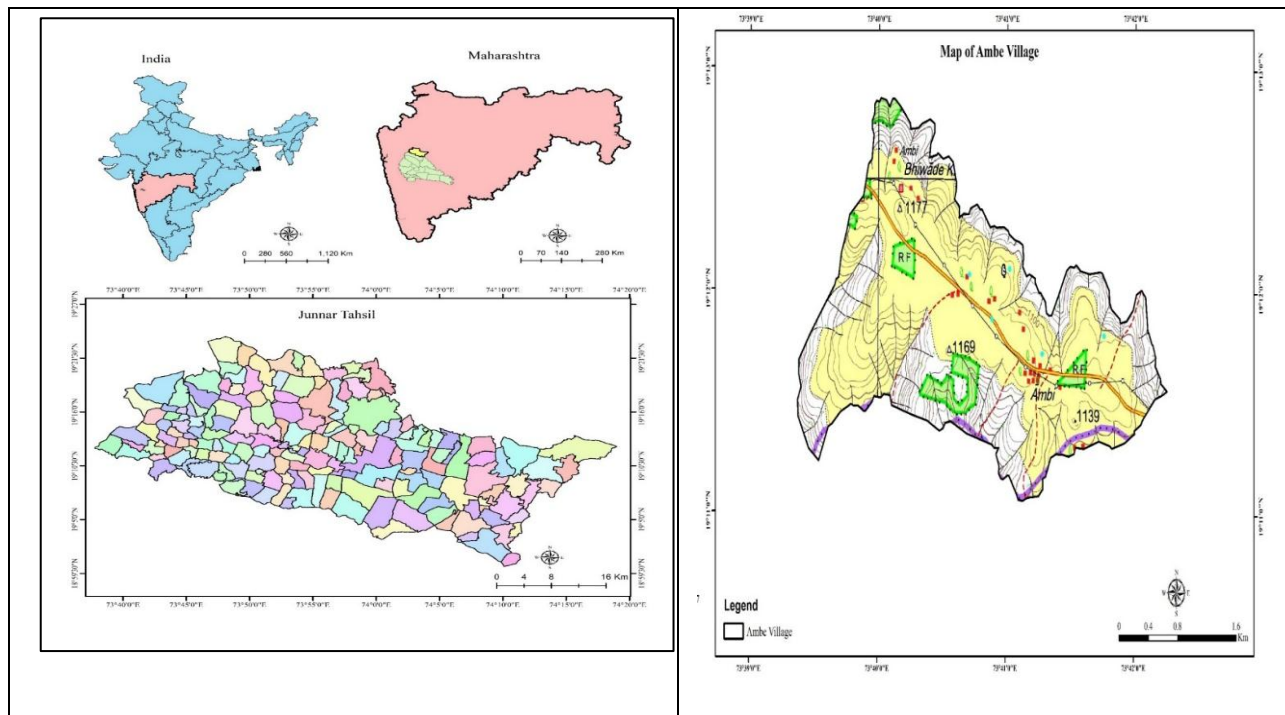


Figure1: Location of Study Area



### **Methodology**

Five agriculture productivity indices namely Kendall's Ranking Coefficient Index, Sapre and Deshpande's Weighted Rank Index, Enyedi's Agriculture Productivity Index, Productivity Coefficient Index of Shafi, and Bhatia's Composite Agriculture Productivity Index were calculated for Ambe Village.

### **Data Based**

The agriculture productivity of the Junnar tahsil is calculated on the basis of the agriculture Census Data District socio-economic abstract and village level agriculture data for the year 1995, 2005 and 2015

### **Agriculture Productivity**

Agricultural productivity is influenced by a variety of factors including physical factors such as relief, altitude, climate, and soil, socio-economic factors such as holding size, tenancy system, population occupational structure, literacy level, and technical factors such as irrigation, chemical fertilizers, high yielding varieties of seeds, and mechanization. Due to this Spatial-temporal variance in agricultural output, all of the aforementioned components are extremely variable and dynamic both in space and time. As the population's need for cultivable land grows, so does the demand for agricultural products. Increasing production per unit area and per unit of time is a good strategy to tackle the food crisis. The most significant indicator used to depict the regional pattern of agricultural growth is agricultural productivity. It aids in determining whether regions are functioning at a lower or greater level of efficiency in relation to the surrounding areas. It also gives you the chance to figure out what's really going on, what's causing your area's agricultural backwardness. It will be very useful in developing suitable plans for each region's long-term development based on its physio-socio-economic situation.



**Table-1-: Agriculture Productivity**

Sr. No.	Method	Productivity Value	Remarks
1.	Kendall's Ranking Coefficient Index	42.36	Very Low Productivity
2.	Sapre and Deshpande's Weighted Rank Index	20.23	Very Low Productivity
3.	Enyedi's Agriculture Productivity Index	75.65	Very Low Productivity
4.	Coefficient Index of Shafi	1.96	Very Low Productivity
5.	Bhatia's Composite Agriculture Productivity Index	81.63	Very Low Productivity

Factors affecting agricultural productivity include physical ones like soil and climate conditions, socio-economic ones like farm size and tenancy system (including the composition of workers), and technical ones like irrigation and chemical fertilizers (such as high-yielding seeds and mechanization). Spatial-temporal variation in agricultural production causes all of the aforementioned components to be dynamically changeable in time as well as spatially. Agricultural goods are in high demand as the global population's requirement for arable land increases. The food crisis may be alleviated by increasing output per unit area and per unit time. Agricultural productivity is the most important indicator used to illustrate the geographical patterns of agricultural expansion. It's a useful tool for figuring out if a region's efficiency levels are lower or higher than the rest of the country. Additionally, you'll be able to discover the root of your community's agricultural decline. It will be very helpful in formulating long-term development strategies for each area based on its physio-socio-economic context. Five agriculture productivity indices namely Kendall's Ranking Coefficient Index, Sapre and Deshpande's Weighted Rank Index, Enyedi's Agriculture Productivity Index, Productivity Coefficient Index of Shafi, and Bhatia's Composite Agriculture Productivity Index were calculated for Ambe Village.



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## **Conclusion**

Calculating the agriculture productivity, Kendall's Ranking Coefficient Index value was 42.36, the Sapre and Deshpande's Weighted Rank Index value was 20.23, Enyedi's Agriculture Productivity Index was 75.65, Coefficient Index of Shafi 1.96 and Bhatia's Composite Agriculture Productivity Index value 81.637 all the values indicates Very Low Agriculture Productivity of Ambe villege.

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