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Assessment of Land value on the basis of Agricultural productivity in district Bareilly

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Abstract

In district Bareilly, the agriculture productivity is not same and it has different values so the present study is to find out spatial pattern of agricultural productivity.

The spatial pattern of agricultural productivity deviates from rupees 77453 in Block Kyara to rupees 21219 in Block Baheri of District Bareilly with coefficient of variation of 38.41 percent. It is summarized into four groups at interval of $\pm 1SD$.

Introduction

Agricultural productivity is a measure of the efficiency with which inputs are used in agriculture to produce an output. The measurement of agricultural productivity enables a comparison of the relative performance of farmers, between type of farming and between geographical areas. Generally, geographers have used either average crop yield or some combination of crop yield and area occupied by crops to measure agricultural productivity. In this study, the output of different crops have been converted into values by using regional farm harvest price. The value of agricultural output is based on 14 major crops i.e. wheat, paddy, Jowar, Bajra, Maize, Barley, Gram, Peas, Arhar, Masoor, Potatoes, Mustard, Groundnut and Sugarcane. Agricultural productivity is defined as the market value of output of total crops per hectare of cropped area. The index of productivity for each area unit is calculated by dividing the total crops value by net cultivated area. Thus the average per hectare agricultural productivity in Bareilly District comes to rupees 31765.

Methodology

In this study two types methodology was adopted first is data collection and second one is data analysis and mapping. Data pertaining to agriculture and infrastructure are collected from statistical Bulletin published by the office of the statistics and Economics established at district head quarter. Most of the data are transformed into standard scores by using following formula:

$$\frac{X - \bar{X}}{SD}$$

Where X is the original value.

\bar{X} is the mean

SD is the standard deviation.

Although this method of data grouping presents a generalized, picture, but it is recognized as a scientific method. following this method all data have been grouped in four categories at an interval of ± 1 standard deviation (SD) from regional mean (\bar{X}) which shows zero value. The original values are also written on the maps to understand the map easily. This method presents the following advantages:

1. Since maps are categorized on one scale hence it facilitates spatial comparison among different attributes.

2. The mean and standard deviation provides easier way of selection of class interval in all types of distribution. The symbol of plus and minus shows the higher and lower value in comparison to the mean. Blocks have been chosen as the smallest units for analysis.

Results

The results of this work are summarized in table 1 and shown in figure 1.

Areas with very high and high agricultural productivity are concentrated in the central land and western part of district Bareilly. These tracts have high percentage of irrigated area (above 75 percent) and highly fertile soils. Sugarcane and wheat are the main crops of these tracts. It is interesting to note that the Tehsils with first ranking crop have very high agricultural productivity. These tracts are also highly urbanized and have better facilities of roads and communication. Very high agricultural productivity more than rupees 50105 have been recorded in two blocks i.e. Kyara and Bhojipura. Four blocks are identified in high category.

Area with low and very low agricultural productivity (below regional average) are spread all over the eastern and northern part of the region. It includes the eastern. Tarai belt (Baheri and Damkhoda blocks), the eastern and south-eastern part of the region. The south-eastern Low Land and Dry belt endowed with infertile soil (Bhur) are characterised by less irrigation facilities, loss transportation and communication facilities and low degree of urbanization. Also a large part of these tracts are often affected by frequent floods. The main crops of this tracts are wheat, millets and Maize which have low markets value. The eastern and central part of the plain and the eastern tarai belt also characterised by less irrigation transportation and communication facilities. Wheat and paddy are the main crops of these tracts.

Type	Range	No. of Blocks	Name of the Blocks
AVHP	Above $\bar{X} + 1SD$ (Above 50105)	2	Kyara (77453) and Fatehganj (51787)
AHP	$\bar{X} + 1SD$ to \bar{X} (05105 to 36199)	4	Meerganj (464587), Bhojipura (43230), Ramnagar (40820), and Bithri Chainpur (36910).
ALP	\bar{X} to $\bar{X} - 1SD$ (36199 to 22293)	7	Bhadpura (34636), Alampur Jafrabad (31009), Shergarh (30484), Richha (30298), Faridpur (26601), Majhgawan (26482), Nawabganj (24268).
AVLP	$\bar{X} - 1SD$ Below (22293 & below)	2	Bhuta (21332) and Baheri (21219)

AVHP = Area with Very High Productivity, AHP = Area with High Productivity, ALP = Area with Low Productivity, AVL P = Area with Very Low Productivity.

Source: Computed from District Statistical Year Book, 2002-03.

Seven blocks have low agricultural productivity (Rs. 36199 to 22293). In the category of very low productivity (below 22293) two blocks, namely Bhuta (Rs. 21332) and Baheri (Rs. 21219) are included.

District Bareilly: Spatial pattern of agricultural productivity – Rs / hac

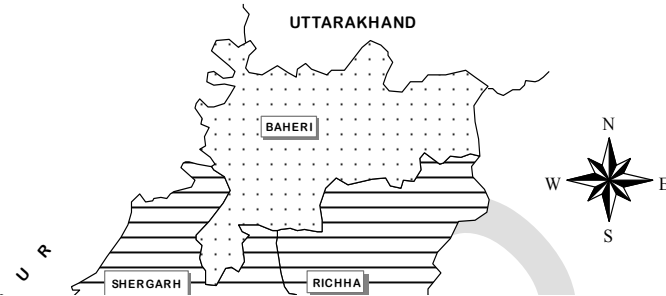
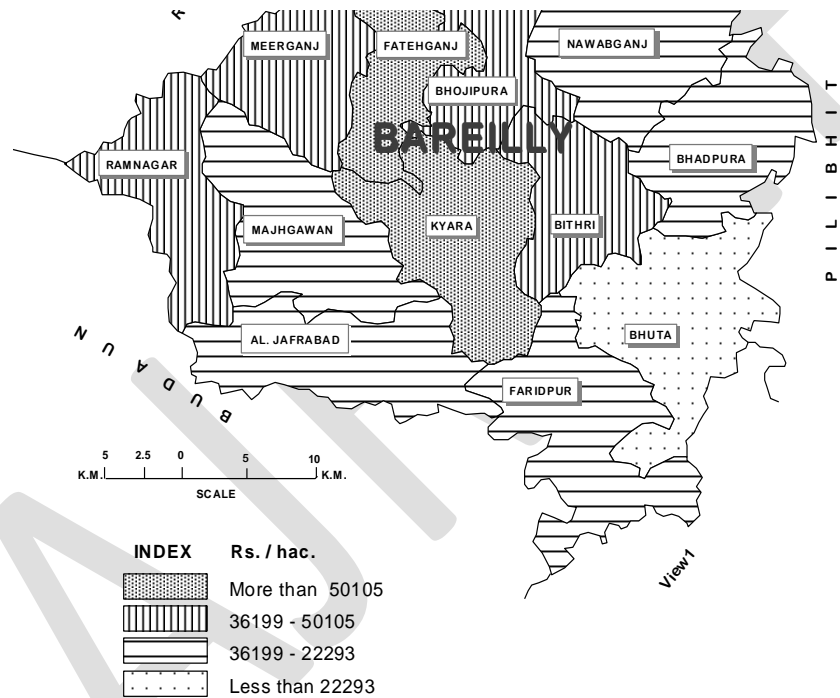


Figure 1



Conclusion

In the study region, district Bareilly the agriculture productivity same but it different in different .such as the highest value agriculture productivity Kyara Bloke

77453Rs/hac lowest in Baheri 21219 Rs per hac. The spatial pattern of agricultural productivity deviates from Rs. 77453 Kyara Block to Rs. 21219 in Baheri Block with coefficient of variation of 38.41 percent. It is summarized into four groups at interval of $\pm 1SD$ (36199 Rs.) Areas with very high and high agricultural productivity due favorable conditions and Area with low and very low agricultural productivity due to less or unfavorable conditions but we can increas agricultural productivity in this region by adopting new techniques of agriculture.

References

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