



ORIGINAL RESEARCH PAPER

Economy

AGRICULTURE PRODUCTIVITY REGIONS IN KARNATAKA- A BASED ON OUTPUT PER HECTARE

KEY WORDS: Agricultural productivity, hectare, crops. Land. Trends, input, output, production Area etc.

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ABSTRACT

Agricultural productivity is a multidimensional concept, which includes technological advancement, effective management of available resources and organizational set-up for the agricultural production. These factors in turn affect the relative production in any region. In order to assess the productivity variations in each of the twenty-seven (including newly created) districts of the state, the best two methods (out of seven) for the evaluation of productivity have been applied, considering all the major food crops grown in the state, namely, Rice, Ragi, Jowar, Bajra, Maize, Wheat, Other Cereals, Tur, Gram, Other Pulses, Groundnut, Sugarcane and Cotton since the beginning of 1993-94 in the state up to 2007-08.

INTRODUCTION

Agricultural productivity is a multidimensional concept, which includes technological advancement, effective management of available resources and organizational set-up for the agricultural production. These factors in turn affect the relative production in any region.

In order to assess the productivity variations in each of the twenty-seven (including newly created) districts of the state, the best two methods (out of seven) for the evaluation of productivity have been applied, considering all the major food crops grown in the state, namely, Rice, Ragi, Jowar, Bajra, Maize, Wheat, Other Cereals, Tur, Gram, Other Pulses, Groundnut, Sugarcane and Cotton since the beginning of 1993-94 in the state up to 2007-08.

As said above, the following two approaches have been adopted for evaluating productivity, viz;

- a) Agricultural Productivity Based on Output per hectare of Cropped Land (Price Weighted).
- b) Agricultural productivity Based on Output per Agricultural Worker (Price Weighted).

This index is based on the value of selected food crops in terms of rupees per hectare. The total production of each crop in each district for each year was multiplied by the money value of the crop and the money value of all the selected food crops in each district for each year was thus obtained. The process was repeated for all the years from 1993 to 2008. The summation of all the money values in each district was divided by the area of all the crops considered in hectare. The result thus obtained was divided by the number of years considered to obtain the average money value per hectare in each district which was grouped into four classes of Very High, High, Medium and Low productivity levels. The regional demarcation based on the respective levels of productivity of districts.

It is seen from that the highest growth rate recorded based on this index is 27.35 percent per annum in the district of Mandya, followed by Bidar where the growth rate is 27.00 percent. The lowest growth rate is recorded as 0.57 percent in the district of Kolar. The growth rates in the district of Tumkur and Uttara Kannada are slightly higher than that of Kolar, being 2.27 and 7.60 percent per annum respectively. Though there is no strong association between spatial level of productivity and growth rate, the two variables are positively related. This association is an indication of the fact that all the districts based on this index have rapid growth rate.

Table No. Fig. 1

Agricultural Productivity Class Interval, Based on Output per Hectare of Cropped Land, 1993-94 to 2007-08 (Price Weighted in Rupees)

Productivity Index Range	No. of Districts Included
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More than --- 77,000	1
34,300 --- 77,000	2
12,900 --- 34,300	14
Less than --- 12,900	10*

Mean Value of Index = 23.61 (Rs. in Thousand).

Standard deviation = 21.39 (Rs in Thousand).

* includes newly created districts also.

(i) a: Very High productivity Level

The only one district i.e., Mandya district constituting this region shows an output of more than rupees 77,000 per hectare

(i) b: High productivity Level

There are two districts namely, Shimoga and Belgaum which fall in this region. These districts show an output between Rs. 34,300 and Rs. 77,000 per hectare.

Productivity Trends (i) a and b

The district of Mandya in the region of very high productivity level shows the highest growth rate in productivity where the output per hectare shows an average annual increase of 27.35 percent.

Similarly, in the region of high level productivity, Shimoga and Belgaum districts show a rate of growth more than 15.00 percent (Fig. 1). The maximum rate of growth is observed as 23.43 percent in the district of Belgaum.

(i) C: Medium Productivity Level

This is the largest region extending from south to north and includes fourteen districts, which is about nearly 50.00 percent of all the districts of the state considered. These districts show variations in their level of productivity ranging from Rs. 12,900 to Rs. 34,300 per hectare. Apart from the isolated pocket of Bidar, these districts form two distinct blocks. The first block (north-region) includes the districts of Bijapur, Bagalkot and Uttara Kannada. The second block (South-Region) includes the districts of Chitradurga, Davangere, and Chikamangalur. Hassan, Kolar, Kodagu, Mysore and Chamarajnagar. The districts of Udupi and Dakshina Kannada also form a part of the second block of medium productivity.

Productivity Trends (i) c the maximum growth rate in this region is 27.00 percent in the district of Bidar which is followed by Bijapur and Bagalkot districts each having a rate of growth of 18.57 percent per annum. But the majority of the districts show a rate of increase less than 13.00 percent except Kodagu which has the growth rate of 17.86 percent per annum. The minimum rate of growth is 0.57 (0.6) percent in the district of Kolar (Fig.

(i) D: Low Productivity Level

The low productivity level prevails in ten districts of the state. In all the ten districts which fall in this category show an output per hectare below Rs.12, 900. There are four districts in the north-eastern region of Karnataka namely, Gulbarga, Raichur, Koppal and Bellary. There are three districts in the north-eastern region of Karnataka namely, Dharwad, Gadag and Haveri. In the South Karnataka region there are three districts namely, Bangalore (U), Bangalore (R) and Tumkur.

Productivity Trends (i) d

It is quite interesting to note, that the highest growth rate of 13.50 percent is recorded in the district of Bellary and the second highest rate of 12.60 percent is observed in Gulbarga. The remaining districts show a rate of growth which is lower than 10 percent except the district Bangalore (R) which has 10.90 percent per annum. The minimum growth rate is 2.3 (2.27) percent as noticed in the case of Tumkur district.

CONCLUSION;

From the above, it is clear that regional variation is existing in Karnataka in respect of agricultural development. Regional imbalance in agricultural productivity caused the underdevelopment of agriculture in Karnataka state. Regional imbalances in agricultural productivity are due to special variations in the availability of important agricultural inputs. Provision of agricultural input along with the development of basic infrastructure will help to develop agriculture. Further diverting of human labour pressure from agriculture sectors to some non-agricultural sector will increase the productivity of agricultural sector and contributes positively towards the agricultural development in the state.

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