



Kharif Season In Agricultural Productivity In Karnataka” An Analysis Some Selected Crops

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Abstract:

Agricultural productivity in Karnataka 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. It is based on land productivity and improved lands using agro based Raw materials.

Key words: Agricultural Cultivation, prodctivity,land, area, production and yield in different crops. Productivity. etc

Introdution:

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)¹ 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.

The sheriff season all selected crops growth and trends explained bellow the following.

Rice:

Trends of area, production and yield under rice are also shows the relative position with regard to actual area, production and yield of each district. That out of twenty districts (including new seven districts), nine districts indicate an upward trend and the remaining eleven districts show a downward trend in the area under rice cultivation. The tendency of increase in area varies from 1.82 percent in Raichur

(including Koppal district) to 384.00 percent per annum in Bangalore Rural district. Among the districts having positive trend, there are two districts which show an increase which is more than 5 percent per annum. In another set of two districts, the growth rate varies from 3 to 5 percent per annum. The remaining five districts possess growth in area of less than 3 percent. The declining trend in area is more pronounced in the districts of Bijapur including Bagalkot. (-15.34 percent), Bidar (-11.80 percent), Bangalore Urban (-10.49 percent), Kolar (-3.80 Percent), Belgaum (-3.48 percent) and Kodagu (-2.55 percent). There are four districts namely, Dakshina Kannada (including Udupi) Chikkamagalur, Dharwad (including Gadag and Haveri) and Uttar Kannada where the downward trend is less than -2 percent per annum.

As regards production, there appears a close correlation between the trends of growth in area and production under rice. With regards production, there are twelve districts which show an upward trend. In these twelve districts, four districts having a value of more than 5 percent per annum, and three districts show an increasing trend ranging between 2 and 5 percent, and remaining five districts show a decreasing trend less than 2 percent. The declining trend in production is more pronounced in the district of Kodagu (-25.16 percent), Belgaum (-7.75 percent), Uttar Kannada (-4.91 percent) and Bangalore Urban (-4.62 percent). There are four districts namely, Chikkamagalur, Dakshina Kannada (including Udupi), Bijapur (including Bagalkot) and Kodagu where the downward trend is less than -2 percent per annum.

The trends showing yield are rather more interesting. With few exceptions (districts of Bangalore Rural, Kolar, Shimogara, Chikamagalur, Mandya, Uttar Kannada and Bidar) almost maximum districts have an upward trend varying from 0.59 percent in Belgaum district to 65.33 percent in Tumkur district. The significance of upward trend in case of yield is worth mentioning. The districts which show downward trend as well as slow growth rate have significant increase indicating an upward trend in yield per hectare.

It may, however, be noted that the yield of Rice in Karnataka is about 3% of the all India average. The main problem facing Rice cultivation in Karnataka is the amount and incidence of rainfall. July and August are the only two months of adequate rain fall. Even in these months there are spell of excessive rainfall causing serious drainage problems and floods in eastern Karnataka and also periods of drought.

Again September is a crucial month, and the crop withers if rain fails. Thus, the main problem of Rice cultivation in Karnataka is management of excess water in July and August and irrigation during breaks in July, August and September. High yielding varieties which can mature in three to four months would be highly beneficial.

The cropping in water logged areas should be started a little earlier than in the upland. In that case, tillering will be completed by the time. Waterlogging would become less serious and nitrogen would be utilised by the plants in their earlier stage of growth prior to water logging. The application of nitrogenous fertilizer should synchronize with the stages of active uptake by the plants. Grain yields have been obtained with dwarf Rice varieties at the All India Co-Ordinated Rice Improvement Project Centre and have ranged from 7 to 15 tonnes per hectare. The average yield in Karnataka is 3.503 tonnes (35.03 quintals) per hectare during 1993-94 to 2007-08. There is thus a wide gap in average yield which should be bridged.

Ragi:

Trends of area, production and yield under Ragi area also shows the relative position with regard to actual area, production and yield of each district. that out of twenty (including new seven) districts, six districts indicate an upward trend and 10 districts show a downward trend and remaining four districts have not produced Ragi Crop in their area. This tendency of increase in area varies from 0.09 percent in Bangalore (Rural) to 50.20 percent per annum in Gulbarga District. Among the districts having positive

trend, there are four districts which show an increase which is more than 2 percent per annum. The remaining two districts possess growth in area of less than 2 percent. The declining trend in area is more pronounced in the districts of Uttar Kannada (-18.45 percent), Kodagu (-15.28 percent), Shimoga (-12.68 percent), Dharwad (including Gadag and Haveri) (-12.19 percent) Bellary (-8.63 percent), and Chitradurga (including Davangere) (-7.98). There are four districts, namely, Hasan, Kolar, Mysore (including Chamarajanagar) and Tumkur where the downward trend is less than -3 percent per annum.

As regards production, there appears a close correlation between the trends of growth in area and production under Ragi. About three-fourth (i.e., seven districts) districts indicates an upward trends in the production under Ragi cultivation. This tendency of increase in production varies from 1.43 percent in Shimoga to 70.05 percent per annum in Gulbarga District. Among the districts having positive trend, there are six districts which show an increase which is more than 2 percent per annum. The remaining one district possesses growth in production of less than 2 percent. The declining trend in production is more pronounced in the districts of Uttar Kannada (-22.02 percent), Kodagu (-10.79 percent), Chitradurga (including Davangere) (-10.26 percent) Kolar (-10.00 percent) Tumkur (-5.53 percent) and Bangalore (Urban) (-4.31 percent). There are three districts namely, Dharwad (including Gadag and Haveri), Bangalore (Rural) and Chikamagalur, where the downward trend is less than 4 percent per annum. And four districts have not produced Ragi during the said period.

Karnataka is the leading producer of Ragi accounting for about 60% of the total Ragi production in India. It has also largest area under Ragi cultivation accounting for about 55% of the total Ragi area in India.

Jowar:

Trends of area, production and yield under Jowar are also shows the relative position with regards to actual area production and yield under Jowar. The position of this crop has rather deteriorated. There seem only three districts namely Hasan, Bijapur, (including Bagalkot) and Gulbarga which indicate an upward trend. But among these, only one district of Hasan has the trend of 7.18 percent per annum indicating relatively significant and remaining the two districts like Bijapur (including Bagalkot) and Gulbarga accounted trend value of less than 2 percent. The downward trend is more pronounced in the remaining twelve districts and varies between -0.53 percent in Uttar Kannada and -12.08 percent in Shimoga. These negative trends in area under Jowar, might be due to an abrupt shift of area from Jowar to other profitable crops cultivation in the state. Jowar crop has not produced in remaining five districts i.e., Bangalore (Urban), Bangalore (Rural), Kolar, Dakshina Kannada and Kodagu.

The trends of growth in the production of Jowar was maintained by six districts. The trends of growth vary from 1.82 percent in Bellary to 25.10 percent per annum in Hasan district. Among these, four districts namely, Mysore (including Chamarajnagar), Hasan, Mandya and Uttar Kannada show a significant growth trend i.e., more than five (5) percent per annum. Two districts of the state show a downward trend less than 3 percent (Bellary and Chikamagalur district). More than half of the districts of the state show a downward trend, which becomes prominent specially in the district of Tumkur, Gulbarga, Shimoga, Belgaum, Bijapur (including Bagalkot) and Dharwad where the trend recorded was more than -5 percent per annum and remaining three districts have recorded less than -5 percent per annum. Karnataka is the second largest producer of Jowar in India next to Maharashtra. It produces about 20% of the total Jowar production in India.

Bajra:

The growth trend in respect of area production and yield under Bajra are significant in comparison to Jowar in the state. Shows that almost four districts have an upward trend in area, varying from 2.93 percent in Bellary to 91.84 percent per annum increase in Mysore (including Chamarajnagar). With the

exception of Mysore (including Chamarajanagar), the two districts show growth rate from 4.23 percent to 4.73 percent, one district i.e., Bellary indicates a value of 2.93 percent only. Within this group eight districts show a downward trend of less than -28.86 percent, two districts show variations in downward trend between -2 and -4 percent. There are six districts where the trend value varies between -4 and -28.86 percent per annum; remaining eight districts did not produce Bajra.

As regards-the trend in production of Bajra there is a correlation between the trends in area and production. An upward trend in production is maintained by the districts of Gulbarga, Bijapur (including Bagalkot), Bidar, Mysore (including Chamarajanagar) and Chitradurga, and in general, among other districts varying from 0.84 percent in Raichur (including Koppal) to 204.02 percent per annum in Bellary district. The highest growth is maintained by the districts of the Bellary (204.02 percent), Mysore (51.57 percent), Chitradurga (including Davangere) 25.50 percent, Bidar (9.18 percent) and Gulbarga (1.16 percent). Among the remaining, one district i.e., Raichur shows a slow growth rate less than 1 percent per annum. About the one-fourth of the districts (five) show a downward trend in growth. Out of five districts, three districts shows a values of downward trend of more than -20.00 percent, but less than -17% in the remaining two districts i.e., Kolar (-12.70 percent) and Shimoga (-16.67 percent) per annum. Remaining eight districts had not produced Bajra.

The trends of growth in yield per hectare in Bajra are comparable with those of Rice and Jowar. Fig 5.25 indicates about five of districts having positive growth. The values of growth vary between 2.22 percent in Chitradurga (including Davangere) and 515.12 percent per annum in Mysore district. Bajra conforms with Rice and Jowar in the sense, that in almost all the districts where the trend of growth in area and production is low, the yield per hectare is high. This shows the influence of application of new agricultural technology.

The upward trend in yield is seen in the districts of Mysore (515.12 percent), Bellary (175.19 percent), Shimoga (37.01 percent), Bidar (7.61 percent) and Chitradurga (including Davangere) 2.22 percent (Fig 5.25). In the remaining seven districts, the downward trend varies from -1.25 percent in Raichur (including Koppal) to -15.20 percent in Belgaum district. In general, the negative trend varies between the values of -1.56 percent and -9.56 percent per annum. It should be noted that Jowar and Bajra are the crops which adjust to a wide range of rainfall conditions, but their distribution is primarily determined by the soil characteristics. The overall yield of Bajra is poor and can be substantial by increased. Poor standards, absence of fertilization and plant protection are common features.

Maize:

Maize has shown a significant upward as well as downward trends in area, production and yield per hectare. That a large number of districts indicate a negative trend. With regard to trends in area under Maize, 25 percent of the total number of districts (i.e., eighteen districts) show an upward trend. The variation between two extremes being 1.01 percent in Belgaum and 840.60 percent in Mandya district. Among the districts having positive trend, there are six districts which show an increase which is more than 20 percent per annum. In another set of nine districts the growth rate varies from 2 to 20 percent per annum. The remaining two districts possess growth in area of less than 2 percent. However, one district has trend value of -0.39 percent (Bangalore Rural district). Out of twenty districts, 18 districts have a positive trend and one district has negative trend and remaining one district i.e., Dhakshina Kannada (including Udupi) has not produced Maize Crop.

With regards to production, there are fifteen districts which show an upward trend. All fifteen districts showing an upward trend in area and production are namely, Chitradurga (including Davangere), Kolar, Shimoga, Tumkur, Mysore (including Chamarajanagar), Hasan, Mandya, Bijapur (including Bagalkot), Dharwad (including Gadag and Haveri), Uttar Kannada, Bellary, Bidar, Gulbarga and Raichur (including Koppal). Among the fifteen districts showing an upward trend in production of Maize, eight districts

accounted for a rate of growth of more than 20 percent per annum; and five districts have growth between 2 percent to 20 percent per annum and the rest of two districts has growth rate less than 2 percent. About the 25% (i.e., four districts) of total districts show a downward trend in growth. Out of four districts, three districts show the values of downward trend of less than -1 percent and remaining one district has -5.49 percent production per annum. Out of twenty-districts one district had not produced Maize crop i.e., Dakshina Kannada (including Udupi) district.

The main reason for this downward trend with respect to area, production and yield of Maize is due to the fact that almost the entire area under Maize falls under rained cultivation. The main problem of Maize cultivation particularly in western Karnataka relates to water logging in the seedling stage and early vegetative growth and deficiency of soil moisture in later growth. Drainage of Maize fields is the main problem and requires appropriate culturable methods. Karnataka ranks fifth among the states in India in the production of Maize contributing about 7.5% of the total output of Maize in the country.

Conclusion:

It is clear that regional variation is existing in Karnataka in respect of agricultural development. Regional imbalance in agricultural productivity caused the undevelopment 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.

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