



Science

CROPPING PATTERN AND CROP RANKING OF MYSORE DISTRICT

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Abstract

With the limited resources of land and water in hand, their optimum use is a must to for increased production of food grains to the demands of increasing population. The productivity in any area can be substantially raised by growing the crops suitable to the area with the help of newly developed agricultural techniques. Rainfed crops would continue to dominate in the agriculture of Mysore district.

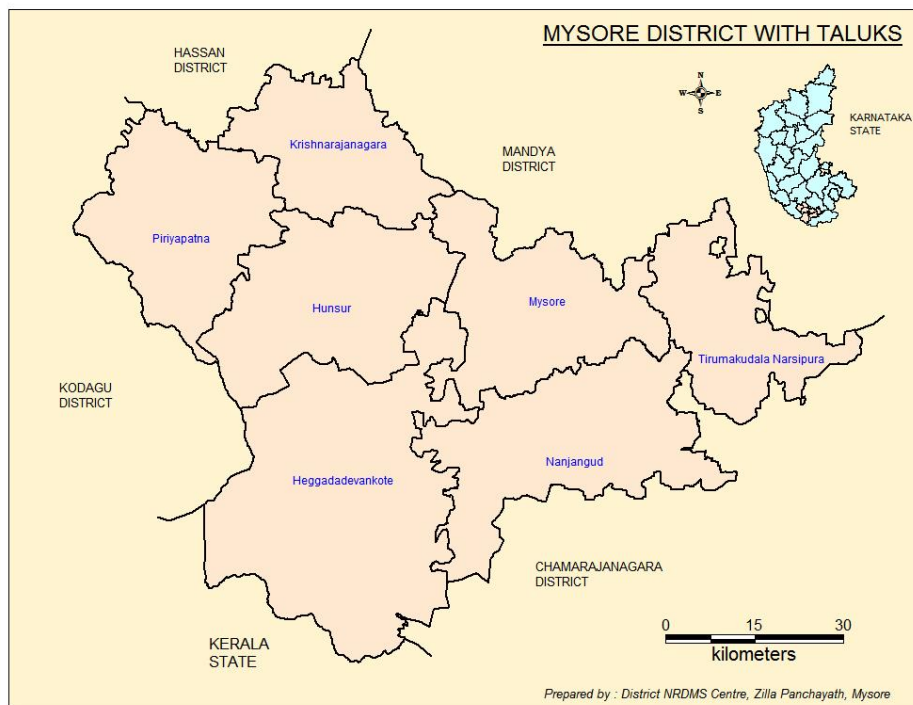
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1. Introduction

The selection of crops is very important, in the agro - climatic conditions of the district under study. The cropping pattern is based on both time and space sequence of crops. The variety in cropping pattern is the result of physical economical and social factors. The physical environment provides a wide range of possibilities for growing crops, but the social and economical conditions determine as to which the crops to be grown are and how much of it is to be devoted to different crops. In fact, social and cultural values strongly influence the cropping pattern especially in the countries where agriculture is a way of life (Buchanan, R.O. (1959). The farming communities have developed their own techniques and tradition, which affect the growth of crops. These crops are not always being grown when they are best adapted to, nor when these can be grown most economically (Dayal, E (1968). All correlates of cropping pattern are of a dynamic nature, except physical elements which take a comparatively longer time to change their determinants belonging to the economic traits change very fast. Technological advancement such as irrigation, soil and water conservation adoption to high yielding varieties of seeds, use of chemical fertilizers and pesticides, improvement in the means of transportation, marketing and storage facilities, price incentives decides which crop to be grown.

Above all, the changes in mental attitude of farmers, the policy makers, the researchers and politicians have brought a tremendous change in cropping pattern. Considering all the factors mentioned above, the author has viewed the study area and concludes that a similar situation is also prevailing in Mysore district. Therefore in this sub-section, parameters dealing with ranking of crops, crop combination, crop concentration, cropping intensity and crop diversification are included.



Ranking of Crops

The percentage area under each crop was ascertained simply by ranking them for each taluks in order to have percentage of the total net sown area occupied by each crop. Ranking of crops gives an insight into the geographical reality of the cropping pattern. Moreover, ranking of crops helps in knowing the crops which compete with each other to gain more hectare under cultivation. After assessing the relative strength of different crops in a geographical unit the process of planning can be initiated more rationally for the optimum use of the available land for cultivation. A judicious use of land with adequate inputs in fact can help in raising the agricultural production even in the less fertile, soil. Thus, the study is useful in reducing the inter regional disparities in the agricultural income and economy. Unless the major crops of the districts are studied in their ranking order and the areal strength of each crops is determined, an appropriate association of soil and soil enriching crops for each situation cannot be ascertained.

Ranking Method

Ranking method can be studied by descriptive and quantitative ways to delineate the ranking of individual crops according to their areas of importance in each component unit. The crop with the larger percentage share to the net sown area forms the first ranking crop and the crop with the next largest share becomes the second ranking crop. Similarly calculations have been made up to 10 to 13th ranking crops and the resultant patterns have been plotted in figure 5.1 for the year 1971-72 to 1997-98.

First Ranking Crop

The ranking crops in the wet taluks of study area comprise a varied pattern from the last three decades (1971-72, 1983-84 & 1997-98).

Paddy has dominated as first ranking crop during in all the three periods. Jowar was a first ranking crop in Nanjangud taluk during first two periods. In the third period paddy has replaced Jowar in Nanjangud taluk. This can be attributed to the extension of irrigation facilities in Nanjangud taluk.

In the dry taluks Ragi has been dominated for two periods, whereas during 1997-98, Ragi has been replaced by cotton in H.D.Kote taluk. However Jowar has replaced Ragi in Mysore taluk during 1997-98.

Second Ranking Crop

The rainfed crops like Ragi, Jowar, Mulberry have acquired second position in the wet taluks of study area. Since irrigation is provided to produce one crop in a year the farmers of the region go for rainfed crops during the Rabi season. Paddy was cultivated as second ranking crop in Nanjangud until 1983-84 and Jowar replaced it during 1997-98. The area under Jowar accounted to 14.88 percent as against 34.88 percent of paddy.

In the dry taluks ragi other pulses, mulberry, jowar are the few second ranking crops.

Third Ranking Crops

Under the third ranking crop other pulses, Groundnut, ragi, jowar and cotton have been found in the wet taluks of the district. There is a great taluk wise fluctuation among these crops except K.R.Nagar taluk. The other two taluks have not maintained consistency in the retention of crop. Perhaps the advantage of irrigation long time since, has maintained paddy, ragi and other pulses has First, Second and Third ranking crops respectively in all the three periods.

Other pulses has been produced has the third important crop in the dry taluks, during 1997-98 except Hunsur. The little irrigation facility available in the dry taluks has helped to produce paddy as third important crop until 1983-84. The depletion in under ground water in the dry taluks as resulted to shift over to dry crops like other pulses.

Fourth Ranking Crop

The importance of crops in its areal size in the wet taluks is more varied in its ranking order from one period to another period, whereas the commercial crops tends to dominate. Sugarcane and groundnut as occupied fourth rank in these taluks in different periods. Other pulses, mulberry and ragi has taken fourth position in Nanjangud taluk in all the three periods i.e., from 1971-72, 1983-84 and 1997-98 respectively.

In all the dry taluks there is a intermix of a variety of crops like groundnut, cotton, other pulses paddy and jowar. A comparative analysis between 1997-72 and 1997-98, presents the temporal change among these taluks without any consistence in retaining earlier ranks of the crops.

Fifth Ranking Crops

Sericulture, which has emerged as subsidiary occupation among the rural folk as, enhanced the expansion of land under mulberry cultivation in the wet taluks. The farmers who own less than 1.5 areas of irrigated land have been engaged in sericulture because of its profitable characteristics. The other fifth ranking crops in wet taluks are cotton, groundnut and ragi during all the three periods.

In the dry taluks groundnut and jowar, figures out to be dominate crops in all the three periods. Cotton and paddy have been produced in Hunsur and Mysore during 1971-72 and 1997-98 respectively.

Sixth Ranking Crop

One of the special characteristic features of sixth ranking crop is that there is no repetitive occurrence of crops in any of these periods in each period. Therefore, it is difficult to generalize which crop predominated in Hunsur taluk. Similar character can also be noticed in the dry taluks in all three periods other than Tur which has occurred in two taluks during 1983-84.

Seventh Ranking Crop

Groundnut, Tur and mulberry are found as a repetitive crops at different periods in the wet taluks of the study area. Other pulses, Bengalgram, cotton, have occupied seventh position and different time periods.

During 1997-98 Tur, Sugarcane and Mulberry have been found has seventh ranking crop in the dry taluks. Maize, Cotton, Bengalgram in 1983-84, Tur, Sugarcane, Bengaigram in 1971-72.

Eighth Ranking Crop

As the depreciation for land and source of water for cultivation increased, the importance of crops cultivated in wet taluks as varied between Bengalgram, Tur and Jowar in 1997-98, Tur and Bengaigram in 1983 -84 as well as during 1971-72.

Mulberry, Tur, Groundnut and bengalgram is found to be predominating in all the three periods in the dry taluks.

Ninth Ranking Crop

Minor millets, Bengalgram, Cotton, and Jowar are the ninth ranking crops in different periods. Sugarcane is produced where little irrigation facility is available.

The dry taluks has paved way for cultivation of sugarcane and mulberry as the, repetitive crop among these taluks in different time periods.

Tenth Ranking Crop

It is rather difficult to distinguish between wet and dry taluks about the order of crops after the ninth position. The crop, which has secured tenth ranking, can also be seen in the dry taluks over different time periods.

The above characteristics tend to be the same for eleventh and twelfth ranks crops.

2. Conclusion

The overall differences between wet and dry taluks can be as follows

- 1) Paddy has been cultivated as first ranking crop in the wet taluks.
- 2) Ragi, Jowar and cotton are the first ranking crop in the dry taluks where as the wet crops like sugarcane is produced as the fourth and so forth crop in the wet taluks.
- 3) There is a intermix of Ragi, Jowar and Other Pulses as second and third ranking crops in the wet taluks in different periods.
- 4) Among the dry taluks, other pulses and maize are the second and third ranking crops.
- 5) In dry taluks wet crops like paddy, sugarcane are produced third rank onwards.
- 6) There exist differences in the ranking of crops, between wet and dry taluks with in the same ranks up to fifth rank. The middle order ranks like sixth, seventh and eight posses few wet crops in the dry taluks. This type of trend cannot be noticed in ninth, tenth, eleventh and twelfth crops between wet and dry taluks.

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