



Original Article

Crop Combination Pattern in Haveri District of Karnataka: A Geographical Analysis

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ABSTRACT

The present paper attempts to analyze the crop combination pattern of Haveri District with the help of weaver's method. The study region is situated in western central part of Karnataka state and it is coming under Semi-Malnadu region, that is why this land is suitable for crop cultivation. The climatic conditions, soil fertility as well as social-economic factors of the study region are suitable for multiple cropping patterns. In the study region out of seven taluks, two crop combinations are noticed in two taluks namely Byadagi and Hirekerur, three crop combinations are found in Haveri and Savanur taluks. Five crop combinations are pointed out in Shiggaon and multiple crop combinations are found in Hanagal and Ranebennur taluks. The unequal distributional pattern of crop combination mainly depends on soil fertility and water availability of Haveri District.

Keywords: Crop Combination; Crop Ranking; Agriculture Pattern; Crop Cultivation

1 INTRODUCTION

The analysis of crop combination regions is an important aspect of agricultural geography; it provides more information about agricultural regionalization. In Karnataka State crops are normally grown in combinations and are rarely they occupy isolation from other crops in a particular area at a particular time. In India generally a set of crops are grown so as to suit the environmental frame. Different types of crops grown to avoid the risk of crop damages; varieties of crop create high cropping intensity zones. Combinations of crops produce different types of crops. The study of crop combination is also very useful for area development planning particularly for the rural areas. In recent period this crop combination concept gain more attention and become an important fact among geographers and agricultural planners.

1.1 Study Area

Haveri district encompasses an area 4,823 sq.kms lying between the latitudinal parallels of 14 19' North to 15 19' North and the longitudes of 75 01' East to 75 50' East. Haveri district is one of the newly formed district, and it

carved out from the undivided Dharwad district in 1997, and it surrounded by Dharwad district in the North, Uttara Kannada district in the west and Shimoga district in the South, Ballari district is towards East of Haveri district. Haveri district is located in northern semi rain fed and semi-malnad zone.

Haveri district consists of 7 taluks namely Byadagi, Hanagal, Haveri, Hirekerur, Ranebennur, Savanur and Shiggaon. For administration convenience two revenue sub-divisions have been formed in this district. While Haveri, Byadagi, Hirekerur and Ranebennur taluks are the part of Haveri sub-division and the remaining Savanur, Shiggaon and Hanagal are the part of Savanur sub-divisions. The district has 698 inhabited of which 7 uninhabited villages are distributed in 19 hoblies. This district also known as the Gateway of the Northern Districts of Karnataka. It is famous for its Cardamom garlands. Maize, Cotton, Rice, Chillies, Gram, Groundnut, Sunflower, Sugarcane and Oilseeds are the major crops of the district.

1.2 Objectives

- to know the agricultural aspects of Haveri district.

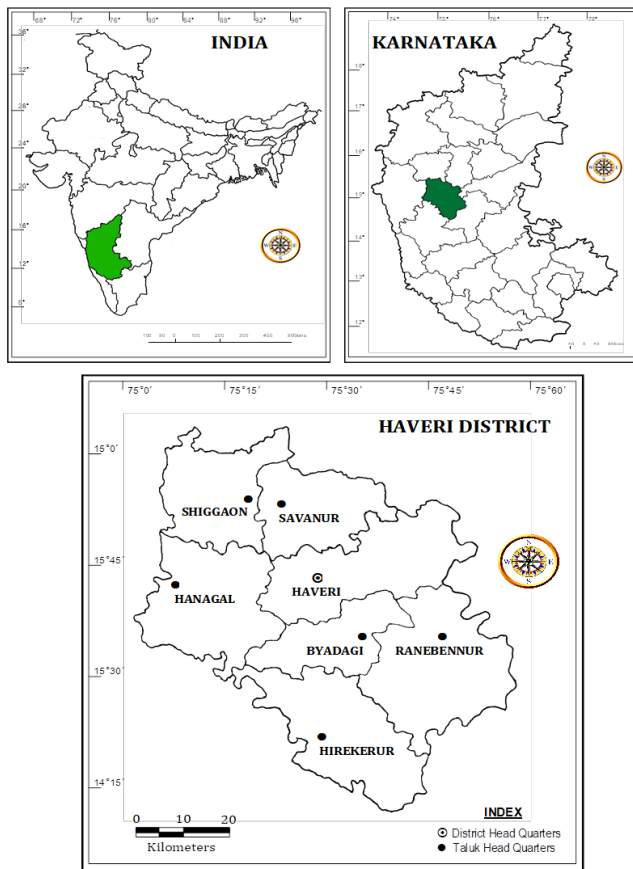


Figure 1: Location Map of Study Area

- to understand the cropping pattern of Haveri district.
- to identify the crop combination regions of the district.

1.3 Database and Methodology

The present research has been done by using secondary data of District Statistical Handbook of Haveri district (2016-17) which is collected from department of economics and Statistics, Haveri district. In this study taluks has considered as the smallest unit of analysis. The crop combination pattern has been calculated by using the J.C. Weaver method which is expressed as:

$$d = \frac{\sum d^2}{N}$$

Where: **d** means difference between standard value and actual value and, **N** means number of crop in a given combination

1.4 Ranking of Crops

To understand the cropping pattern of the study region a comparison of relative position of a real strength of various crops is ascertained by ranking them for each taluk according to the percentage of each cropped area to the total cropped area. The first, second and third ranking crops thus obtained for each taluk is mapped with resulting pattern

1.4.1. First Ranking Crops

In the study region the data indicates that the Maize is the leading and most dominant crop. This aspect is sustained by the fact that Maize rank first in the six out of seven taluks of the district. The Byadagi taluk has the maximum area under Maize amounting to 61.53% of the total cropped area followed by Hirekerur (60.71%), Haveri (51.32%), Ranebennur (48.640%), Hangal (39.29%), and Shiggaon (32.31%).

1.4.2. Second Ranking Crops

The second ranking crops show a much varied distributional pattern both in terms of area and number of crops involved. Cotton is the important second crop in Haveri district. It is covered 4 taluks like Byadagi (22.03), Hirekerur (20.15), Haveri (20.15) and Shiggaon (19.68). Paddy covered 2 taluks they are Hangal (30.32) and Ranebennur (12.17) and Maize covered Savanur taluk (29.26) only.

1.4.3. Third Ranking Crops

Jawar is the important third ranking crop. It covered three taluks like Haveri (12.19), Byadagi (6.06) and Hirekerur (3.88). Ranebennur (10.46) and Hangal (8.68) covered by cotton. Savanur (21.72) covered by Groundnut and Shiggaon (16.20) covered by Paddy.



Figure 2: Top Three Ranking Crops (2016-17)

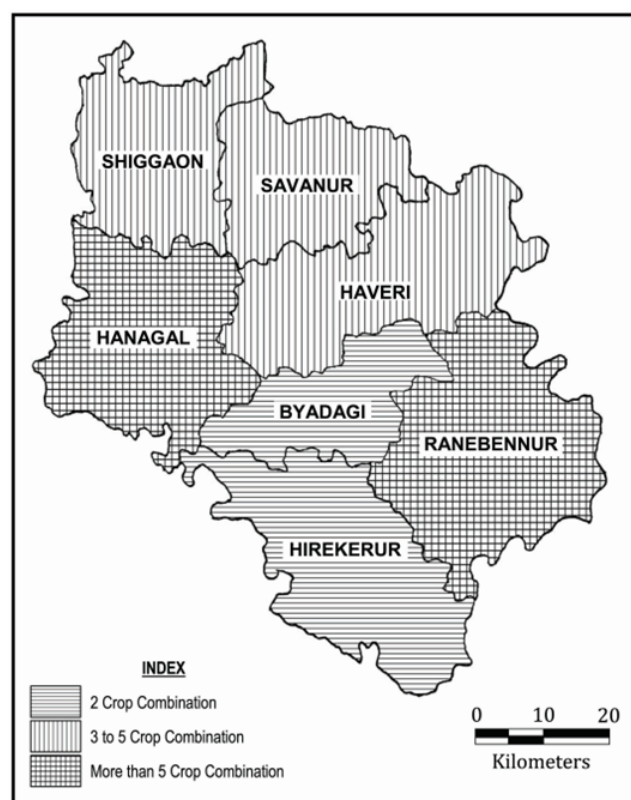


Figure 3: Crop Combination in Haveri District (2016-17)

1.5 Crop Combination Regions

Mono crop regions are not found in any taluks of the Haveri district. Byadagi and Hirekerur taluks are coming under two crop combinations. Three crop combinations are made by Maize, Cotton and Jawar in Haveri taluk and Cotton, Maize and Groundnut in Savanur taluk. Maize, cotton paddy, Groundnut and Soybean these five crops combinations identified in Shiggaon taluk. Haveri taluk has 19 crops combination and highest crop combination found in Ranebennur taluk has 23 crop combinations.

Table 1: Crop Combination

Sl. No.	Name of Taluk	No. of Crops	Crop Combination
1	Byadagi	2	M, C
2	Hangal	19	M, P, C, Sg, Fr, Sy, j, Gn, Gg, V, Sn, Cw, Hg, Bl, To, T, Aw, Bg, Mn
3	Haveri	3	M, C, J
4	Hirekerur	2	M, C
5	Ranebennur	23	M, P, C, V, J, T, Sg, Gn, Bg, Sn., Fr, Sy, Gg, Cw, Aw, Ss, Mn, To, R, W, Hg, Cs, Ng
6	Savanur	3	C, M, Gn
7	Shiggaon	5	M, C, P, Gn, Sy

Source: Derived after the Calculation of Crop Combination by J.C. Weaver's Method.

Note:- M = Maize, C = Cotton, J = Jawar, V = Vegetables, Sg = Sugarcane, P = Paddy, Fr = Fruit, Sy = Soyabean, GN = Groundnut, Sn = Sunflower, Hg = Horse Gram, Gg = Green Gram, Cw = Cowpea, Bg = Bengal Gram, Aw = Aware, T = Tur, Ng = Niger seed, To = Tale oil, R = Ragi, OMn = Other Minor Millets, W = Wheat, Bl = Black Gram, Cs = Caster, Ss = Sesamum, L = Linseed.

2 CONCLUSION

In this paper J.C. Weavers crop combination method has been used to delineate the characteristics of crop combination regions/taluks of Haveri district. In the Study region Byadagi and Hirekerur taluks are come under two crop combination and Shiggaon, Savanur and Haveri taluks are identified three crop combinations in Southern part of Haveri district. Remaining Hangal and Ranebennur are more number of crop combination found. The available of soil fertility and water availability to support the more number of crops cultivation in Haveri district and also combining the crops to avoid the risk to crop damages. The irrigation system is main reason for unequal distribution of crop combination pattern in study region.

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