International Journal of Advance and Applied Research (IJAAR)
Peer Reviewed Bi-Monthly

ISSN – 2347-7075
Impact Factor – 7.328
Vol.9 No.4 Mar – Apr 2022

CHANGING AGRICULTURAL PATTERN IN SATARA DISTRICT

Shri. Naik Sambhaji Kallappa
Assistant Professor,
Department of Geography,
Kakasaheb Chavan College, Talmavale, Tal-Patan, Dist- Satara

INTRODUCTION:

The study of crop combination regions constitute an important aspects of agricultural geography as it provides a good basic for agricultural regionalization. Crop are generally, grown in combination in any region and the crops have its relative position in terms of crop combination. The distributional patterns of crops in any region is an outcome of predominance of certain or combination of crops. This is in term of emergence of typical crop combination. The statistical techniques provide accurate techniques for the study of agricultural landuse and cropping pattern various methods have used by scholars, scientists and planners. Weaver in 1954 has applied least standard deviation technique for crop combination regions. This method is based on the comparison of the actual percentage of cropped areas occupied by the different field crop with theoretical distribution is taken to formulate the crop combination. For a comprehensive and clear understanding of the agricultural mosaic of an agroclimatic region and for the planning and development of its agriculture, a systematic study of crop combinations is of great significance.

STUDY AREA:

The Satara district is situated in west part in Maharashtra state. This district consists eleven tahsils covering 1547 villages. The total area extent is of 10,492 square kilometer extending from 1705' to 18011' north latitude and 73033' to 74054' east longitudes. This district is confined by Pune district to north, Solapur district to east, Sangli district to south and Ratnagiri and Raigad district to west. Satara district has a typical landscapes due to variations in relief, climate and vegetation. The variation of relief ranges from the pinnacles and high plateau of the main Sahyadrians range having heights over 1500 meters above means sea level to the subdued basin of Nira river with an average height of about 600 meters above means sea level. The climate ranges from the

rainiest in the Mahabaleshwar region which has an average annual of over 6000 mm to the driest in Man tahsil where the average annual rainfall is about 500 mm. The vegetal cover to varies from the typical monsoon forest in the west part to scrub and poor grass in the east parts. Jowar, Rice, Bajra, Sugercane, oil seeds and pulses are mainly cultivated in the district. Study area

OBJECTIVE:

The main objective of the present investigation is to assess the landuse pattern and crop combination regions in Satara district.

DATABASE AND METHODOLOGY:

The present study is based on secondary data collected from different published sources for the year 2011-2012. Tahsilwise landuse data collected from socio-economic abstract, Satara district and district census handbook in Satara referred to collect related information. Topographical maps and survey of India sheets are used for physiographical study. Simple statistical method has used to compute the least sum of squared deviation and variance and lowest standard deviation and coefficient of variation analysis (weaver) for cropping in the present study.

CROP DISTRIBUTION:

Distribution of irrigated land among different crops is shown in Table No. 1 Total Cereals, pulses, oilseeds, cash crops, vegetable, fruit and flower crops are important crops grown with the help of ground water.

Table No. 1

Sr.No	Croups Group	Name of Crops
1	Cereals	Rice, jowar, wheat, bajara. Corn, maie, and another cereals
2	Cash Crops	Sugarcane, Cotton. Ginger
3	Oilseeds	Groundnuts, soyabean. Kardai, jawas, sunflowers
4	Pulses	Tur, mug, math, gram, pea
5	Vegetable crops	Onion, cabbage, chilly, cauliflower, brinjal, tomato,methi. Leafy vegetable, ridge, guarlic, coriander seeds
6	Flower crops	Mogara, marigold, jasmine, chamomile, rose
7	Fruit Crops	Chikku. Mango, Strawwberry, rajberi, guava, pomogranats, graphes, papaya, sweetlime etc
8	Fodder Crops	

Source: Dept. of Agriculture, Satara district.

CROP COMBINATION ANALYSIS:

Crop combination is a dynamic concept. Cropping patterns and crop associations change in space and time. Recently the crop combination, analysis geographical studies has gained momentum and its important is increasing day by day. According to this method for present study in weavers crop combination (minimum deviation method) and calculating from 2011-2012 season data. The tahsil level crop combination has computed in this study. Table No. 2 shows combination like cereals, pulses, oilseeds, cash crops, fruits.

According to this method for present study in weavers crop combination (Minimum Deviation Method) and calculating from all seasons data (Table No. 2). The least sum of squared deviation and variance and lowest standard deviation and coefficient of variation formula was selected for this study and analysis from (2011-2012) seasons.

Crops, vegetable crops, flower crops and fodder crops in the district. It is important to note that the environmental constraints owing to geographic situation, soil and climate have put the limit on diversified agricultural productivity. This is reflected in obtained resulted in the crop combination analysis.

Table No. 2

Sr. No	Crop Combination	Name of Tashil	Name of Crop Group
1	Two Crop Region	Koregaon, satara,Patan	Cerwals+ Pulses Cereals + Oilseedes cereals + Oilseeds
2	Three Crop Region	Mahabaleshwar	Cereals + Vegetable + Fodder
3	Minocultur	Khandala, Phaltan, Man, Khatav, Javali	Cereals
4	Four Crop Region	Karad	Cereals + Oilseeds +Cash Crops + Fodder Crops

Source: Computed by Author

1) One crop group dominance or monoculture was practiced in Khandala, Phaltan, Man, Khatav and Javali Tahsil in Satara district. Jawar, bajara, rice, wheat and other cereals crops of the in tahsil. Jawar and bajara performs better in the arid and semi-arid areas. Rice grows well in the wet and warm areas in Javali tahsil. Jowar is cultivated in this region because in this region belonging to pore region. Rainfall is less in monsoon season.

2) Two crop combination region: In this district two crop combination is found in Koregaon, Satara and Patan tahsil having combination of cereals, pulses and

oilseeds crops groups. Cereals crops group is dominant crop are jawar, rice and wheat. Pulses crops group is dominant crop grown are Tur, and..... Oilseeds crops group is dominant crop grown are groundnut, sunflower, soyabean and kardai. Jawar, bajara and wheat are observed as dominant crop in Koregaon tahsil. The constituent crop of two crop combination, however, vary from region to region owing to great variations in the temperature and moisture conditions.

3) Three crop combination region: The northern and western parts in the district in Mahabaleshwar tahsil have dominance of three crop group combination region. In this crops group combination are found cereals, vegetable and fodder crops group. Mahabaleshwar tahsil is situated in western part of Satara district. Such information both spatial and temporal is a prerequisite for understanding the agricultural potential of a region. Mahabaleshwar at top gets highest annual rainfall (6000 millimeters). Summers and quite warm while the winter are cool. Cereals, vegetable and fodder crops group is a combination which suits well to the prevailing agro-climatic conditions of the region.

4) Four crop combination region: Four crops group combination is identified in Karad tahsil. Crops group like cereals, oilseeds, cash crop and fodder crops. The four crop combinational areas units of Karad tahsil grow jawar, groundnut, sugarcane, wheat and fodder crops in the Kharip and Rabi are the constituent crops. The cropping patterns of these region are likely to remain highly ramified unless provision of irrigation are developed or new seeds are developed which may suit to the prevailing environmental conditions of the region.

CONCLUDING REMARKS:

Weaver's technique has identified four crops group combination in study region. Cereals as monoculture has found in Khandala, Phaltan, Man, Khatav and Javali tahsil. Jawar, bajara and wheat as monoculture has found in study region. Two crops group combination entered cereals and pulses, and cereals and oilseeds crop group. Three crops group combination appeared concentration in Mahabaleshwar tahsil. In this region cereals, vegetable and fodder crops group is most important and leading crop. Four crops group combination is identified in Karad tahsil. In this crop combination crops group like cereals, cash crop, oilseeds and fodder crops.

REFERENCES:

1) Majid Husain (1982): "Crop combinations in India", Concept Publishing Company, New Delhi, pp. 61-74.

2) Majid Husain (1999): "Systematic Agricultural Geography", Rawat Public, New Delhi. Pp. 222-227.
3) Mankar, Ganesh (2008): "Agricultural landuse pattern in Mulshi Tahsil, Pune District", Deccan Geographer, Vol. 46, pp. 85-91.
4) Satara District Censes Handbook, 2001.
5) Ayyar N. P. (1969): "Crop Regions of Madhya Pradesh: A Case Study in Methodology", Geographical Review of India, Vol. 31, pp. 17-19.
6) Satara District, Socio-economic abstract, 2011 - 2012.
7) Dhillan S. S.: Agricultural Geography.