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Address:-Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.aygrt.isrj.net

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ORIGINAL ARTICLE

AGRICULTURAL LAND USE AND CROPPING MODEL IN PANDHARPUR TALUKA OF SOLAPUR DISTRICT

S. M. Mulani

Associates Professor, Head of Geography Department, D.S.Garad College, Mohol, Taluka-Mohol, Dist-Solapur

Abstract:

The present study is an attempt to analyze the agricultural land use and cropping pattern at macro level in Pandharpur Taluka. this study is based on secondary data collected from revenue record in both Kharip and Rabbi Crops. Agricultural production influenced by physical socio-cultural, economic technological and organizational factor. Endeavour is made to study crop combination region in Pandharpur taluka of Solapur district for the year 2010-2011, this is normal year for agricultural phenomenon. With the help of weavers (1954) technique calculated crop combination. The study region cover 129437 hectors land and having population in 100 villages in 442173 as per 2011 Census. Pandharpur taluka located at the eastern part of Solapur district. Physiography, rainfall, soil, temperature, and drainage influences on agricultural land use pattern in this tahsil. Rainfall varies between 230 to 600 mms from east to west entire tahsil. Eight crops have been considered for crop combination analysis. These Cereals, Fruit crops, Vegetables Crops, Flowers Crops are major crops by computing pattern and using Weavers minimum deviation crop combination in Mohol tahsil has identified eight crop combination. Such type of study represents real situation of cropping pattern in Mohol tahsil and help to planners and agricultural scientist for agricultural planning at village level.

KEYWORDS:

food spatial area, food surplus area.

INTRODUCTION

Agriculture happens to be the primary activity in India and dairy farming has been considered as a subsidiary occupation. Agricultural land use is the basic structural unit of natural resources. The History of Agriculture in Solapur reveals that famine is of common occurrence from ages due to inadequate and ill distributed rains. Partial and complete failure of both Kharif & Rabi crops result in famine. And as such Solapur District was identified as one of the 72 districts in India's drought prone area. It forms the basis for all biological, human eco activities. Land is an important input in agricultural sector but the yield of agricultural crops mainly depend upon fertility of land for raising different crops, cropping pattern is the central element of agricultural land use. Cropping means the prpportion of area under various crops at a point of time. Bajra, Sunflower, Redgram, Groundnut , Horsegram, Mothbean & Blackgram are the major rainfed kharif crops of the district and are generally grown on medium deep and shallow soils . While rabi Jowar, Safflower, Gram are main rainfed rabi crops grown generally medium deep and deep soils . Sugarcane, Sunflower, Wheat & summer Groundnut are the major irrigated crops grown in the district. The area under fruit & vegetable crops under irrigated condition is increasing speedily under fruit crops Ber, Pomegranate & Grape has occupied major area, while few hectares is under Mango, K.lime & Sapota and these fruits of the district have captured the national as well as international market common vegetables

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under irrigated are Onion, Chilli, Brinjal, Tomato , Okra, Bitter gourd , Cucumber & leafy vegetables. A little area is under flowers & is mainly Merigold, Chrysanthemum, Tuberose and Rose.

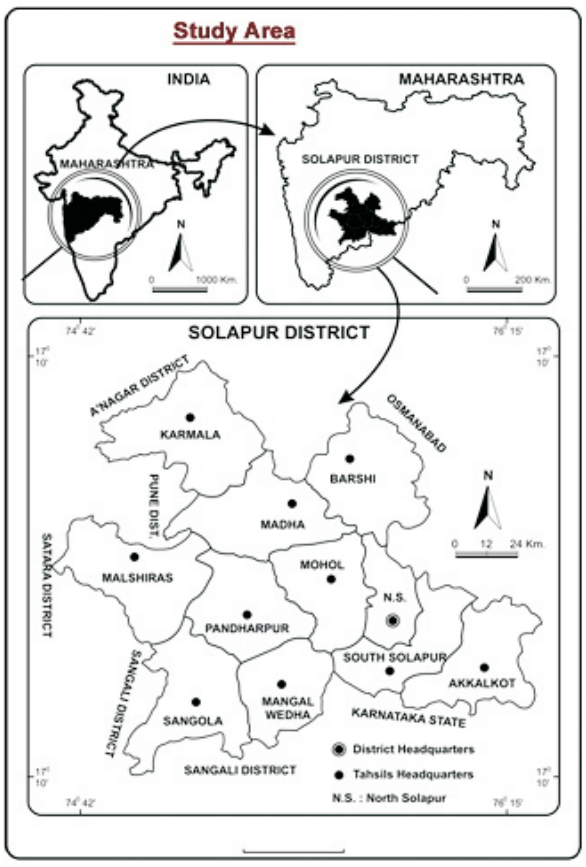
STUDY AREA

Pandharpur taluka is located at eastern part of Solapur district in the state of Maharashtra. The famous temple is this Vitthal and Rukmini. Pandharpur taluka is surrounded by Mohol, Malshiras and Sangola to the east-west. The study region cover 129437 hectors land and having population in 100 villages in 442173 as per 2011 Census.

Physiography, rainfall, soil, temperature, and drainage influences on agricultural land use pattern in this tahsil. Rainfall varies between 230 to 600 mms from east to west entire tahsil. The underline basalt on disintegration and decomposition brought varieties agencies had yielded three kinds of soils viz. Deep black, medium deep & shallow soils. Tahsil is provided with Neera and Man left bank canals. Similarly Sina and Bhogawati are two seasonal rivers at north side of the tahsil The Tahsil is divided in to 100 villages are as 51 Kharip and 49 villages are as Rabbi season.

The rainfall is mainly due to rain shadow area in tterm of amount of rainfall average receives low rainfall 230 to 330 millimeters, in north, south and eastern part of Tahsil but western part of 16 villages are totally drought prown area. Therefore these villages are mostly unirrigated. The variation in amount of rainfall & type of soil exerts influence on the cropping pattern of the study region. The major crops namely cereals, cash crops, pulses, oil seeds, cash crops, fruit crops, vegetables, flower and fodder crops are cultivated in Mohol tahsil.

Map No.1



OBJECTIVES:

1.To assess the crop combination region in Pandharpur taluka in Solapur district.
2.To analysis of crop ranking in the study region.

THE DATA BASE

The study is based on secondary data. The tahsil wise data were collected and processed to calculate indices by employing statistical procedures. The socio-economic abstract of Solapur district and Solapur district census handbooks are referred to collect.

CROP DISTRIBUTION

Distribution of irrigated land among different crops is shown in table no-1.total cereals, cereals, cash crops, pulses, oil seeds, cash crops, fruit crops, vegetables, flower are important crops .

CROP RANKING

It is observed that sugarcane and cotton is the leading crops as is grown irrigated land. the next important crop is Soyabeen (oilseed) another vegetable, cereals, fruits and flower crops fodder crops, pulses etc. grown by the study region. There is an also the no. of total villages and the area of crops of Kharip and rabbi seasons are indicating in percentage of hectors in annual information cropping data as following.

CROP COMBINATION ANALYSIS

Recently the crop combination, analysis geographical studies has gained momentum and it's important, it is increasing day by day. Combination studies are fruitful in many ways firstly; they provide an adequate understanding of individual crop geography. Secondly, combination is in itself and integrative reality that demand definition and distribution analysis and crop combination region are essential for the construction of still more complex stricture of different agricultural region.

Table no.1
crop combination in Solapur district 2012

Sr. No	Groups	Crops	Crop production in percent	
			Kahrip area	Rabbi area
1	**Cereals**	Bajara, Jowar Maiz, Wheat etc.	45.3	55.22
2	**Pulses**	Tur, mugh, Matati, gram etc	2.12	3.12
3	**Oilseeds**	Groundnuts, soyabin, Karadi, Jawas, etc	10.78	12.56
4	**Cash Crops**	Sugarcane and cotton	8.48	6.77
5	**Fruit crops**	Chikku, Pomegranate, grape, lemon, Papai, Mango, sweet Lime etc	14.22	13.78
6	**Vegetable crops**	Onion, cabbage, Chilly, Bringle, tomato, Met hi, leafy vegetable, garlic etc.	10.22	12.91
7	**Flowers crops**	marigold, mogaara, etc	4.45	5.44
8	**Fodder crops Grass**	dry and green, etc.	4.33	2.33

According to this method for present study in weavers crop combination (Minimum Deviation Method) and calculating from kharip and Rabbi Seasons and Lowest standard Deviation and Co-efficient of variation formula was selected for this study and analysis from (2010 -2011).The least sum squared Deviation and variance and Lowest standard deviation and Coefficient of variation formula was selected for this study and analysis from (2010-2011) both (Kharip and Rabbi) seasons variance value Minimum Positive Deviation Weaver's Method: Crop combination is calculated by applying Weaver's method. In 1954 J.C. Weaver has applied least standard deviation technique for computing crop combination of a region.

CONCULSION

In case if ranking of crops first rank Pandharpur taluka in the first crops, and cereals crops. Weavers technique has identified two crop combinations in study area. Cereals as a monoculture has found in availability of irrigation facility and oil seed as increasing day by day. All over the part of these tahsil. The attitude of farmers, the crop production, demand for market crop combination grows in good production, affects the crop pattern and its changed. Twocrop combination entered fruit and cereals crops. Maiz is most important and leading corp. in all 104 villages, variance is 48.49 and 50.66 both Kharip and rabbi seasons. These crop combination appeared large scale of landlord farmers and the value is 56.92 is in Kharip and 56.97 rabbi seasons in four crop combination. Five crop combinations indicate cereals fruit crops, oilseed, vegetables crops, cash crops. Six crop combinations indicate 75.63 and 72.33 value for Kharip and rabbi season. Seven crops combination variance value in both season 85.84 and 81.83.Lastly, eight crop combination indicate value as 96.49 and 91.89 in both seasons.

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