

Changing Crop Combination Pattern in Tribal Region For Nashik District. In Case Study of Surgna, Peth And Baglan Tehsil

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Abstract

Agriculture is one of the most important of all the economic activity of man. Agriculture is related to the raising of domesticated plant and animals as activity to satisfy man needs. Now a day's agriculture has become the world most important activity. Agricultural geography has thus become a unique branch of economic geography in which the physical environment and man response to it has been cardinal point of research and regionalization.

The study of crop combination region is an important aspect of agricultural geography. As it provides a good basis for agricultural regionalization. The crops are generally grown in combination and it's rarely that a particular crop occupies a position of total isolation other crop in a given area at given time the physical factors determine the shape of the area of crops, while the socio-economic relationship determine their extent with the development of irrigation facility, new varieties of crop can be introduced in the place of traditional and unprofitable agriculture system. Present paper to analysis in changing crop combination pattern in tribal region (surgna, peth and baglan) for nashik district.

(**Keywords**-Crop combination, Crop ranking, Agriculture, Land use pattern)

STUDY AREA-

Baglan Tehsil

Baglantahsil is one of the important tahsil in Nashik district. Baglantahsil lies in the northern part of Nashik district. Baglantahsil situated partly in the Girna river basin and partly in the Mosam river basin of Nashik district. It lies between $20^{\circ}52'N$ to $20^{\circ}94'N$ latitude and $74^{\circ}12'E$ to $74^{\circ}56'E$ longitude. The north south length is of the tehsil is 37 km and east west length is 44km. the total area of Baglantahsil is 193765 hectare which is 10.38% of total area of the district. The average annual rainfall of the tahsil as a 480mm. The rainfall in general decreases from west to east. The summer is moderately hot and the temperature varies from $36^{\circ}C$ to $43^{\circ}C$.

Surgana Tehsil

Surganatahsil lies in the western part of Nashik district. It lies between $20^{\circ}33'N$ to $20^{\circ}56'N$ latitude and $73^{\circ}38'E$ to $73^{\circ}63'E$ longitude. The total area of Surgana tehsil is 83745 hectare which is 5.87% of total area of the district. The average annual rainfall of the tahsil as an 1815mm. The summer is moderately hot and the temperature varies from $31^{\circ}C$ to $39^{\circ}C$.

Peth Tehsil

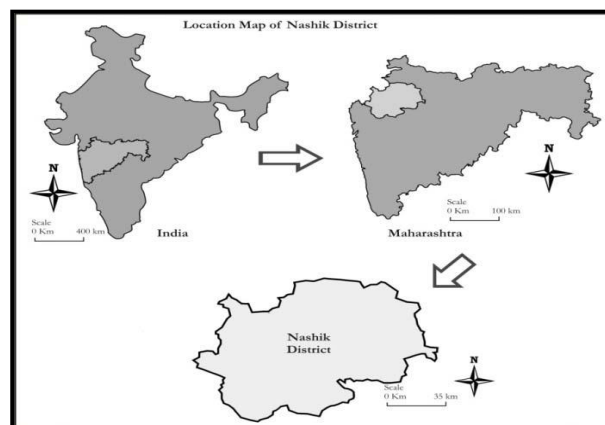
Pethahsil lies in the western part of Nashik district. It lies between $20^{\circ}25'N$ to $20^{\circ}40'N$ latitude

and $73^{\circ}33'E$ to $73^{\circ}50'E$ longitude. The total area of peth tehsil is 56332 hectare which is 3.95% of total area of the district. The average annual rainfall of the tahsil as 1832mm. The summer season is moderately hot and the temperature varies from $31^{\circ}C$ to $38^{\circ}C$

Objectives-

The major objective of the present paper is as follows

- 1) To study the geographical setting of the region as a basis for agricultural activity.
- 2) To study to crop combination for the study region.
- 3) To analysis changing pattern of crop combination in study region.
- 4) To comparative study to crop combination in study region.



Data And Methodology-

The present study is based on the primary and secondary source of data. The primary data is collected through interviews of the former's from the study region with help of structural questionnaires. Whereas secondary data obtained from socio-economic abstract of the Nashik district census handbook, District gazetteers and internet sources. For identifying the group of significant crop of a region. It is essential to adopt a statistical base. According to a large number of expert regions with the considering the advantages and simplicity of weaver's techniques of crop combination the same has been applied in present study of compute crop ranking and combination region of tribal region in Nashik district. Thomas (1963) formula for crop combination.

$$D = \frac{\sqrt{d^2}}{n}$$

N = total number of crop

geography as it provides a sound basis for agricultural regionalization. (Hussain 1979) many scholars have attempted to delineate agriculture region basis for crop combination the Thomas (1963) technique is one the mostly adapted technique. He considered the percentage of individual crop in each areal unit and has calculated the duration of percentage against a theoretical standard.

Thomas technique of crop combination has been applied in present study of compute crop ranking region for Baglan, Surgana & Pethtahsil the percentage of each crop will be placed in depending order of ranking. The following table shows that rank wise cropping pattern in Baglan, Surgana & Pethtahsil from 1980-81 to 2010-11.

Results And Discussion

Crop combination

The study of crop combination region constitute an important aspect of agricultural

Rank wise crop combination in Baglantehsil

Rank	1980-81			2000-01			2010-11		
	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%
1	Bajara	42213	61.60	Bajara	41154	66.37	Bajara	27200	42.61
2	Ground Nut	9694	14.14	Maize	7156	11.55	Maize	23915	37.36
3	S.Cane	6975	10.17	Onion	3594	5.80	Onion	3837	6.01
4	Wheat	5640	8.23	Fruit	3372	5.44	Fruit	3440	5.38
5	Jawar	2940	4.29	S.cane	2969	4.79	S.cane	1961	3.07
6	Rice	1391	2.02	Wheat	1873	3.02	Wheat	1828	2.86
7	-	-	-	Rice	1827	2.94	Rice	1651	2.58
8		68523	100		61945	100	Total	63832	100

(Source-District statistical abstracts from, 1980-81, 2000-01 & 2010-11)

Rank wise crop combination in surgana tehsil

Rank	1980-81			2000-01			2010-11		
	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%
1	Rice	6461	34.29	Nacani	11000	42.15	Rice	10058	37.35
2	Nacani	5955	31.60	Rice	5700	21.84	Nacani	9723	36.11
3	Vari	4054	21.51	Vari	3755	14.39	Kulith	4415	16.39
4	Jawar	1091	5.79	Kulith	3609	13.83	Vari	3479	12.92
5	Ground Nut	526	2.79	Jawar	2030	7.77	Wheat	988	3.66
6	Wheat	502	2.68				Fruit	260	0.96
7	Gram	251	1.33						
8		18840	100		26094			26923	

(Source-District statistical abstracts from, 1980-81, 2000-01 & 2010-11)

Rank wise crop combination in pethtehsil

Rank	1980-81			2000-11			2010-11		
	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%	Crop	Area under crop(hector)	%
1	Rice	6290	35.87	Nacani	8416	46.79	Nacani	8097	34.10
2	Nacani	5540	31.60	Rice	5644	31.38	Rice	6670	28.09
3	Vari	3692	21.05	Udid	1116	6.20	Maize	5881	24.76
4	Ground Nut	746	4.25	Vari	1077	5.98	Vari	1398	5.88
5	Tur	674	3.84	Kulith	875	4.86	Kulith	1021	4.30
6	Gram	475	2.70	Ground Nut	857	4.76	Wheat	381	1.60
7	Jawar	84	0.47				Fruit	295	0.12
8	Wheat	30	0.17						
9		17531			17985			23743	

(Source-District statistical abstracts from, 1980-81, 2000-01 & 2010-11)

Crop combination

Sr.no	Year	Crop combination		
		Baglan	Surgana	Peth
01	1980-81	1 Crop Combination	3 Crop Combination	3 Crop Combination
02	2000-01	1 Crop Combination	4 Crop Combination	2 Crop Combination
03	2010-11	2 Crop Combination	4 Crop Combination	3 Crop Combination

According to Thomas method one crop combinations are observed in Bgalantehsil for 1980-01 and 2000-01. Bajara is major crop in Baglantahsil. Two crop combinations are observed in Bgalantehsil for 2010-11. Bajara its first crop and other is maize. In surgana tahsil three crop combination observed in 1980-81. rice is main crop and other is Vari and Nachani. but in 2000-01 and 2010-11 are four crop combination observed for Surganatahsil its include Nachni, Rice, Vari and Udid. In peth tehsil three crop combination (Rice, Nacani and Vari) in 1980-81. two crop combination (Nacani and Rice) in 2010-11 and

three crop combination (Nacani, Rice and Maize) observed for 2010-11 in Pethtahsil.

Conclusion

In Conclusion that the crop combination region of BaglanTahsil Bajara and maize is dominant crop in all year (1980-81, 2000-01, 2010-11,) but percentage of Bajara are decrease for year to year. Bajara are growing in this area where irrigation facility is not developed. Onion are observed for other importance crop in 2000-01 and 2010-11. These crop most grow to in this area where irrigation facility are develop In Surgana and Peth tehsil are

Rice, Nicani and Vari is main crop in all year (1980-81, 2000-01, 2010-11,). High rainfall and undulating topography are mostly affected crop combination pattern in Surgana and Peth tehsil.in 2010-11 Maize and Udid are observed other impotence crop in Surgana and Peth tehsil. The crop combination pattern is mostly depending for rainfall pattern, topography, irrigation facility and market demand. The crop combination analysis reveals that the Rainfall pattern irrigational facilities impact on the farmer to grow number and major crops depending upon the prices in the market in their demand.in tribal region of Nashik district are Rice,Nacani,Vari and Bajara are major crop in all years. Thus the crop combination pattern are mostly depend on physical, social, economic and technological reason of tribal region of Nashik district.

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