



**A GEOGRAPHICAL STUDY OF CROP DIVERSIFICATION OF
CHANDRAPUR DISTRICT - 2017 – 2018**

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Abstract: -

Crop diversity means that the greater the number of crops in a region, the greater the number of crops. Crop diversity is determined by the ratio of the area under different crops in a particular region to the total number of crops. "Variety of crop model means raising different varieties of crops for cultivable land" "Crop diversity is the production of different crops at a particular time in a particular area." Due to this, when the number of crops in a particular area is high, there is intense competition among the crop growers in that region. The less competition there is, the more inclined to specialize. Although paddy is cultivated mainly in the eastern part of Chandrapur district, the diversity of crops is mainly seen in the western part of Chandrapur district. While studying the crop diversity, the study has been done according to the 10 main crops of Chandrapur district and for that, Bhatia's crop diversity formula has been adopted here. This will show which crops are important in crop diversity in Chandrapur district.

Key words: - Crop Diversification, major crops.

Introduction: -

The district of Chandrapur rich in a variety of resources, mineral and forest wealth, agricultural, is a relatively underpopulated region of the State and even of the country. Chandrapur is rich too in mineral wealth; Gondwana coal, high grade iron ore, limestone, chromite, clays and building stones are all being mined at present but the minerals of the district await a fuller prospecting and exploitation. The area Chandrapur was before known as 'Chanda' as indicated by custom and legend the name of the spot was 'Lokapura' which was first different to 'Indapur' and consequently to Chandrapur. During the English frontier time frame it was called Chanda area, which was again different to its unique name 'Chandrapur' around 1964. Chandrapur framed and free locale and in 1874, it included three tehsils Viz Mul, Warora and Bramhpuri. this region was again isolated into Chandrapur and Gadchiroli locale after 1981 registration. Chandrapur region presently includes the tehsil of Chandrapur, Balharshah Warora, Bhadravati, Jivati, Chimur, Nagbhir, Bramhpuri, Saoli, Sindhewahi, Mul, Gondpipri, Pomburna, Korpana, and Rajura. Chandrapur district is generally considered as rural and tribal district. It is a major Paddy (rice) producing district after Gadchiroli district in eastern

Vidarbha; which is generally known as paddy region. Chandrapur district has total 15 Talukas where the diversity of paddy production is observed. Paddy crop is largely affected by the factors like climate & soil. Paddy farming is a traditional one; the farmers produce rice as an important food crop; However, it is important to study crop diversity in Chandrapur district as it is found to be growing other important crops besides paddy. Cropping systems is based on climate, soil, and water availability. It has to be evolved for realizing the potential production levels through efficient use of availability of the resources. Crop diversity is affected by many factors such as irrigation facilities, use of chemical and organic fertilizers, hybrid varieties of different crops, mechanization, market demand, improving living standards, rising prices of various crops, increasing production, meeting family needs etc.

Study Area: -

Chandrapur area is in the eastern region of the Vidarbha district. The Chandrapur region is situated in the furthest east of Maharashtra state. It is essential for Nagpur division. The Chandrapur area is situated between 19⁰ 30' N and 20⁰ 45' N scope and at 78⁰ 46' E longitude. The area is encircled by Yavatmal and Wardha areas at its western side, Nagpur and Bhandara

locale at its northern side, Gadchiroli region on the eastern side and Komaram Bheem and Adilabad regions of Telangana state on the southern side.

Methodology: - The research is based on the secondary data of Meteorological Department and District Gazetteer of Chandrapur district. Agriculture data is used from socio-economic survey & statistical department of Chandrapur District; and is implemented in general land use and Crop Diversification method. And used of Bhatia's crop diversification method for this study. Statistical information during 2017-18 to 2020 - 21 is derived from the socio-economic survey of Chandrapur district.

Objective of Study: -

1. To study the major 10 crops in Crop Diversification of Chandrapur District.
2. To study taluka wise pattern of Crop Diversification of Chandrapur district.
3. To find out decrease or increase in area & growth in cultivation of various 10 crops.
4. To study high and low Crop Diversification size according to taluka.
5. To study the farmers trend to cultivate various crops and to find out which is another major crop in district.
6. To study the which is major crops in 10 crops of Crop Diversification in Chandrapur District.

Crop Diversification of Chandrapur District 2017 -18

Sr. no.	Talukas	Rice	Jowar	Wheat	Soyabean	Cotton
1	Warora	1586.00	604.00	3717.00	21734.00	35967
2	Chimur	23047.59	410.85	4209.97	5871.56	24041.28
3	Nagbhid	27140.08	00	691.35	10.20	3.00
4	Bramhpuri	30531.00	00	477.00	87.00	129.00
5	Sawli	24089.37	00	48.60	208.05	319.76
6	Sindewahi	18910.38	0.40	316.84	10.60	00
7	Bhadravati	4409.80	248.60	3465.10	10690.80	16888.54
8	Chandrapur	3370.00	183.30	1739.00	5340.00	8435.00
9	Mul	21924.47	0	124.50	118.30	1320.33
10	Pombhurna	9875.39	10	237.50	45.12	6632.53
11	Ballarpur	2909.00	90	758.00	78.00	2927.00
12	Korpuna	110.00	1014.36	1051.00	5880.4	27471.3
13	Rajura	2042.00	1123.00	1507.00	11222.00	20034.00
14	Gondpipri	7779.00	186.00	658.00	1809.0	16199.00
15	Jiwati	32.00	2694.27	130.00	921.53	8639.65
	Total	177756.08	6564.78	19130.8 6	64026.60	170007.3 4

Crop Diversification of Chandrapur District 2017 -18

Sr. no.	Talukas	Pigeon	Green Gram	Gram	Total Spices	Fruits & Vegetables
1	Warora	4769	35.00	4784.00	712.00	2086.32
2	Chimur	1618.97	261.30	3312.60	1568.60	1718.22
3	Nagbhid	690.27	83.50	462.70	90.82	250.86
4	Bramhpuri	872.00	1324.00	908.00	237.00	983.00
5	Sawli	485.94	143.79	231.50	221.05	402.61
6	Sindewahi	325.80	102.45	345.70	113.63	397.64
7	Bhadravati	1928.60	158.70	2232.40	702.90	1315.10
8	Chandrapur	692.00	65.00	0	481.00	1028.90
9	Mul	445.56	70.60	311.10	618.60	711.65
10	Pombhurna	820.82	88.52	390.20	322.25	307.65
11	Ballarpur	480.00	81.00	241.00	366.00	421.0
12	Korpuna	1444.68	109.00	644.50	715.30	77.00
13	Rajura	2437.00	145.00	1002.00	1156.00	93.00
14	Gondpipri	2327.00	142.00	301.00	688.00	559.00
15	Jiwati	1098.44	139.17	60.17	00	00
	Total	20436.08	2949.03	15226.87	7993.15	10351.95

The formula of 'Bhatia' has been adopted for crop diversification in Chandrapur district. Bhatia has studied 10 crops in determining the agriculture department on the

basis of crop diversity. Bhatia has calculated the crop index considering 10 crops in the study area. Bhatia's formula was used for this

.Formula: - **Index of crop diversification = Percentage of shown under 'X' crop**

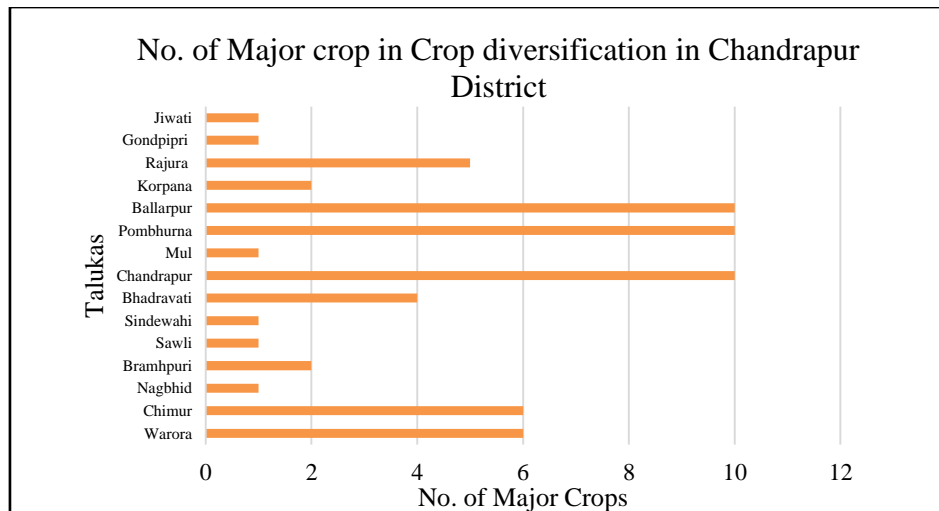
No. of crops: Where 'X' crop is those crop that individually occupy 10 % or more of the gross crop area in the area under study.

Crop Diversification Index of Chandrapur District 2017 -18

Sr .n o.	Talukas	Rice	Jowar	Wheat	Soyabean	Cotton	Pigeon
1	Warora	0.89	9.20	19.42	33.94	21.15	23.33
2	Chimur	12.96	6.25	22.00	9.17	14.14	7.92
3	Nagbhid	15.26	0.0	3.61	0.01	0.001	3.37
4	Bramhpuri	17.17	0.0	2.49	0.13	0.07	4.26
5	Sawli	13.55	0.0	0.25	0.32	0.18	2.37
6	Sindewahi	10.63	0.006	1.65	0.01	0.0	1.59
7	Bhadravati	2.48	3.78	18.11	16.69	9.93	9.43
8	Chandrapur	1.89	2.79	9.09	8.34	4.96	3.38
9	Mul	12.33	0.0	0.65	0.18	0.77	2.18
10	Pombhurna	5.55	0.15	1.24	0.07	3.90	4.01
11	Ballarpur	1.63	1.37	3.96	0.12	1.74	2.34
12	Korpana	0.06	15.45	5.49	9.18	16.15	7.06
13	Rajura	1.14	17.10	0.78	17.52	11.78	11.92
14	Gondpipri	4.37	2.83	3.43	2.82	9.52	11.38
15	Jiwati	0.01	41.04	0.67	1.43	5.08	5.37

Crop Diversification Index of Chandrapur District 2017 -18

Sr .n o.	Talukas	Green Gram	Gram	Total Spices	Fruits & Vegetables	Total	No. of Major crop
1	Warora	1.18	31.41	8.90	20.15	24.9	06
2	Chimur	8.86	21.75	19.62	16.59	17.84	06
3	Nagbhid	2.83	3.03	1.13	2.42	15.26	01
4	Bramhpuri	44.89	5.96	2.96	9.49	31.03	02
5	Sawli	4.87	1.52	2.76	3.88	13.55	01
6	Sindewahi	3.47	2.27	1.42	3.84	10.63	01
7	Bhadravati	5.38	14.66	8.79	12.70	15.54	04
8	Chandrapur	2.20	0.0	6.01	9.93	--	10
9	Mul	2.39	2.04	4.03	6.87	12.33	01
10	Pombhurna	3.00	2.56	7.73	2.97	--	10
11	Ballarpur	2.74	0.15	4.57	4.06	--	10
12	Korpana	3.69	4.23	8.94	0.74	15.8	02
13	Rajura	4.91	6.58	14.46	0.89	14.55	05
14	Gondpipri	4.81	1.97	8.60	5.39	11.38	01
15	Jiwati	4.71	0.39	0.00	0.00	41.04	01



Conclusion: -

Pombhurna, ballarpur and chandrapur have the highest crop diversity in chandrapur district, while warora and chimur talukas have 6 varieties each, rajura-5 and bhadravati-4. Nagbhid, savli, sindevahi mul, korpana, gondpipri and jivti appear to have 1 main crop while brahmapuri and korpana have 2 main crops. This shows that the following findings are important when studying crop diversity in chandrapur district.

1. Paddy is one of the 10 major crops grown in chandrapur district in the eastern part of the district it is widely grown in nagbhid, brahmapuri, savli, sindevahi and mul talukas.
2. Cotton seems to be an important crop in warora, chimur, korpana and rajura talukas.
3. Sorghum is an important crop grown in jivti, korpana and rajura talukas.
4. Soyabean at warora, bhadravati and rajura followed by gram crop at warora, chimur and bhadravati seems to be important.
5. In addition, the district seems to have a good crop of tur, wheat, fruits and vegetables.

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