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CROP DIVERSIFICATION IN A GADCHRIOLI DISTRICTS GEOGRAPHICAL STUDY (M.S.)

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ABSTRACTS

In this paper an attempt has been made to analyses the crop diversification at district level in Gadchiroli District of Maharashtra. Gadchiroli district is Eastern part of Maharashtra and very rich forest area in this district.

Crop diversification gives a wider choice for production of variety of crops is any region and increases production related activities. It is just opposite of crops specialization. Crop diversification is generally viewed as a shift from traditionally grown less remune rative crops to move remune rative crops. The crop diversification takes place due to governmental policies and crop selection and attitude of formars. Market, infrastructural development and certain other price related support also induce crop diversification higher profitability and production. The Stability induces crop diversification in case of example. Jawar raplacling cotton and rice, crop diversification grown on large number of crops which are practiced in rained land to reduced the risk factor of crop failure either of heavy rainfall or less rain. Raising a variety of crops on arable land is known as crop diversification. It is the reflection of physical socio-economical and technological organization inputs. Crops diversification indicates multiplication of agricultural crops which involve intense competition for regions scope for crop rotation and effect of double cropping greater competation, higher magnitude of diversification. While lesser the magnitude of diversification greater the trends to words the specialization where infuse is on one or two crops in most of the extensive agricultural part in world agricultural diversification. It is a common feature due to irrigation, use of fertilizes and pesticides, high yielding varieties, mechanization and technoloy. Besides climate farmer's attitudes and local surrounding are forced farmers for crop diversification. The diversification was studied for twelve years (2000 to 2011) In order to find out crop diversification. The diversification Index ranged Gadchiroli. (in 2000 – 2005) (25.12) While in year 2006 to 2011 it ranged Gadchiroli district (27.066) of crop diversification of agriculture varieties from one version to another resions for which responsible factors are more or less veriaties in resources endowment, Infrastructure level and market accessibility crop diversification of food crops and oil seed crops.

Keywords:

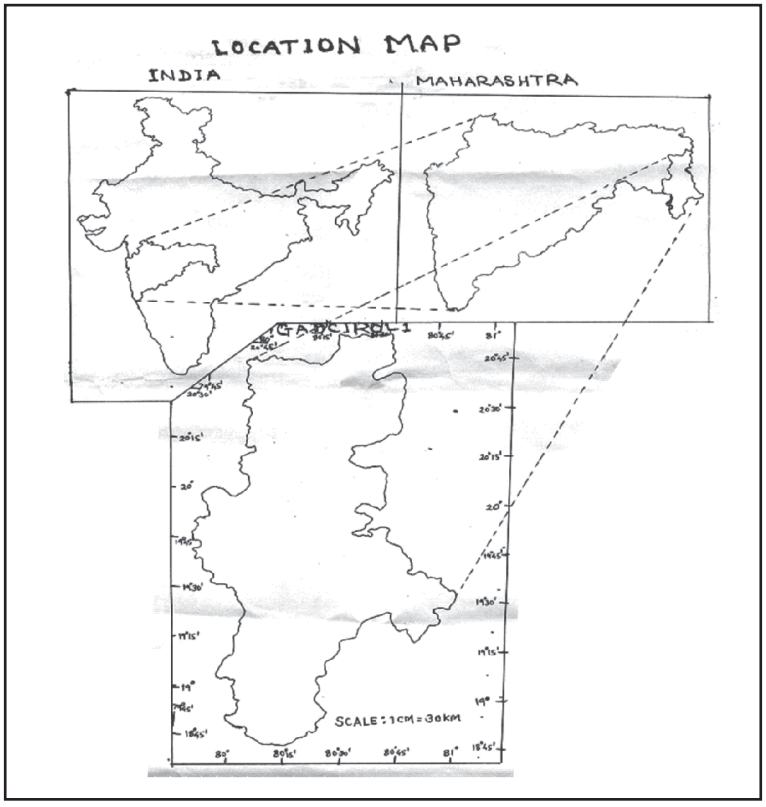
Crop diversification, Index of Crop diversification, Variation in resources endowment.

Introduction:

Crop diversification is generally viewed as a shift from traditionally grown less remunerative crop to move remunerative crops. The crop diversification takes place due to governmental policies and crop selection and attitude of farmers. Market Infra structural development and certain other price related supports also induce crop diversification higher Profitability and production. The stability induces crop diversification in case of example Jawar replacing Cotton and Rice. Crop diversification grows on large number of crops which are practiced in rained land to reduced the risk factor of crops failures either of heavy rainfall or less rainfall or drought 1) Raising a variety of crops on arable land is known as crop diversification. 2) Diversification of cropping pattern means raising variety of crops for areable lands. It is the reflection of physical socio-economic and techno organization inputs. Crop

diversification indicates multiplication of agricultural crops, which involves intense competition for regions, scope for crop rotation and effect of double cropping In most of the extensive agricultural parts in world agricultural diversification. It is common feature due to irrigation use of chemical fertilizers and pesticides, high yielding variety of crops, mechanization and techenology. Besides climate, farmer's attitude and local surrounding are forced farmers for crop diversification. Many Geographers and Economist have applied diversification concept in veriety of sense. Clean (1930) initially applied this concept in order to identify the degree of diversification and concentration in manufacturing field. Later on Tree (1938), Horence (1942) and Rain wald (1949), Gibbs martin (1974) have used this concept of diversification for computing measurements of diversification for of employment in Industries. Bhatia (1965) has applied crop diversification techenique in India to understand crop cultivation. This Techenique provided a method for generalizing relation between the relative strength and number of crops grown in study region. In this formula he has considered the cropped area for computing crop diversification. He Considered only those crops that individually occupy ten percentage or more of occupied area in regional unit. Bhatia formula was modified by jasbirsingh (1976) and Ayyer (1969). The data regarding crop diversification have obtained for (1992-2000 to 2010-2011) over period of 12 years from department of Revanue, Agricultural department of Gadchiroli districts. These obtained data was later on coverted into percentage to total geographical area and then categorized into various groups for identification of crop diversification. The volume of change has stadied for twelve years in present paper.

The Study Area:



In Maharashtra state Gadchiroli district carvedont of Chandrapur district on 20th August 1982. This district is full of forest minerals and holeyears blowing nearabout 7 river Godavari basin in this district Wainganga, Wardha, Indravati, Pranhita, Khobragadi, Gadvi, Pamulagoutam, Bandia, Parlkota, Wailochona, Dina. It is main river and Godawari it is a basin formed by plain region. Gadchiroli district located between 190 North to 210 North Latitude and 800 East to 810 East longitudes. Gadchiroli district North Bhandara and Gondia districts. Eastern part Chhatisagarh West is Chandrapur and South Telnagana State. Pranhita River is divided into two state and it's a natural boundary. In this study area 12 taluka Aheri, Armori, Bhamragarh, Chamorshi, Dhanora, Ettapalli, Gadchiroli, Korchi, Kurkheda, Mulchera, Sironcha and Wadsa. Aheri and Gadchrioli is sub division of the districts. Total Geographical Area is 144122 km. Total Maharashtra Geographical area covered by 4.7% in this district. Wainganga, Wardha, Godavari, Pranhita it is a natural boundries or the districts.

Objective Of The Study:

The present research paper has been undertalken to make in depth and couprehensive study of crop diversification in Gadchiroli district by evaluating following objectivies.

1) To study the crop diversification of study area.
2) To study regional variation in crop diversification to study area.
3) Suggesting remidial measure by better crop diversification of study regious.

Data Based And Methodology:

The area collection through primary and secondary of sources secondary data obtained from socio-economic review census, were processed and presented by statistical and cartographic techniques, not only basis of primary and secondary data but with the help of varies statsical and contragraphical method and technique researchers studied spatial as well as teuporal changes in area under crop diversification in Gadchiroli districts from (2000-2011) for the present research paper work outhor has been used the following method to calculate different aspects.

Explanation:

Crop diversification in Gadchiroli district is senerally viewed as a shift from traditionally grown less renueative crops to more renunative crops. The crop shift also takes place due to Government policies and thrust on some crops over a given time, for example creation of the technology mission on oil seed to give thrust on oil seed productious, pluses also production due to mission. Market introstructure, development and certain other price related also aid in crop diversification. An effective strategy for achieving food and nutration security, poverty alternative employment generation, judicious use to land and water researcher Sustanable agricultural development and environmental impowerment from low value to high value crops. From water blowing to water saving crops from single crop to multiple and mixed crops. Many other formers appling the procidure improved agriculture.

For evaluating the extents of diversification at two point of time duration 2000-2005, 2006-2011 the Bhatia's methods diversification index which provided a cleardisperation of commodities intergeographical area has been computed 12 Tahsils, Bhatia's formula applied to work out crop diversification for the study area.

$$\text{Index at crop diversification} = \frac{\text{Precetage of Total Crop area in 'n' crop}}{\text{Number of 'n' crops}}$$

Where “n” indicate the crops which are individually occupy to percentage or were of the total cropped.

Table No. 1

Taluka	No. of crop	Area %	Index of diversification	No. of crops	Area %	Index of diversification
Aheri	3	60%	20.00	2	50.40%	25.20
Armori	4	70%	17.5	3	70.25%	23.41
Bhamragarh	2	50%	25.00	3	60.30%	20.10
Chamorshi	3	60%	20.00	2	65.00%	32.50
Dhanora	2	50%	25.00	3	60.00%	20.00
Ettapalli	2	60%	30.00	3	60.00%	20.00
Gadchiroli	2	60%	30.00	3	50.00%	16.66
Korchi	2	60.50%	30.25	3	50.00%	16.83
Kurkheda	3	70.50%	23.33	2	60.00%	30.00
Mulchera	3	80.20%	23.74	2	80.00%	40.10
Sironcha	3	80%	26.66	2	80.00%	40.00
Wadsa	3	90%	30.00	2	80.00%	40.00
Gadchiroli District	3	63.43%	25.12	3	54.30%	27.066

Sources of Data: Authars Computed.

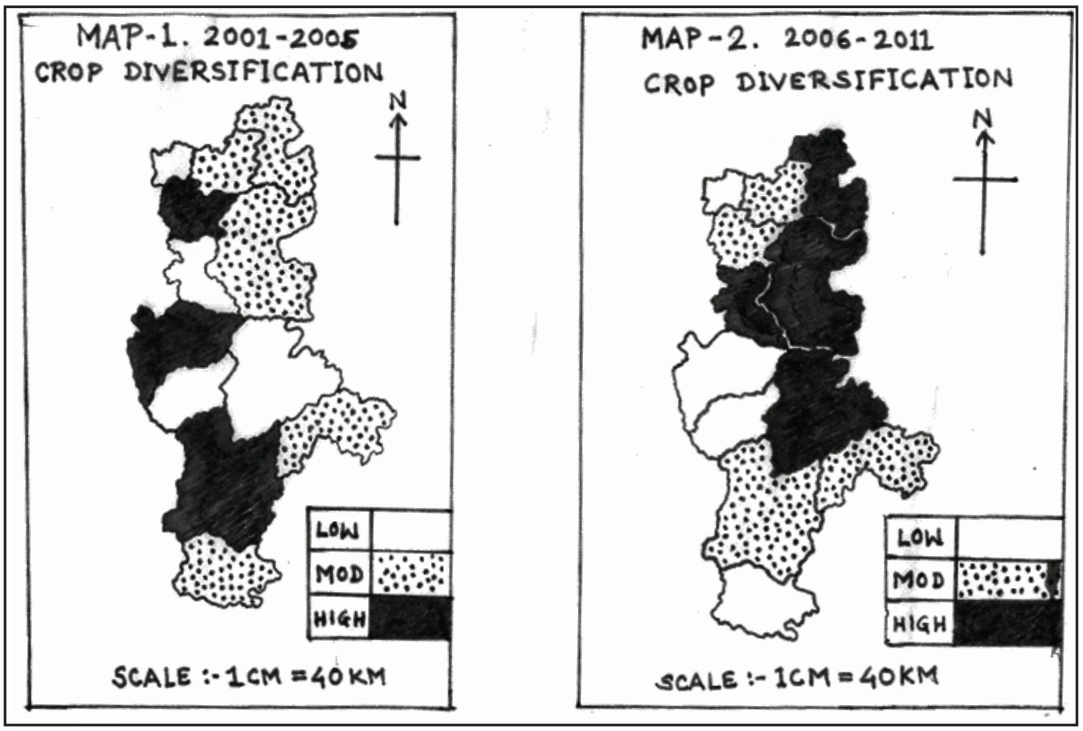
Table No. 1& Map No. 1: Reveals the facts that out of 12 Tahsil in Gadchiroli districts, the diversification index ranged Gadchrioli district on Average 25.12 it is moderate. But individually every Tashil Range computing (17.20) high diversification of crops and 26.30 low diversification of crops in (2000-2005) high diversification are found in (17.5) Armori Tashil, Chamorshi (20.00), Armori Tashil (20.00) Moderate diversification of crops found that (21.25) that ranges are Bhamragarh (25.00), Dhanora (25.00), Kurkheda (23.33), Mulchera (23.74), low crop diversification is Wadsa(30.00),Ettapalli (30.00), Gadchiroli (30.00), Korchi (30.25), Total Gadchrioli districts is moderate crop diversification of Agriculture varies from one Tahshil to another for which responsible factors are more or less variation in resources endowment infrastructure level and market accessblity crop diversification food crop and oilseed crops.

Map No. 2 Show crop diversification for the period at 2006-2011. There was a renarable variation in crops diversification during the period under reported cropping pattern are intorsity noticeable. It presents regional diversification of pattern of crop diversification grouped into there categories. Area of high diversification (16-20), Area of moderate diversification (20-30 %), Area of low diversification above 40% area of high diversification were observed Gadchiroli, Korchi, Ettapalli and Dhanora Tahsil. Moderate diversification was registered in (20.30%), Aheri, Armori, Bhamragarh and Kurkheda Tahsil. Low diversification was found Chamorshi, Mulchera, Sironcha and Wadsa (31-40) Tahsil any.

High to low area of crop diversification were not recorded in any Tahsil, High to moderate diversification in Aheri and Armori Tahsil. Low crop diversification area recorded into high crop diversification was recorded into Ettapalli Tahsil. Wadsa Tahsil was recorded low crop diversification between low productivity to high productivity crops in a must for the Tahsils but eereals dominated and productvitiy has remained low despite very fevourable soil, water and climate conditions.

Considerable variation exists in magnitude and growth of diversification both hectors and within Tahsil due to difference in the structured variable such as rainfalls. The adopting of agricultural techenology high yielding variaties, chemical fertilizers use and mechanization pattern of crops diversifications may be classified as field crops plantatious crops, commercial crops floricultaral crops, grasses, condiments and spices medicinal and Aromatic plants. In recent years Gadchiroli districts agricultural which includes vegetable, fruits, spices floriculture production has been recongnized as a important avenues for diversification in agriculture in an eco-friendly rannes through efficient land use optimum utilization of natural resoures and creation of employment opportinties.

The Gadchiroli district agricultural is gradually diversifiying to high value food commoditaes, this show that there is immense implemeutation of crop diversification. The production in case of Soyabean has increased in Aheri Tahsil while Chamorshi, Mulchera Tahsil was decreased area of vegetable. Cotton, Green Chilli decreased area of production in Sironcha Tahsil during 2006-2011.



Conculsion:

1. Gadchiroli district agricultural is gradually diversification to high value food commodities.
2. High to moderate area of crops diversification was registered in Aheri, Armori Tahsil in period of (2001-2005) to (2006-2011).
3. Gadchiroli district is generally viewed as a shifting from traditionally grown less remunerative to more remmunative crops.
4. The contribution of crop diversification agricultural growth is significant. The study has revaled that crop diversification is the ultimate soluation to many problems. It must be viewed as an opportunities particular in low rain area, which were rather by present the green

revalution phase. It can be used as effective measure to evaluated rural poverty and generally rural employment and conserve natural resources.

5. Therefore, farmers in this area should be guided and trained for the advanced method of irrigation such as drip, spainklers etc. Which save water and decreases threat of salinities. Armori, Wadsa, Chamorshi, Kurkheda, Mulchera have scarcity during summer season. It is suggested that farmers in these Tahsil should to canal irrigation overdoses of chemical fertilizers are responsible for soil degradation in Sironcha, Wadsa, Kurkheda and Armori Tahsils. The use of organic agricultural and fertilizers management programme in one prime requirement in this study area.

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