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KEYWORDS: agricultural sector influences , Horticulture and animal husbandry.

INTRODUCTION:

Chhattisgarh, the 26th condition of the Indian Union appeared on November 1,2000. The state is geologically arranged somewhere in the range of 2405 17046'N and North and 80015'E and Latitude 84020' East Longitude. The all out geological region is around 137.90 lakh ha. of which cultivable land region is 46.77 lakh ha, timberland land region is 63.53 lakh ha with more than 2.55 crore populace. Around 80 percent of the populace in the is occupied state with agribusiness and 43 percent of the whole arable land is under development. Paddy is the chief harvest and the focal plain of Chhattisgarh is known as rice

AGRICULTURE SCENARIO IN CHHATTISGARH STATE

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ABSTRACT:

The performance of the agricultural sector influences the growth of the economy. Agriculture has been a way of life and continues to be the single most important livelihood of the masses. Agriculture is counted as the chief economic occupation of the state. Horticulture and animal husbandry also engage a major share of the total population of the state. Agriculture continues to be the mainstay of livelihood of about 80% of state's population. In Chhattisgarh total farmer households are 37.46 lakhs, out of which 76% farmers are small and marginal farmers.

bowl of focal India. Other real harvests coarse grains, are wheat. maize. groundnut. heartbeats and oilseeds. The locale is additionally reasonable for developing mango, banana, guava and so on.; different leafy foods assortment of vegetables are likewise developed in 44 percent of its zone under woodlands. It has one of the extravagant bio-decent variety regions in the nation. The state was framed on first November 2000 by dividing 16 south-Chhattisgarhi-talking locale Madhva eastern of Pradesh. Raipur was made its capital. Chhattisgarh fringe is digression to the conditions of Madhya Pradesh in the northwest. Maharastra in the southwest, Andhra Pradesh in the south, Odisha in the east, Jharkhand in the north-east and Uttar Pradesh in the north, in

this manner secured with 06 states. The state is isolated into 27 locale at present. Raipur, Bhilai, Durg, Bilaspur, Korba and Rajnandgaon are the real regions of Chhattisgarh.

OBIECTIVES:

This paper is discussion of the following issue

- 1. Contribution & Growth Rate of Primary Sector in the State GDP.
- 2. Cropping pattern in Chhattisgarh and factors deterring this cropping pattern
- 3. problems and challenges of Chhattisgarh agriculture system.

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Table No. 1
Contribution percent of crops sector in GDP

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Contribution	1923736	1982691	2045885	1978955	2465785	2329588	2418422
(In Lakh)							
Growth %	6.98	3.06	3.19	-3.27	24.60	-5.52	3.81
Contribution	12.37	11.49	11.68	10.96	12.55	11.27	11.07
%							/

Source: Chhattisgarh Economic Survey 2018-19 page 75-111

Table no. 1 is showing the negative agriculture growth rate in 2015-16 and agriculture sector has given maximum growth rate $11.91\,\%$ in year 2016-17. Various factors are responsible for minimum contribution of GDP in agriculture like moisture stress, drought and soil acidity, iron toxicity, low seed replacement rates, non availability of electricity specially in rural area, high population growth, poor roads, poor input delivery and poor infrastructure facilities for communication etc.

Table No. 2 Contribution & Growth Rate of Primary Sector in the State GDP

At Constant Rate S.No. GDP Growth Rate	2017- 18 (A)
At Constant Rate S.No.	
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Rate	
1 Crops - 6.98 3.06 3.19 -2.08 18.65 2 Animal Husbandry 4.97 4.86 -1.71 2.57 8.64 3. Forestry & Logging 5.40 -4.63 25.15 0.60 0.26 4. Fishing 1.97 11.48 10.25 8.91 10.12 5. Mining and Quarrying -2.39 7.76 1.80 -4.79 10.38 6. Total (Primary Sector) 2.52 4.74 4.63 -2.06 12.44 7. Agriculture contribution in SGDP 6.12 2.71 6.63 -0.22 13.78 1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	
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Logging 1.97 11.48 10.25 8.91 10.12 5. Mining and Quarrying -2.39 7.76 1.80 -4.79 10.38 6. Total (Primary Sector) 2.52 4.74 4.63 -2.06 12.44 7. Agriculture contribution in SGDP 6.12 2.71 6.63 -0.22 13.78 1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	
Logging 1.97 11.48 10.25 8.91 10.12 5. Mining and Quarrying -2.39 7.76 1.80 -4.79 10.38 6. Total (Primary Sector) 2.52 4.74 4.63 -2.06 12.44 7. Agriculture contribution in SGDP 6.12 2.71 6.63 -0.22 13.78 1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	0.94
5. Mining and Quarrying -2.39 7.76 1.80 -4.79 10.38 6. Total (Primary Sector) 2.52 4.74 4.63 -2.06 12.44 7. Agriculture contribution in SGDP 6.12 2.71 6.63 -0.22 13.78 1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	
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7. Agriculture contribution in SGDP 1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	
Contribution	
contribution	2.89
1. Crops 12.12 12.37 11.49 11.67 10.89 11.91	
2. Animal 1.53 1.53 1.45 1.40 1.37 1.37	11.44
	1.39
Husbandry	
3. Forestry & 2.87 2.89 2.48 3.06 2.93 2.71	2.57
Logging	
4. Fishing 1.58 1.54 1.55 1.68 1.74 1.77	1.75
5. Mining and 13.27 12.36 12.01 12.03 10.92 11.11	10.97
Quarrying	
6. total 31.37 30.68 28.98 29.84 27.85 28.87	28.11
(primary	
Sector)	
Agriculture 18.10 18.32 16.97 17.81 16.93 17.76	17.15

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	(1+2+3+4+5)							
At Curr	ent Rate							
	GDP Growth							
	Rate							
1.	Crops		19.06	12.35	6.92	7.61	24.83	14.43
2.	Animal		12.50	21.92	11.84	16.47	18.25	13.58
	Husbandry							
3.	Forestry &		18.09	11.19	31.14	12.64	7.04	17.69
	Logging							
4.	Fishing		19.96	14.92	19.10	10.84	12.79	8.02
5.	Mining and		-2.40	11.51	11.21	-21.80	11.15	3.07
	Quarrying							
6.	Total		9.62	12.54	11.83	-2.06	17.20	11.15
	(Primary							
	Sector)							
	Agriculture		18.43	13.16	12.20	9.60	19.75	14.31
	(1+2+3+4+5)							
	Contribution							
-	in SGDP	10.10	10.00	1001				
1.	Crops	12.12	12.89	12.31	12.30	12.59	14.01	14.46
2.	Animal	1.53	1.54	1.59	1.66	1.84	1.94	1.99
_	Husbandry							
3.	Forestry &	2.87	3.03	2.87	3.51	3.76	3.59	3.81
4	Logging	4.50	4.50	4.66	101	4.04	4.05	4.00
4.	Fisheries	1.58	1.70	1.66	1.84	1.94	1.95	1.90
5.	Mining	13.27	11.58	10.97	11.40	8.48	8.41	7.81
	Total	31.37	30.72	29.39	30.72	28.62	29.91	29.97
	Primary							
	Sector	1010	10.15	10.40	10.00	20.14	24.50	20.16
	Agriculture	18.10	19.15	18.42	19.32	20.14	21.50	22.16
	(1+2+3+4+5)							

Source: Economic Survey-2017-18, Page 34-38

In the state GSDP at constant price in different year contributed maximum share followed by agriculture 2012-13 (18.32) and minimum (16.93) in the year 2015-16. As for the SGDP at current rate maximum 2017-18 (22.16) and minimum share contributed (18.42) in year 2013-14.

Table No.3
Agriculture Production of Main crops

(Lakh M.T.)

			(Lanin Piliti)
Crops	2014-15	2015-16	2016-17
Paddy	119.66	77.31	82.16
Wheat	1.53	2.37	2.58
Pulses	3.94	2.99	7.43
Oilseeds	2.18	1.30	3.54
Maize	2.35	1.42	5.92

Source: NABARD

The contribution of agriculture was decreased from 18.1% during 2012-13 to 15.2% during 2016-17. with production at 82.16 lakh MT. Paddy remained the single major crops during the period.

Pulses and oilseeds production during 2016-17 were 7.43 lakh MT and 3.54 lakh MT respectively. With a net irrigated area of 4.68 million hectares, gross sown area in the state has stabilized at 5.56 million hectares. Large variation in yearly rainfall directly affects the main crops i.e. Paddy obviously, irrigation in the prime need of the sate for its overall development and therefore the state government has given top priority to development of irrigation potential. It is estimated that about 75 % of the gross sown area of the state can be irrigated with proper use and management of available water resource.

Table No.4

Kharif Crop	s Production	(MT)		Rabi Crops Production (MT)			
S. No.	Crops	2015-16	2016-17	S. No.	Crops	2015-16	2016-17
1.	Paddy	4192.00	7688.14	1.	Paddy	361.64	528.59
2.	Maize	365.47	426.32	2.	Maize	125	165.96
3.	Tuar	74.60	101.23	3.	Wheat	152.92	258.1
4.	Moong	10.48	13.94	4.	Gram	299.32	460.00
5.	Urad	47.05	78.63	5.	Pea	13.74	31.9
6.	Groundnut	66.81	89.23	6.	Tivda	138.57	234.5
7.	Soyabeen	81.84	195.82	7.	Rai-sarso	48.63	99.55
8.	Ramtil	10.05	25.02	8.	Alsi	18.64	34.3
9.	Other	33.12	77.37	9.	Other	92.12	226.69
	Total	4881.88	8695.70		Total	1251.29	2039.59

Source: Chhattisgarh Economic Survey of 2018-19.

Table no 4 shows production of kharif and Rabi crops in Chhattisgarh . Paddy and maize are major cereal kharif crops and arhar and soyabean are major kharif pulses and oilseed crops respectively. Similarly rabi paddy and wheat are major rabi cereal crops whereas Gram and tiwara are major rabi pulses crops and mustard is major rabi oilseed crops.

Table No.5
Cropping Pattern of Chhattisgarh

Crops	Soil	Rainfall	Tempature	Location	Production (TMt)	Area (Hac.)	Productivity (TMt/Hac.)
Rice	Red- Yellow (Matasi)	100- 125cm	20-27	Durg, Janjgir- Champa, Raipur, Bilaspur, Rajnandgao, Korba, Sarguja	7731.5	3959.7	1.95
Makka	Sandy loamy	60- 110cm	18-27	Sarguja, Bastar, Dantewada, Koriya, Jashpur, Korba, Sarguja	237.74	126.4	1.88
Jawar	Sandy Loamy	30-65 cm	27-32	Sarguja , Koriya, Bastar	4.36	5.4	0.8
Wheat	Loamy	25-75 cm	15-20	Rajnandgao,	142.33	105.8	1.34

	clay-soil			Bilaspr, Raipur			
Grams	Black Catton soil	65- 100cm	18-25	Kabirdham, Bilaspur, Rajnandgao, Raipur	218.8	280.9	0.77
Tuar	Sandy Loamy to Clays Loamy soil	50-80 cm	30-35	Kabirdham, Sarguja, Bilaspur, Rajnandgao, Raipur, Koriya, Jashpur, Durg	30.6	65.1	0.47
Urad	Black Soil (Kanhar)	50-75 cm	25-35	Raipur, Koriya, Dhamtari, Mahasmund	28.91	97	0.298
Sugarcane	Sandy Soil to Clay Soil	135cm	20-26	Rajnandgao, Kabirdham, Durg, Raipur	46.9	30.1	1.55
Soyabean	Sandy Loamy	60-65cm	15-32	Bilaspur, Rajnandgao, Kabirdham, Durg	40.12	114.9	0.34

Source: Chhattisgarh Economic Survey 2018-19 page 75-111

The various crops are grown by the cultivation in Chhattisgarh. The rice $68.9\,\%$ was found to be major crop of the state. The cultivations are also found to be grown tiwra $6.5\,\%$, gram 4.6%, paddy 2.6%, kodo-kutki $2.3\,\%$ and wheat $1.9\,\%$. The maize, urd, niger, soybean, arhar, mustard, kulthi, alsi, groundnut, till masoor , pea, are also grown in small proportion by the cultivators in the state. The crop pattern of any state is due to a number of factors like natural, economic, historical , social , government policy, etc.

CHALLENGES IN AGRICULTURE SECTOR:

- 1. At Present, around 35% of land is having irrigation facility considering all source of irrigation, out of all irrigation facility available, maximum 52% of land is irrigated from reservoirs and canals, 55% arable land is having less water retention for which second crop is not possible from this land without irrigation facility.
- 2. Rice is the major crop grown in the state along with maize, wheat, pulses and oilseeds.
- 3. Standard Operating Procedures not defined and implementation changes.
- 4. Decentralized procurement of rice causing process and cost in-efficiency.
- 5. Procurement of rice by PACs millers is district- wise, rather than geographic proximity, causing cost inefficiency.
- 6. Technology-related challenges such as digitization of past records, comprehensive ERP software, and integration with other modules.

ACHIEVEMENT OF CHHATTISGARH AGRICULTURE SECTOR

1. Moreover, under e-Dharti Yojana, the state government has decided to make land records comprehensively available.

- 2. During 2016-17, an amount of US\$ 30.55 million has been allocated by the state government for Pradhan Mantri Fasal Bima Yojana, Which was recorded to be US\$ 7.63 million during 2015-16.
- 3. The government of Chhattisgarh has decided to provide drought –affected farmers with the partial waiver as well a quintal of free improved seeds during the upcoming kharif session in 2018-19, in order to confront the agricultural distress being faced due to droughts.
- 4. Ravi Shankar Sagar Mahanadi Project, Hasdeo-Bango, Kodar and others are some of the importance irrigation projects in the state.
- 5. Chhattisgarh State is ranked as the 17th largest production state in India. The districts of Jashpur and Surguja are favorable tea production areas. In Jashpur district the first tea plantation, Brahmnishthajaya sogara Ashram was established under the direction of Pujya Pad Gurupad. Tea production started
- 6. The region is also suitable for growing mango, banana, guava, other fruits and a variety of vegetable, with around 44 percent of its area under forests it has one of the richest bio-diversity areas in the country.
- 7. Chhaattisgarh has emarked on a concerted plan to increase double cropped areas, diversify the cropping pattern and improve incomes from agro-based small- scale enterprises.
- 8. The state has also bagged another krishi karman award in pulses production during the year 2014-15 to the extent of 6.55 lakh MT.

PROBLEMS IN AGRICULTURE SECTOR

Farming is the essential control of the general population of Chhattisgarh as per an administration gauge, net planted zone of the state is 4.8.28 million and the gross planted region is 5.788 million hectares. About 80% of the number of inhabitants in the state is rustic and the fundamental work of the locals is horticulture and agribusiness based little industry.

Most of the ranchers are as yet rehearsing the customary technique for development, bringing about low development rate and profitability. The ranchers must be made mindful of present day advances reasonable to their holding.

- 1. Low productivity of land under cultivation- Agricultural yield in Chhattisgarh is lower than the all India figure and compares poorly with states like Punjab. The low level of agriculture produce negatively impacts the contribution of the agriculture sector towards the state's economy. currently farming techniques prevalent most farmers in the state. low productivity of major crops is a major concern.
- 2. Complete Dependence on mansoons-The limited irrigation network in the state has made the farmers completely dependent on rainfall. The vagaries of nature coupled with an ignorance of modern weather tracking techniques have culminated in the farmers being left to mercy of nature. Further, since most of farmers currently follow a single crop pattern, total dependence on the monsoons threatens productivity and as a result their economic situation.
- 3. Low density of cropping The cropping intensity is the state is on the lower side. Considering that the cropping intensity to Punjab is 183% as compared to that of Chhattisgarh 138% (2016), it is evident that the state would have to make a concerted effort to increase same.
- 4. Inadequate Market Information- Most of the farmers of Chhattisgarh are illiterate. Because of this problem the farmers don't understand the complicated market and price strategies and they accept whatever price the dealer or broker tells them of their product. Today government of Chhattisgarh is using internet, newspapers, radio, cell phone message, television as medium of spreading information related to every aspect of agriculture.
- 5. Lack of Proper storing Facility- Inadequate storage arrangements are the cause of heavy losses to farmers. This results in serious wastage of agriculture produce and increased price.

Besides skewed development of irrigation facility in 12 Northern Hills Region and Bastar plateau districts and low productivity of major crops, a few critical issues which need attention for faster growth areas under:-

- Fragmentation of land holding is a very challenging issue as evidenced by the increase number of small land holding in the state. This restricts farm mechanization and affects production and productivity.
- The area under food grain has remained constant or decline in the past-harvest losses.
- There is tremendous potential for Animal Husbandry as provider of livelihood opportunity to unemployment youth and women besides ensuring nutritional diet in view of huge market demand inside and outside the state which needs to be tapped.
- Chhattisgarh ranks seventeenth in the infrastructure development index and 23rd in road development index.

CONCLUSION -

agriculture Minister Mr Brijmohan Agarwal has promoted the advanced technology in agriculture as well as organic farming. The organic farming fertility of arable land remains the use of chemical fertilizers in the production capacity of the farm, which is perennially been a steady decrease is harmful to the future. He urged farmers to cultivate them one acres of land in organic farming should begin on a trial basis. While addressing the ceremony, Mr. Agarwal dictated about the advantages of organic farming, ghee therapy as he always to improve the Chhattisgarh agriculture.

About 75 percent of the population in the state is engaged in agriculture and 43 percent of the population of the entire arable land in under cultivation. Paddy is the principal crop and the central plains of Chhattisgarh are known as rice bowl is of central India, After the formation of the state, highest priority is being given to agriculture development. The sustained effort of the state govt, towards agriculture oriented plan/schemes resulted in the higher pace of growth in the agriculture.

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