

## **AGRICULTURAL SECTOR IN JHARKHAND: AN OVERVIEW OF THE PERFORMANCE**

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### **ABSTRACT**

Agriculture sector is a key sector of the eighty percent rural population of Jharkhand. The average productivity of Jharkhand is lower than national and international average in terms of all four major crops of Rice, Wheat, Maize and pulses, except the productivity of Pulses in Jharkhand. The production of the 'Agriculture, forestry and fishing sector' includes 14.5 % of the Gross State Value Added (GSVA) of the state. The contribution of Agriculture+ Sector in states' GSDP is increasing with an average of 16.02% during 2011-12 to 2017-18. Diversification of agricultural sector and promotion to sustainable agriculture are required to address the ongoing issues.

**Keywords:** Agricultural Sector, GSVA, GSDP & Production Scenario

### **INTRODUCTION**

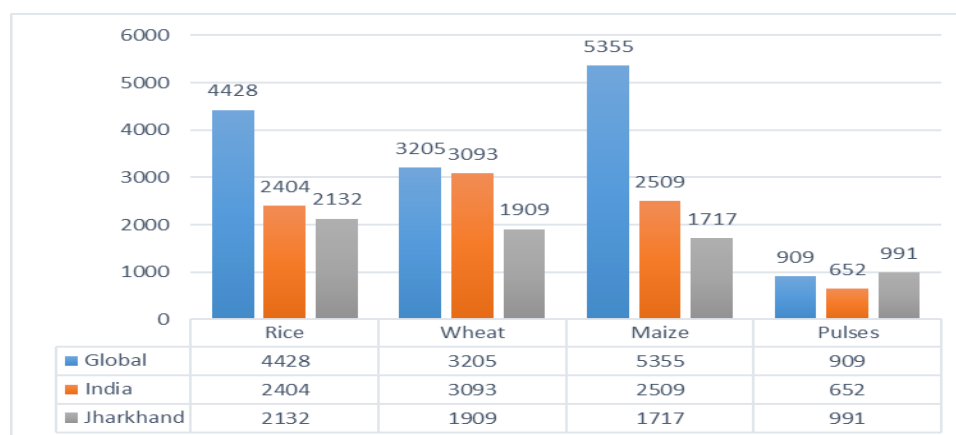
Agriculture sector plays a vital role in Indian economy and is providing engagement to 54.6% workforce in agricultural and allied sector activities (Census 2011) and contributes 17.8% of the country's Gross Value Added (GVA) for the year 2019-20.<sup>1</sup>Gross Value Added (GVA) of Agricultural and allied sectors' share in total GVA of the country has increased from 16.1% in 2018-19 to 16.5% in 2019-20.<sup>2</sup>Agriculture and allied sectors still remain an significant sector because of its ongoing role in employment generation, income generation and most significantly in providing national food security to all.<sup>3</sup>In India agriculture covers large area with diversifying crops; country is leading producer of cereals, milk, sugar, fruits and vegetables, spices, eggs and seafood products among the others producers of world. Indian agriculture is the backbone of the society and provides livelihood security to nearly 50 % population. Our country is supporting 17.84 % of world's population, 15% of livestock population with merely 2.4 % of world's land and 4 % water resources. As per the data of WTO 2016, India is currently ranked 10<sup>th</sup> amongst the major exporters among the world. The share of India's global exports of agriculture products has increased from 1% to 2.2% in 2016.<sup>4</sup>

Agriculture is the main stay for the 80% of rural population of the Jharkhand. Agriculture is contributing as major source of their employment and primary source of income generating activity.<sup>5</sup> Although large number of farmers still depends on traditional food crops for their livelihood, however 51% of the agricultural Gross State Domestic Product comes from horticulture and live stocks products.<sup>6</sup> The total geographical area of the state is 79.71 lakh hectare out of this area 47.67% is under cultivation, 29.20% under forest cover and average land holding is 1.58 hectare; the average annual rainfall of the state is 130 cm which is nearly double of India’s annual average rainfall; Paddy, coarse grains, maize, wheat, pulses and oilseeds are the major crops of the Jharkhand; plenty of fruits - Mango, Banana, Guava, Papaya, Tomato, Chili & other spices are produced in the state & minor forest products are also contributing in the state economy. Around 13% growth rate of Agriculture & allied sector has reported over the years.<sup>7</sup>

**BRIEF SCENARIO OF THE PERFORMANCE OF AGRICULTURE**

As a part of the introduction this section of the study presents the scenario of the productivity of agriculture at Global, India and Jharkhand form FY 2012-13 to 2015-16. When we Compare the average agricultural productivity of Jharkhand to National and International average, the average productivity of Jharkhand is lower than national and international average in terms of all four major crops of Rice, Wheat, Maize and pulses, except the productivity of Pulses in Jharkhand (991Kg/Hec.), which is higher than the national average of 652 Kg/Hec. (Figure:1)

**Figure: 1 Status of Average Agri-Productivity (in Kg/Hec.)**



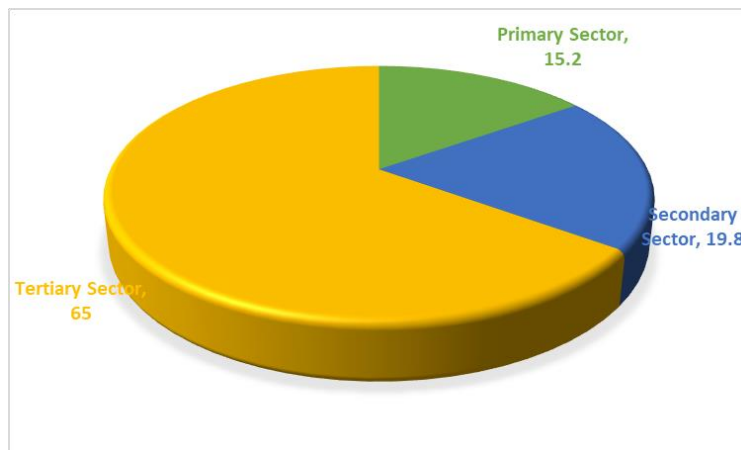
Source: Momentum Jharkhand, Presentation of Govt. of Jharkhand, 2018

**SECTORAL CONTRIBUTION & ECONOMY OF JHARKHAND**

In any economy there are three sectors- Primary, Secondary and Tertiary that contribute in the economic development. Among these sectors, the contribution of tertiary sector is highest with

65% alone contribution to states' growth rate in FY2019-20, while the Primary sector, which includes- Agriculture, Forestry and Fishing, Crops, Livestock, Forestry and Logging, Fishing and Aquaculture, Mining and Quarrying, has contributed by 15.2% in 2019-20. The secondary sector has contributed 19.8% in the growth rate of Jharkhand state economy in 2019-20. (Figure: 2)

**Figure: 2 Sectoral Contribution to Growth Rate in Jharkhand**



Source: Jharkhand Economic Survey 2019-20

## **OBJECTIVE OF THE STUDY**

The objective of the study is to overview the trends of agriculture sector in Jharkhand using the various indicators.

## **DATA AND METHOD**

The study is based on the analysis of the secondary. The secondary data has been collected mainly from Ministry of agriculture and farmers welfare- Government of India, Ministry of Statistics and Programme Implementation- Govt. of India, Economic Survey- Government of India and state government of Jharkhand. Graphical analysis is used to overview the performance of agricultural sector from 2011-12 to 2019-20. The examine the performance of agriculture sectors indicators such as contribution of agriculture to GSVA &GSDP, inter-sectoral contribution of agriculture<sup>+</sup> sector to GSDP, Growth of agriculture to Year over Year (YoY) and area, production & yield of crops have been used.

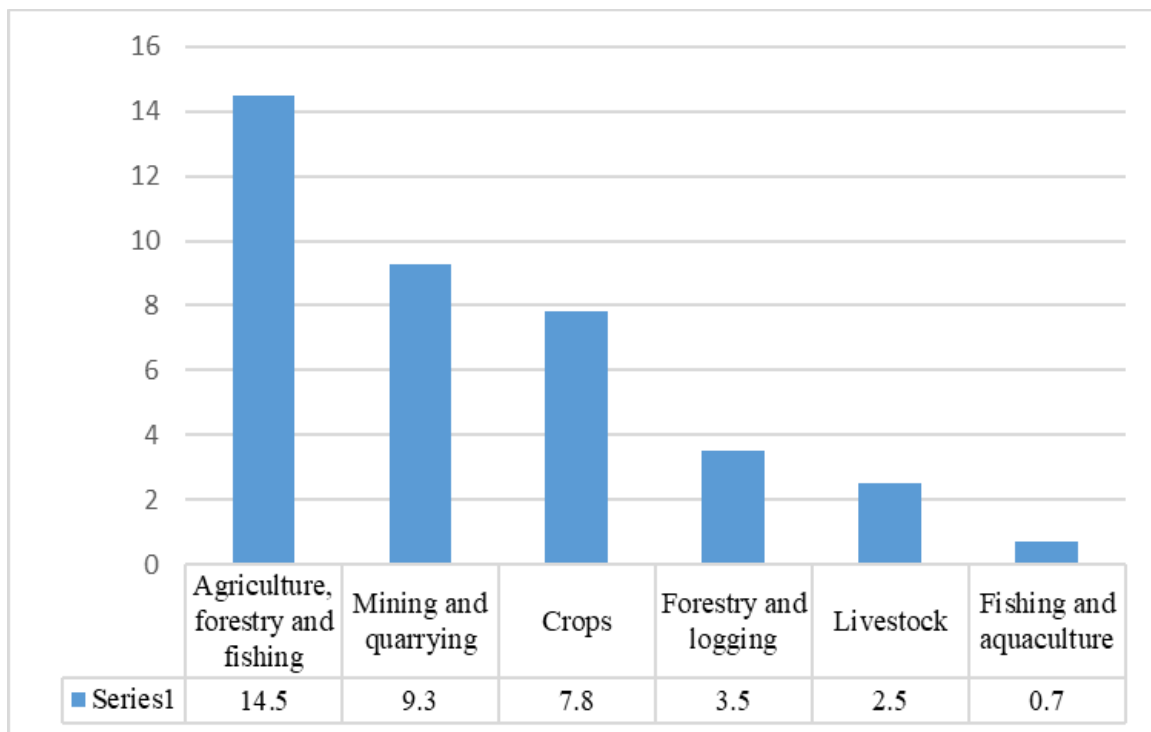
## **ANALYSIS AND FINDINGS**

On the basis of the selected indicators of the agricultural sector development the study examines the performance of the sector into following manner-

**GSVA & Performance of Agriculture Sector in Jharkhand**

According to the Jharkhand state economic survey 2019-20 the primary sector including mining and quarrying (sub-sectors) is estimated to improved by 2.47 % and the agriculture, forestry and fishing sub-sector by approximately 4.4 %. Within the sub- sectors of agricultural, forestry and fishing, fishing has grown by 12.9 % and forestry and logging by 9.4 %. The production of the ‘Agriculture, forestry and fishing sector’ includes 14.5 % of the Gross State Value Added (GSVA) of the state. The ‘crop production’ which is contributing nearly 8 % of the GSVA, is estimated to have up by about 2.6 %. The ‘Forestry and logging’ sub-sector, which is contributing 5.4 % to the state’s growth, has reported a growth of about 9.4 %.<sup>8</sup>

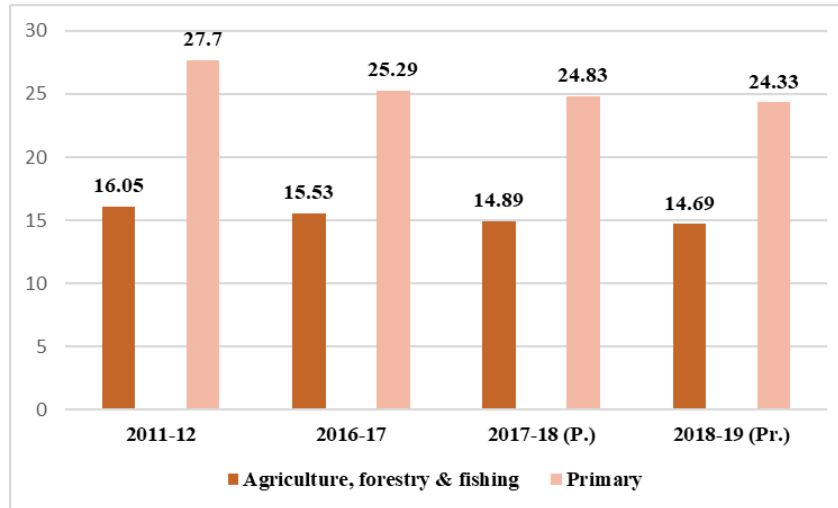
**Figure: 3 Sub-Sectoral Contribution of Primary Sector to GSVA**



Source: Jharkhand Economic Survey 2019-20

Figure: 3 highlights the contribution of primary sector to Gross State Value Added (GSVA) and sub-sectors at constant prices in the year 2019-20. The total primary sector is contributing by 23.8% to state GSVA; amongst the sub-sectors of the primacy sectors the highest contribution is recorded by the Agriculture, Forest & Fishing with 14.5%, while fishing and aquaculture alone is contributing by 0.7%. The trends of the share of Primary Sector and Agriculture, Forestry & Fishing is presented in the figure: 4.

**Figure: 4 The trends of the share of Primary Sector to GSVA**



Source: Jharkhand Economic Survey 2019-20

It is evident from the figure 4 that the contribution of primary sector to GSVA is remain unchanged, around 25.0% from 2016-17 to 2017-18 in the state and is expected to the 24.33% in 2018-19 as per the projection of the government of Jharkhand; while the contribution of the Agriculture, Forestry & Fishing has also decreased from the high of 16.05% to 15.53% in 2016-17 and subsequently reduced in 2017-18 with 14.89%.

### GSDP & Performance of Agriculture Sector in Jharkhand

Another parameter that is used for the analysis of the contribution of a specific sector to the growth rate of any region is contribution in Gross State Domestic Product (GSDP). The contribution of the agriculture<sup>+</sup> sector to state GDP was Rs. 2233546 lacs in 2011-12 and reached to the level of Rs. 4690481lacs in 2017-18 with an increase of 110%. (Table:1)

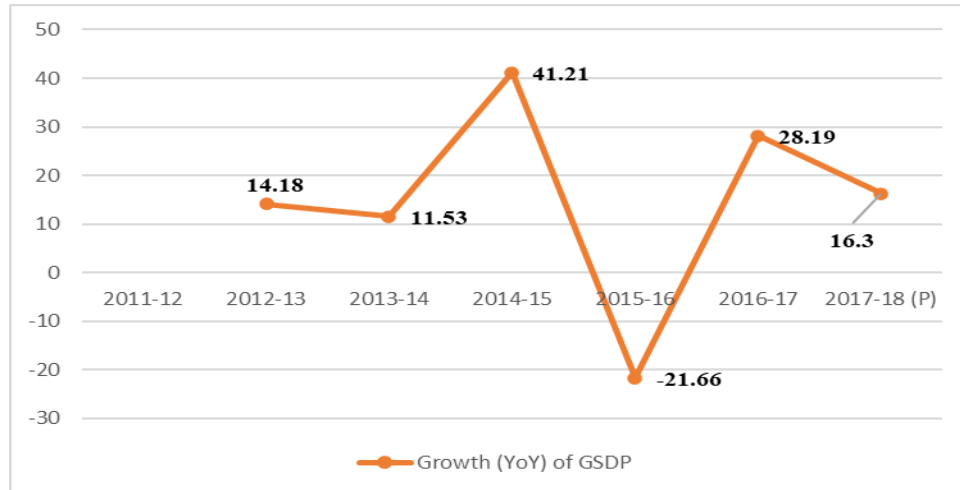
**Table: 1 GSDP and Performance of Agriculture<sup>+</sup> Sector**

Year	GSDP of Agriculture <sup>+</sup> (Rs. in Lacs)	Growth (YoY) of GSDP (%)
2011-12	2233546	
2012-13	2550211	14.18
2013-14	2844224	11.53
2014-15	4016315	41.21
2015-16	3146379	-21.66
2016-17	4033246	28.19
2017-18 (P)	4690481	16.30

Agriculture<sup>+</sup> = Agriculture, Forestry &Fishing, YoY= Year over Year

Source: Jharkhand Economic Survey 2019-20

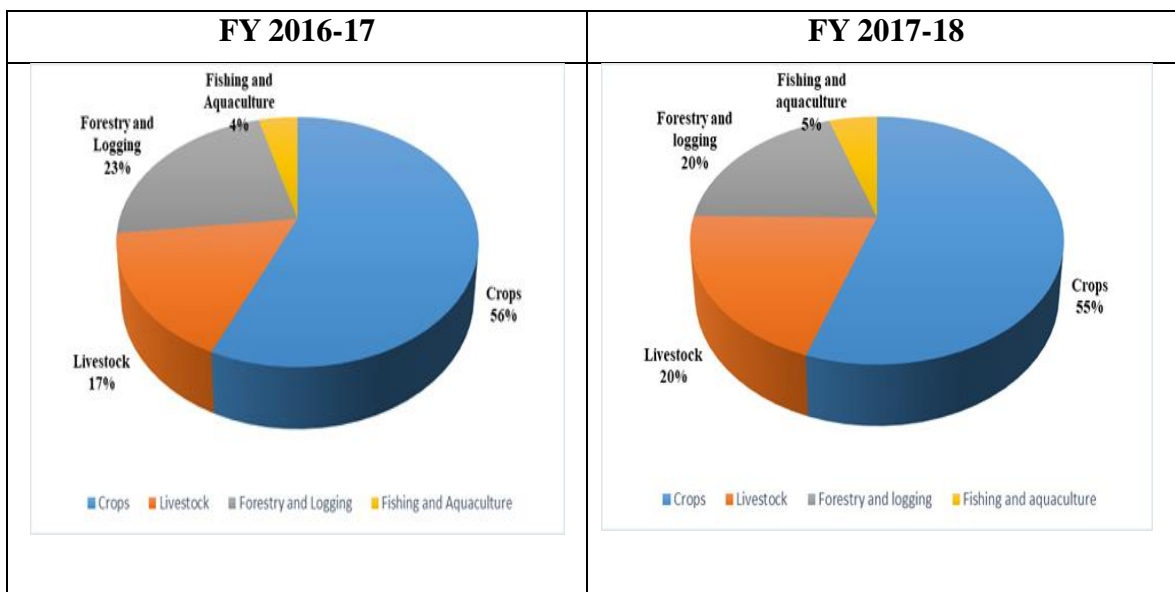
**Figure: 5 Trends of the Growth (YoY) of GSDP for Agriculture + Sector(%)**



Source: Calculated from table 1

Figure 5 reveals the trends of the growth (YoY) of GSDP from 2011-12 to 2017-18; during the periods the fluctuating trends is reported as for 2012-13 it was 14.18% and in 2013-14 it has shifted to the level of 11.53%; major hike is visible for the FY 2014-15 when it has amplified by 41.21%. The major downfall was recoded in 2015-16 when the YoY has dropped to the level of -21.66% and again a major spike is noticeable in FY 2016-17 with a reported increase by 28.19%.

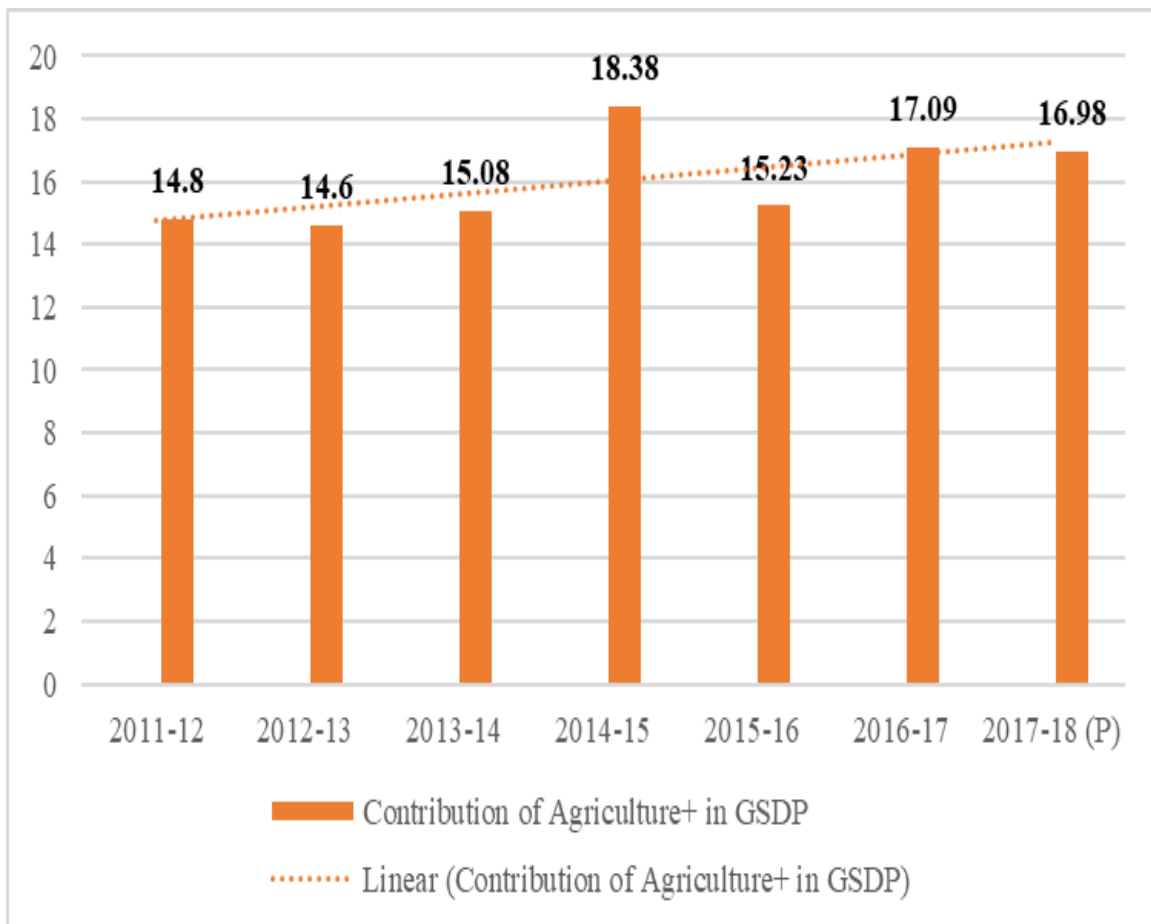
**Figure: 6 Contribution of Sub-sector of Agriculture in GSDP**



Source: Jharkhand Economic Survey 2018-19

Among the contributors of the agriculture sector of the Jharkhand state the major contributing sub-sector is ‘Crops’ which is contributing around 55% to agricultural sector GSDP and the least contributor is Fishing with 4% in 2016-17 and 5% in 2017-18. Livestock & Forestry is contributing just equally in both the financial years; in 2017-18 the contribution of these sub-sectors has recoded 20%.

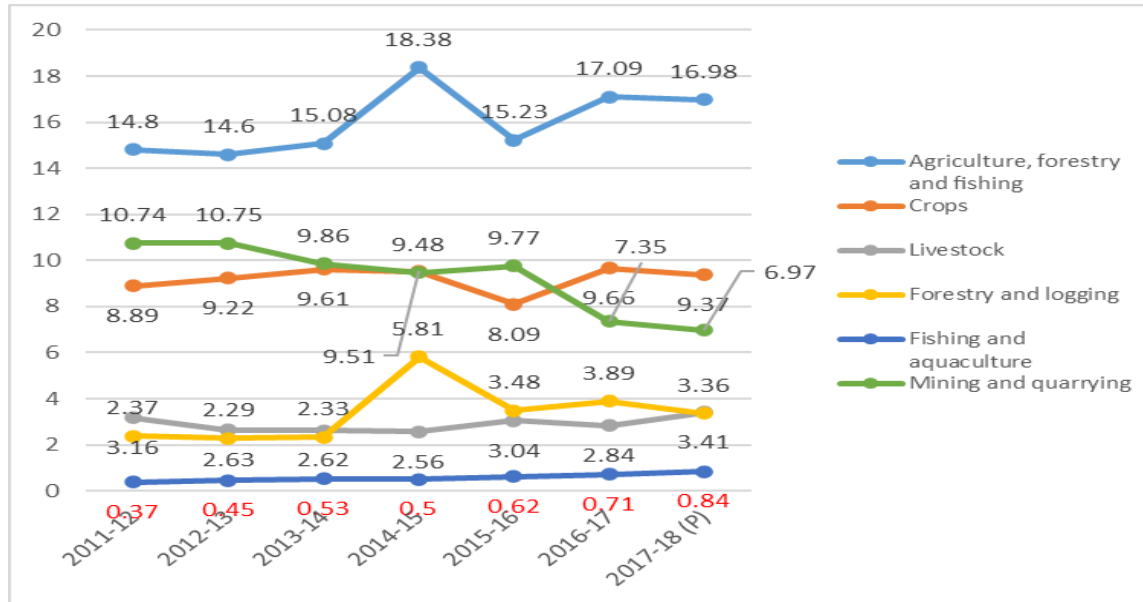
**Figure: 6 Trends of the Contribution of Agriculture+ Sector in GSDP (%)**



Source: Annual Report, 2019-20, Ministry of agriculture and farmers welfare Govt. of India

In the continuation of the GSDP based analysis of the contribution of agriculture sector to state economy, under this section an attempt has been made to investigate and overview the trends of the contribution of Agriculture+ Sector in GSDP of Jharkhand. It is clearly untreatable from the figure 6 that the contribution of Agriculture+ Sector in states’ GSDP is increasing with an average of 16.02% during 2011-12 to 2017-18; and showing stagnant increase except the FY 2014-15 when the contribution is recorded maximum with 18.38%.

**Figure: 7 Inter Sub-Sector Trends of Agriculture Sector to GSDP**



Source: Jharkhand Economic Survey 2018-19

The Inter Sub-Sector analysis of the trends of Agriculture Sector and its contribution to GSDP provides the details that amongst the all six contributors such as- Agriculture, forestry and fishing, Crops, Livestock, Forestry and logging, Fishing and aquaculture and Mining and quarrying, the agriculture, forestry and fishing rank first with the contribution of 16.02 % over the years, while crops are showing an average of 9.48% contribution to Jharkhand GSDP. There is no change in the participation of Fishing and Aquaculture sectors as it is contributing less than 1% is every considerable periods.

### OVERVIEW OF THE PRODUCTION SCENARIO IN JHARKHAND

Many agricultural fluctuations related the production of different crops have been reported several times in Jharkhand and it is a common phenomenon in Jharkhand. The production of both Kharif and Rabi crops has declined from 2017-18 to 2018-19. The production of paddy has reduced to 1338 thousand hectare and 2991 thousand tonnes in 2019-20 from 1735 thousand hectare and 5109 thousand tonnes respectively in 2017-18 in respect to total cropped area and production. Similarly, a decline is reported in the total cropped area and production of wheat, for the same period and has fallen to 164 thousand hectare and 300 thousand tonnes in 2018-19 from 221 thousand hectare and 470 thousand tonnes in 2017-18 respectively. The main cause behind downside of the area and production is deficient rainfall, with the deficiency of 28 % to 21 % from 2018 to 2019.<sup>9</sup>



**Table: 2 Scenario of Rabi Crops in Jharkhand**

Crop	2016-17			2017-18		
	Area	Production	Yield	Area	Production	Yield
Wheat	221	470	2126	221	470	2126
Maize	10	18	1796	10	21	2063
Gram	211	285	1351	223	293	1258
Masoor	62	54	864	69	60	868
Peas	53	64	1217	59	73	1242
Linseed	39	24	612	52	30	571
(Area in 000 hec, Production-000 Tonnes, Yield -Kg/hec.)						

Source: Jharkhand Economic Survey 2018-19

It is clear from the table 2 that in 2016-17 amongst the Rabi crops, the largest area is cultivated by Wheat and for 2017-18 the largest area is cultivated by Gram in Jharkhand. Maize occupied the least area in both years. In case of production the high productive crop is Wheat followed by Gram with 285 thousand tonnes and 293 tonnes for the year 2016-17 and 2017-18 respectively; in terms Yield highest the number is secured by the wheat (2126 Kg/Hec.) followed by Maize (ranked second highest yield) with 2063Kg/Hec. in 2017-18.

**Table: 3 Scenario of Kharif Crops in Jharkhand**

Crop	2017-18			2018-19 (4th adv. Est.)		
	Area	Production	Yield	Area	Production	Yield
Paddy	1735	5109	2944	1527	2885	1889
Maize	284	567	1993	255	478	1872
Arhar	194	261	1348	231	234	1015
Urad	148	132	892	131	111	843
Moong	30	25	828	30	23	748
Groundnut	29	34	1151	30	31	1027
(Area in 000-hectare, Production-000 Tonnes, Yield -Kg/hec.)						

Source: Jharkhand Economic Survey 2018-19

In the state of the Jharkhand, the largest area under cultivation among Kharif crops is paddy with 1735 thousand hectares in 2017-18 and in the 1527thousand hectares 4<sup>th</sup> advanced estimates of 2018-19; the paddy covers more than 66 % of the area cultivated under Kharif crop. The second largest area is covered by maize crop with 284 thousand hectares (Nearly 11% of the area under Kharif). Among the pulses in the Kharif season, arhar and urad crops are the most important crops in terms of area and production. As far as yield is concerned among kharif crops high yield crop is Paddy with 5109 Kg/hec. and least yield crop in Moong with 828Kg/hec. in 2017-18 and same trends of area, production and yield is estimated in 4<sup>th</sup> advanced estimates of 2018-19.

**Table: 4 Scenario of Area, Production and Yield of Pulses, Food Grains and Oilseeds**

Crops	2016-17			2017-18		
	Area	Production	Yield	Area	Production	Yield
Pulses	805	844	1049	793	884	1114
Food Grains	3064	6730	2204	3066	7071	2306
Oilseeds	361	264	732	411	299	729

(Area in 000-hectare, Production-000 Tonnes, Yield -Kg/hec.)

Source: Jharkhand Economic Survey 2018-19

Table 4 presents the scenario of area, production and yield of pulses, Food Grains and Oilseeds in Jharkhand. The highest area, production and yield is reported for Food Grains in Jharkhand and the cultivated area of food grains has increased from 3064 thousand hectares in 2016-17 to 3066 thousand hectares in 2017-18. All the area, production and yield of food grains has recorded gains from 2016-17 to 2017-18. The area of pulses has declined over the year but production and yield has increased by 40 thousand tonnes and 65 Kg/hec., the area and production of oilseeds has increased but the productivity has slightly declined.

## CONCLUSION

On the basis of the overview of the performance of Agricultural sector in Jharkhand it is clear that the agriculture sector is one of the major contributors of the development of Jharkhand's economy, as it has important role in macroeconomic indicators. The major problems which have affected the growth of agricultural sector and economy itself in Jharkhand state, is the continuing fluctuations among the major contributors/ sub-sectors of agriculture. To boost the performance of the sector government has to strongly implement the various input and output rated programmes/ schemes introduced by the central as well as by the state government of Jharkhand. Diversification of agricultural sector and promotion to sustainable agriculture are required to address the ongoing issues.

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