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GROWTH AND PERFORMANCE OF AGRICULTURE SECTOR IN INDIA

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Abstract

In this study an attempt has been made to examine the Gross value Added of agriculture sector and its share in total Gross Value Added of the economy during the period between 2015-16 and 2019-20. This study also attempts to present the production and yield of major crops, horticulture crops and oilseeds crops in Indian agriculture during the period from 2017-18 to 2019-20. The agriculture and allied sectors contributed approximately 17.8% of India's Gross Value Added (GVA) at current prices during 2019-20, marginally higher than 17.7% in 2015-16. The Agriculture and Allied Sector witnessed marginal growth of 0.6 per cent in 2015-16 followed by a substantial recovery of 6.8 per cent in 2016-17 that fell by almost a per cent to 5.9 per cent in the following year, 2017-18. 2018-19 witnessed a sharp fall to 2.4 per cent that has since recovered to 4% in 2019-20. As per 4th Advance estimates for 2019-20, total food grain production in the country is estimated at 296.65 million tonnes. The production during 2019-20 is also higher by 26.87 million tonnes than the previous five years' (2014-15 to 2018-19) average production of food grain. With a production of about 319.57 million, horticulture production has witnessed an increase of about 43.25% during the period 2009-10 to 2019-20. Due to the concerted efforts of the Government of India (GOI), the production of oilseeds has been maintained at around 31 million tonnes with increased productivity.

Key words: Production, Productivity and Growth.

Introduction

Agriculture sector is the backbone of Indian Economy. Though industrial and service sector have been playing an important role in Indian economy, still the contribution of agriculture in the development of Indian economy cannot be denied. In India at least two-thirds of the working population earn their living through agricultural works. Due to the excessive pressure of population labour surplus economies like India and rapid increase in the demand for food, food production increases at a fast rate. The existing levels of food consumption in these countries are very low and with a little increase in the capita income, the demand for food rise steeply (in other words it can be stated that the income elasticity of demand for food is very high in developing countries). Therefore, unless agriculture is able to continuously increase it marketed surplus of food grains, a crisis is like to emerge. Agriculture supplies raw materials to various agro-based industries like sugar, jute, cotton textile and vanaspati industries. Food processing industries are similarly dependent on agriculture. Therefore, the development of these industries entirely is dependent on agriculture. Increase in rural purchasing power is very necessary for industrial development as two- thirds of Indian population live in villages. After green revolution the purchasing power of the large farmers increased due to their enhanced income and negligible tax burden. Indian agriculture plays a vital role in internal and external trade of the country. Internal trade in food-grains and other agricultural products helps in the expansion of service sector.

There are three goals of agricultural development. These are: (a) achieving high growth by raising productivity; (b) inclusiveness by focusing on lagging regions, small farmers and women; and (c) sustainability of agriculture. In order to achieve these goals, we have to provide medium term strategy and action plan. Strengthening institutions and governance is crucial for achieving growth, equality and sustainability of agriculture. Institutions throughout the agricultural value chains and food systems are important for better governance and effective implementation. They are also important for reducing inequality. There are several examples of best practices in institutions relating to alternative markets, contract farming, self-help groups, farmer federations, farmer producer companies, and women collectives like Kudumbashree programme in Kerala, self-help groups of women, institutions relating to canal and ground water irrigation and natural resource management. We have to scale up some of these successful institutions for improving agricultural development (MahendraDev, 2018).

Agriculture plays a vital role in India's economy. 54.6% of the total workforce is engaged in agricultural and allied sector activities (Census 2011) and accounts for 17.8% of the country's Gross Value Added (GVA) for the year 2019-20 (at current prices). Given the importance of the agriculture sector, Government of India has taken several steps for its development in a sustainable manner. Steps have been taken to improve the income of farmers. Further, to mitigate risk in the agriculture sector, a scheme "PradhanMantri Fasal Bhima Yojana" (PMFBY) was also launched in 2016. Schemes such as Formation & promotion of 10,000 FPOs & the Agriculture Infrastructure Fund have also been launched recently to benefit the sector. As per the Land Use Statistics 2016-17, the total geographical area of the country is 328.7 million hectares, of which 139.4 million hectares is the reported net sown

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area and 200.2 million hectares is the gross cropped area with a cropping intensity of 143.6%. The net area sowed works out to 42.4% of the total geographical area. The net irrigated area is 68.6 million hectares.

Methodology

In this study an attempt has been made to examine the Gross value Added of agriculture sector and its share in total Gross Value Added of the economy. This study also attempts to present the production and yield of major crops, Horticulture crops and Oilseeds crops in Indian agriculture. For these purposes the time series secondary data required for the study has been collected from the official website of Ministry of agriculture and Farmers' Welfare, and Ministry of Statistics & Programme Implementation, Government of India. Simple percentage analysis has been used in this study to analyse the data.

Gross Value Added (GVA) of Agriculture Sector

As per the provisional estimates of Annual National Income released by Central Statistics Office (CSO), Ministry of Statistics & Programme Implementation, the agriculture and allied sectors contributed approximately 17.8% of India's GVA at current prices during 2019-20, marginally higher than 17.7% in 2015-16. GVA of agriculture and allied sectors and its share in total GVA of the country at current prices during the last 5 years is given in Table1.

Table 1: GVA of agriculture and allied sectors and Its share in total GVA of the country
(At current prices)

Year	GVA of Agriculture & Allied Sectors (Rs. In Crores	Per cent to total GVA
2015-16	22,27,533	17.7
2016-17	25,18,662	18.0
2017-18	27,96,908	18.0
2018-19@	29,22,846	17.1
2019-20*	32,57,443	17.8

Source: Central Statistical Office, Ministry of Statistics and Programme Implementation, Government of India
Note: * As per the press note on Provisional Estimates of Annual National Income 2019-20 released by CSO on 29th May 2020.
@As per the First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation for 2018-19 released on 31st January, 2020

The Agriculture and Allied Sector witnessed marginal growth of 0.6 per cent in 2015-16 followed by a substantial recovery of 6.8 per cent in 2016-17 that fell by almost a per cent to 5.9 per cent in the following year, 2017-18. 2018-19 witnessed a sharp fall to 2.4 per cent that has since recovered to 4% in 2019-20 at 2011-12 base prices. (Table-2)

Table 2: Growth in the GVA of Agriculture Sector and Total Economy
(At 2011-12 base prices)

Year	Total Economy	Agriculture & Allied Sector	Crops	livestock	Forestry & Logging	Fishing
2015-16	8.0	0.6	-2.9	7.5	1.7	9.7
2016-17	8.0	6.8	5.3	10.0	5.5	10.4
2017-18	6.6	5.9	4.4	7.4	6.2	14.7
2018-19@	6.0	2.4	-1.0	8.1	0.4	12.0
2019-20*	3.9	4.0	NA	NA	NA	NA

Source: Central Statistical Office, Ministry of Statistics and Programme Implementation, Government of India
Note: * As per the press note on Provisional Estimates of Annual National Income 2019-20 released by CSO on 29th May 2020.
@As per the First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation for 2018-19 released on 31st January, 2020

Production of Major Crops

As per 4th Advance estimates for 2019-20, total food grain production in the country is estimated at 296.65 million tonnes. The production during 2019-20 is also higher by 26.87 million tonnes than the previous five years' (2014-15 to 2018-19) average production of food grain. Total production of rice during 2019-20 is estimated at 118.43 million tonnes. It is higher by 8.67 million tonnes than the five years' average production of 109.76 million tonnes. Production of wheat is estimated at 107.59 million tonnes. It

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is higher by 11.43 million tonnes than the average wheat production of 96.16 million tonnes. Production of nutri / coarse cereals is estimated at 47.48 million tonnes. It is higher by 4.42 million tonnes than the production of 43.06 million tonnes achieved during 2018-19. Further, it is also higher by 4.44 million tonnes than the average production.

Total pulses production during 2019-20 is estimated at 23.15 million tonnes which is higher by 2.33 million tonnes than the five years' average production of 20.82 million tonnes. Total oilseeds production in the country during 2019-20 is estimated at 33.42 million tonnes which is higher by 1.90 million tonnes than the production of 31.52 million tonnes during 2018-19. Further, the production of oilseeds during 2019-20 is higher by 4.02 million tonnes than the average oilseeds production. Total production of sugarcane in the country during 2019-20 is estimated at 355.70 million tonnes. Production of cotton is estimated at 35.49 million bales (of 170 kg each) is higher by 7.45 million bales than the production of 28.04 million bales during 2018-19. Production of jute & Mesta is estimated at 9.91 million bales (180 kg each)

Table 3: Area, production and Productivity of major crops

Crops	Area (Lakh Hectares)			Production (Million Tonnes)			Productivity (Kg./Hectares		
	2017-18	2018-19	2019-20*	2017-18	2018-19	2019-20*	2017-18	2018-19	2019-20*
Rice	437.7	441.6	437.8	112.8	116.5	118.4	2576	2638	2705
Wheat	296.5	293.2	314.5	99.9	103.6	107.6	3368	3533	3421
Nutri/ Coarse Cereals	242.9	221.5	240.2	47.0	43.1	47.5	1934	1944	1976
Pulses	298.1	291.6	283.4	25.4	22.1	23.2	853	757	817
Foodgrains	1275.2	1247.8	1275.9	285.0	285.2	296.6	2235	2286	2325
OilSeeds	245.1	247.9	270.4	31.5	31.5	33.4	1284	1271	1236
Sugarcane	47.4	50.6	45.7	379.9	405.4	355.7	80198	80105	77893
Cotton@	125.9	126.1	133.7	32.8	28.0	35.5	443	378	451
Jute & Meta#	7.4	7.0	6.8	10.0	9.8	9.9	2435	2508	2642

Source: Annual report 2020-21, Department of Agriculture, cooperation & Farmers' Welfare, Ministry of Agriculture and Farmers' Welfare, Government of India
Note: * 4th advance estimates
@ Production in million bales of 170 kg each
# Production in million bales of 180 Kg. each

Total pulses production during 2019-20 is estimated at 23.15 million tonnes which is higher by 2.33 million tonnes than the five years' average production of 20.82 million tonnes. Total oilseeds production in the country during 2019-20 is estimated at 33.42 million tonnes which is higher by 1.90 million tonnes than the production of 31.52 million tonnes during 2018-19. Further, the production of oilseeds during 2019-20 is higher by 4.02 million tonnes than the average oilseeds production. Total production of sugarcane in the country during 2019-20 is estimated at 355.70 million tonnes. Production of cotton is estimated at 35.49 million bales (of 170 kg each) is higher by 7.45 million bales than the production of 28.04 million bales during 2018-19. Production of jute & Mesta is estimated at 9.91 million bales (180 kg each)

Production of Horticulture Crops

The wide and varied nature of the horticulture sector covering fruits, vegetables, root and tuber crops, flowers, aromatics and medicinal crops, spices and plantation crops facilitates better returns per unit of area, besides opportunities for diversification in agriculture. Horticulture crops cover an area of 26.22 Million Hectare at present; it has registered an increase of 25.59% as compared

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to 20.88 Million Hectare in 2009-10. However, with a production of about 319.57 million Tonnes, horticulture production has witnessed an increase of about 43.25% during the period 2009-10 to 2019-20 (3rd Advance Estimates). The significant feature is that there has been improvement of productivity of horticulture crops which increased by about 14.06% during this period. Area, Production & Productivity of Horticulture crops during the past 10 years are given in Table 4.

Table 4: Area, Production & Productivity of Horticulture crops

Year	Area (Million Hectares)	Production (Million Tonnes)	Productivity (Tonnes/Hectare)
2009-10	20.88	233.09	10.69
2010-11	21.83	240.53	11.02
2011-12	23.24	257.28	11.07
2012-13	23.69	268.85	11.35
2013-14	24.20	277.35	11.46
2014-15	23.41	280.99	12.00
2015-16	24.47	286.19	11.69
2016-17	24.85	300.64	12.10
2017-18	25.24	310.67	12.31
2018-19	25.74	311.05	12.09
2019-20*	26.22	319.57	12.19

Source: Annual report 2020-21, Department of Agriculture, cooperation & Farmers' Welfare, Ministry of Agriculture and Farmers' Welfare, government of India.
Note: * 3rd Advance estimate

Production of Oilseeds

Oilseed's cultivation is undertaken across the country in about 27.04 million hectares, largely under rainfed areas covering 72% and producing around 33.42 million tonnes of oilseeds during 2019-20. Nine oilseeds are the major source of vegetable oil in the country. Among nine major oilseeds soybean (33.5%), groundnut (30%) and rapeseed & mustard (27%), contribute to more than 90% of total oilseeds production in the country. However, in terms of vegetable oil production mustard, soybean and groundnut contribute 27%, 34% and 30% respectively. Due to the concerted efforts of the Government of India (GOI), the production of oilseeds has been maintained at around 31 million tonnes with increased productivity. During 2019-20, the highest production of 33.42 million tonnes was recorded from an area of 27.04 million hectare yielding 1236 kg per hectare (Table-5) which was largely driven by productivity increase. Madhya Pradesh, Rajasthan, Maharashtra and Gujarat are the major oilseeds producing states contributing more than 78% of oilseeds production in the country. The Oilseeds Division is mandated with the activities related to increasing production and productivity of oilseeds and area expansion under oil palm & TBOs for increasing domestic availability of edible oils.

Table-5 Area, Production and Productivity of Oilseed Crops in India

Year	Area (Million Hectares)	Production (Million Tonnes)	Productivity (kg./Hectare)
2012-13	26.48	30.94	1168
1013-14	28.05	32.74	1167
2014-15	25.59	27.51	1074
2015-16	26.08	25.25	968
2016-17	26.17	31.27	1194
2017-18	24.51	31.46	1284
2018-19	24.79	31.52	1271
2019-20*	27.04	33.42	1236

Source: Annual report 2020-21, Department of Agriculture, cooperation & Farmers' Welfare, Ministry of Agriculture and Farmers' welfare, Government of India.
Note: * 4th Advance estimate

India is heavily dependent on imports to meet its edible oil requirements and is the largest importer of vegetable oils in the world followed by China and USA. Of all the imported edible oils, the share of palm oil is about 60% followed by soybean oil with a

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share of 25% and sunflower at 12%. Import growth in respect of edible oils during the last decades is about 174%. The import figure of edible oils during 2019-20 reveals that India imported a total of 13.35 million tonnes of vegetable oils costing Rs.61, 559 Crores.

Table-6: Demand and Supply of Vegetable Oils in India
(Million Tonnes)

Year	Total Domestic Demand	Total Domestic Availability	Imports	Per capita Availability (Kg.Yr)
2015-16	23.48	8.63 (36.76)	14.85 (63.24)	19.10
2016-17	25.42	10.10 (39.65)	15.32 (60.35)	18.75
2017-18	24.97	10.38 (41.57)	14.59 (58.43)	19.30
2018-19	25.92	10.35 (39.94)	15.57 (60.06)	19.80
2019-20	24.00	10.65 (44.37)	13.35 (55.63)	19.70

Source: Directorate of Commercial Intelligence & Statistics, Department of Commerce
Note: Figure in parenthesis indicates the Percentage to total domestic demand

The per capita consumption is around 19.00 to 19.80 kg per person per annum over the last five years. The year wise production, import and export of edible oils in the country are given in Table -6. Domestic edible oil production has not been able to keep pace with the growth in consumption. During 2019-20, domestic production of edible oils was 10.65 million tonnes from both primary (oilseeds) and secondary sources (coconut, oil palm, rice bran oil, cotton seed oil and TBOs). The year wise demand and supply of edible oil during the last three years in the country are given in table-6.

Conclusions

The agriculture and allied sectors contributed approximately 17.8% of India's GVA at current prices during 2019-20, marginally higher than 17.7% in 2015-16. The Agriculture and Allied Sector witnessed marginal growth of 0.6 per cent in 2015-16 followed by a substantial recovery of 6.8 per cent in 2016-17 that fell by almost a per cent to 5.9 per cent in the following year, 2017-18. 2018-19 witnessed a sharp fall to 2.4 per cent that has since recovered to 4% in 2019-20. As per 4th Advance estimates for 2019-20, total food grain production in the country is estimated at 296.65 million tonnes. The production during 2019-20 is also higher by 26.87 million tonnes than the previous five years' (2014-15 to 2018-19) average production of food grain. Total production of rice during 2019-20 is estimated at 118.43 million tonnes. It is higher by 8.67 million tonnes than the five years' average production of 109.76 million tonnes. Production of wheat is estimated at 107.59 million tonnes. It is higher by 11.43 million tonnes than the average wheat production of 96.16 million tonnes.

Horticulture crops cover an area of 26.22 million Hectare at present; it has registered an increase of 25.59% as compared to 20.88 million Hectare in 2009-10. However, with a production of about 319.57 million Tonnes, horticulture production has witnessed an increase of about 43.25% during the period 2009-10 to 2019-20 (3rd Advance Estimates). The significant feature is that there has been improvement of productivity of horticulture crops which increased by about 14.06% during this period. Area, Production & Productivity of Horticulture crops during the past 10 years. Due to the concerted efforts of the Government of India (GOI), the production of oilseeds has been maintained at around 31 million tonnes with increased productivity. During 2019-20, the highest production of 33.42 million tonnes was recorded from an area of 27.04 million hectare yielding 1236 kg per hectare.

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