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Performance and Growth of Agriculture Sector in Karnataka: A Trend Analysis

Dr. D. DEVARAJ

Associate Professor (Principal)

Government First Grade College Periyapatna, Mysore District, Karnataka

Abstract

Agriculture sector is one of the major occupations of weaker section in India as well as Karnataka state. It is unquestionably the largest livelihood provider in India, more so in the wide range of rural areas. It also contributes a significant growth to the Gross Domestic Product (GDP). Sustainable agriculture, in terms of food security, rural employment, and environmentally sustainable technologies such as soil conservation, sustainable natural resource management and biodiversity protection, are essential for holistic rural development. Agriculture sector has remained the backbone of Karnataka and is still the mainstay of the state economy. Agricultural growth is necessary not only for attaining high overall growth but also for accelerating the poverty reduction in a developing country like India. India is still a rural India as 61 per cent of Karnataka's population and 69 per cent of Indian population lives in rural area. With economic development, the shift of labour from agriculture to other sectors has gathered momentum in last two decades. As a consequence, though the contribution of agriculture to GDP has come down to 14 per cent, yet, the share of agriculture in employment still remains significant at 54.6 per cent in India, it is 54.8 per cent in Karnataka.

Keywords: Performance, Growth, Area, Yield, and Production.

I Introduction

The direct contribution of the agriculture sector to national economy is reflected by its share in total GDP, its foreign exchange earnings, and its role in supplying savings and labor to other sectors. In Karnataka, agriculture is the major occupation for a majority of the rural population. As per the population Census 2011, agriculture supports 13.74 million workers, of which 23.61 per cent are cultivators and 25.67 per cent agricultural workers. A total of 123,100 km² of land is cultivated in Karnataka constituting 64.6% of the total geographical area of the state. The agricultural sector of Karnataka is characterized by vast steppes of drought-prone region and sporadic patches of irrigated area. Agricultural development in Karnataka is not regionally balanced. There are inter and intra district variations, which can be expressed in terms of natural resources diversity as well as socio-economic disparity. While diversity in natural resources is manifested in terms of climate, soil type, forests, rivers and minerals, disparity is exhibited in terms of socio-economic characteristics like literacy, unemployment, health, industrial clusters and so on. In general, Northern part of Karnataka is characterised as backward region and Southern part as developed region.

II Research Objectives

1. To study the growth and performance of agriculture sector in India and Karnataka.
2. To examine the growth trends of production and productivity of agriculture sector in Karnataka.
3. To analyze the district-wise area and production of major crops in the agriculture sector in the state.

III Research Methodology

The present study is mainly based on secondary sources of information. It has been collected from various annual reports of Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India, Minister of Agriculture and Farmers Welfare, Economic Survey of India and Karnataka (2020-21), Directorate of Economics and Statistics, journals, articles etc. The study was statistical tools used like Percentages and Compound Annual Growth Rate.

IV Agriculture Sector in India: Present Scenario

Agriculture sector plays a vital role in India's economy. About 54.6 per cent of the population is involved in agriculture and allied activities (As per Census of 2011) and it contributes 17.4 per cent to the country's Gross Value Added (GVA) for the year 2016-17 (at current prices). The GVA of agriculture and allied sectors and its share in total GVA of the country at current prices series during the period between 2013-14 and 2016-17 are given in Table-1.

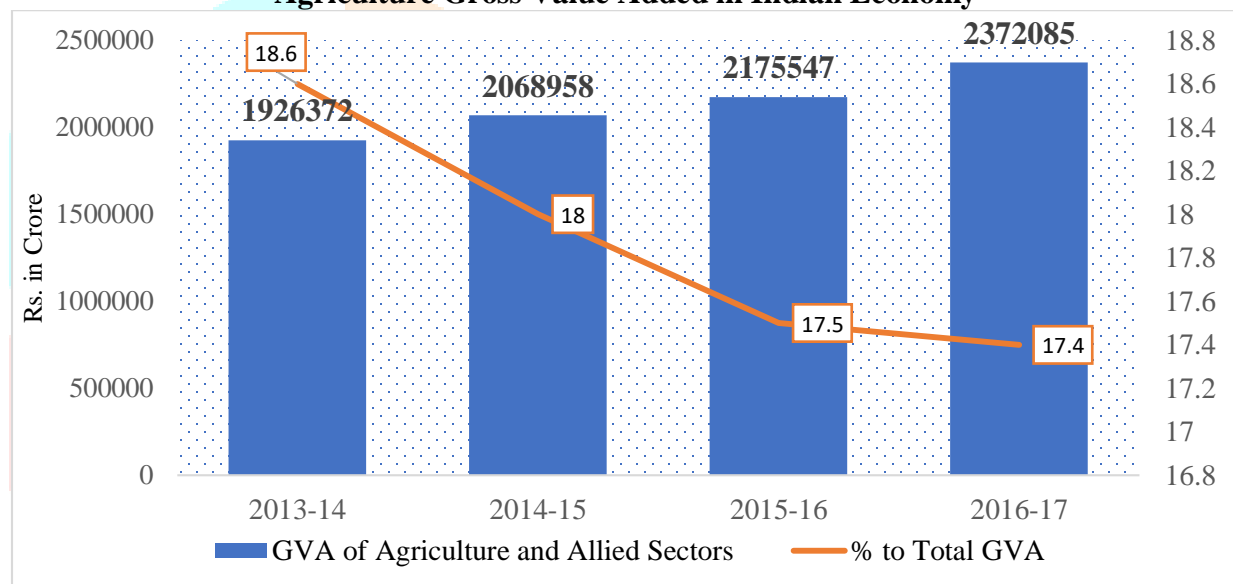
Table-1
Agriculture Gross Value Added in Indian Economy (Between 2013-14 to 2016-17)

Year	GVA of Agriculture and Allied Sectors	% to Total GVA
2013-14	1926372	18.6
2014-15	2068958	18
2015-16	2175547	17.5
2016-17	2372085	17.4
CAGR	6.98	

(Rs in Crore)

Source: Central Statistics Office, Ministry of Statistics and Programme Implementation, Govt. of India.

Graph-1
Agriculture Gross Value Added in Indian Economy



As given in Table-1 and Graph-1 agriculture GVA in Indian economy during the period from 2013-14 to 2016-17, in terms of crores, there has been a continuous decline in the share of agriculture and allied Sectors in the GVA from 18.6 per cent in 2013-14 to 17.4 per cent in 2016-17. Falling share of agriculture and allied sectors in GVA is an expected outcome in a fast growing and structurally changing economy.

V Growth and Performance of Agriculture Sector in Karnataka

Agriculture plays a significant role in the Indian economy as well as Karnataka State. Karnataka State is on the mission to promote faster and inclusive growth through agriculture sector. The advance estimates revealed that the Gross State Domestic Product (GSDP) of Karnataka is expected to grow at 9.6 per cent at constant (2011-12) prices and to reach of Rs.10,82,534 crore in 2018-19. The GSVA growth rate of agriculture sector is negative growth rate is -4.8 per cent during the 2018-19 compared to 14.2 per cent during the 2017-18 on account of decrease in production of food grains from 144 lakh tonne during the 2017-

18 to expected is 100 lakh tonne during the 2018-19 owing to prevailed drought conditions in 100 taluks in kharif and 156 taluks in rabi season. Whereas, the advance estimates of All India Gross Domestic Product (GDP) at constant (2011-12) prices during the 2018-19 is expected to grow at 7.2 per cent. The sectoral growth rate of Agriculture, Industry and Services at all India are anticipated to grow 3.8 per cent, 7.8 per cent and 7.3 per cent respectively. A marginal decrease is evident in the composition of GSDP of agriculture and allied activities sector is 11.67 per cent during the 2017-18, which increased to 10.11 per cent during the 2018-19.

Agricultural Area and Production in Karnataka

The average area under agricultural crops grown in three seasons' viz. Kharif, Rabi and summer is 102.80 lakh hectares. During the current year failure of Southwest monsoon in 85 taluks and Northeast monsoon in 165 taluks resulted in impediment in sowing progress of Kharif and Rabi seasons. The area coverage agricultural crops during Kharif, Rabi and Summer is estimated at 66.43, 24.90 and 4.30 lakh hectares, respectively against the normal area of 67.99, 30.47 and 4.34 lakh hectares, respectively. The advance estimates of agricultural production based on area coverage under various Kharif and Rabi crops and likely coverage during Summer indicate food grain production of 100.87 lakh tonnes against targeted production of 135 lakh tonnes (86.61 lakh tonnes Cereals and 14.26 lakh tonnes of Pulses against the target of 115 and 20 lakh tonnes respectively). Oilseed's production is estimated to be 10.67 lakh tonnes against the target of 14 lakh tonnes.

The Production of cotton is likely to be 9.27 lakh bales against the target of 16.43 lakh bales. The short fall in production can be attributed to failure of rains during July, August, September and October in major parts of the State during the period between 2013-14 and 2017-18. The estimates indicate production of 87.37 lakh tones Cereals and 20.28 lakh tones of Pulses against the target of 118 and 17 lakh tonnes respectively. Oilseed's production is estimated to be 9.70 lakh tonnes against the target of 14 lakh tonnes. Production of cotton is likely to be 12.24 lakh bales against the target of 15 lakh bales. The short fall in production can be attributed to failure of rains during June and July in major parts of the State, and inadequate water storage in major/minor irrigation reservoirs. Area and Production of Major crops are given in Table - 2.

Table- 2
Area and Production of Major Crops in the State

(Area in lakh hectares, Production in lakh tonnes)

Crop / Group	2017-18		2016-17		Average growth over previous year (%)	
	Area	Production	Area	Production	Area	Production
Cereals	45.27	87.37	43.81	79.58	3.33	9.79
Pulses	31.60	20.28	29.66	20.41	6.53	-0.62
Total food grains	76.87	107.65	73.47	99.99	4.63	7.66
Oilseeds	12.71	9.70	12.93	8.05	-1.70	20.50
Cotton	5.31	12.24	5.1	10.24	4.12	19.53
Sugarcane	4.4	315.00	3.97	273.78	10.83	14.91
Tobacco	0.97	0.89	0.9	0.65	7.78	36.92

Source: Government of Karnataka, Department of Agriculture, Planning, Programme Monitoring and Statistics Department.

The projected production of principal crops in Karnataka for Kharif, Rabi and summer crops of 2017-18 are given in Table- 3. The table provide details of area coverage under kharif, Rabi and summer crops during the current and previous year.

Table - 3 Area coverage: Kharif, Rabi and Summer (2016 - 2017)

(Lakh hectares)

Crop/ Groups	Kharif			Rabi			Summer		
	Normal	2017-18	2016-17	Normal	2017-18	2016-17	Normal	2017-18	2016-17
Cereals	33.15	30.35	31.52	14.08	13.50	11.25	2.47	1.42	1.04
Pulses	12.90	16.18	18.54	12.86	15.28	11.04	0.14	0.14	0.08
Total food grains	46.05	46.52	50.06	26.94	28.78	22.29	2.61	1.56	1.12
Oilseeds	9.62	8.18	10.03	2.98	2.86	1.20	2.12	1.67	1.70
Cotton	5.65	5.01	4.85	0.60	0.30	0.25	0.00	0.00	-
Sugarcane	4.86	3.90	4.53	0.51	0.30	0.22	0.41	0.20	0.14
Tobacco	1.02	0.96	0.90	0.05	0.01	-	0.00	0.00	-
Aggregate	67.19	64.56	70.37	31.08	32.25	24.72	5.15	3.43	2.19

Source: Final Estimates of DE&S. Advance Estimates of Agriculture Dept.

VI Growth and Performance of Agriculture Sector: District-wise Analysis

The analysis about the district-wise area under major crops of agriculture in hectares of the State in 2015-16. Belagavi has the highest area of cereals in agriculture is 394862 hectares (8.29%). Davanagere has the second highest in the area of cereals in agriculture is 299353 hectares (6.67%). Vijayapura has the third largest of cereals of area in agriculture is 291236 hectares (6.48%). Ballari district has the fourth largest of cereals of area in agriculture is 266788 hectares (5.94%). Haveri district has the fifth largest of cereals of area in agriculture is 253130 hectares (5.64%). This is followed by in order come under cereals of area in agriculture is in Raichur (246841 hectares), Kalburgi (225175), Tumkuru (194340 hectares), Hassan (192743 hectares), Bagalkot (190962 hectares) and the next successive positions of the cereals of area in agriculture in the State are presented in Table-4. As given in Table-5 district-wise area under major crops of Karnataka in 2018-19.

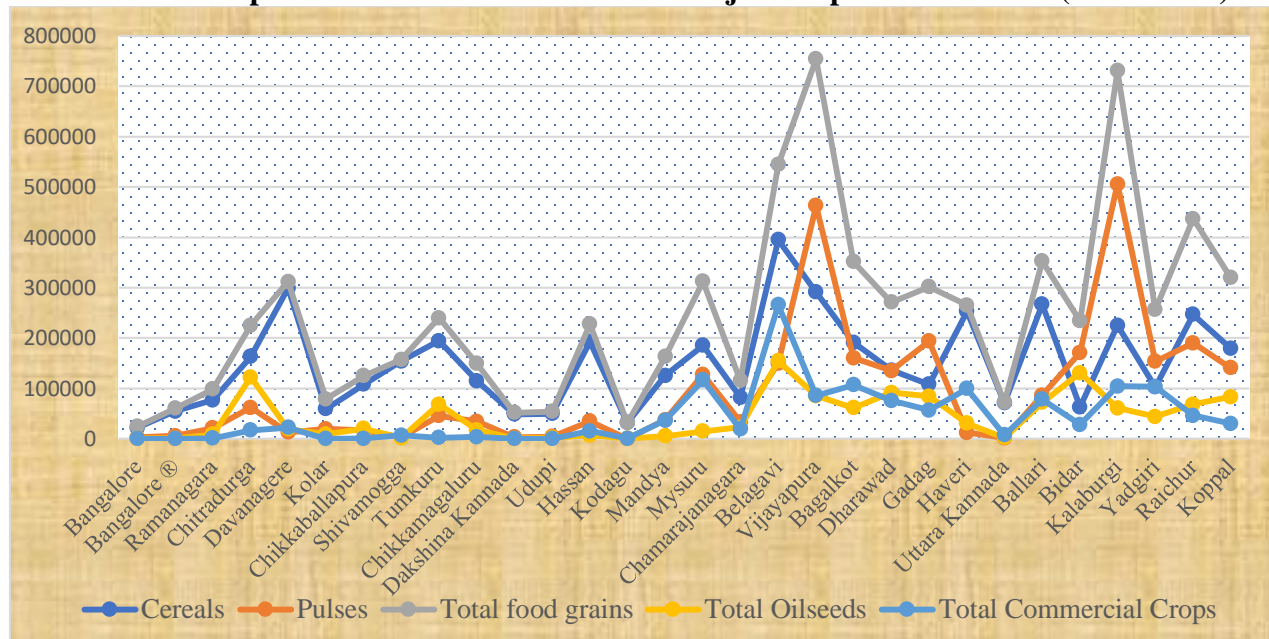
Table- 4 District-wise Area under Major Crops of Karnataka (As on 2018)**(In Hectares)**

District	Cereals	Pulses	Total food grains	Total Oilseeds	Total Commercial Crops
Bangalore	21634	2639	24273	504	7
Bangalore (R)	54564	5611	60175	656	62
Ramanagara	76837	21360	98197	8631	752
Chitradurga	162911	62165	225076	122241	16973
Davanagere	299353	12683	312036	19033	22162
Kolar	59463	19625	79088	9186	106
Chikkaballapura	107959	16928	124887	20280	208
Shivamogga	154276	2990	157266	1296	6660
Tumkuru	194340	45550	239890	68357	1903
Chikkamagaluru	114821	34364	149185	17553	3564
Dakshina Kannada	48689	3264	51953	407	20
Udupi	49616	4429	54045	1849	16
Hassan	192743	35044	227787	6939	15504
Kodagu	31784	12	31796	642	199
Mandya	125531	37319	162850	5215	36678
Mysuru	185153	127396	312549	14612	116236
Chamarajanagar	82137	33224	115361	22504	19193
Belagavi	394862	149740	544602	154630	266039
Vijayapura	291236	463134	754370	85301	85853
Bagalkot	190962	160520	351482	61610	107187
Dharwad	136226	134959	271185	91440	75600
Gadag	108106	193574	301680	84062	56434
Haveri	253130	12106	265236	30406	99250
Uttara Kannada	70728	1473	72201	1977	7479
Ballari	266788	86092	352880	72054	78290

Bidar	62899	171120	234019	130935	27826
Kalaburgi	225175	505740	730915	61002	104428
Yadgiri	102807	153411	256218	43744	103382
Raichur	246841	190116	436957	68338	45784
Koppal	179580	140752	320332	83312	29859
Total	4491151	2827340	7318491	1288716	1327654

Source: Directorate of Economics and Statistics, Annual Report of 2018-19.

Graph - 2 District-wise Area under Major Crops of Karnataka (As on 2018)



As given in Table-4 district-wise area of major crops in the State. The major crops are cereals, pulses, foodgrains, oilseeds, and commercial crops. The foodgrains (7318491 hectares) has highest contributed area of agriculture in the State. Cereals has the second highest (4491151 hectares) of area among major crops in agriculture. Pulses has the third highest (2827340 hectares) of the area in agriculture among the major crops; the fourth highest of commercial crops of area in agriculture is 1327654 hectares; and the last position of oilseeds is in the area of agriculture is 1288716 hectares among the major crops in the State and other details of the district-wise contribution of area in agriculture of major crops are illustrated in Table-5.

Production of Major Crops in Karnataka: District Analysis

Davanagere has the highest production of cereals among the majors crops in agriculture sector is 1126753 tonnes (10.10%). Belagavi has the second highest production of cereals in agriculture sector is 972447 tonnes (8.71%). Ballari has the third largest production of cereals in agriculture sector is 703457 tonne (6.30%). Hassan has the fourth highest production of cereals in agriculture sector is 634691 tonnes (5.69%). The pulses production of agriculture sector is in the highest of Kalburgi district is 397270 tonnes;

Vijayapura has the second highest production of pulses is 213760 tonnes; Bidar has the third highest of pulses production among major crops (72764 tonnes); Gadag has the fourth highest production of pulses in agriculture is 65897 tonnes; Belagavi has the fifth largest of production pulses is 63069 tonnes; and other details of the district-wise major crops in Karnataka in 2019-20 are given in Table-5.

Table- 5 District-wise Production of Major Crops in Karnataka (As on 2018)

(In Tonnes)

District	Cereals	Pulses	Total Foodgrains	Total Oilseeds	Total Commercial Crops
Bangalore	69153	3599	72752	162	182
Bangalore (R)	125232	6563	131795	479	0
Ramanagara	159008	16865	175873	6414	67322
Chitradurga	388849	33106	421955	78257	44803
Davanagere	1126753	14379	1141132	21327	1144116
Kolar	69089	17926	87015	5994	0
Chikkaballapura	165723	6239	171962	7341	5538
Shivamogga	613331	667	613998	2146	395197
Tumkuru	431562	19001	450563	42331	179033
Chikkamagaluru	235695	17392	253087	8612	135329
Dakshina Kannada	132588	1068	133656	193	912
Udupi	138265	2044	140309	3642	3830
Hassan	634691	20005	654696	4822	181929
Kodagu	104224	4	104228	45	156
Mandya	367794	17526	385320	2600	2543549
Mysuru	582518	42219	624737	6602	514387
Chamarajanagara	226134	13546	239680	11625	316695
Belagavi	972447	63069	1035516	116637	16413477
Vijayapura	453546	213760	667306	50398	3948107
Bagalkot	410788	46138	456926	50409	10247798
Dharawad	199594	48995	248589	61142	813636

Gadag	227348	65897	293245	52621	507561
Haveri	577674	5534	583208	28551	1307478
Uttara Kannada	177080	691	177771	3868	487080
Ballari	703457	37590	741047	59163	607346
Bidar	55588	72764	128352	77314	1892933
Kalaburgi	331500	397270	728770	44670	3261684
Yadgiri	291376	44131	335507	33911	438533
Raichur	622361	84561	706922	40207	354232
Koppal	565846	47597	613443	77926	263696
Total	11159214	1360146	12519360	899409	46076539

Source: Directorate of Economics and Statistics, Annual Report of 2018-19.

Table-5 depict the district-wise production of major crops in Karnataka in 2019-20, in terms of tonnes. The commercial crops have highest (46076539 tonnes) in the production of major crops in 2015-16. The next successive positions are foodgrains of production among the major crops (11159214 tonnes); cereals have the third highest of production in the major crops (11159214 tonnes); pulses have the fourth highest (1360146 tonnes) production of majors crops in agriculture sector; and last position is the oilseeds (899409 tonnes) of production in the major crops.

VII Conclusion

It can be concluded that the enhancing productivity through best agricultural practices. Ensuring usage of quality inputs and services for intensive agriculture production and enhancing cluster competitiveness. In Karnataka, agriculture is the predominant source of livelihood for the majority of the population and employment is largely unorganized, rural and non-industrial in nature. The GSVA growth rate of agriculture sector is -4.8 per cent in 2018-19 compared to 14.2 per cent in 2017-18 on account of fall in production of food grains from 144 lakh ton in 2017-18 to 100 lakh tonne (expected) during 2018-19 owing to prevailed drought conditions in 100 taluks in kharif and 156 taluks in rabi season. A marginal decrease is evident in the composition of GSDP of agriculture & allied activities and industry sector from 11.67 per cent and 22.45 per cent in 2017-18 to 10.11 per cent and 22.01 per cent in 2018-19 respectively. Meanwhile, a marginal increase in the composition of the service sector from 65.88 per cent to 67.87 per cent is apparent.

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