

AGRICULTURAL DEVELOPMENT: A CASE STUDY OF JAMMU DISTRICT.

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ABSTRACT- Agriculture is the main occupation and means of living in India. In Jammu district majority of the population is dependent on agriculture and allied activities. The purpose of the study is to highlight the development in the field of agriculture especially in Jammu District. This study is done as Jammu District is backward division of India and it requires much improvement in agriculture. Many studies have been conducted in this field but more work with respect to future implications needs to be conducted. The study is based on secondary data and is descriptive in nature. Data is collected through various sources and is analyzed, and necessary conclusions are drawn from it. The findings of the study reveal that agriculture is still in its developing stage only. With rise in population the productivity of agriculture is not rising. The productivity of crops shows negative growth. The main reasons attributed are illiteracy, backward technology, lack of awareness, law, and order situation etc. to poor agricultural development. Hence awareness is must to ensure sustainability for growth and development of agriculture sector. This study will open doors for many future researchers who can suggest policies and highlight more areas which require development.

KEYWORDS- Agriculture, productivity, development, growth, farmers.

INTRODUCTION- Agriculture is a crucial element of occupation of society. The rising population as well as the exploitation of environment resources because of deforestation resulting in climate change poses threat to future sustainability. The economy of UT of Jammu and Kashmir is agrarian in nature and about 70 percent of the total population depends on agriculture and its allied activities. But the holdings of land are very small in size. As far as Kashmir and Ladakh are concerned the agricultural activities remain suspended during the winters because of extreme weather conditions in the region. Also, law and order situation in the UT is a challenge in the path of development of agriculture. Hartals, bandhs, curfew, chakka jam, protests put normal life out of gear and as a result loss to the agricultural economy.

Jammu and Kashmir is a mountainous region with different geography. All the three regions Jammu, Kashmir and Ladakh have completely different culture and practices. Despite all these differences, agriculture being the common source of income for all the three regions,

about 70 percent of the total population is completely dependent on agriculture and its allied activities which provides around 27 percent contribution to the Jammu and economy. Contribution of agriculture to the country's economy is 13.7 percent.

Jammu and Kashmir is basically divided into three divisions, Jammu division, Kashmir division and Ladakh division. Because the three of them are geographically different their climatic conditions are also different. Both Jammu and Kashmir are famous for Paddy crop and wheat, maize, vegetables, oilseeds pulses, and in Jammu division the famous and the most consumed crop is wheat, and after that comes maize, paddy, oilseed pulses, etc. as far as cereal crop is concerned barley is very famous and Ladakh is famous for wheat. Kashmir is famous for producing Saffron which is not only famous in India but world over. While Jammu region is famous to produce Basmati Rice the main contributor from this region is R.S Pura area and Baderwah region is famous to produce Rajmash.

MAP OF JAMMU DISTRICT-



REVIEW OF LITERATURE-

Dixit et al. (2014) in their study reveal that the production in agriculture is very slow to meet the requirements of the population which is also growing very fast in the UT. The major reasons attributed are old techniques, lack of awareness amongst farmers, small land holdings etc.

Pandit and Sharma (2019) in their study discuss the challenges faced by the agriculture productivity in Jammu District and the crop diversification by the farmers. They further discuss that the District is hilly and the area under cultivation is very less. Also, huge variation is seen in the pattern of rainfall which causes lack of irrigation.

Mehmood and Anand (2020) in their study concluded that agricultural development in the UT as backward when compared with rest of the states of the country. The major reason was very less facilities with respect to marketing, lack of transport and communication and poor infrastructure. Also, mountains present in the region give less scope for agriculture cultivation. They suggest more investment in modern tools and machines to increase cultivation.

Sharma and Raina (2021) in their study discuss about the variations in production and productivity in various agricultural crops in Jammu District. These variations show that some sort of policies to achieve sustainability in agricultural development should be made. The reasons attributed to these fluctuations were heavy dependence on rainfall for crop cultivation, natural calamities, soil erosion, lack of irrigation facilities etc.

Sharma and Raina (2021) reveal that agriculture in District Kishtwar, Jammu and Kashmir is traditional with low productivity. The outcomes are not satisfactory. Lack of irrigational facilities, marginal farmers, old methods used in farming, soil erosion, less information, lack of financial support, lack of education as well as less awareness among the farmers were the major challenges that were faced in the development of agriculture and increase in its productivity. It is very much required to keep an eye on these problems and bring solutions to it so as it increases the production of agriculture.

Kumar and Kumar (2021) in their study mention the role of infrastructure in in the development of agriculture particularly road transport. The poor farmers can buy fertilizers, tractors, machines, and other tools and equipment at low prices. Besides this road connectivity helps in the eradication of poverty.

Singh et al. (2022) in their results found that only 11 percent of the total population was having agriculture as primary activity while rest were engaged in other activities. Majority people had land holdings that were less than 2 hectares.

OBJECTIVES OF THE STUDY-

- I)** To discuss the development in agriculture sector in Jammu District.
- II)** To find out the reasons for slow development of agriculture in Jammu District.
- III)** To suggest measures and policies to increase the productivity in agriculture.

RESEARCH METHODOLOGY-

The study is based on secondary data analysis and is descriptive in nature. Data is collected from various sources like Statistical Digest of J&K, Directorate of Agriculture J&K, Economic Survey of J&K, 2017, Government reports, books, magazines, journals, articles, websites etc. and are used to analyze the productivity of agriculture in Jammu District.

FINDINGS OF THE STUDY-

In Table 1, the data shows the land holdings of the farmers is very less, most of them have very small portion of the farmland in which they use old methods of cultivation. The small land holdings are major reason for the under development of agriculture.

TABLE 1-**NO.OF HOLDINGS BY SIZE CLASSES 2010-11**

SNO.	SIZE/CLASS (ha.)	NO. OF HOLDINGS	PERCENTAGE
1.	Below 0.5	330958	51.38
2.	0.5-1.0	145438	22.58
3.	1.0-2.0	109097	16.93
4.	2.0-3.0	35762	5.55
5.	3.0-4.0	12778	1.98
6.	4.0-5.0	5260	0.82
7.	5.0-7.5	3695	0.57
8.	7.5-10.0	807	0.13
9.	10.0-20.0	341	0.05
10.	20.0 & Above	39	0.01
	All size classes	644175	100.00

SOURCE :-AGRICULTURE CENSUS 2010-11

In Table 2, the data shows that the rise in productivity of rice in Jammu district is at a diminishing rate. From 2012 -2017, the rate is falling instead of rising. It fell from 18.08 to 14.53. This is only due to illiteracy of the farmers and not being aware of the new schemes launched by the Government of India for the development of agriculture and its allied activities.

TABLE 2-**Average yield (qts/ha) of principal crops-Jammu District**

SNO.	YEAR	RICE	MAIZE	WHEAT
1.	2009-10	14.00	17.32	10.04
2.	2010-11	15.67	18.77	15.44
3.	2011-12	18.42	17.79	17.01
4.	2012-13	18.08	18.53	15.95
5.	2013-14	17.50	18.19	20.71
6.	2014-15	15.51	12.66	9.80
7.	2015-16	16.18	18.00	19.52
8.	2016-17	14.53	19.60	19.19
9.	2017-18	23.58	19.22	21.60
10.	2018-19	21.58	22.96	23.57

SOURCE :- FINANCIAL COMMISSIONER (REVENUE)

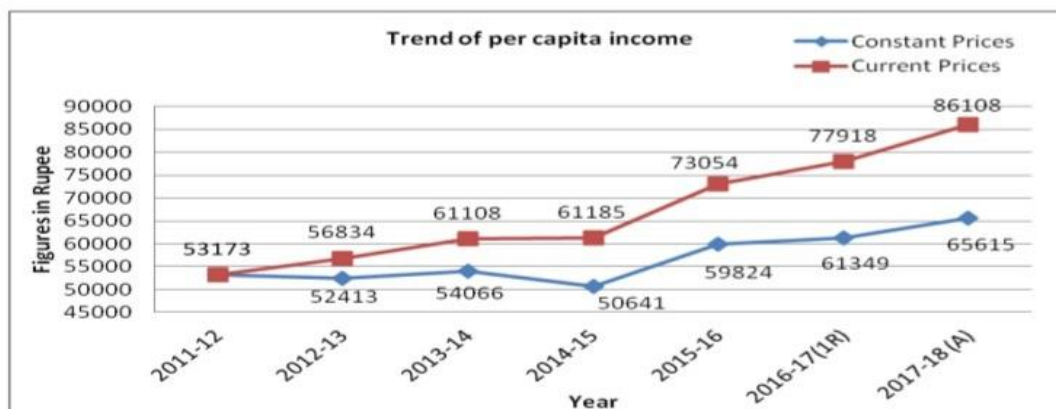
At constant prices 2011-12, the per capita income (2017-18) was 65615 rupees while the same was 61349 rupees for 2016-17. At current prices, per capita income (2017-18) was 86108 rupees whereas in 2016-17, it was 77918 rupees. For 2018-19, the estimation for constant prices were 69221 rupees and for current prices its estimation is 94992 rupees as shown in Table 3 and figure 1 below.

TABLE 3-

Trend of per capita income		(Figures in Rupees)	
Year	Constant Prices	Current Prices	
2011-12	53173	53173	
2012-13	52413	56834	
2013-14	54066	61108	
2014-15	50641	61185	
2015-16	59824	73054	
2016-17(1R)	61349	77918	
2017-18 (A)	65615	86108	
2018-19(crude)	69221	94992	

Source- Economic Survey 2017

Figure 1-



Source- Economic Survey 2017

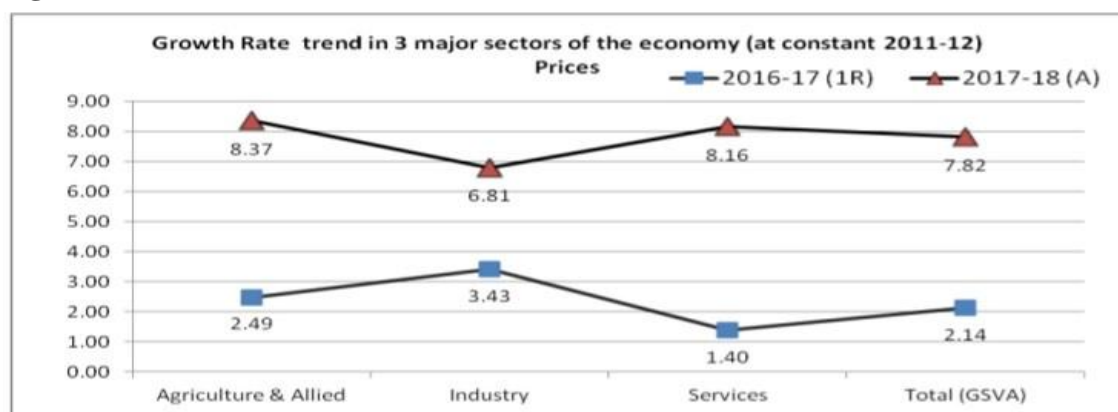
Agriculture and allied activities at constant prices (2011-12) were estimated at 8.37 percent growth rate for the year 2017-18. This was -4.24 percent in 2012-13, stood at 3.99 percent in the year 2013-14, for 2014-15 it was -10.91 percent, for 2015-16 its 24.74 percent and in 2016-17 it was 2.49 percent. The growth rate for 2018-19 is estimated to be 6.81 percent as shown in Table 4 and figure 2 below.

TABLE 4-

S. No	Sector	Base year 2011-12(P)	2012-13 (P)	2013-14 (P)	2014-15 (P)	2015-16 (2R)	2016-17 (1R)	2017-18 (A)	2018-19(rough est.)
1	Agriculture & Allied	13063.47	12509.32	13008.74	11588.97	14455.73	14815.93	16056.00	17148.98
		-	(-4.24)	(3.99)	(-10.91)	(24.74)	(2.49)	(8.37)	6.81
2	Industry	20996.73	21559.38	22597.26	20018.59	25254.24	26120.35	27899.41	29571.01
		-	(2.68)	(4.81)	(-11.41)	(26.15)	(3.43)	(6.81)	(5.99)
3	Services	40700.53	42947.17	45129.49	46179.59	51155.04	51869.34	56103.56	59279.15
		-	(5.52)	(5.08)	(2.33)	(10.77)	(1.40)	(8.16)	(5.66)
	Total (GSVA)	74760.73	77015.87	80735.50	77787.15	90865.00	92805.63	100058.97	105999.14
		-	(3.02)	(4.83)	(-3.65)	(16.81)	(2.14)	(7.82)	(5.94)

Source- Economic Survey 2017

Figure 2-



Source- Economic Survey 2017

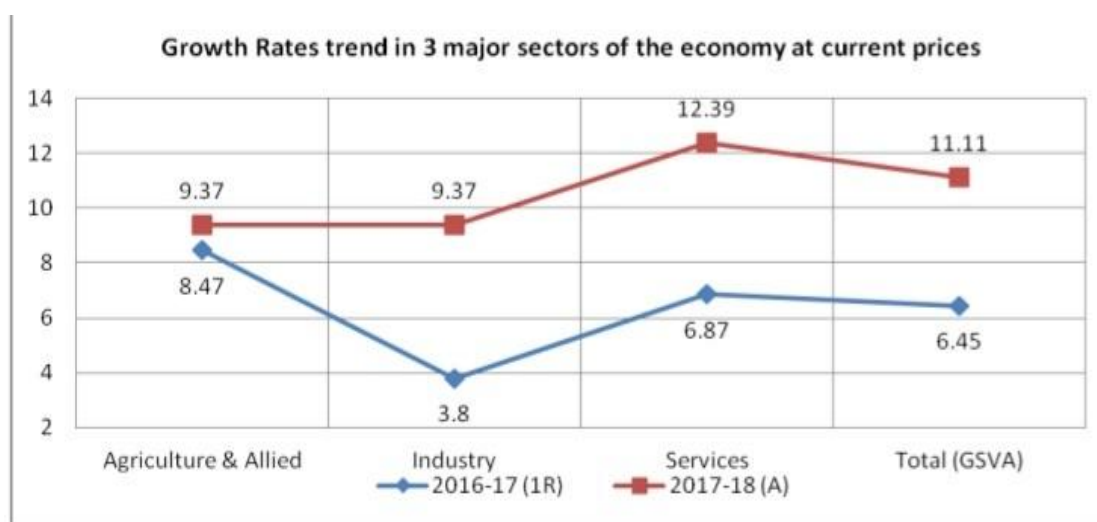
Now discussing about the growth of agriculture and allied activities at current prices (2011-12) its estimated growth for 2017-18 is 9.37 percent while in 2012-13 it was 20.08 percent and in 2013-14 it was about 8.75 percent, for 2014-15 it was around -11.62 percent, 39.45 percent for 2015-16 and 8.47 percent for 2016-17. The growth rate predicted for 2018-19 was 10.63 percent as shown in the table and figure below.

Table 5-

S. No	Sector	Base year 2011-12(P)	2012-13 (P)	2013-14 (P)	2014-15 (P)	2015-16 (2R)	2016-17 (1R)	2017-18 (A)	2018-19(rough est.)
1	Agriculture & Allied	13063.47	15686.04	17057.91	15075.39	21022.42	22802.34	24938.87	27588.74
		-	(20.08)	(8.75)	(-11.62)	(39.45)	(8.47)	(9.37)	(10.63)
2	Industry	20996.73	21491.67	22264.74	23518.84	25800.47	26781.25	29289.80	31748.90
		-	(2.36)	(3.60)	(5.63)	(9.70)	(3.80)	(9.37)	(8.40)
3	Services	40700.53	45918.88	51299.20	54485.72	63120.96	67454.65	75811.43	85207.21
		-	(12.82)	(11.72)	(6.21)	(15.85)	(6.87)	(12.39)	(12.39)
	Total (GSVA)	74760.73	83096.59	90621.85	93079.95	109943.85	117038.24	130040.10	144544.85
		-	(11.15)	(9.06)	(2.71)	(18.12)	(6.45)	(11.11)	(11.15)

Source- Economic Survey 2017

Figure 3-



Source- Economic Survey 2017

CHALLENGES FACED BY AGRICULTURE SECTOR IN JAMMU DISTRICT-

- I) Mountainous region-** Agriculture productivity remains very low in these regions because of the mountains and hills present. Except a few places where agriculture activities are carried out easily. Hence, because of this development in agriculture faces difficulty.
- II) Extreme weather conditions-** Because of extreme weather conditions like extreme hot weather and excessive rainfall or snowfall shut down the road connectivity with rest of the parts of the country affecting trade and productivity resulting in lack of development of the agriculture sector.
- III) Lack of commercialization –** There is lack of commercialization of agriculture produce in rural areas of the district. A lot of agricultural produce gets damaged as it gets delayed in reaching its destination.
- IV) Lack of irrigation facilities-** Poor irrigation facilities is another obstacle in low productivity as because of irregular electricity and water supply during extreme summers and winters the process of nourishment to the soil gets hampered.
- V) Lack of transportation-** Still there are far flung areas of the district where supervision of transport is not available. The farmers must cover a lot of distance to avail this facility. This takes a lot of time and energy which can be used for further development activities with regards to agriculture.
- VI) Poor Governance-** The law-and-order situation in these regions remain unpeaceful most of the times. And political instability, corruption, lack of infrastructure etc. affect the growth of agriculture.
- VII) Lack of awareness-** Farmers are basically unaware about the new technologies used in agriculture sector, scientific methods of farming etc. which results in low productivity.
- VIII) Ignorance –** This is a major drawback in the process of development of agriculture as the farmers don't want to learn new things and whenever an awareness programme is launched they don't show the turn out.

CONCLUSION-Jammu and Kashmir is an integral part of India. Jammu being an agrarian division with most of its population engaged in agricultural and allied activities. Despite of all this its seen that the productivity of agriculture is far less than the agriculture productivity of other states of the country. The reasons are some of the obstacles in development of agriculture like lack of irrigation, transportation, electricity supply

facilities, hilly areas, old methods of farming etc. All this needs to be changed by introducing new policies by the Government and overcoming these obstacles.

POLICY IMPLICATIONS AND SUGGESTIONS- Following are some suggestions to improve the productivity in agriculture sector in Jammu District of Jammu and Kashmir.

- I) To improve the infrastructure of agriculture, provision of High Yield Variety (HYV) of seeds to the farmers, modern tools, proper irrigation facilities, construction of dams etc. should be done, so the farmers don't use old methods of farming.
- II) The provision of these modern tools and techniques will raise the output of the products.
- III) Awareness should be spread amongst the farmers regarding the improvement of the soil fertility.
- IV) Since it is a hilly area, soil erosion is a very common feature. Hence, efforts should be made to restore the fertility of the soil.
- V) The policies made by the Government should be pro-farmers by providing them with all the recent knowledge.
- VI) Better road connectivity and transport facilities.
- VII) Un interrupted supply of electricity.

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