CHAPTER - 4

RECENT TRENDS AND PATTERNS OF AGRICULTURE DEVELOPMENT: TELANGANA AND HARYANA

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4.1 Introduction

This section deals with the recent trends and patterns of Agriculture development in both states Telangana and Haryana. This study has taken thirteen major crops and analyzed the recent trends in both of the states. Concerned tables and figures portray the story of development of agriculture in duo states. However, rainfall, fertilizer and irrigation are also included as indicators.

4.2 Recent Trends and Patterns of Agricultural Development in Telangana and Haryana

Agriculture is the backbone of a nation's economy. It plays a pivotal role to provide food grains for citizens of that nation. Not only the food grains but also the raw materials of industries are provided by the agriculture. The enhancement of agriculture is benefitted for both primary as well as secondary sector i.e. industries. Fertilizers plays crucial role to increase the production in agriculture. Climate change in rainfall is one of the essential parts of agricultural productivity. And another reason of productivity in both states is irrigation. Both states have major irrigation sources such as tub wells, tanks and canals. Telangana is the recent formed state in India which is showing the great interest in development of agriculture sector. It is paying attention for the upliftment of agriculture and it has also shown the interest of improving the fertility of agricultural soil. For this purposes various majors input has been utilized and fertilizer consumption is one of them. It has shown the trends of absolute growth of fertilizer consumption in Telengana. In fertilizers some crucial parts are taken in this study such as Nitrogen (N), Phosphate (P) and Potash (K).

Agriculture plays a key role to provide food grains for people of the country. The enhancement of agriculture is benefitted for both primary as well as secondary sector i.e. industries. Fertilizers plays crucial role to increase the production in agriculture. Other reason is the climate change in rainfall which is the essential part of agricultural productivity. Normal rainfall in Haryana has 570 mm. And another one is irrigation

sources, major irrigation source is tub wells, and canals. Haryana has one of the well-developed state in India. Although, Haryana which is showing the great interest in development of agriculture sector. For this purposes various majors input has been utilized and fertilizer consumption is one of them. It has shown the trend of absolute growth of fertilizer consumption, rainfall, major crops and irrigation in Haryana. In the fertilizer some crucial are taken in this study which are Nitrogen (N), Phosphate (P) and Potash (K).

Table No 4.1: Growth Rate of Fertilizer Consumption in Telangana

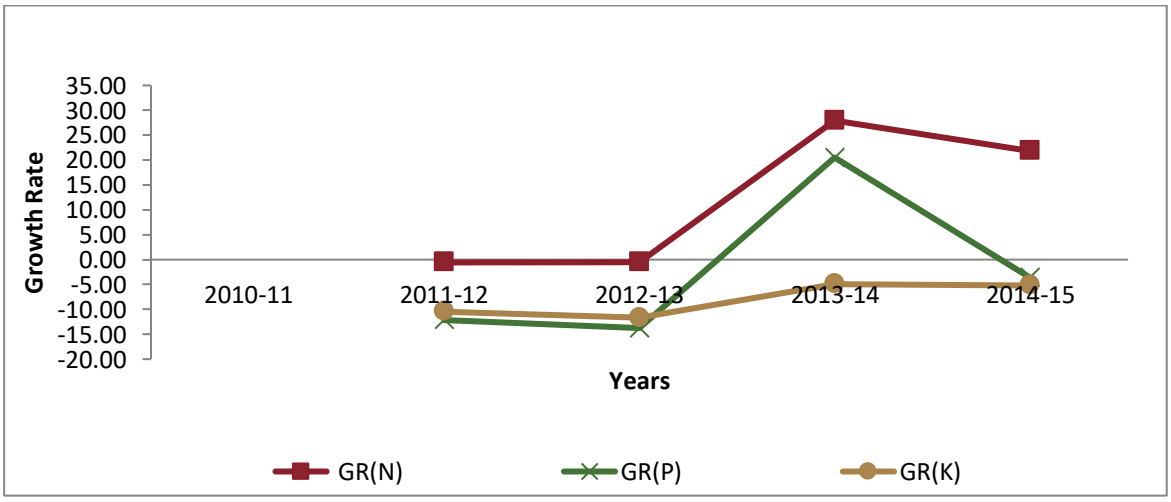
Sl. No.	Years	Quantity(N)	GR(N)	Quantity(P)	GR(P)	Quantity(K)	GR(K)
1	2010-11	1327673		688540		137162	
2	2011-12	1320735	-0.52	605270	-12.09	122839	-10.44
3	2012-13	1313797	-0.53	522000	-13.76	108516	-11.66
4	2013-14	1680716	27.93	629036	20.50	103156	-4.94
5	2014-15	2047635	21.83	606100.3	-3.65	97796	-5.20

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: N=Nitrogen, P= Phosphate, K= Potash, TGR= Total Growth Rate, GR= Growth Rate

Table no. 4.1 represents the growth rate of uses of various fertilizer. Growth rate of nitrogen has shown better performance as compare to other two while the growth rate of potash has decreased since 2011-12 and it has been seen that the use of potash has stagnant from last few years. Use of nitrogen has increased from -0.52 per cent of 2011-12 to 27.93 per cent of 2013 but in 2014-15 it has again decreased to 21.83 per cent. While in the case of phosphate and potash their use has been decreased.

Figure No. 4.1: Growth Rate of Fertilizer Consumption in Telangana



Above figure no: 4.1 shows the consumption of fertilizers from the year 2011-12 to 2014-15. During the year 2011-12 to 2012-13, Growth Rate remains stagnant and the biggest reason behind this was the lack of rains stagnant. But during the session 2012-13 to 2013-14 it increases just because of the increase in rains.

Table No: 4.2 Growth Rate of Fertilizer Consumption in Haryana

SI No	Years	Quantity(N)	GR(N)	Quantity(P)	GR(P)	Quantity(K)	GR(K)
1	2010-11	974045		335950		47627	
2	2011-12	1020892	4.81	369624	10.02	37531	-21.20
3	2012-13	1023999	0.30	311755	-15.66	17307	-53.89
4	2013-14	950563	-7.17	198457	-36.34	15651	-9.57
5	2014-15	975540	2.63	186359	-6.10	13995	-10.58

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: N=Nitrogen, P= Phosphate, K= Potash, TGR= Total Growth Rate, GR= Growth Rate

Table no. 4.2 indicates the growth rate of uses of various fertilizers. Growth rate of nitrogen has shown better performance as compare to other one while the growth rate of phosphate has increased 10.02 since 2011-12 and it has been seen that the use of potash has continually fall in from last few years. Use of nitrogen has increased from 4.81 per cent of 2011-12 to -7.17 per cent of 2013-14 but in 2014-15 it has again increased to 2.63 per cent. While in the case of phosphate and potash their use has been decreased.

Figure No 4.2: Growth Rate of Fertilizer Consumption in Haryana

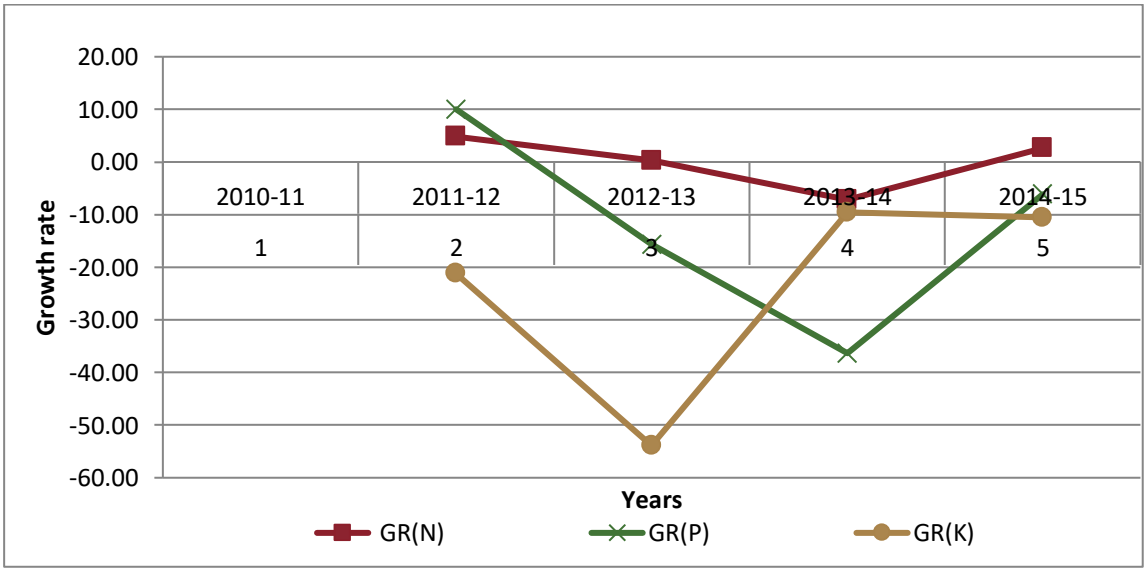


Figure No: 4.2 below figure no: 4.01 shows the consumption of fertilizers from the year 2011-12 to 2014-15. During the year 2011-12 to 2012-13, Growth Rate remains stagnant and the biggest reason behind this was the policy implements in Haryana. But during the session 2012-13 to 2013-14 it increases because of the increase in rains.

Table No 4.3: Growth Rate of Net Area Irrigated in Telangana

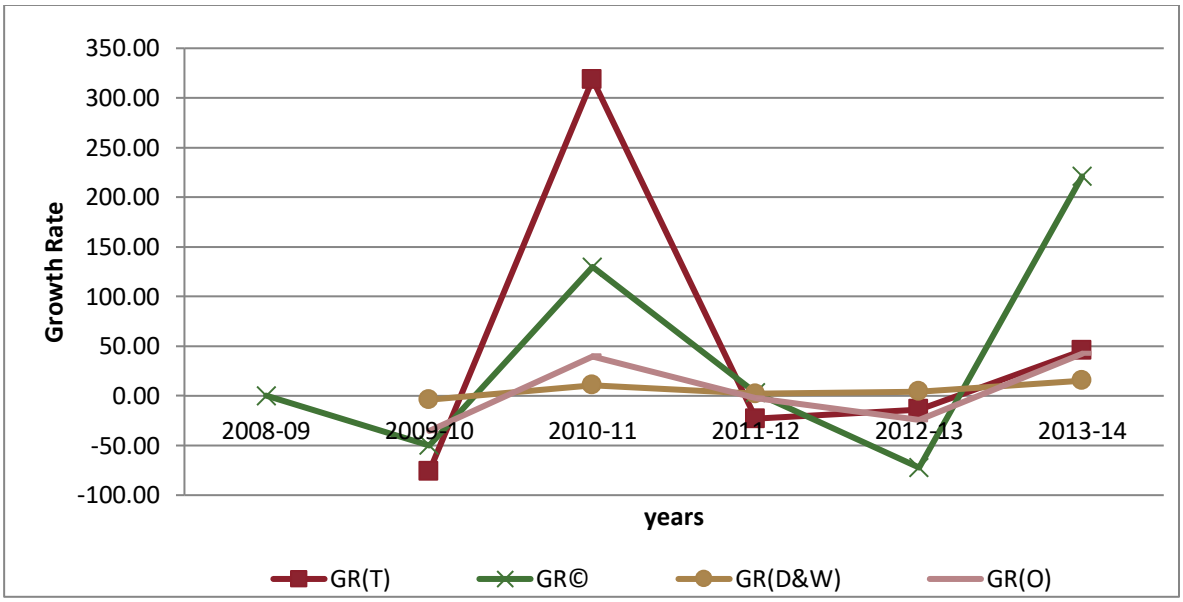
Years	tanks	GR(T)	cannals	GR©	dug & tube wells	GR(D&T)	others	GR(O)
1	2	3	4	5	6	7	8	9
2008-09	238019		273579	.	1310274		60518	
2009-10	56852	-76.11	137452	-49.76	1259387	-3.88	39135	-35.33
2010-11	237968	318.57	315754	129.72	1395606	10.82	54659	39.67
2011-12	182702	-23.22	325317	3.03	1423259	1.98	53340	-2.41
2012-13	157662	-13.71	90296	-72.24	1485848	4.40	40311	-24.43
2013-14	229569	45.61	289823	220.97	1712553	15.26	57395	42.38

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR= Growth Rate, T=Tanks, C=Canals, D&T= Dug wells & Tube wells.

Table No: 4.3 above tables represent the growth rate of tanks, canals, wells and others source of irrigation in Telangana. It have been seen that the all sources of irrigation have fluctuations since 2008-09 from -76.11, -49.76, -3.88 and-35.33 per cent to 45.61, 220.97, 15.26, 42.38 per cent of 2013-14. Although the irrigation has increased with the same rate at which all irrigations have increased. Highest raise was noticed in 2010-11 with the highest irrigation in these years of analysis along with the highest used tanks and canals. Although large variation have been seen in all five years . It can be easily say that other source is not increasing with the same proportion of increase in tanks, canals and wells.

Figure No 4.3 Growth Rate of Net Area Irrigated in Telangana



Above figure no 4.3 shows decrease of irrigation in Telangana because of the falls in rains during the session 2008-09 to 2009-10 and raise of irrigation in 2010-11 also goes with the excess rains.

Table No 4.4: Growth Rate of Net Area Irrigated in Haryana

years	cannals	GR©	dug & tube wells	GR(D&W)	Others	GR(O)
1	2	3	4	5	6	7
2008-09	1274		1601		2	
2009-10	1282	0.63	1785	11.49	2	0
2010-11	1236	-3.59	1650	-7.56	1	-50
2011-12	1193	-3.48	1879	13.88	NA	-
2012-13	1345	12.74	1757	-6.49	NA	-
2013-14	1210	-10.04	1721	-2.05	NA	-

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR= Growth Rate, T=Tanks, C=Canals, D&T= Dug wells & Tube wells

Table No: 4.4 above tables represent the growth rate of canals, wells and others of irrigation in Haryana. It has been seen that the canals & wells for the sources of irrigation has fluctuations since 2008-09 from 0.63 and 11.41 per cent to -10.04 and -2.05 per cent of 2013-14. Although the irrigation has increased with the same rate at which all irrigation has increased. Highest raise was noticed in 2010-11 with the highest irrigation in these years of analysis along with the highest used canals & wells. Although large variation have been seen in all five years. It can be easily say that growth rate is not increasing with the same proportion of increase in other source of irrigation.

Figure No 4.4: Growth Rate of Net Area Irrigated in Haryana

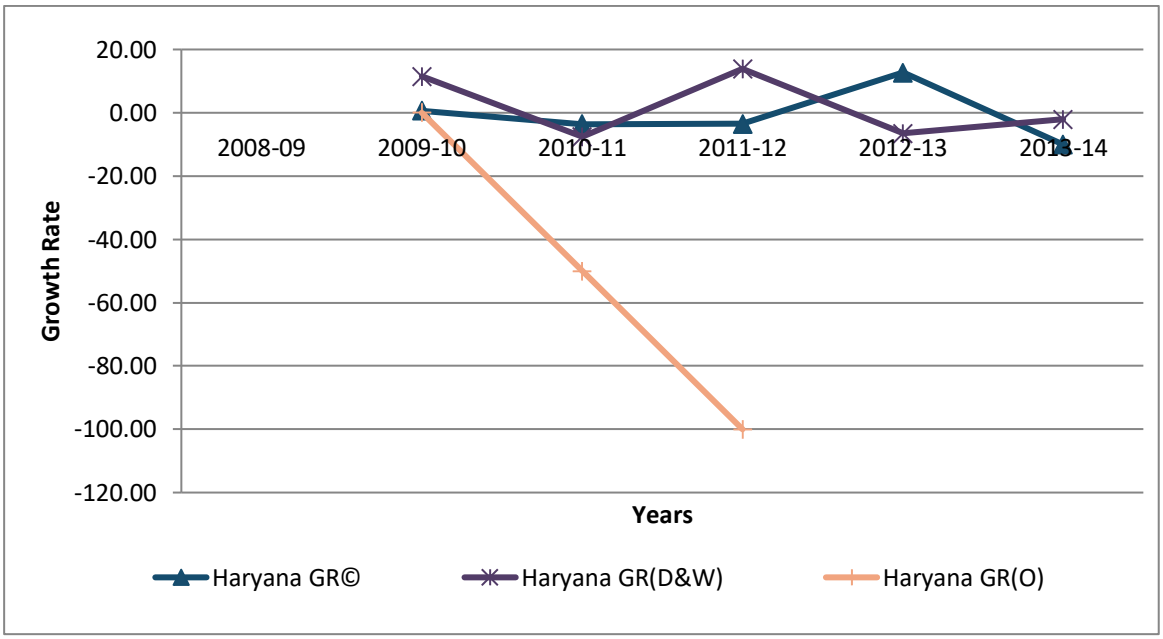


Figure No 4.4 shows increase of irrigation in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of irrigation in 2010-11 also goes with the excess rains.

Table No 4.5: Growth Rate of climate & Rainfalls in Telangana		
years	actual	growth rate
2004-05	614	
2005-06	1117.6	45.06
2006-07	804.2	-38.97
2007-08	940	14.45
2008-09	820.9	-14.51
2009-10	681.7	-20.42
2010-11	1100.8	38.07
2011-12	660.6	-66.64
2012-13	916.8	27.95
2013-14	1212	24.37
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.		

Table no. 4.5 indicates normal rainfall of Telangana State is about 905.3 mm as against India's normal rainfall of 1083 mm. About 80 percent of the total rainfall in the State is being received during 2014. There have been increases of rainfall in previous two years, i.e., 2012-13 and 2013-14. The actual rainfall received during of 2012-13 was 916.7 mm and as 1212.2 against the normal rainfall of 905.8 mm recording of 27.95 and 24.37 percent. There was a raise in rainfall in nine out of ten districts in the State

Figure No 4.5: Growth Rate of Climate in Telangana

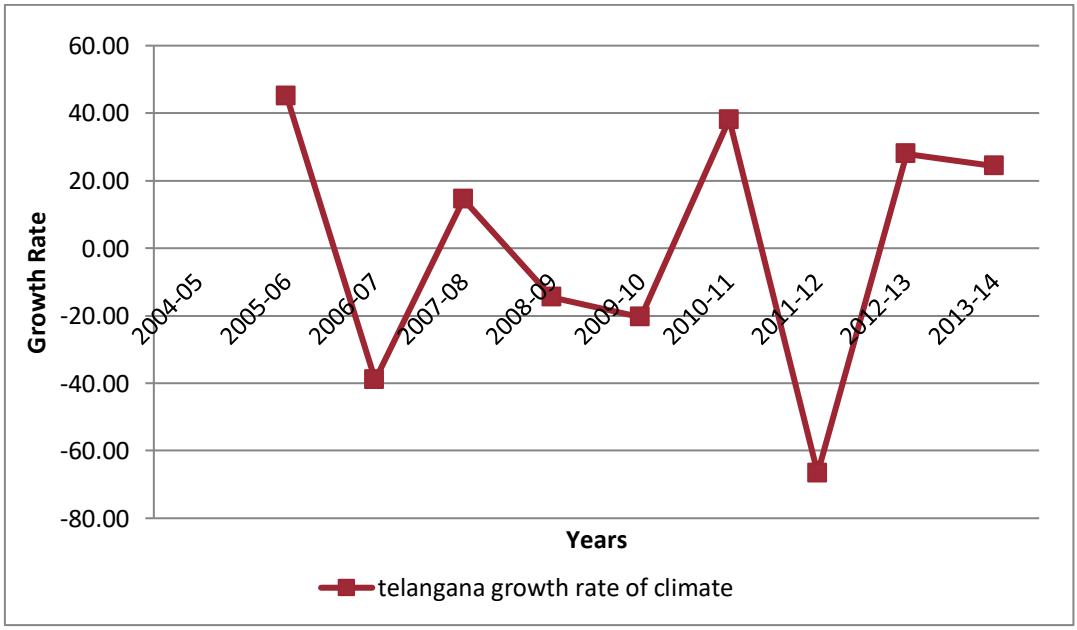


Table No 4.6: Growth Rate of Climate & Rainfalls in Haryana		
years	Actual	growth rate
2004-05	357.5	
2005-06	476.4	24.96
2006-07	290.6	-63.94
2007-08	314.5	7.60
2008-09	536.5	41.38
2009-10	283.9	-88.97
2010-11	564.9	49.74
2011-12	374.4	-50.88
2012-13	277.8	-34.77
2013-14	356.7	22.12
Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.		

Table no. 4.6 represents normal rainfall of Haryana State is about 465.1 mm as against India's normal rainfall of 1083 mm. About 42.93 percent of the total rainfall in the State is being received during 2014. There have been increases of rainfall in previous two years, i.e., 2012-13 and 2013-14. The actual rainfall received during of 2012-13 was 277.8 mm and as 356.7 against the normal rainfall of 465.1 mm recording of -34.4 and 22.12 percent. There was a raise in rainfall in 21 out of 21 districts in the State

Figure No 4.6: Growth Rate of Climate in Haryana

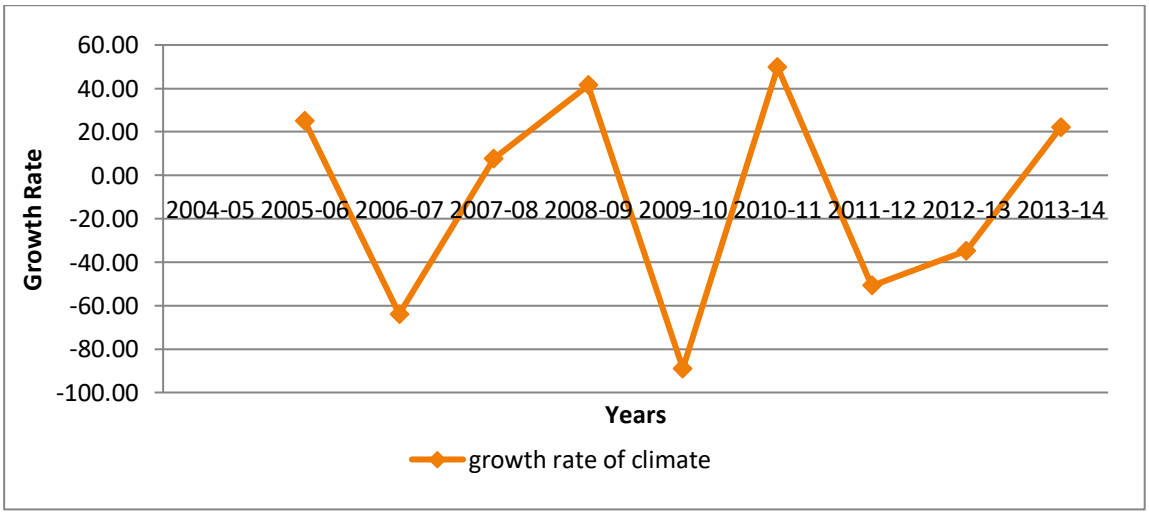
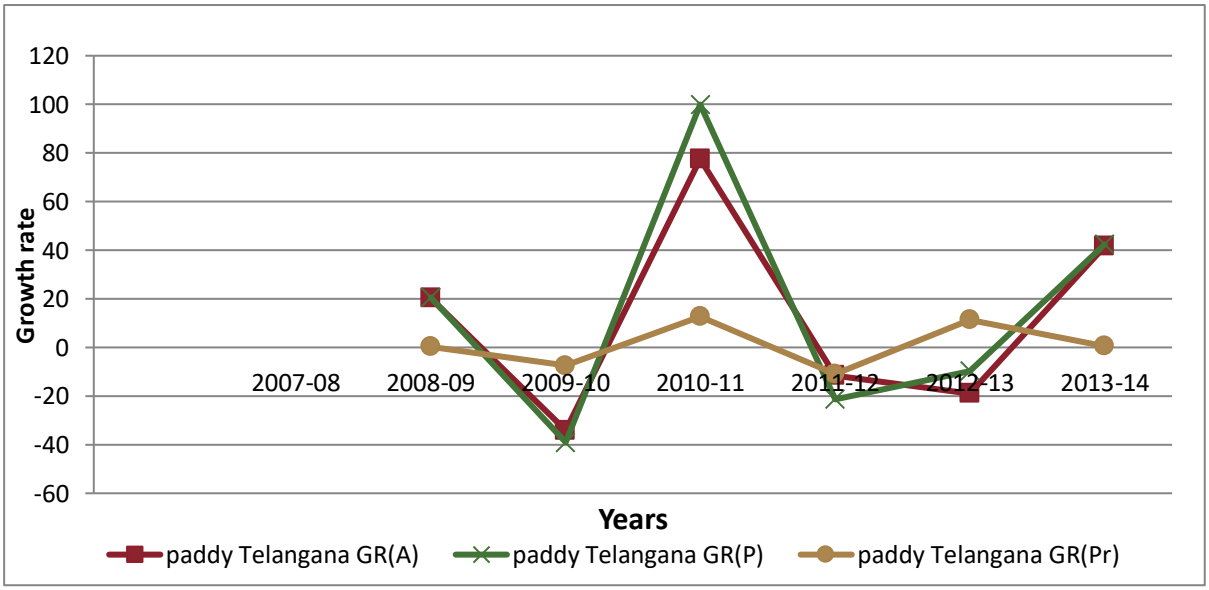


Table No 4.7: Growth Rate of Paddy in Telangana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	1406332		4443376		3.160	
2008-09	1691491	20.28	5360547	20.64	3.169	0.30
2009-10	1115005	-34.08	3269196	-39.01	2.932	-7.48
2010-11	1978932	77.48	6536235	99.93	3.303	12.65
2011-12	1749548	-11.59	5147617	-21.24	2.942	-10.92
2012-13	1418504	-18.92	4647795	-9.71	3.277	11.36
2013-14	2008526	41.59	6622209	42.48	3.297	0.63
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana Hyderabad.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.1 above tables represent the growth rate of area, production and productivity of paddy in Telangana. It has been seen that the area for the production of paddy has increased since 2008-09 from 20.28 per cent to 41.59 per cent of 2013-14. While the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.1: Growth Rate of Paddy in Telangana



Below Figure No: 4.7.1 shows the Growth Rate of Paddy in Telangana. It shows increase in paddy production and increase agriculture area during the session 2009-10 to 2010-11 because of the increase in rains in those years.

Table No 4.7.2: Growth Rate of Paddy in Haryana

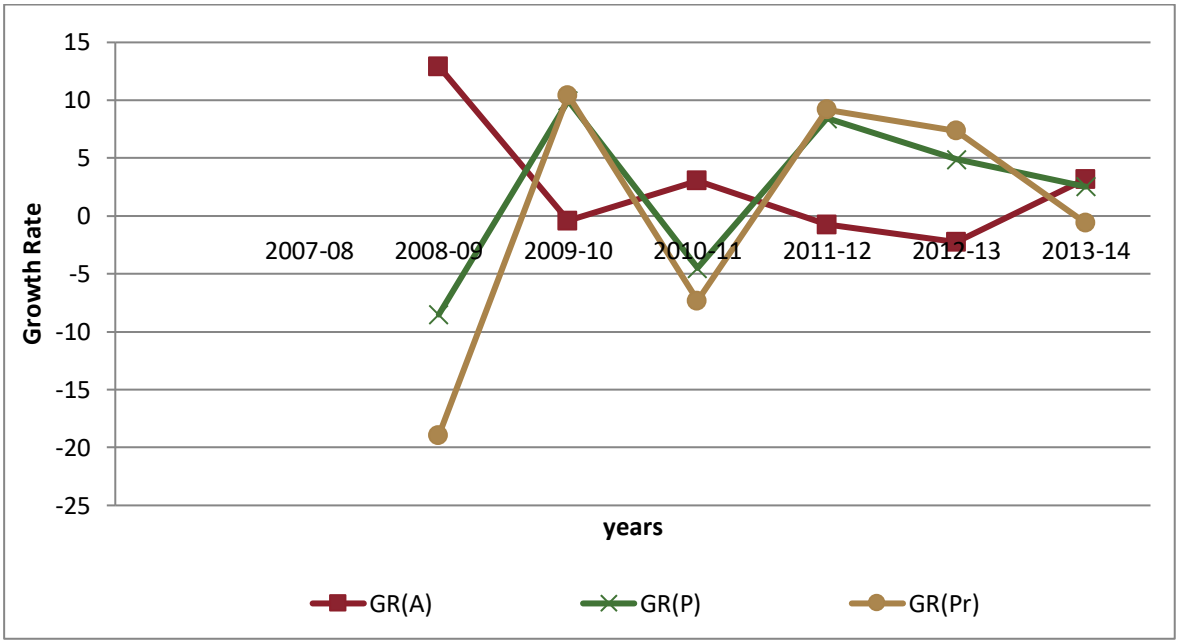
Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (inkges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	1072.5		3606		3.361	
2008-09	1211.2	12.93	3299	-8.51	2.724	-18.95
2009-10	1206.4	-0.40	3628	9.97	3.008	10.43
2010-11	1243.3	3.06	3465	-4.49	2.788	-7.31
2011-12	1234.1	-0.74	3757	8.43	3.044	9.18
2012-13	1206.3	-2.25	3941	4.90	3.268	7.36
2013-14	1244.6	3.17	4041	2.54	3.248	-0.61

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.2 above tables represents the growth rate of area, production and productivity of paddy in Haryana. It has been seen that the area for the production of paddy has decreased since 2008-09 from 12.93 per cent to 3.17 per cent of 2013-14. While the productivity has fluctuated with the same rate at which area has decreased. Highest production was noticed in 2011-12 with the highest productivity in these years of analysis along with the lowest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and are

Figure No 4.7.2: Growth Rate of Paddy in Haryana



Below figure no: 4.7.2 shows increase in Paddy production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and lack of production in 2010-11 also goes with the excess rains.

Table No 4.7.3: Growth Rate of wheat in Telangana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	7564		7534		0.996	
2008-09	12654	67.29	14716	95.33	1.163	16.76
2009-10	9082	-28.23	9892	-32.78	1.089	-6.34
2010-11	9328	2.71	12082	22.14	1.295	18.92
2011-12	7943	-14.85	10549	-12.69	1.328	2.54
2012-13	7932	-0.14	8895	-15.68	1.121	-15.56
2013-14	7039	-11.26	4366	-50.92	0.620	-44.69

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.3 above tables represent the growth rate of area, production and productivity of wheat in Telangana. It has been seen that the area for the production of wheat has decreased since 2008-09 from 67.29 per cent to -11.26 per cent of 2013-14. While the productivity has increased with the same rate at which area has not increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area

Figure No 4.7.3: Growth Rate of Wheat in Telangana

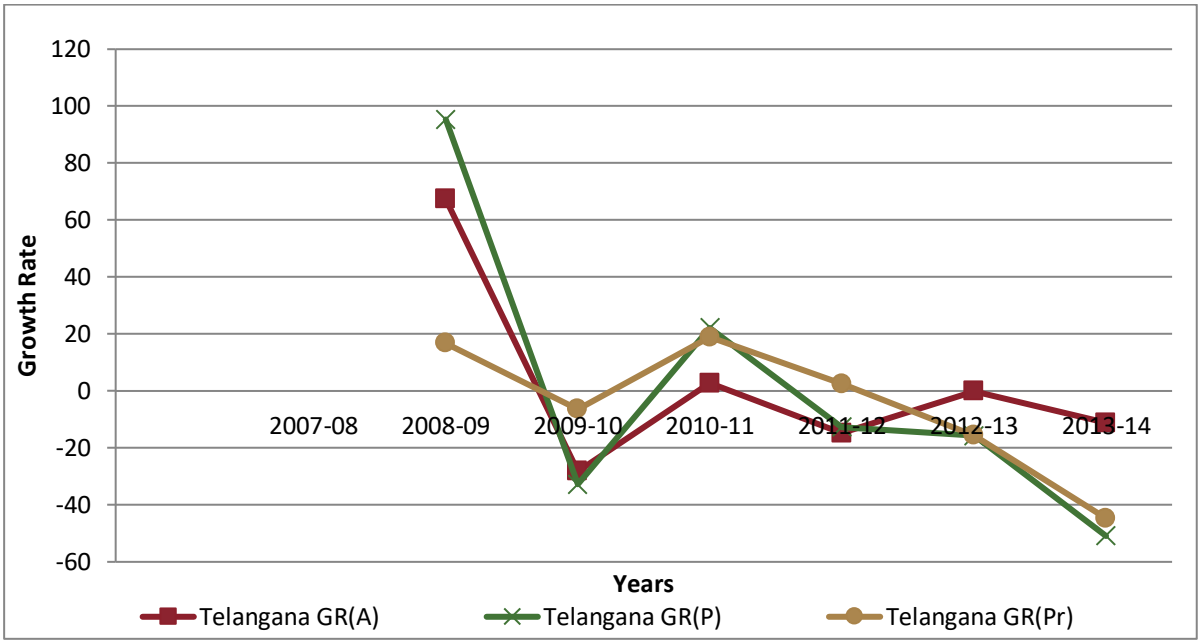


Figure No: 4.7.3 shows increase in wheat production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and lack of production in 2010-11 also goes with the excess rains.

Table No 4.7.4: Growth Rate of Wheat in Haryana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
2007-08	2460.7		10232		4.158	
2008-09	2461.4	0.03	11360	11.02	4.616	11.01
2009-10	2487.7	1.07	10488	-7.68	4.215	-8.69
2010-11	2504.1	0.66	11578	10.39	4.624	9.70
2011-12	2531.3	1.09	13119	13.31	5.183	12.09
2012-13	2496.9	-1.36	11117	-15.26	4.452	-14.10
2013-14	2499.1	0.09	11800	6.14	4.722	6.06
Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.4 above table represent the growth rate of area, production and productivity of Wheat in Haryana. It has been seen that the area for the production of wheat has increased since 2008-09 from 0.03 per cent to 0.09 per cent of 2013-14. While the productivity has increased with the same rate at which area has also increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is as increasing with the same proportion of increase in production and area.

Figure No 4.7.4: Growth Rate of Wheat in Haryana

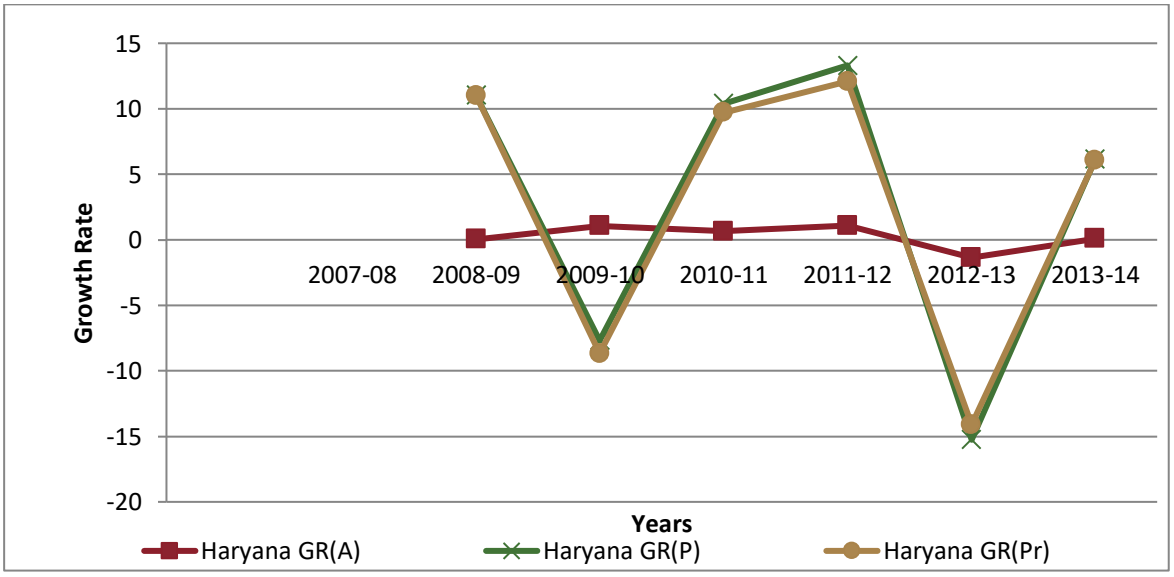


Figure No: 4.7.4 shows decrease in wheat production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.5: Growth Rate of Jowar in Telangana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	230470		269805		1.171	
2008-09	176258	-23.52	195962	-27.37	1.112	-5.03
2009-10	224307	27.26	196715	0.38	0.877	-21.12
2010-11	166120	-25.94	151620	-22.92	0.913	4.07
2011-12	128441	-22.68	144171	-4.91	1.122	22.98
2012-13	122709	-4.46	134254	-6.88	1.094	-2.53
2013-14	108970	-11.20	110612	-17.61	1.015	-7.22

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.5 above table represent the growth rate of area, production and productivity of jowar in Telangana. It has been seen that the area for the production of wheat has increased since 2008-09 from -23.52 per cent to -11.20 per cent of 2013-14. While the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2011-12 with the highest productivity in these years of analysis along with the lowest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.5: Growth Rate of Jowar in Telangana

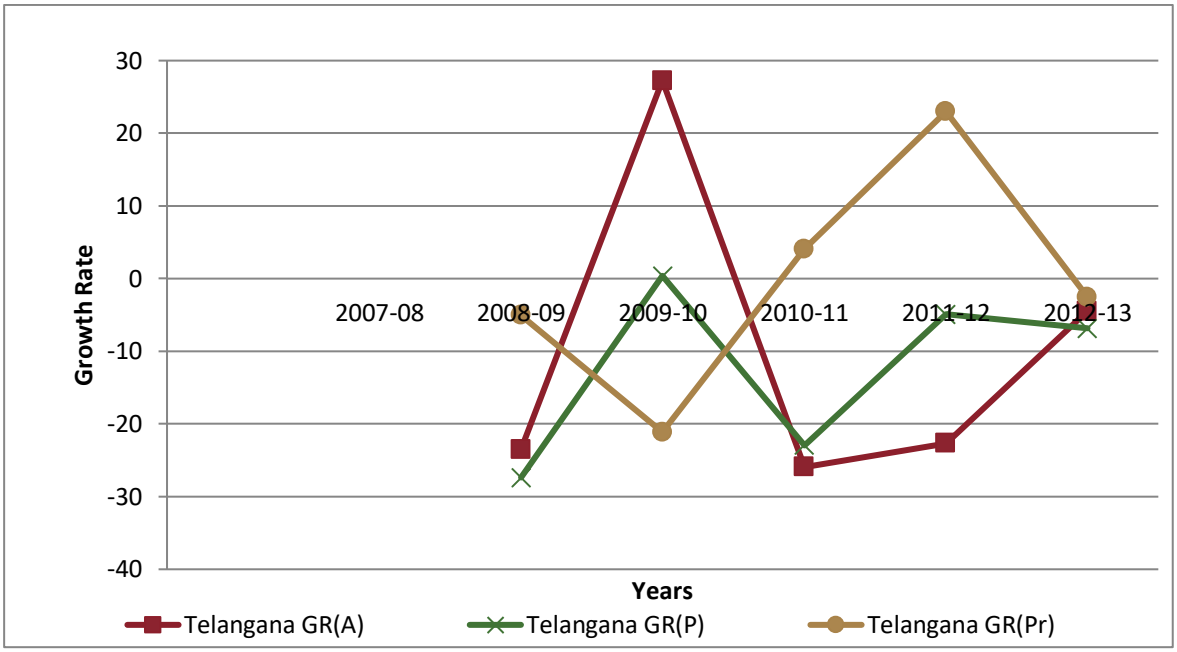


Figure No: 4.7.5 shows increase in jowar production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains

Table No 4.7.6: Growth Rate of Jowar in Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	90.7		42		0.463	
2008-09	86.6	-4.52	44	4.76	0.508	9.72
2009-10	77.7	-10.28	39	-11.36	0.502	-1.21
2010-11	70.8	-8.88	38	-2.56	0.537	6.93
2011-12	64.7	-8.62	33	-13.16	0.510	-4.97
2012-13	55.2	-14.68	27	-18.18	0.489	-4.10
2013-14	62.3	12.86	34	25.93	0.546	11.57

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No:: 4.7.6 Above table represents the growth rate of area, production and productivity of jowar in Haryana. It has been seen that the area for the production of jowar has increased since 2008-09 from -4.52 per cent to 12.86 per cent of 2013-14. Whereas the productivity has little fluctuate with the same rate at which area has increased. Highest production was noticed in 2013-14 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.6: Growth Rate of Jowar in Haryana

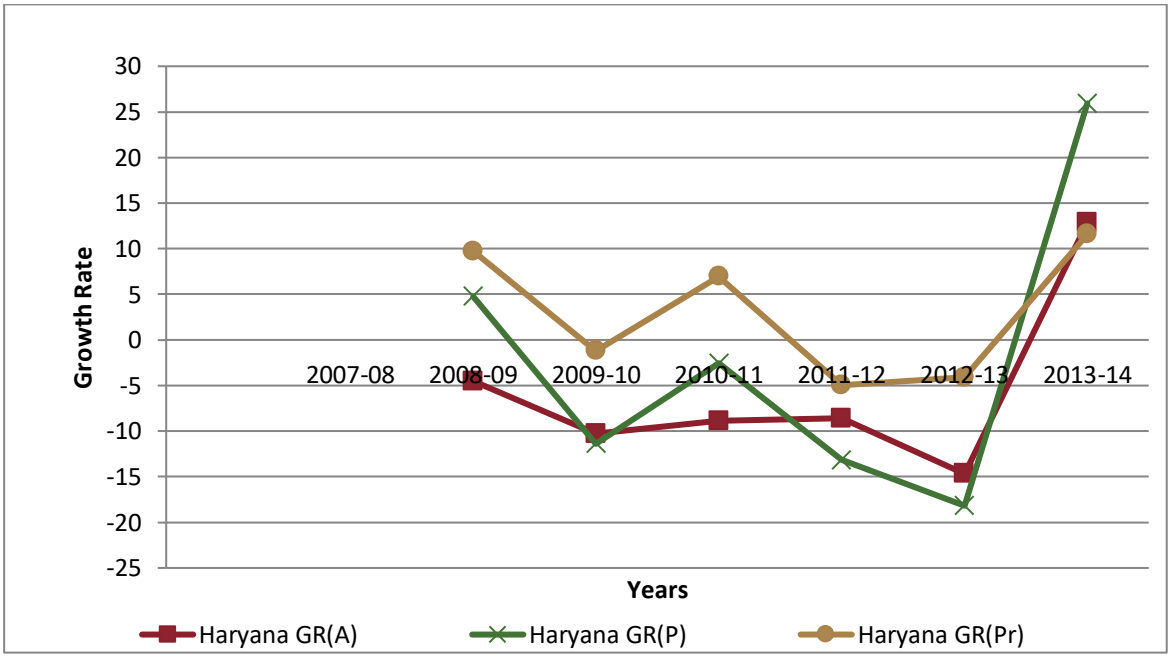


Figure No: 4.1.6 shows increase in jowar production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.7: Growth Rate of Bajra in Telangana						
Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	23807		15240		0.641	
2008-09	21853	-8.21	13853	-9.10	0.633	-1.25
2009-10	16745	-23.37	8106	-41.49	0.484	-23.54
2010-11	19114	14.15	13856	70.94	0.725	49.79
2011-12	11343	-40.66	7100	-48.76	0.626	-13.66
2012-13	9819	-13.44	12110	70.56	1.233	96.96
2013-14	13218	34.62	12452	2.82	0.942	-23.60
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.7 above table represents the growth rate of area, production and productivity of bajra in Telangana. It has been seen that the area for the production of bajra has increased since 2008-09 from -8.21 per cent to 34.62 per cent of 2013-14. Although the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the low used area. While large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.7: Growth Rate of Bajra in Telangana

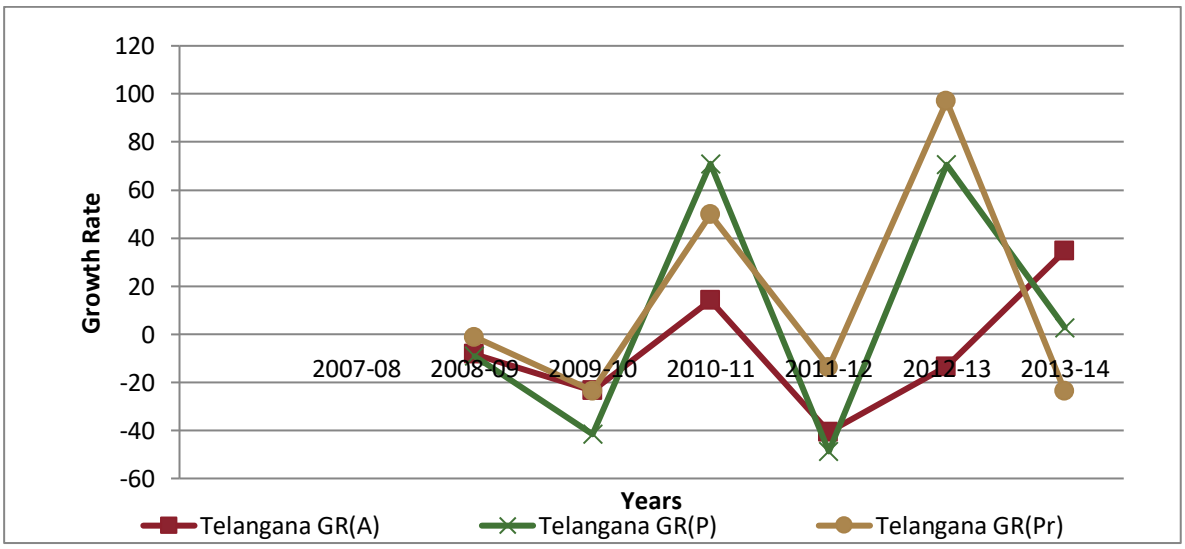


Figure No: 4.7.7 shows decrease in bajra production in Telangana because of the decrease in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.8: Growth Rate of Bajra in Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	628		1156		1.841	
2008-09	612.9	2.40	1087	-5.97	1.773	-3.69
2009-10	583.8	4.74	930	-14.44	1.592	-10.21
2010-11	659.6	12.98	1183	27.20	1.792	12.56
2011-12	576.2	-12.64	1175	-0.68	2.04	13.84
2012-13	410.7	28.72	791	-32.68	1.925	-5.64
2013-14	403.6	1.72	829	4.80	2.057	6.86

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No 4.7.8 above table represents the growth rate of area, production and productivity of bajra in Haryana. It has been seen that the area for the production of bajra has increased since 2008-09 from 2.40 per cent to 1.72 per cent of 2013-14. While the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.8: Growth Rate of Bajra in Haryana

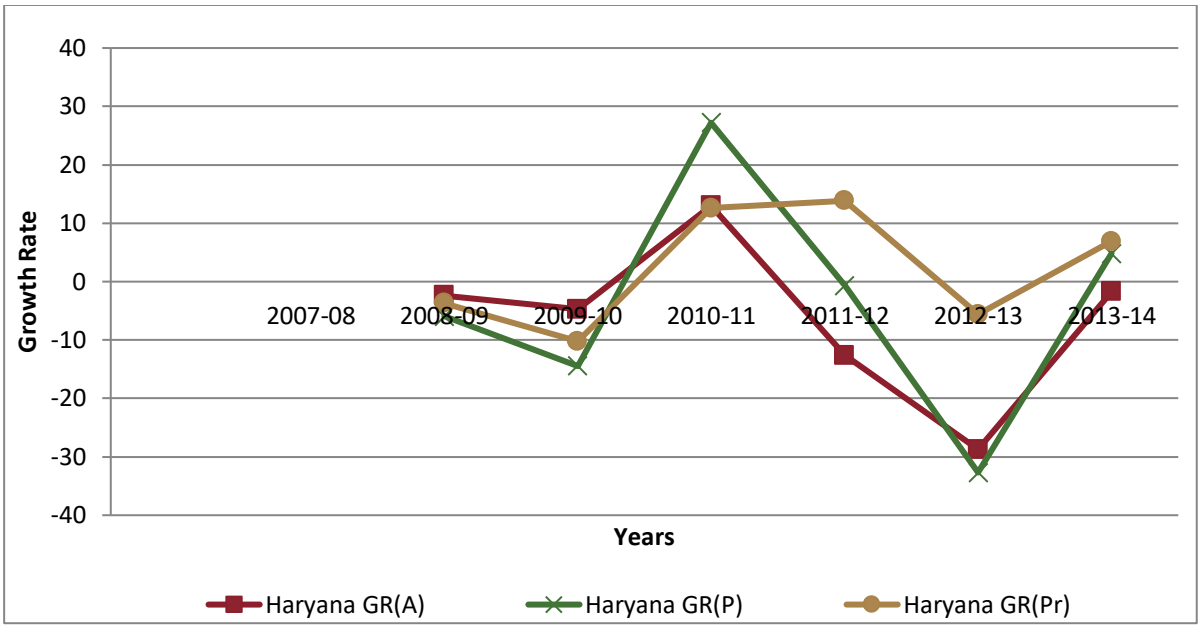


Figure No: 4.7.8 shows decrease in bajra production in Haryana because of the decrease in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.9: Growth Rate of Maize in Telangana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	604530		2872680		4.752	
2008-09	600605	-0.65	2193334	-23.65	3.652	-23.15
2009-10	569280	-5.22	1366030	-37.72	2.400	-34.29
2010-11	510026	-10.41	2068560	51.43	4.056	69.02
2011-12	591349	15.94	1892475	-8.51	3.200	-21.09
2012-13	662938	12.11	2943717	55.55	4.440	38.75
2013-14	752451	13.50	3524907	19.74	4.685	5.50

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad..

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No: 4.7.9 above table represents the growth rate of area, production and productivity of maize in Telangana. It has been seen that the area for the production of maize has increased since 2008-09 from -0.65 per cent to 13.50 per cent of 2013-14. Although the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.9: Growth Rate of Maize in Telangana

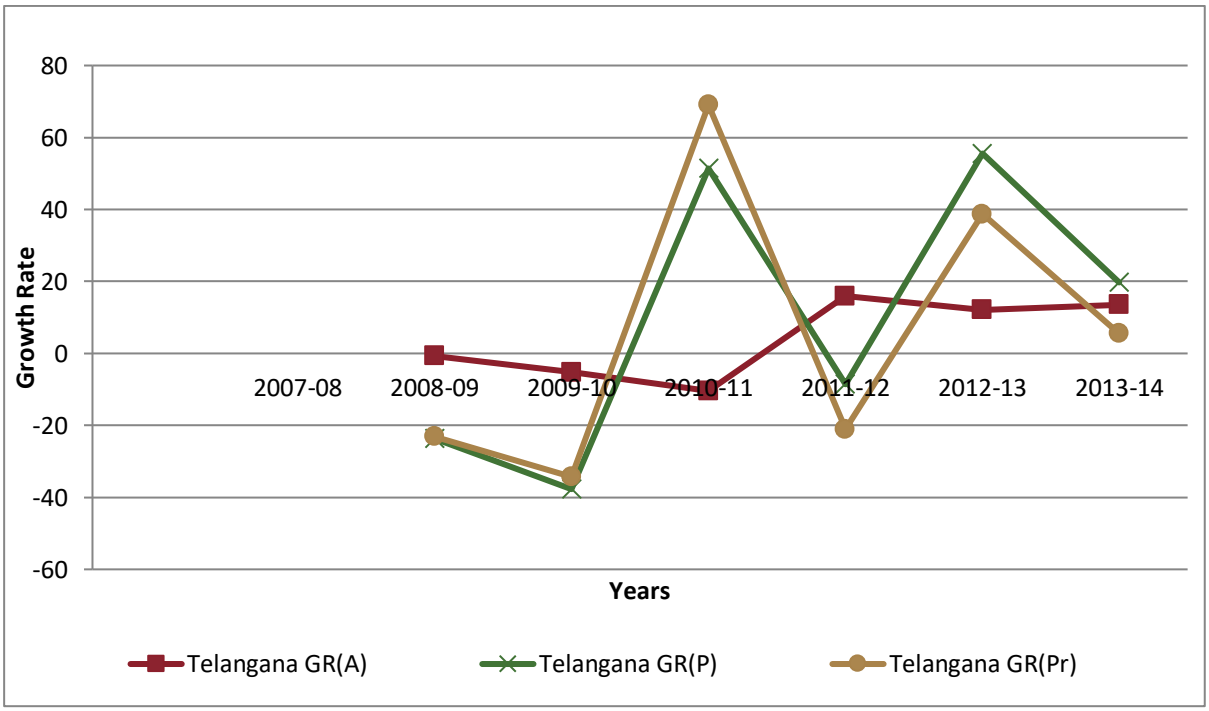


Figure No: 4.7.9 shows increase in maize production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.10: Growth Rate of Maize in Haryana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	13.8		37		2.681	
2008-09	11.8	-14.49	25.2	-31.89	2.136	-20.35
2009-10	12.2	3.39	26	3.17	2.131	-0.21
2010-11	9.6	-21.31	19	-26.92	1.979	-7.13
2011-12	11	14.58	30	57.89	2.727	37.80
2012-13	9.9	-10.00	26	-13.33	2.626	-3.70
2013-14	8.5	-14.14	24	-7.69	2.824	7.51
Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.10 above table represents the growth rate of area, production and productivity of maize in Haryana. It has been seen that the area for the production of maize has increased since 2008-09 from -14.49 per cent to -14.14 per cent of 2013-14. While the productivity has not increased with the same rate at which area has stagnant. Highest production was noticed in 2011-12 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.10: Growth Rate of Maize in Haryana

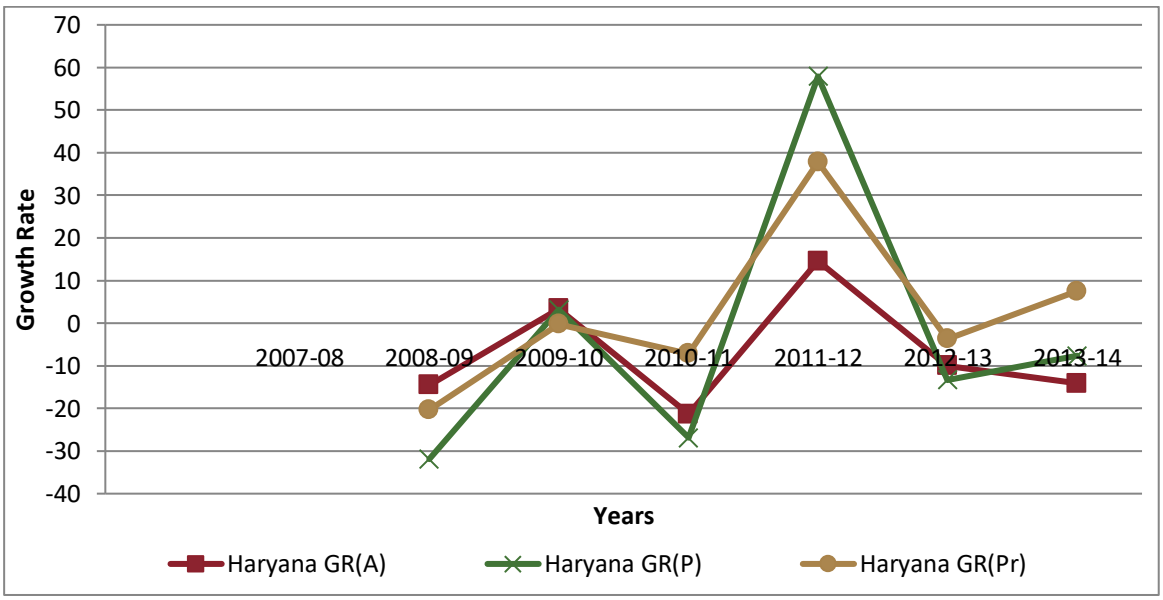


Figure No: 4.1.10 shows increase in maize production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2011-12 also goes with the excess rains.

Table No 4.7.1: Growth Rate of Green gram in Telangana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	8074		3516		0.435	
2008-09	7069	-12.45	2915	-17.09	0.412	-5.31
2009-10	7021	-0.68	2341	-19.69	0.333	-19.14
2010-11	5426	-22.72	2268	-3.12	0.418	25.36
2011-12	3305	-39.09	424	-81.31	0.128	-69.31
2012-13	4123	24.75	2197	418.16	0.533	315.36
2013-14	2944	-28.60	1480	-32.64	0.503	-5.66

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No: 4.7.11 above table represents the growth rate of area, production and productivity of green gram in Telangana. It has been seen that the area for the production of green gram has increased since 2008-09 from -12.45 per cent to -28.60 per cent of 2013-14. Whereas the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.11: Growth Rate of Green gram in Telangana

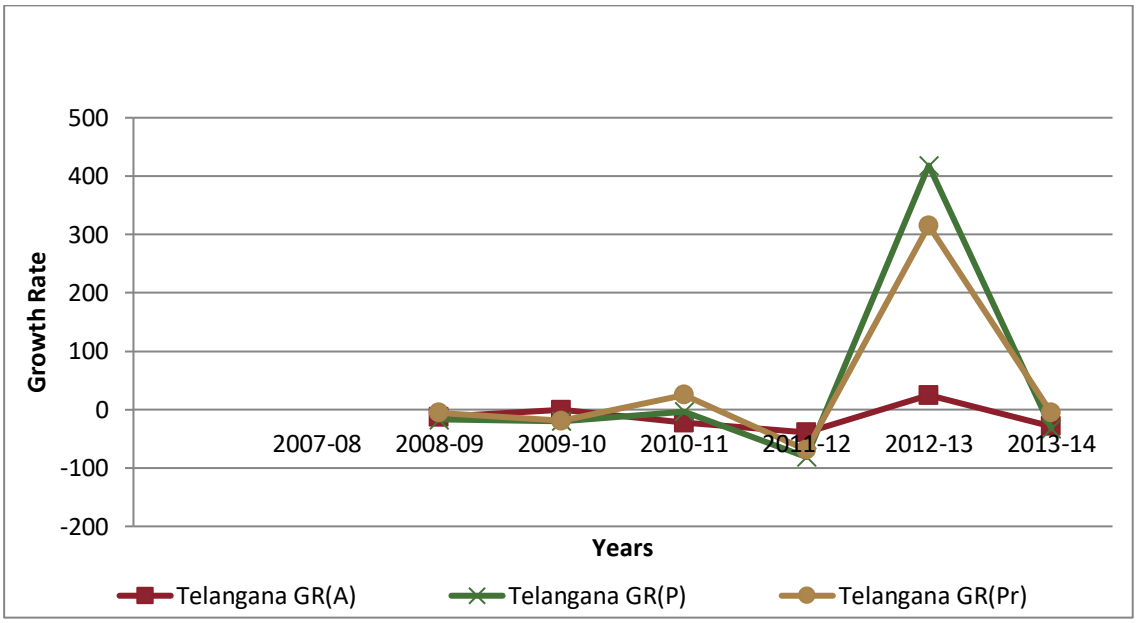


Figure No: 4.7.11 shows stagnant in green gram production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2012-13 also goes with the excess rains.

Table No 4.7.12: Growth Rate of Green gram in Haryana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	21.8		9.6		0.440	
2008-09	14.5	-33.49	6.5	-32.29	0.448	1.80
2009-10	14.9	2.76	6.6	1.54	0.443	-1.19
2010-11	26	74.50	11.9	80.30	0.458	3.33
2011-12	16.8	-35.38	8.1	-31.93	0.482	5.34
2012-13	440	2519.05	8.6	6.17	0.020	-95.95
2013-14	360	-18.18	7.1	-17.44	0.020	0.90

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No: 4.7.12 above table represents the growth rate of area, production and productivity of green gram in Haryana. It has been seen that the area for the production of green gram has increased since 2008-09 from -33.49 per cent to -18.18 per cent of 2013-14. Although the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. While large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.12: Growth Rate of Green Gram in Haryana

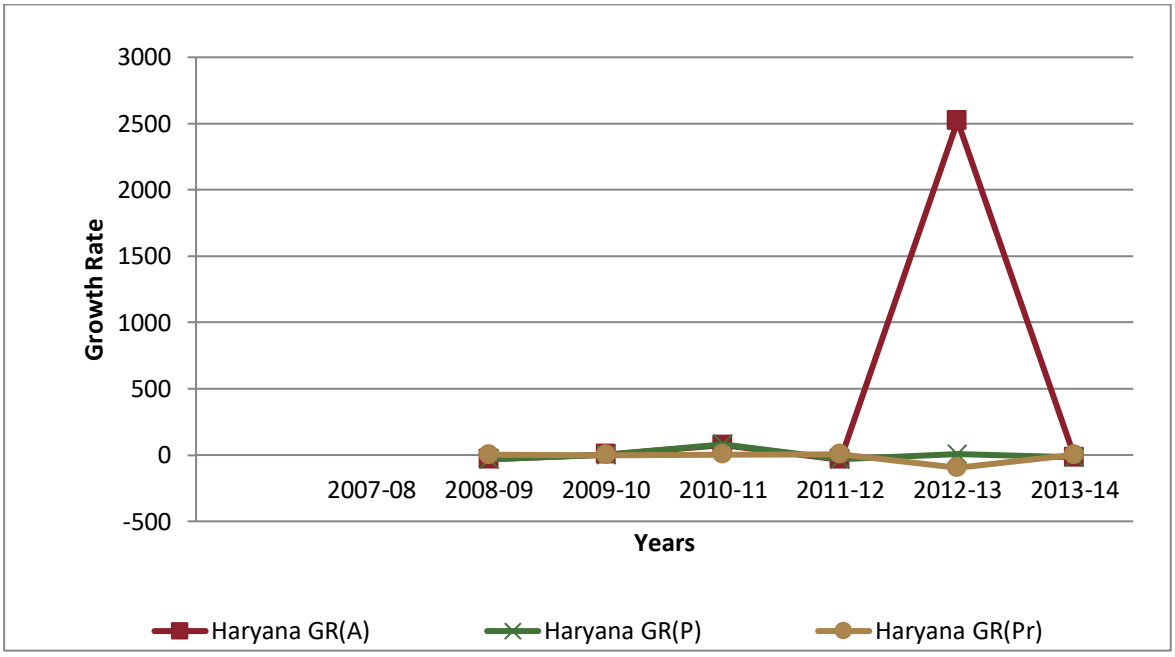


Figure No: 4.1.12 shows stagnant in total pulses production in Haryana because of the increase in rains during the session 2008-09 to 2011-12 and raise of production in 2012-13 also goes with the excess rains.

Table No 4.7.13: Growth Rate of Total Pulses in Telangana						
Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	730602		515600		0.706	
2008-09	663931	-9.13	463190	-10.16	0.698	-1.14
2009-10	711970	7.24	337190	-27.20	0.474	-32.11
2010-11	757124	6.34	474327	40.67	0.626	32.28
2011-12	618120	-18.36	296299	-37.53	0.479	-23.49
2012-13	610652	-1.21	491000	65.71	0.804	67.74
2013-14	562959	-7.81	471235	-4.03	0.837	4.11
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.13 above table represents the growth rate of area, production and productivity of total pulses in Telangana. It has been seen that the area for the production of total pulses has increased since 2008-09 from -9.13 per cent to -7.81 per cent of 2013-14. Whereas the productivity has not increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.13: Growth Rate of Total Pulses in Telangana

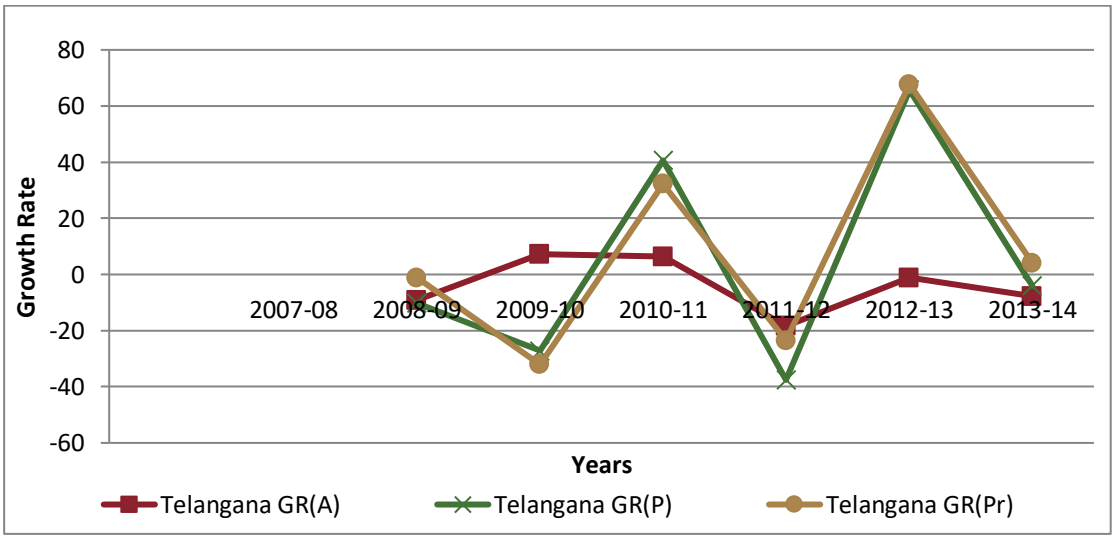


Figure No: 4.1.13 shows decrease in total pulses production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.1.14: Growth Rate of Total Pulses in Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	172		101.1		0.588	
2008-09	184	6.98	177.6	75.67	0.965	64.21
2009-10	131.6	-28.48	97.3	-45.21	0.739	-23.40
2010-11	175.6	33.43	153.1	57.35	0.872	17.92
2011-12	123	-29.95	107	-30.11	0.870	-0.22
2012-13	75.3	-38.78	285.6	166.92	3.793	336.00
2013-14	105.3	39.84	90.9	-68.17	0.863	-77.24

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.14 above table represents the growth rate of area, production and productivity of total pulses in Haryana. It has been seen that the area for the production of total pulses has increased since 2008-09 from 6.98 per cent to 39.84 per cent of 2013-14. While the productivity has increased with the same rate at which area has increased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the lowest used area. While large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.14: Growth Rate of Total Pulses in Haryana

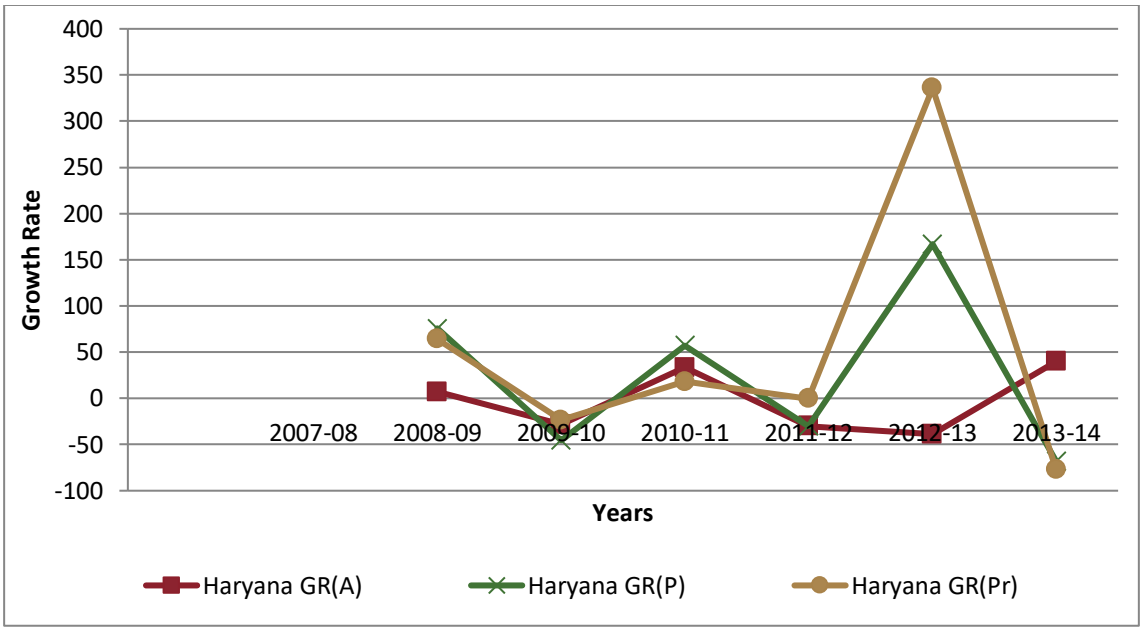


Figure No: 4.7.14 shows increase in total pulses production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.15: Growth Rate of Groundnut in Telangana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	187827		272486		1.451	
2008-09	200623	6.81	315676	15.85	1.573	8.46
2009-10	213419	6.38	358866	13.68	1.682	6.87
2010-11	195894	-8.21	351207	-2.13	1.793	6.62
2011-12	171361	-12.52	262037	-25.39	1.529	-14.71
2012-13	187154	9.22	334842	27.78	1.789	17.00
2013-14	210085	12.25	355197	6.08	1.691	-5.50

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No: 4.7.15 above table represents the growth rate of area, production and productivity of groundnut in Telangana. It has been seen that the area for the production of groundnut has increased since 2008-09 from 6.81 per cent to 12.25 per cent of 2013-14. While the productivity has increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.15: Growth Rate of Groundnut in Telangana

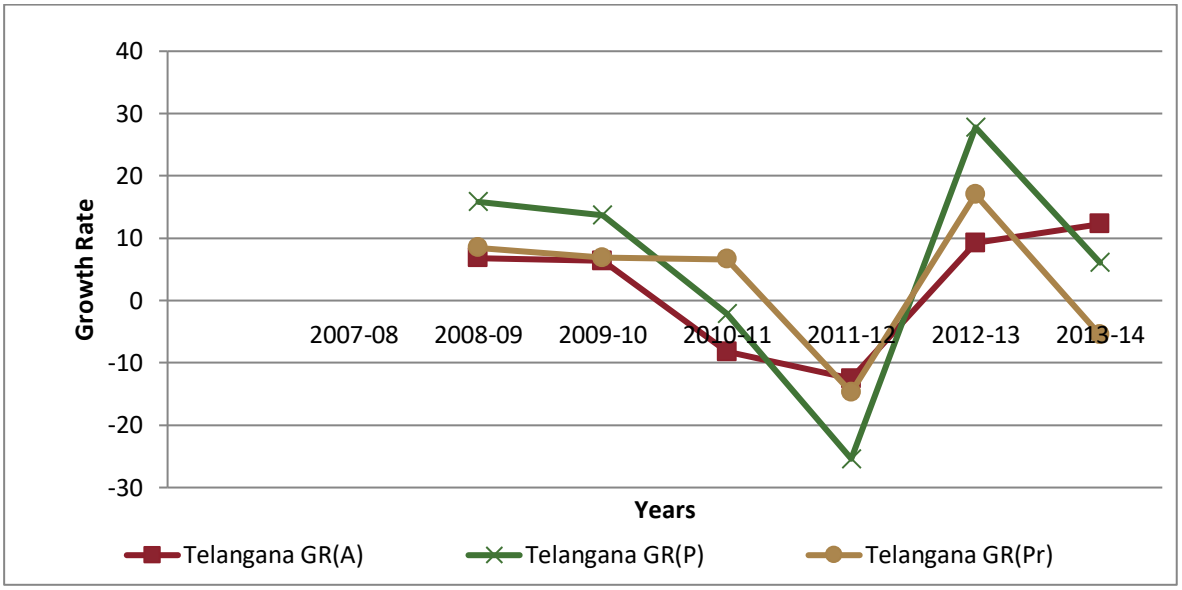


Figure No 4.7.15 shows increase in groundnut production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and lack of production in 2010-11 also goes with the excess rains.

Table No:4.7.16 Growth Rate of Groundnut in Haryana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	1.3		1		0.769	
2008-09	1.6	23.08	1.4	40.00	0.875	13.75
2009-10	1.7	6.25	1.6	14.29	0.941	7.56
2010-11	2.3	35.29	2.4	50.00	1.043	10.87
2011-12	2.1	-8.70	2	-16.67	0.952	-8.73
2012-13	2.6	23.81	3.1	55.00	1.192	25.19
2013-14	5.6	115.38	6.7	116.13	1.196	0.35
Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.16 above table represents the growth rate of area, production and productivity of groundnut in Haryana. It has been seen that the area for the production of groundnut has increased since 2008-09 from 1 per cent to 6.7 per cent of 2013-14. Whereas the productivity has increased with the same rate at which area has increased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the highest used area. While large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.16: Growth Rate of Groundnut in Haryana

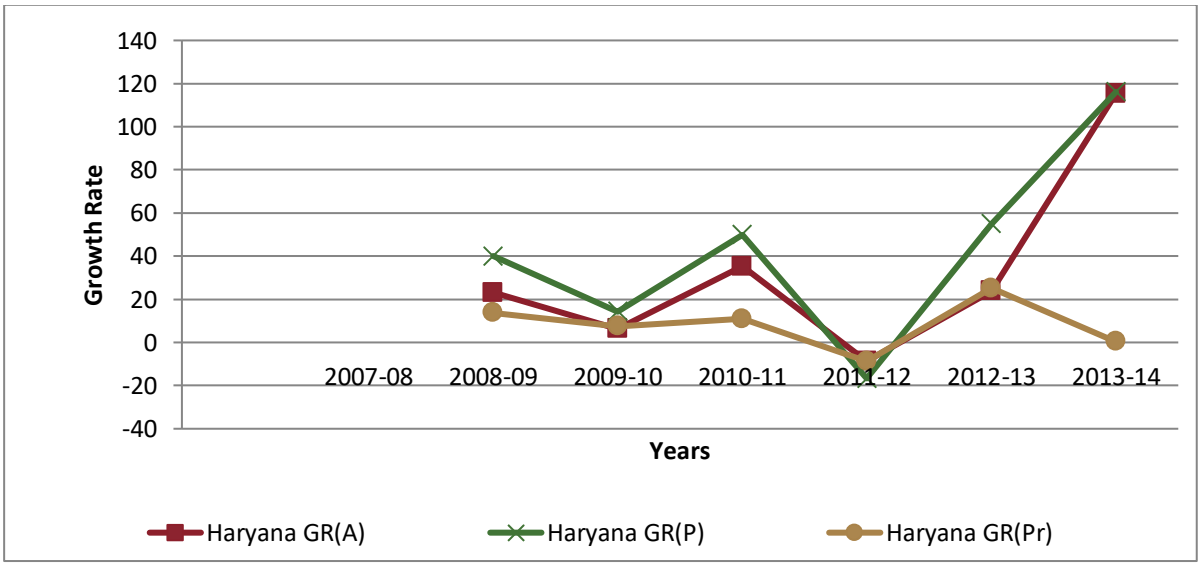


Figure No 4.7.16 shows increase in groundnut production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.17: Growth Rate of Sesamum in Telangana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	29820		8657		0.290	
2008-09	29750	-0.23	7356	-15.03	0.247	-14.83
2009-10	29680	-0.24	6055	-17.69	0.204	-17.49
2010-11	27233	-8.24	7245	19.65	0.266	30.40
2011-12	19638	-27.89	6764	-6.64	0.344	29.47
2012-13	22582	14.99	9038	33.62	0.400	16.20
2013-14	24197	7.15	8710	-3.63	0.360	-10.06

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No: 4.7.17 above table represents the growth rate of area, production and productivity of sesamum in Telangana. It has been seen that the area for the production of sesamum has increased since 2008-09 from -0.23 per cent to 7.15 per cent of 2013-14. Although the productivity has increased with the same rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. However large variation has been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.17: Growth Rate of Sesamum in Telangana

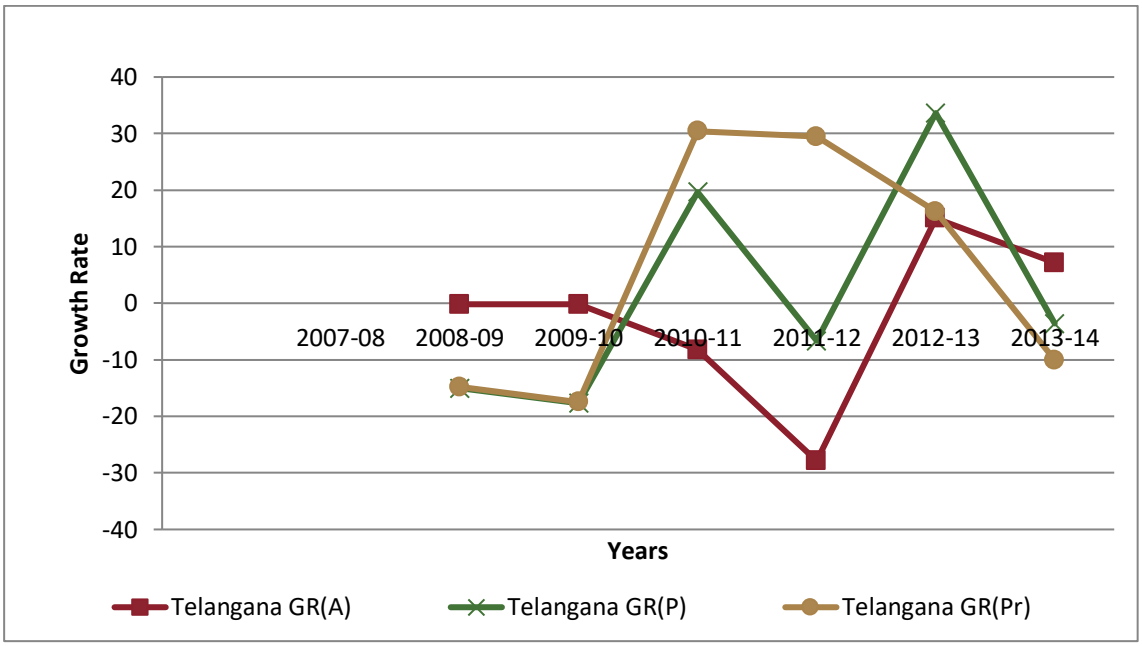


Figure No 4.7.17 shows increase in sesamum production in Telangana because of the stagnant in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.1.18: Growth Rate of Sesamum in Haryana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	2.7		1		0.370	
2008-09	3.7	37.04	1.3	30.00	0.351	-5.14
2009-10	3	-18.92	1.2	-7.69	0.400	13.85
2010-11	3.3	10.00	1.4	16.67	0.424	6.06
2011-12	2	-39.39	0.7	-50.00	0.350	-17.50
2012-13	1.5	-25.00	0.6	-14.29	0.400	14.29
2013-14	1.3	-13.33	0.6	0.00	0.462	15.38

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity.

Table No: 4.7.18 above table represents the growth rate of area, production and productivity of sesamum in Haryana. It has been seen that the area for the production of sesamum has increased since 2008-09 from 1 per cent to 0.6 per cent of 2013-14. While the productivity has increased with the similar rate at which area has increased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.18: Growth Rate of Sesamum in Haryana

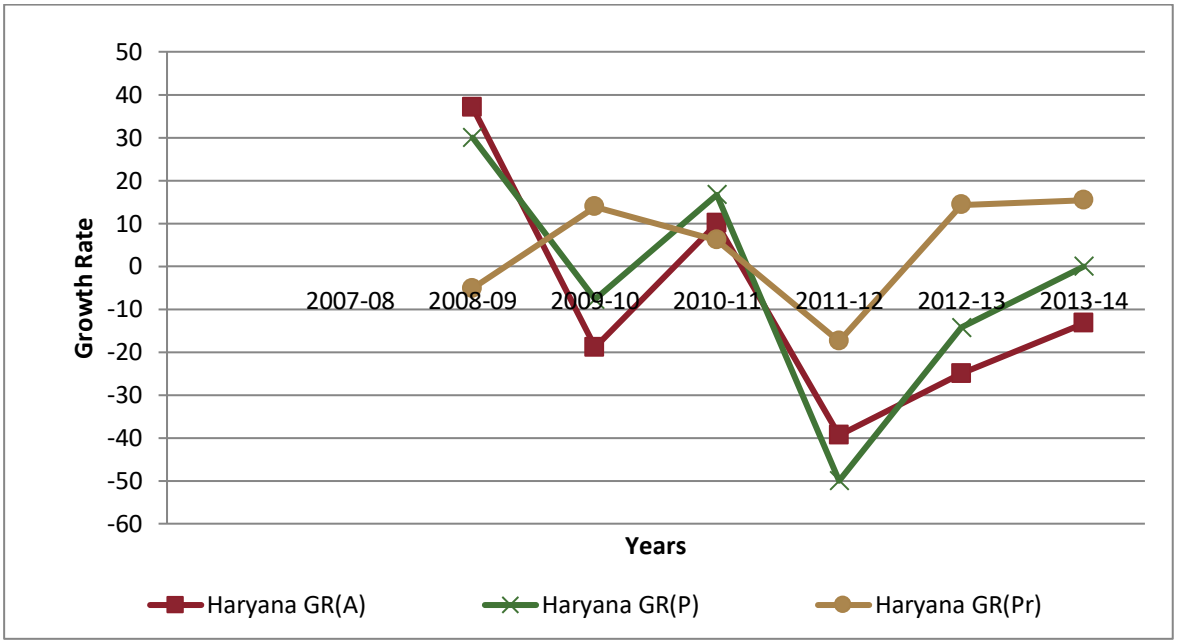


Figure No 4.1.18 shows increase in sesamum production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.19: Growth Rate of cotton in Telangana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	820		5957		7.265	
2008-09	785	-4.27	7168	20.33	9.131	25.69
2009-10	750	-4.46	8379	16.89	11.172	22.35
2010-11	723	-3.60	8476	1.16	11.723	4.94
2011-12	644	-10.93	9406	10.97	14.606	24.59
2012-13	438	-31.99	7330	-22.07	16.735	14.58
2013-14	428	-2.28	6957	-5.09	16.255	-2.87
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.19 above table's represent the growth rate of area, production and productivity of cotton in Telangana. It has been seen that the area for the production of cotton has decreased since 2008-09 from -4.27 per cent to -2.28 per cent of 2013-14. Although the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2008-09 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.19: Growth Rate of Cotton in Telangana

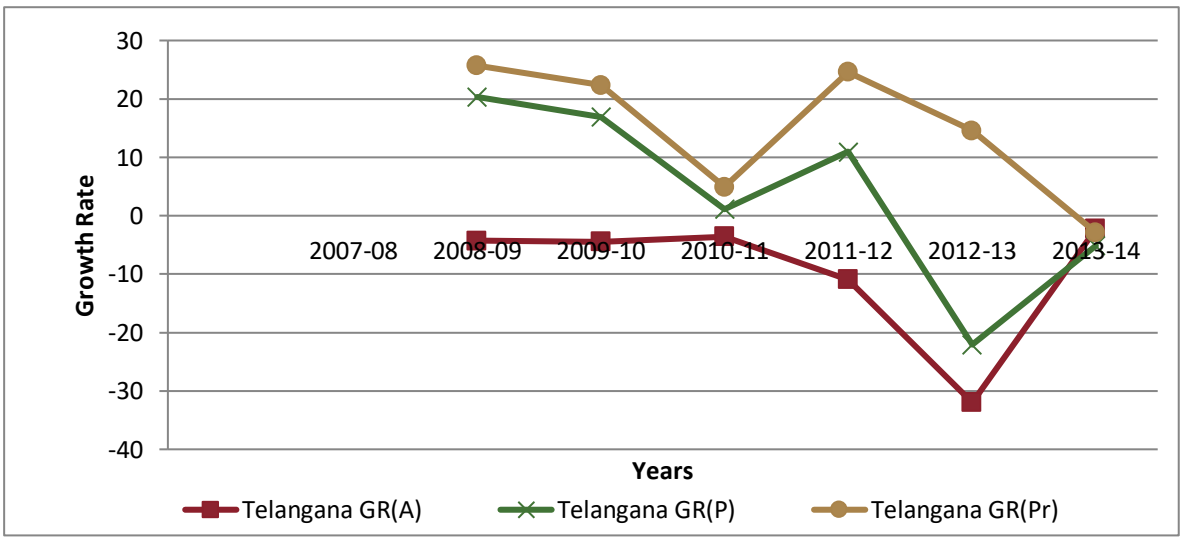


Figure No 4.7.19 shows increase in cotton production in Telangana because of the increase in rains during the session 2008-09 to 2009-10 and lack of production in 2010-11 also goes with the excess rains.

Table No4.1.20: Growth Rate of cotton in Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	482.5		1882		3.901	
2008-09	456.1	-5.47	1862	-1.06	4.082	4.66
2009-10	505.1	10.74	1918	3.01	3.797	-6.99
2010-11	493.3	-2.34	1747	-8.92	3.541	-6.74
2011-12	601.8	21.99	2621	50.03	4.355	22.98
2012-13	592.6	-1.53	2378	-9.27	4.013	-7.86
2013-14	567.8	-4.18	2025	-14.84	3.566	-11.13

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No. 4.7.20 above tables represent the growth rate of area, production and productivity of cotton in Haryana. It has been seen that the area for the production of cotton has decreased since 2008-09 from -5.47.28 per cent to -4.18 per cent of 2013-14. Yet the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2011-12 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.20: Growth Rate of Cotton in Haryana

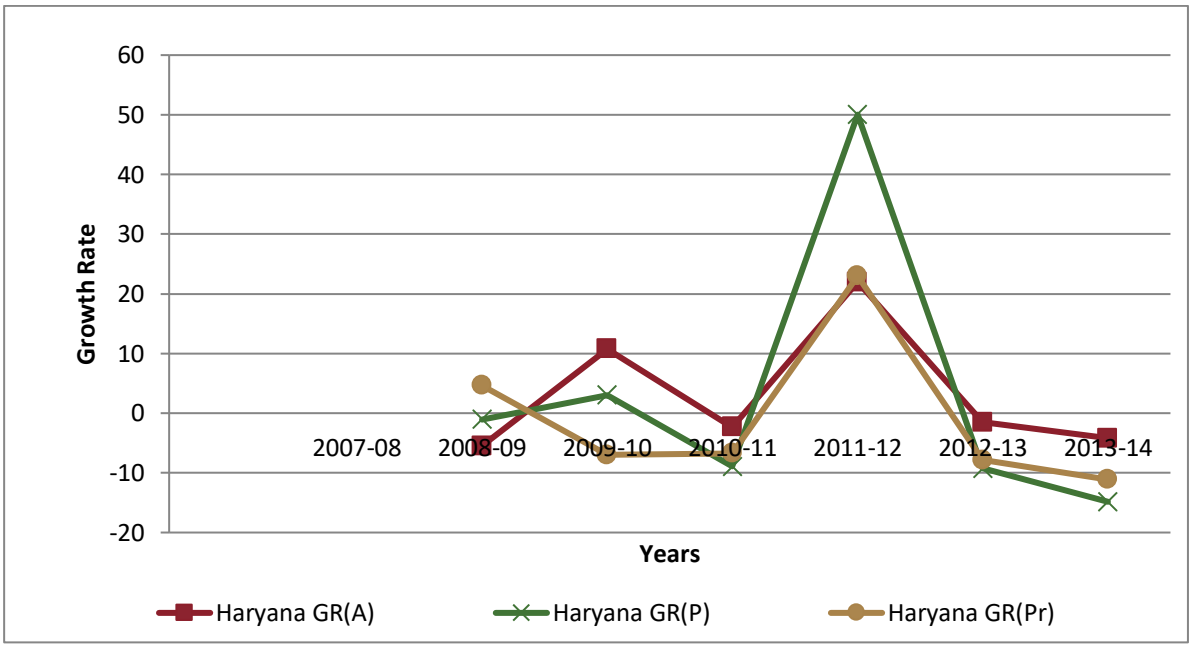


Figure No 4.7.20 shows increase in cotton production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2011-12 also goes with the excess rains.

Table No 4.7.21: Growth Rate of Oilseeds in Telangana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	618858		774984		1.252	
2008-09	598526	-3.29	717239	-7.45	1.198	-4.31
2009-10	578194	-3.40	659494	-8.05	1.141	-4.82
2010-11	496861	-14.07	701436	6.36	1.412	23.77
2011-12	448442	-9.74	587922	-16.18	1.311	-7.13
2012-13	508376	13.36	806607	37.20	1.587	21.02
2013-14	588778	15.82	881240	9.25	1.497	-5.67

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.21 above tables represent the growth rate of area, production and productivity of total oilseeds in Telangana. It has been seen that the area for the production of total oilseeds has decreased since 2008-09 from -3.29.28 per cent to 15.82 per cent of 2013-14. Although the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2010-11 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.21: Growth Rate of Total Oilseeds in Telangana

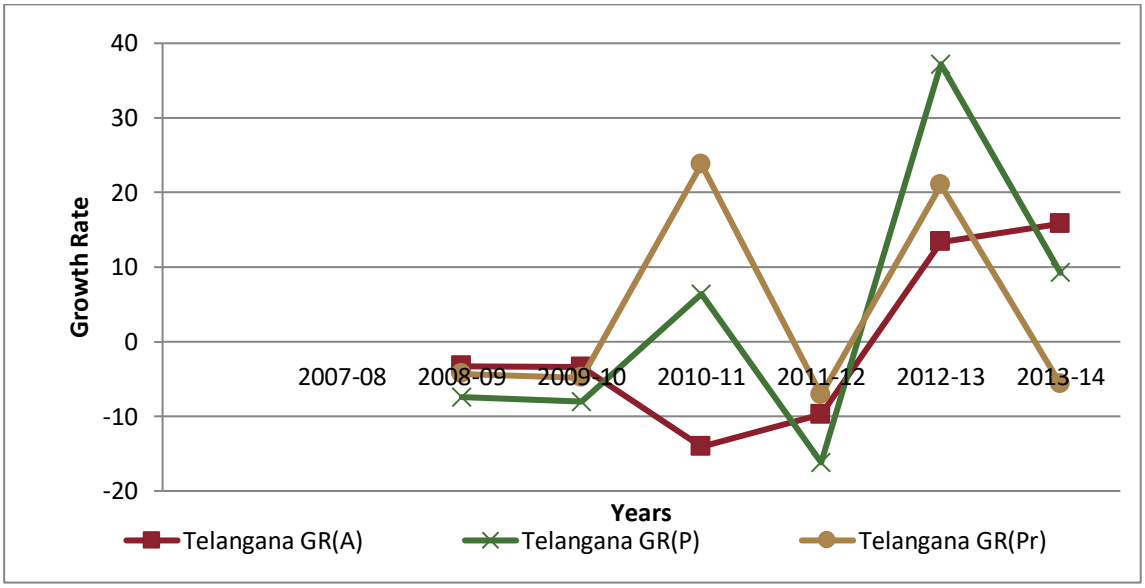


Figure No 4.7.21 shows increase in total oilseeds production in Telangana because of the stagnant in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No4.1.22: Growth Rate of Oilseeds in Haryana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	511.3		617.2		1.207	
2008-09	527.6	3.19	911.5	47.68	1.728	43.12
2009-10	523	-0.87	862	-5.43	1.648	-4.60
2010-11	521	-0.38	964.9	11.94	1.852	12.37
2011-12	545.8	4.76	754.8	-21.77	1.383	-25.33
2012-13	567.6	3.99	970	28.51	1.709	23.58
2013-14	548.5	-3.37	899.1	-7.31	1.639	-4.08
Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No. 4.7.22 above tables represent the growth rate of area, production and productivity of total oilseeds in Haryana. It has been seen that the area for the production of total oilseeds has decreased since 2008-09 from 3.19 per cent to -3.37 per cent of 2013-14. Although the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.22: Growth Rate of Total Oilseeds in Haryana

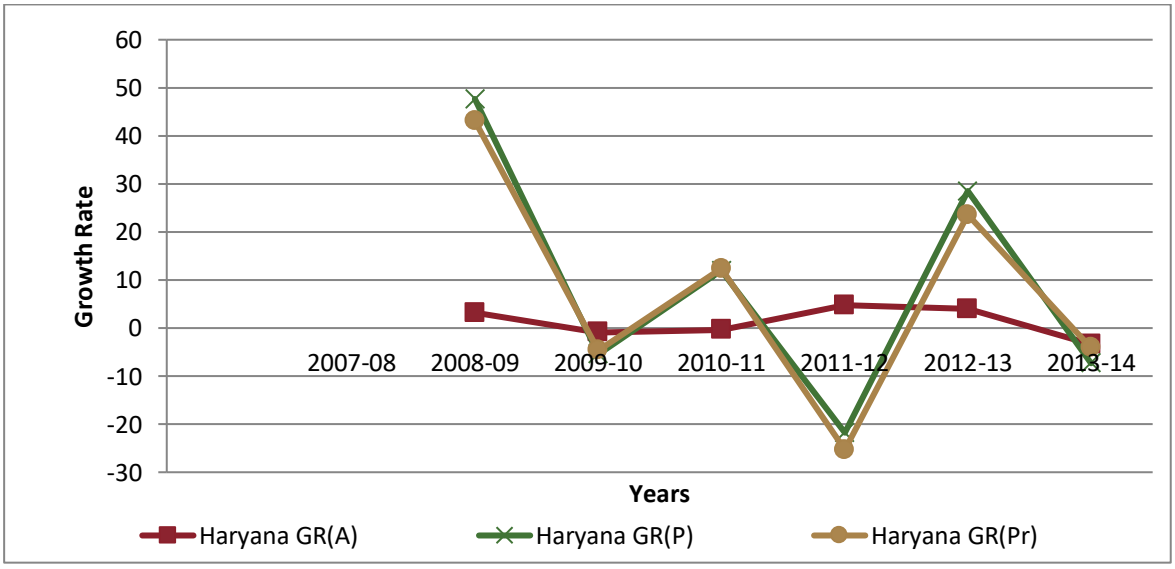


Figure No 4.7.22 shows increase in total oilseeds production in Haryana because of the decrease in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.23: Growth Rate of Chillies in Telangana

Years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	79162		274525		3.468	
2008-09	81670	3.17	287435	4.70	3.519	1.49
2009-10	84178	3.07	300345	4.49	3.568	1.38
2010-11	77285	-8.19	239968	-20.10	3.105	-12.98
2011-12	89634	15.98	234088	-2.45	2.612	-15.89
2012-13	82671	-7.77	299934	28.13	3.628	38.92
2013-14	78935	-4.52	279777	-6.72	3.544	-2.31

Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.23 above tables represent the growth rate of area, production and productivity of chillies in Telangana. It has been seen that the area for the production of chillies has decreased since 2008-09 from 3.17 per cent to -4.52 per cent of 2013-14. While the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the lowest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.23: Growth Rate of Chillies in Telangana

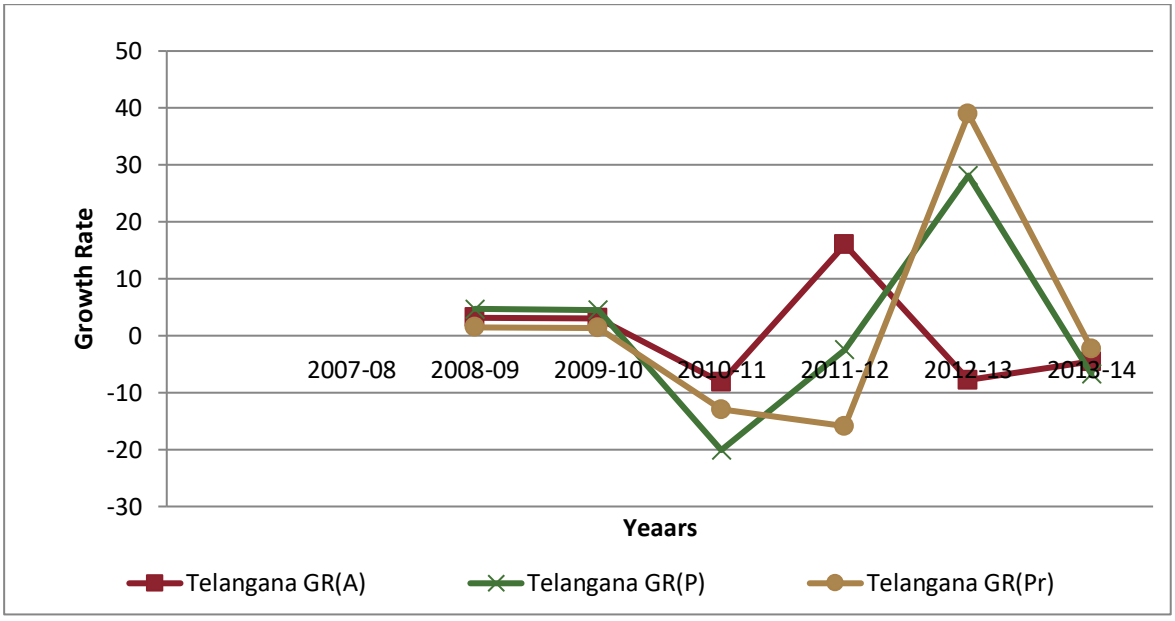


Figure No 4.7.23 shows increase in chilies production in Telangana because of the stagnant in rains during the session 2008-09 to 2009-10 and lack of production in 2011-12 also goes with the excess rains.

Table No 4.7.24: Growth Rate of Chillies in Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	1.3		13.8		10.615	
2008-09	1.6	23.08	14.5	5.07	9.063	-14.63
2009-10	0.9	-43.75	1.4	-90.34	1.556	-82.84
2010-11	1.1	22.22	11	685.71	10.000	542.86
2011-12	0.7	-36.36	5.2	-52.73	7.429	-25.71
2012-13	0.8	14.29	8	53.85	10.000	34.62
2013-14	0.7	-12.50	4.2	-47.50	6.000	-40.00

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.24 above tables represent the growth rate of area, production and productivity of chillies in Haryana. It has been seen that the area for the production of chillies has decreased since 2008-09 from 23.07 per cent to -12.50 per cent of 2013-14. Whereas the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2008-09 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.23: Growth Rate of Chillies in Haryana

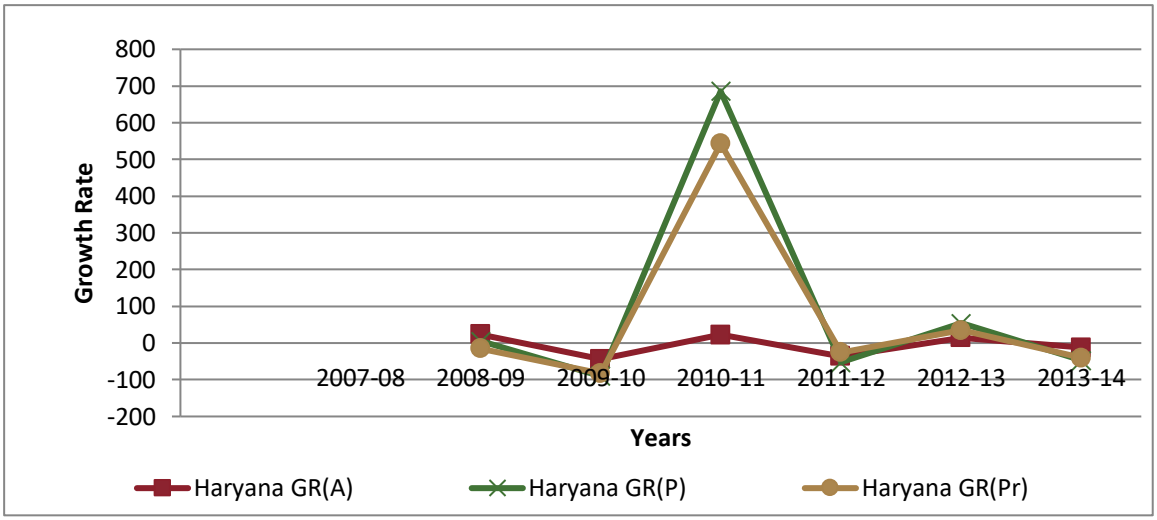


Figure No 4.7.24 shows increase in chilies production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.

Table No 4.7.25: Growth Rate of Sugarcane in Telangana						
years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	86278		488848		5.666	
2008-09	72605	-15.85	352630	-27.87	4.857	-14.28
2009-10	58932	-18.83	216412	-38.63	3.672	-24.39
2010-11	78491	33.19	309463	43.00	3.943	7.36
2011-12	84081	7.12	389499	25.86	4.632	17.50
2012-13	40878	-51.38	361929	-7.08	8.854	91.13
2013-14	39309	-3.84	344002	-4.95	8.751	-1.16
Source: Researcher's Calculations Directorate of Economics and Statistics, Government of Telangana, Hyderabad.						

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.25 above tables represent the growth rate of area, production and productivity of sugarcane in Telangana. It has been seen that the area for the production of sugarcane has increased since 2008-09 from -15.85 per cent to -3.84 per cent of 2013-14. While the productivity has increased with the same rate at which area has decreased. Highest production was noticed in 2012-13 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.25: Growth Rate of Sugarcane in Telangana

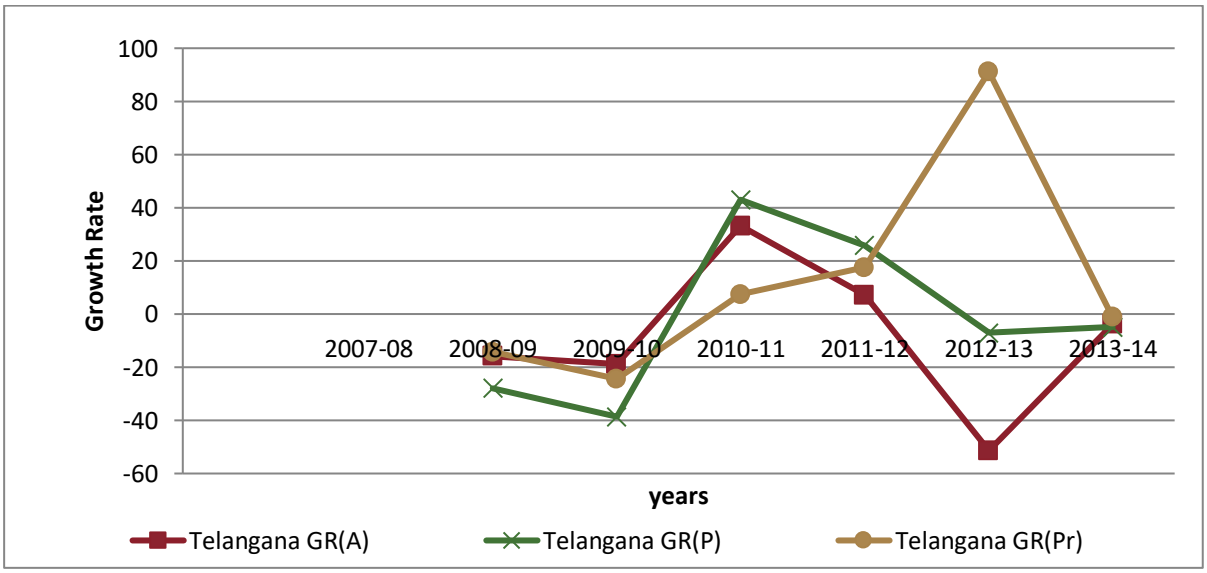


Figure No 4.7.25 shows increase in sugarcane production in Telangana because of the decrease in rains during the session 2008-09 to 2009-10 and increase of production in 2010-11 also goes with the excess rains.

Table No:4.7.26 Growth Rate of Sugarcane Haryana

years	area (in hector)	GR(A)	production (in tons)	GR(P)	yield (in kges/hectors)	GR(Pr)
1	2	3	4	5	6	7
2007-08	140.4		885		6.303	
2008-09	90.5	-35.54	520.6	-41.18	5.752	-8.74
2009-10	79.2	-12.49	570.7	9.62	7.206	25.26
2010-11	84.5	6.69	604	5.83	7.148	-0.80
2011-12	94.8	12.19	695	15.07	7.331	2.56
2012-13	100.9	6.43	744	7.05	7.374	0.58
2013-14	101.3	0.40	773	3.90	7.631	3.49

Source: Researcher's Calculations Department of Economic and Statistical Analysis, Haryana.

Note: GR=Growth Rate, A=Area, P=Production, Pr=productivity

Table No 4.7.26 above tables represent the growth rate of area, production and productivity of sugarcane in Haryana. It has been seen that the area for the production of sugarcane has decreased since 2008-09 from -35.54 per cent to 0.40 per cent of 2013-14. Although the productivity has increased with the same rate at which area has increased. Highest production was noticed in 2011-12 with the highest productivity in these years of analysis along with the highest used area. Although large variation have been seen in all three variables. It can be easily say that productivity is not increasing with the same proportion of increase in production and area.

Figure No 4.7.26: Growth Rate of Sugarcane in Haryana

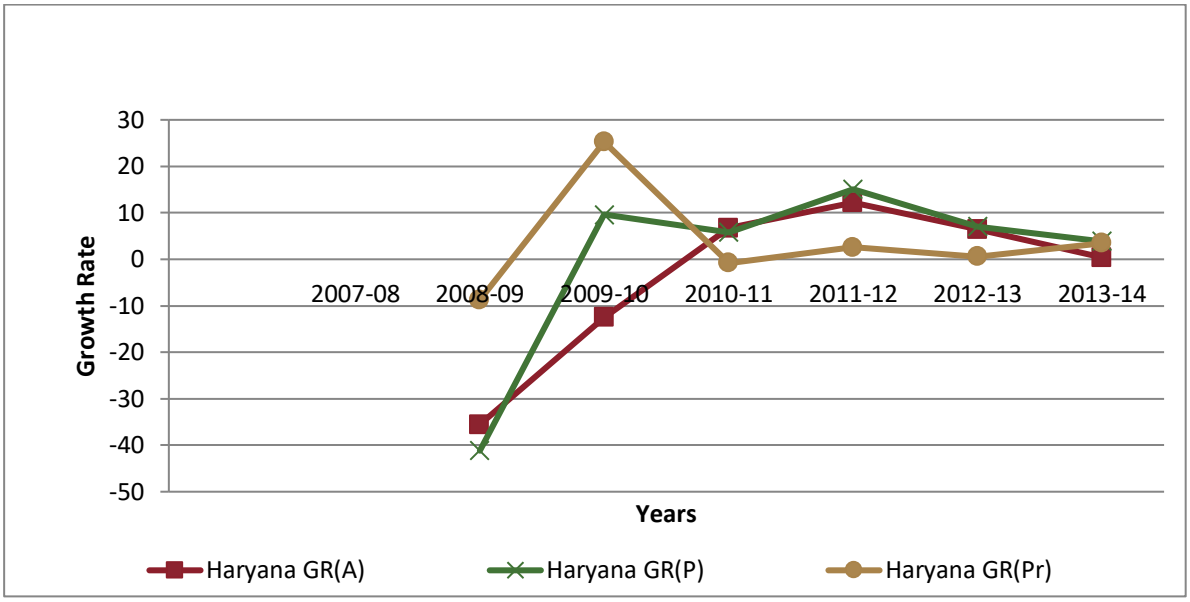


Figure No 4.7.26 shows increase in sugarcane production in Haryana because of the increase in rains during the session 2008-09 to 2009-10 and raise of production in 2010-11 also goes with the excess rains.