

AGRICULTURAL PROFILE OF HARYANA

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Haryana as 17th state was constituted in 1966. It is one of the two newly created states carved out of the greater Punjab province. It is bordered by Punjab and Himachal Pradesh in the north and by Rajasthan in the West and South. The perennial river Yamuna defines its eastern border with Uttar Pradesh and Uttarakhand. Haryana surrounds Delhi on three sides. Consequently, a large area of Haryana to her advantage is included in the National Capital Region.

Haryana is now a leading contributor to the country's production of food grains and milk. Agriculture is the principal occupation of the residents of the state. The flat arable land is irrigated with ground water extracted with submersible pumps and tube wells, and by surface water through extensive canal system. Haryana's contribution to the Green Revolution made India self-sufficient in food production in the 1960s and onwards.

Haryana is one of the wealthiest states of India and has the third highest Per capita income in the country with per capita GDP at Rs. 109227 (2011-12). Haryana is also one of the most economically developed regions in South Asia and its agricultural and manufacturing industry has experienced sustained growth since 1970s. Haryana is India's largest manufacturer of passenger cars, two-wheelers, and tractors. Since 2000, the state has emerged as the largest recipient of investment per capita in India.

At present Haryana has 4 administrative divisions constituted of 21 districts – (1) Ambala Division with 4 districts viz. Ambala, Kurukshetra, Panch Kula and Yamuna Nagar, (2) Gurgaon Division with 6 districts viz. Faridabad, Palwal, Gurgaon, Mahendragarh, Mewat and Rewari, (3) Hissar Division with 5 districts viz. Bhiwani, Fatehabad, Hissar, Kaithal and Sirsa, (4) Rohtak Division with 6 districts viz. Jhajjar, Karnal, Panipat, Rohtak, Sonapat, and Jind.

The district map further illustrates.

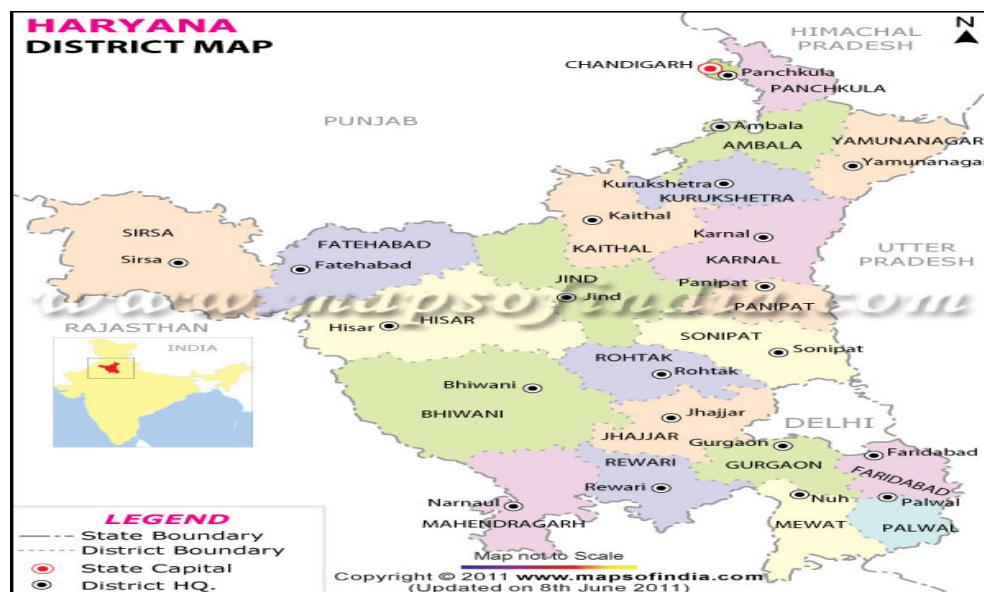


Fig.1

About 65% of Haryana's population lives in villages. The percentage of rural population has come down by about 6 % since 2001. Faridabad with less than 21% rural population is the most urbanized district whereas Mewat with more than 88% rural population is least urbanized. Total population in Haryana in 2011 increased by about 20% as compared with 2001, male population by 19% and female population by about 21%. It has significant implications, for example, increase in total population by about 2% annually is more as compared with population growth in the country. Secondly, the gender ratio which was notoriously low in Haryana seems to be improving (table 1).

Table 1: Rural and Urban Population by Sex in Haryana : 2011

District	Population						Rural Population as % of total
	Rural			Urban			
	Total	Males	Females	Total	Males	Females	
Ambala	632243	334564	297679	504541	269480	235061	55.62
Panchkula	252231	136008	116223	306659	162911	143748	45.13
Yamunanagar	741370	394010	347360	472792	252791	220001	61.06
Kurukshetra	685296	360790	324506	278935	149580	129355	71.07
Kaithal	837171	445614	391557	235690	124981	110709	78.03
Karnal	1050293	557305	492988	456030	241535	214495	69.73
Panipat	649866	349674	300192	552945	296650	256295	54.03
Sonipat	1028393	557103	471290	451687	241845	209842	69.48
Rohtak	613864	330788	283076	444819	235920	208899	57.98
Jhajjar	713933	383887	330046	242974	130416	112558	74.61
Faridabad	369861	197827	172034	1429093	763705	665388	20.56
Palwal	804830	428516	376314	235663	125188	110475	77.35
Gurgaon	472085	251520	220565	1042000	565754	476246	31.18
Mewat (P)	965389	506297	459092	124017	65183	58834	88.62
Rewari	664718	348631	316087	231411	123623	107788	74.18
Mahendragarh	788705	416217	372488	132975	70336	62639	85.57
Bhiwani	1306531	692944	613587	322578	171672	150906	80.2
Jind	1028119	550513	477606	303923	161741	142182	77.18
Hisar	1189789	634149	555640	553026	297386	255640	68.27
Fatehabad	762182	400587	361595	179340	94247	85093	80.96
Sirsa	974624	514092	460532	320490	169150	151340	75.25
Total 2011	16531493	8791036	7740457	8821588	4714094	4107494	65.21
2001	15029260	8052988	6976272	6115304	3310965	2804339	71.08
% change over 2001	10.00	9.16	10.95	44.25	42.38	46.47	- 5.87

Source : Director of Census Operations, Haryana

Data regarding workers for the 2011 census is yet to be out. We have presented data regarding cultivators, agricultural labourers, workers in household industries and other workers based on the 2001 census in table 2. Surprisingly, though female cultivators were less in numbers than their male counterparts, but as percentage of total female workers, their percentage was more

than male cultivators. The reason was that in other professions more male workers were employed. Overall about 39% females were cultivators and about 44% agricultural labourers. And these numbers are significant to support female rights in agricultural land holdings, notwithstanding strongest resistance from male dominant Haryana farmers.

Table 2: Number and Percentage Distribution of Workers (Main + Marginal) by Broad Industrial Categories, 2001

Categories	Numbers			Percentage to Total		
	Persons	Males	Females	Persons	Males	Females
Cultivators	3018014	1855547	1162467	36.03	32.47	43.67
Agricultural Labourers	1278821	717133	561688	15.26	12.55	21.1
Workers in Household Industries	214755	132069	82686	2.56	2.31	3.11
Other Workers	3865876	3010777	855099	46.15	52.67	32.12
Total Workers (Main+Marginal)	8377466	5715526	2661940	100	100	100

Source : Director of Census Operations, Haryana.

Note : The main workers is one who has worked for 183 days or more in a year in one or more than one economic activity. A person who has worked for less than 183 days a year is considered marginal worker.

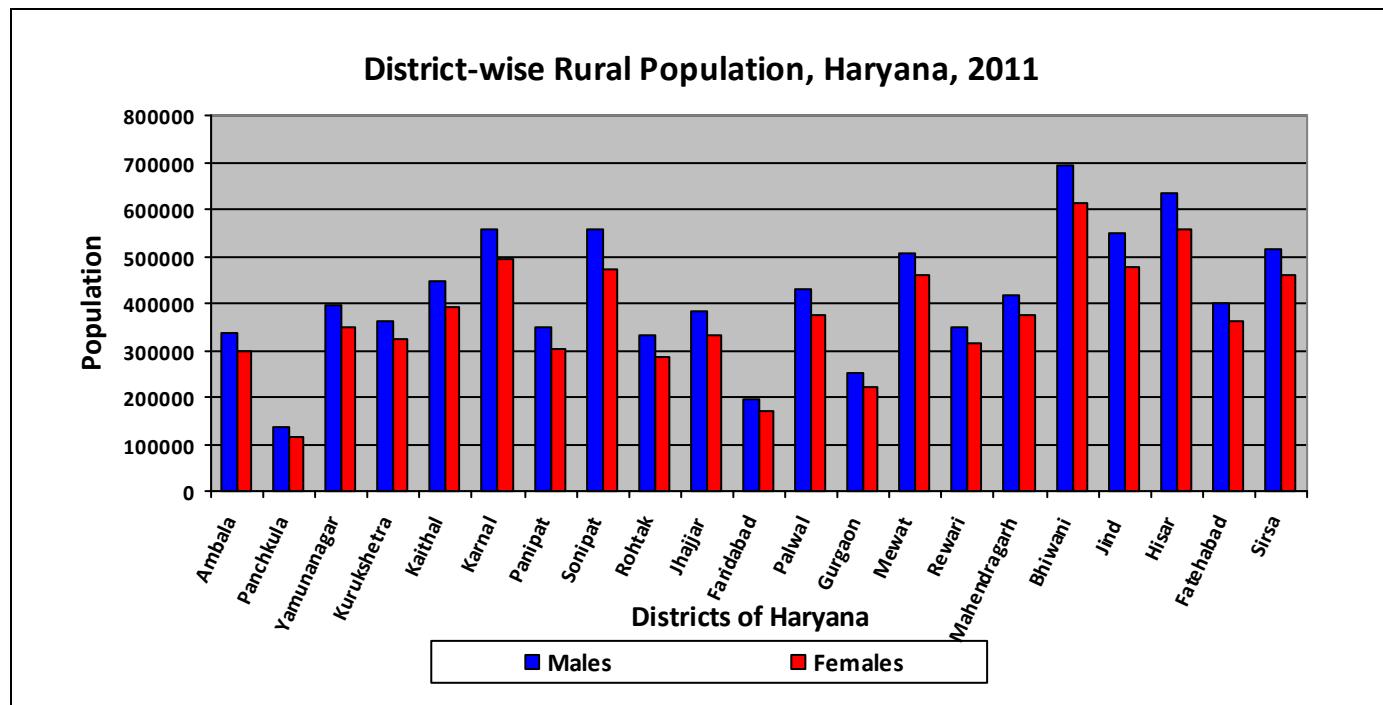


Fig.2

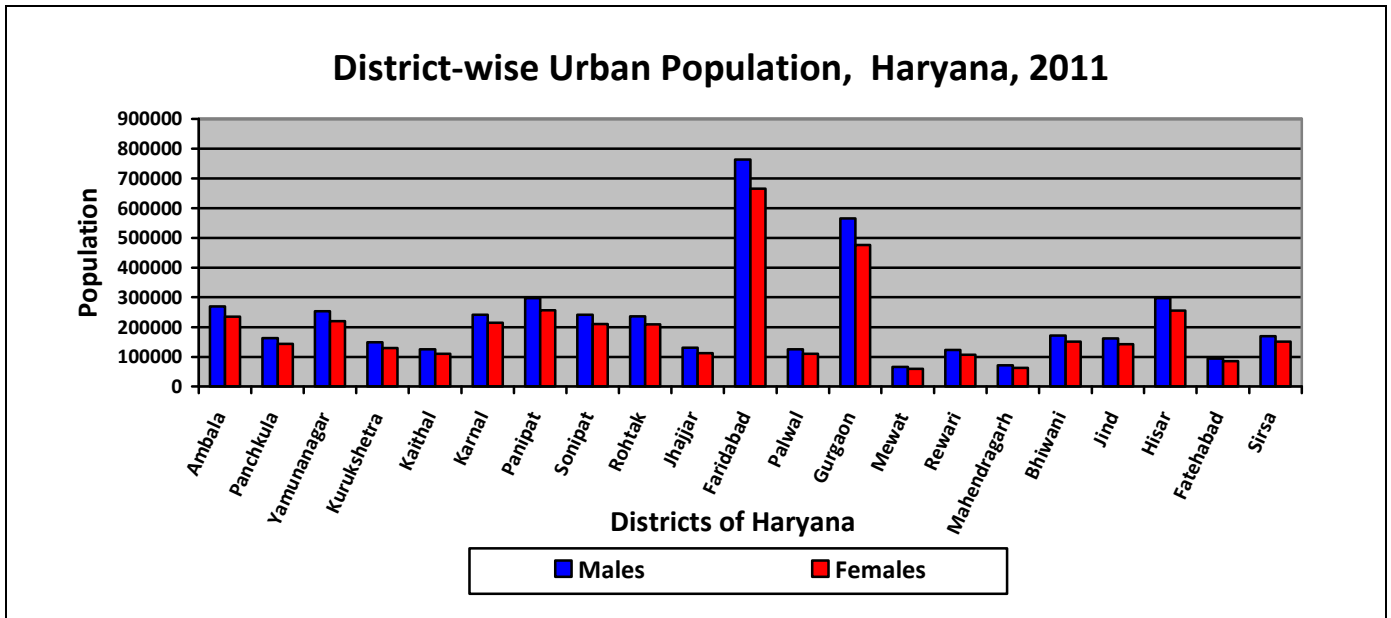


Fig.3

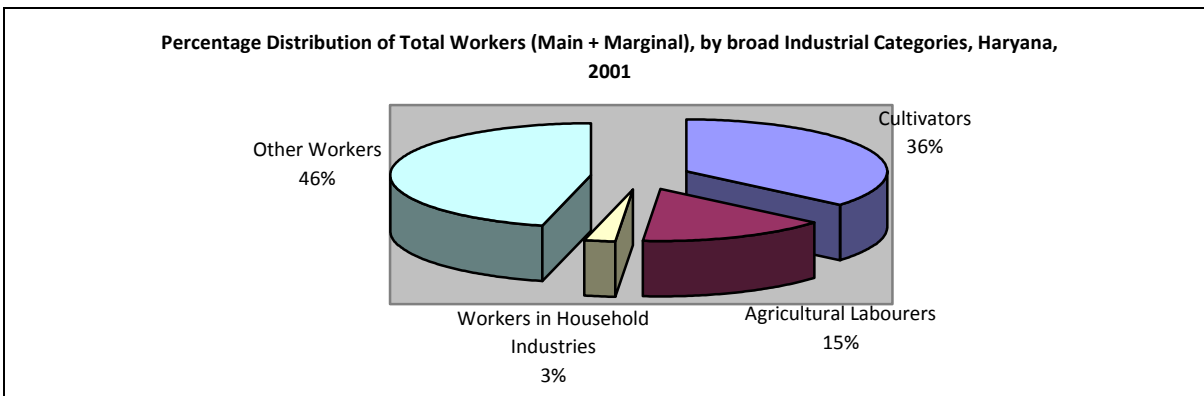


Fig.4

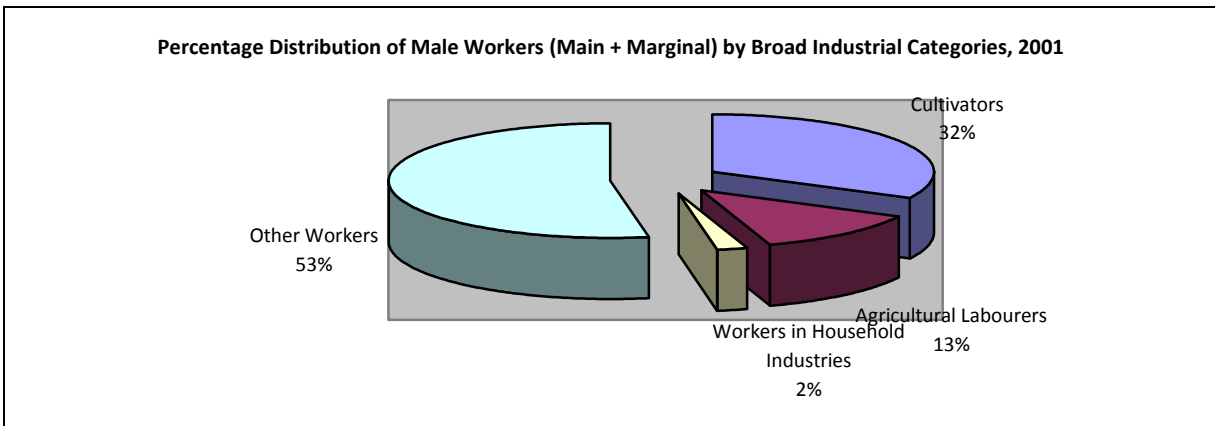


Fig.5

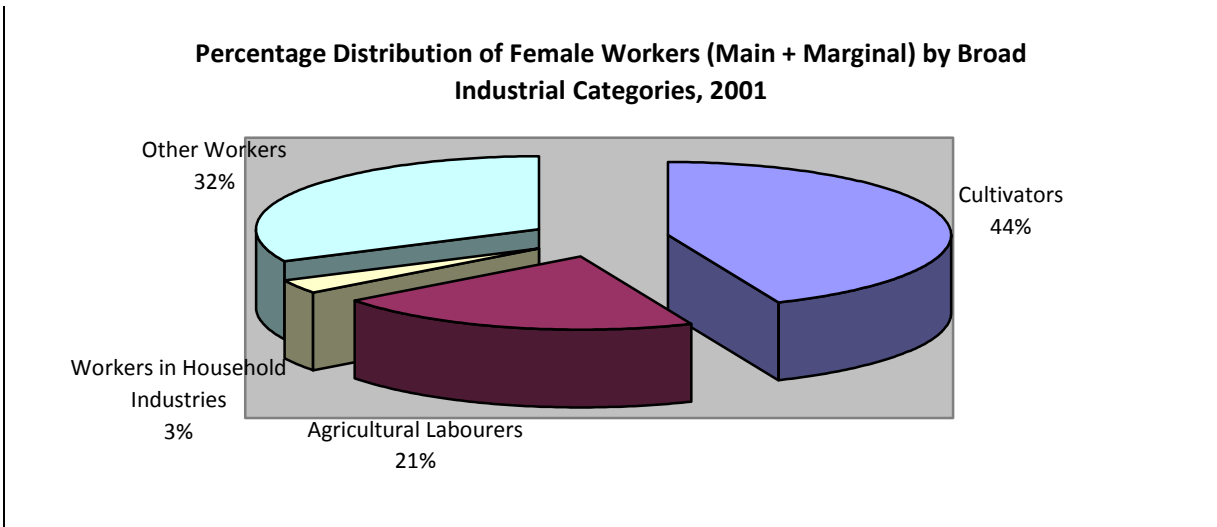


Fig.6

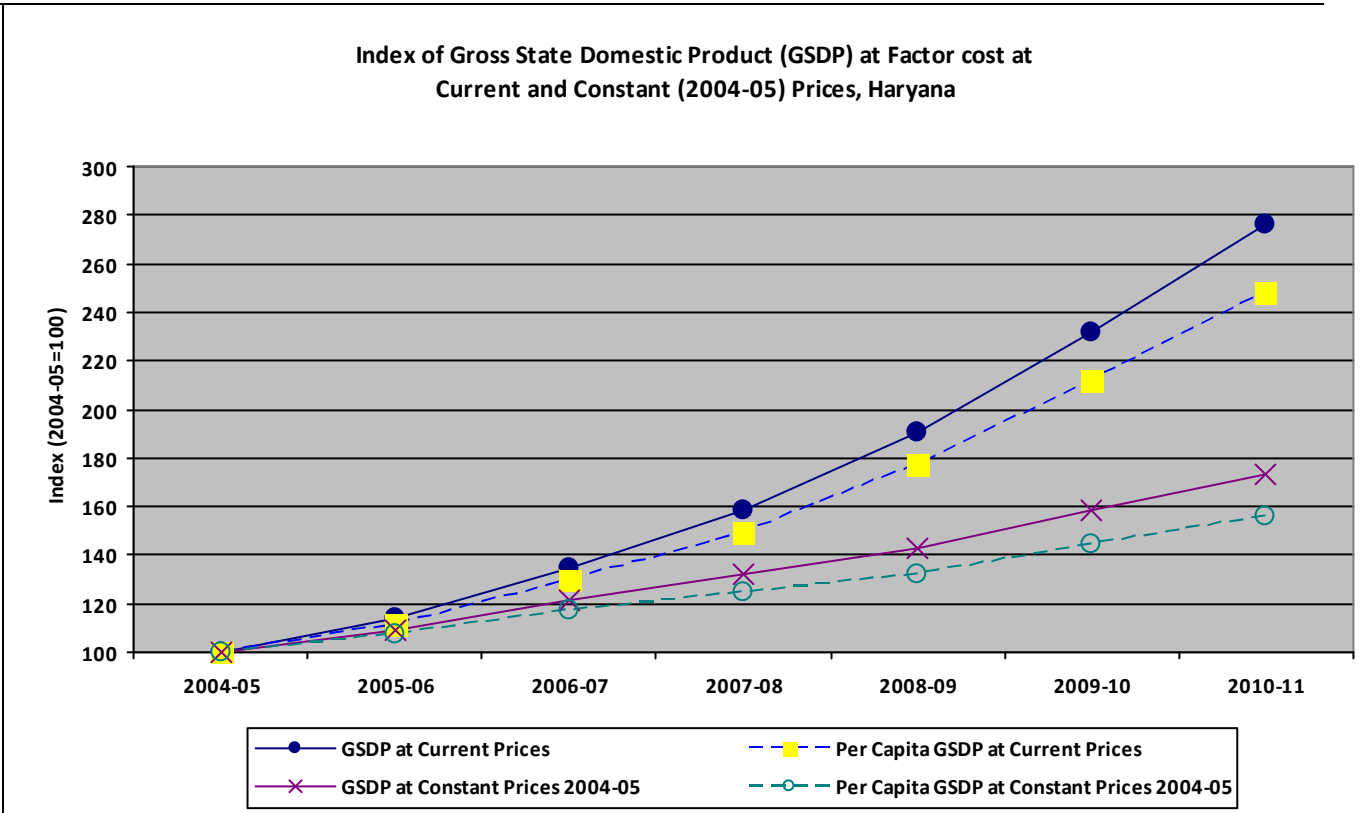


Fig.7

Fig.

Movement of State GDP: Final data for the 5 years (2004-05 to 2008-09), provisional estimates for the years 2009-10 and quick estimates for the year 2010-11 were available which have been included to work out annual compound growth rates of state gross domestic product both at current prices and on the basis of 2004-05 prices, as well as in per capita terms. For the state the SDP(both Gross and Net) increased at about 0.19% annually whereas in terms of per capita SDP increased at much lower rates 0.17%, obviously due to the impact of increase in population. But on adjustment to inflation or at the 2004-05 prices, the rate of enhancement in SDP comes down to 0.095 in state terms and to 0.076% in per capita terms (table 3)

Table 3: Movement of Gross and Net State Domestic Product at Factor Cost at Current and Constant (2004-05) Prices, Haryana

Item Rs Crores.	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 (P)	2010-11 (Q)	cgr
1. At Current prices								
GSDP	95795	108887	128740	151607	182502	222030.6	264148.69	0.188
NSDP	86222	97905.3	116111	136595	164616	200678.1	239255.55	0.189
GSDP per	42187	47056	54622	63178	74719	89352	104531	0.167
NSDP per	37972	42310	49264	56922	67397	80759	94680	0.168
2. At 2004-05 Prices								
GSDP	95795	104610	116348	126192	136540	151563	166095.37	0.095
NSDP	86222	94013.4	104705	112917	121650	136381.7	149650.55	0.095
GSDP per	42187	45207	49365	52586	55902	60994	65728	0.076
NSDP per	37972	40628	44425	47055	49806	54884	59221	0.076
3. Index Numbers with 2004-05 as base								
A. At current Prices								
GSDP	100	113.67	134.39	158.26	190.51	231.78	275.74	0.188
NSDP	100	113.55	134.66	158.42	190.92	232.75	277.49	0.189
GSDP per	100	111.54	129.48	149.75	177.11	211.8	247.78	0.167
NSDP per	100	111.43	129.74	149.91	177.49	212.68	249.34	0.168
B. At 2004-05 Prices								
GSDP	100	109.2	121.46	131.73	142.53	158.22	173.39	0.095
NSDP	100	109.04	121.44	130.96	141.09	158.17	173.56	0.095
GSDP per	100	107.16	117.01	124.65	132.51	144.58	155.8	0.076
NSDP per	100	107	116.99	123.92	131.17	144.54	155.96	0.076

Q = quick estimates, p = provisional

Source :—Department of Economic and Statistical Analysis, Haryana

The statement that Haryana is a fast growing economy will be supported by the sectoral SGDP shown in table 4. During the last 5 years (including provisional and quick estimates for the last two years at current prices) agriculture and associated activities grew by about 17 %, secondary sector by about 16%, tertiary sector by about 23% and the economy in aggregate by around 20%. In fact except mining and quarrying, growth of which declined by about 29% due to environmental issues and judicial interventions, almost all the sectors/ divisions of the economy grew handsomely.

Table 4: Gross State Domestic Product of Haryana (Rs. Crores at current Prices)

Industry	2006-07	2007-08	2008-09	2009-10 (P)	2010-11 (Q)	CAGR%
1.Agriculture and Animal Husbandary	27357.3	32194.36	40102.43	44433.36	51229.85	17.1
2.Forestry and Logging	1631.44	2136.69	2207.01	2720.22	3115.22	16.6
3.Fishing	162.47	193.89	308.98	356.93	676.44	41.4
4.Mining and quarrying	374.63	402.4	398.9	211.33	95.91	-28.6
Sub-Total : Primary	29525.8	34927.34	43017.32	47721.84	55117.42	16.9
5.Manufacturing	25855.4	29185.27	33480.04	42456.19	49040.04	18.0
5.1 Registered	17693.7	20122.49	23780.55	31751.63	36868.86	21.2
5.2 Un-registered	8161.72	9062.78	9699.49	10704.56	12171.18	10.1
6.Electricity, Gas & Water Supply	2037.07	2214.74	3180.86	3173.08	3574.96	16.0
7.Construction	12341	14105.5	16504.71	19463.2	23554.85	17.5
Sub-Total : Secondary	40233.4	45505.51	53165.61	55092.47	76169.85	15.8
8.Trade, Hotels and Restaurants	22237.1	27133.75	33177.12	41632.47	52525.58	24.0
9.Transport, Storage and communication	10898.1	13269.73	15151.22	19121.73	22919.87	20.3
9.1 Railways	1799.96	2401.52	2239.99	3837.55	3121.31	17.0
9.2 Transport by other means	7783.83	9367.24	11151.67	14090.18	17101.07	21.9
9.3 Storage	77.59	135.17	147.08	144.01	171.57	17.9
9.4 Communication	1236.7	1365.8	1612.48	2049.99	2525.92	20.1
Total : Transport, Comm.& Trade	33135.2	40403.48	48328.34	60754.2	75445.45	22.8
10. Banking and Insurance	4193.35	4950.43	5776.26	6420.56	7339.66	14.8
11. Real Estate....	11965.7	14694.99	17344.05	22491.81	26468.25	22.3
Total : Finance and real estate	16159	19645.42	23120.31	28912.37	33607.91	20.3
12.Public Administration	2891.17	3262.73	4506.17	5681.7	6671.69	24.9
13.Other services	6794.83	7862.76	10364.14	13868	17136.38	26.6
Total Community & personal services	9686	11125.49	14870.31	19549.7	23808.07	27.3
Sub-Total : Tertiary	58980.2	71174.39	86318.96	109216.3	132861.4	22.8
Total Income (Gross)	128740	151607.2	182501.9	222030.6	264148.7	19.9

State Domestic Product at factor cost) Q—Quick Estimates P—Provisional Estimates

Source :—Department of Economic and Statistical Analysis, Haryana

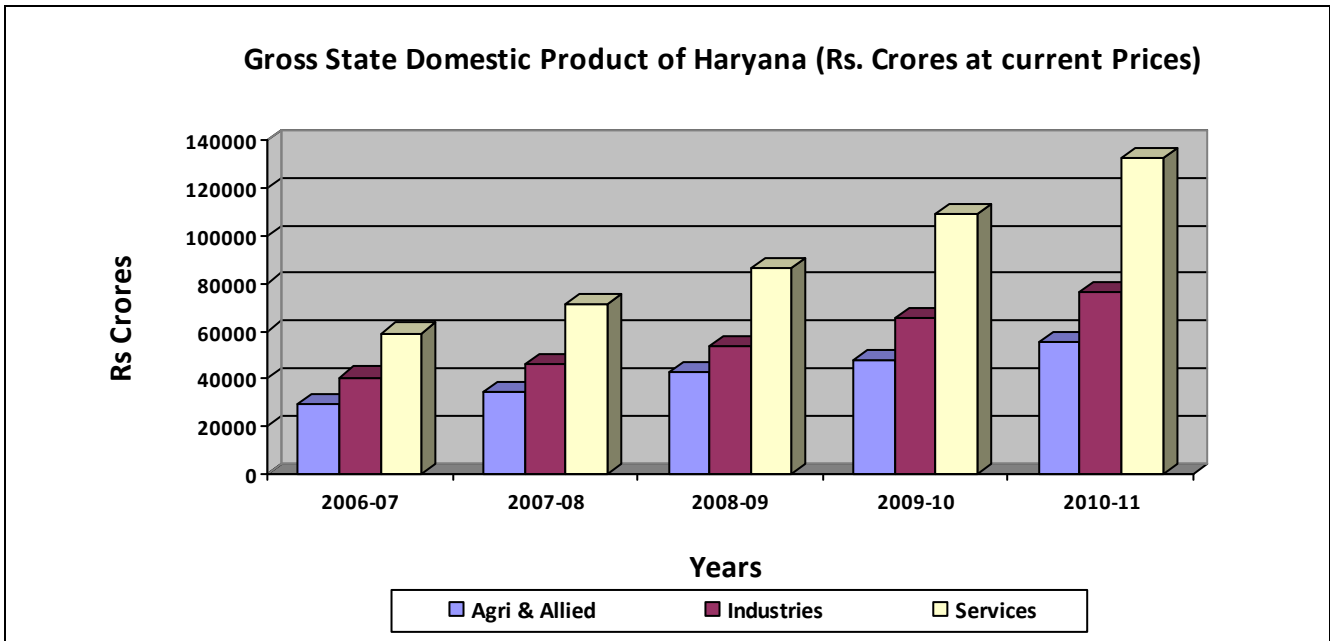


Fig.8

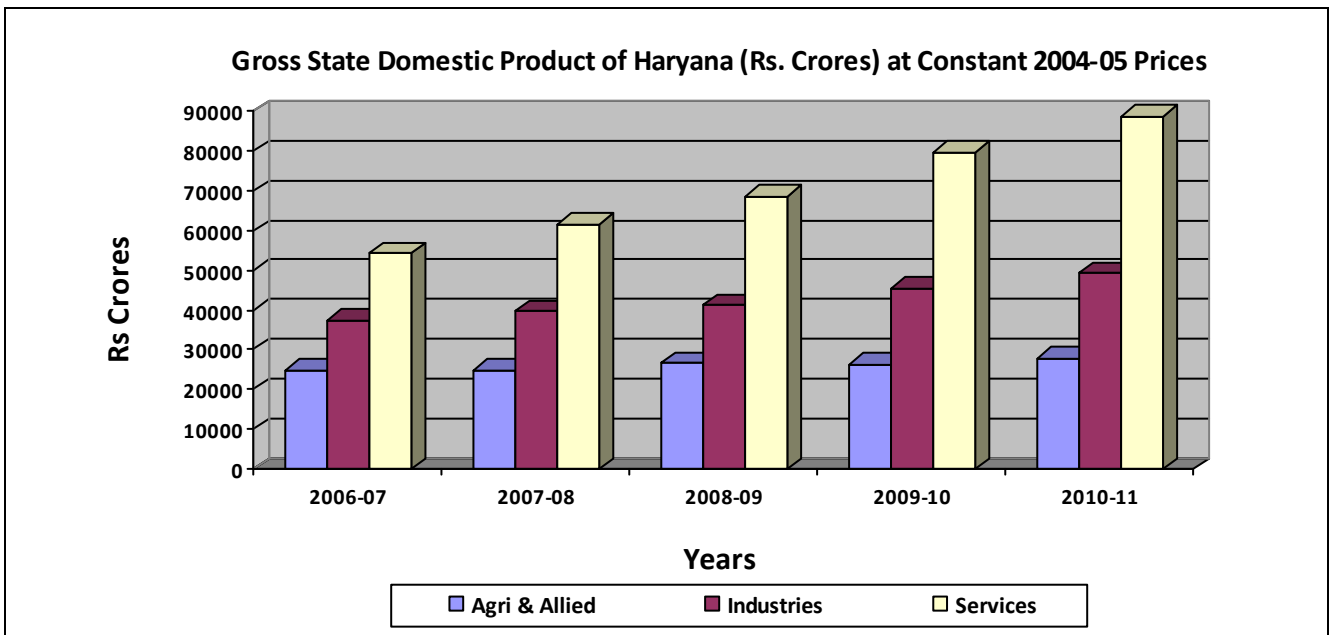


Fig.9

The growth story slightly changes at constant prices for the same years, particularly in the case of mining and quarrying which in fact increased at by about 7%. This shows the negative growth figures at current prices were mainly due to deflationary sectoral prices. The prices in all other

sectors increased and that is why at constant prices the growth was significantly lower, in primary sector only 2.6%, in secondary 7.4%, and 13% in tertiary sector and thus overall a little less than 10% (table 5).

Table 5: Gross State Domestic Product of Haryana (Rs. Cr.) at constant (2004-05) Prices

Industry	2006-07	2007-08	2008-09	2009-10 (P)	2010-11(Q)	CAGR %
1.Agriculture and Animal Husbandary	23543.4	23475.85	25235.75	24832.19	26392.16	2.9
2.Forestry and Logging	1098.26	1134.09	1164.68	1192.76	1227.57	2.8
3.Fishing	162.46	181.78	205.99	237.95	253.67	12.3
4.Mining and quarrying	342.74	355.77	328.2	164.36	74.54	31.8
Sub-Total : Primary	25146.9	25147.49	26934.62	26427.26	27947.94	2.6
5.Manufacturing	24023.3	26051.59	26741.89	29560.78	32088.28	7.3
5.1 Registered	16562.6	18047.65	18624.47	20941.74	22864.87	8.3
5.2 Un-registered	7460.73	8003.94	8117.42	8619.04	9223.41	5.1
6.Electricity, Gas & Water Supply	1856.29	2017.91	2213	2567.08	2827.46	11.4
7.Construction	11124.5	11397.14	11945.12	13224.63	14325.79	6.8
Sub-Total : Secondary	37004.1	39466.64	40900.01	45352.49	49241.53	7.4
8.Trade, Hotels and Restaurants	19922.1	23163.67	26181.91	31590.66	36353.89	16.3
9.Transport, Storage and Communication	10225.1	11649.83	12278.26	13668.02	14914.07	9.6
9.1 Railways	1675.03	2105.58	1941.91	2124.73	2141.73	5.1
9.2 Transport by other means	6956.62	7736.64	8281.23	9105.02	9984.79	9.3
9.3 Storage	67.96	69.65	71.53	79.36	81.69	5.1
9.4 Communication	1525.47	1737.96	1983.59	2358.91	2705.86	15.6
Total : Transport, Comm.& Trade	30147.2	34813.5	38460.17	45258.68	51267.96	14.2
10. Banking and Insurance	4615.71	5497.18	6145.55	6865.26	7668.5	13.2
11. Real Estate	10758.2	11921.05	12799.47	14539.44	15480.66	9.7
Total : Finance and real estate	15373.9	17418.23	18945.02	21404.7	23149.16	10.8
12.Public Administration	2603.38	2776.13	3481.87	3948.21	4233.63	14.2
13.Other services	6073.01	6569.52	7818.36	9171.62	10255.16	14.8
Total : Community & personal service	8676.39	9345.65	11300.23	13119.83	14488.79	14.6
Sub-Total : Tertiary	54197.5	61577.38	68705.42	79783.21	88905.91	13.3
Total Income (Gross)	116349	126191.5	136540.1	151563	166095.4	9.4

Q—Quick Estimates, P—Provisional Estimates, Source :—Department of Economic and Statistical Analysis, Haryana.

Due to non-availability of 2011 census data, number and size of holdings in the state are based upon 2000-01 data (table 6). As would be clear, about 46% holdings are marginal having less than 9% of total area, whereas large holdings (3%) occupy more than 23% area and that is why the average size varies highly from less than 0.5 hectares to about 16.5% hectares in the case of large holdings.

Table 6: Number and Area of Holdings by Ownership: 2000-2001* (hectares)

Size Group	Individual Holdings		Joint Holdings		Institutional Holdings		Total Holdings		Avg. Size (Ha.)
	No.	Area	No.	Area	No.	Area	No.	Area	
Marginal <1 ha.	303963	131751	395800	182867	4250	1925	704013	316543	0.45
Small 1 - 2 ha	114820	166822	177488	252362	1794	2674	294102	421858	1.43
Semi-Medium 2 - 4 ha	96761	272236	179139	502808	2021	5911	277921	780955	2.81
Medium 4 - 10 ha	49362	282013	149920	910274	2681	17718	201963	1210005	5.99
Large 10 ha. +	4116	60555	42291	654892	3368	105075	49775	820522	16.48
Total	569022	913377	944638	2503203	14114	133303	1527774	3549883	2.32

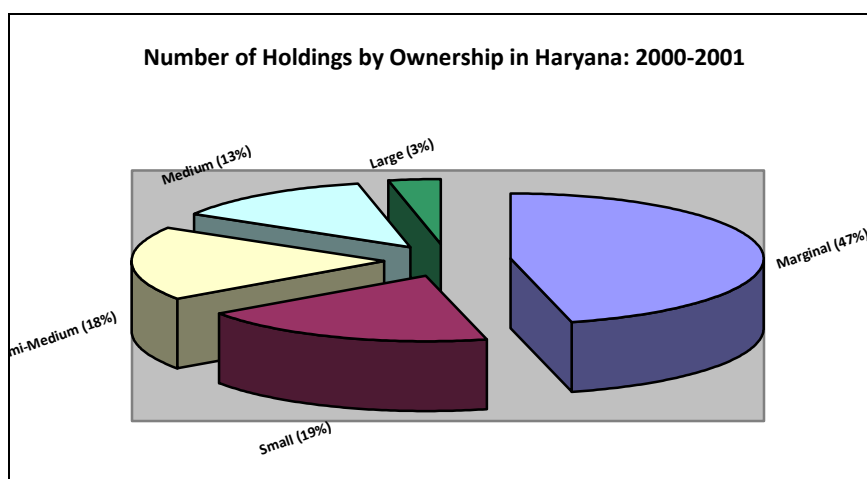


Fig.10

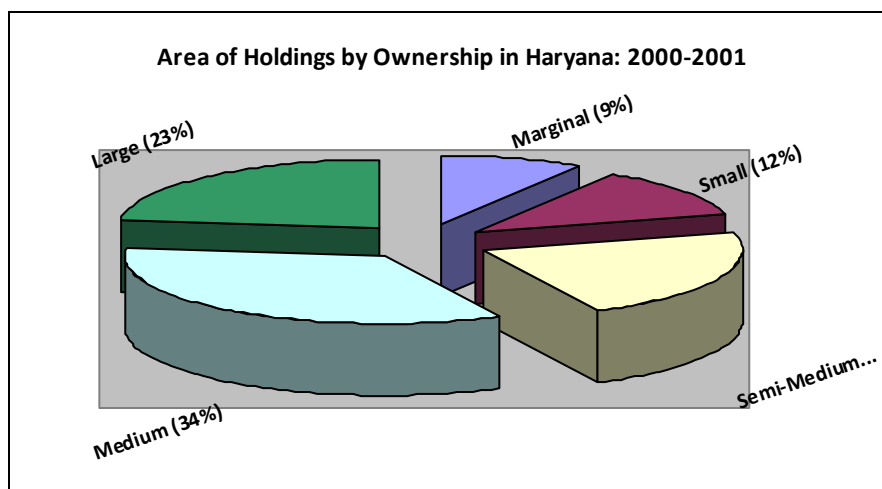


Fig.11

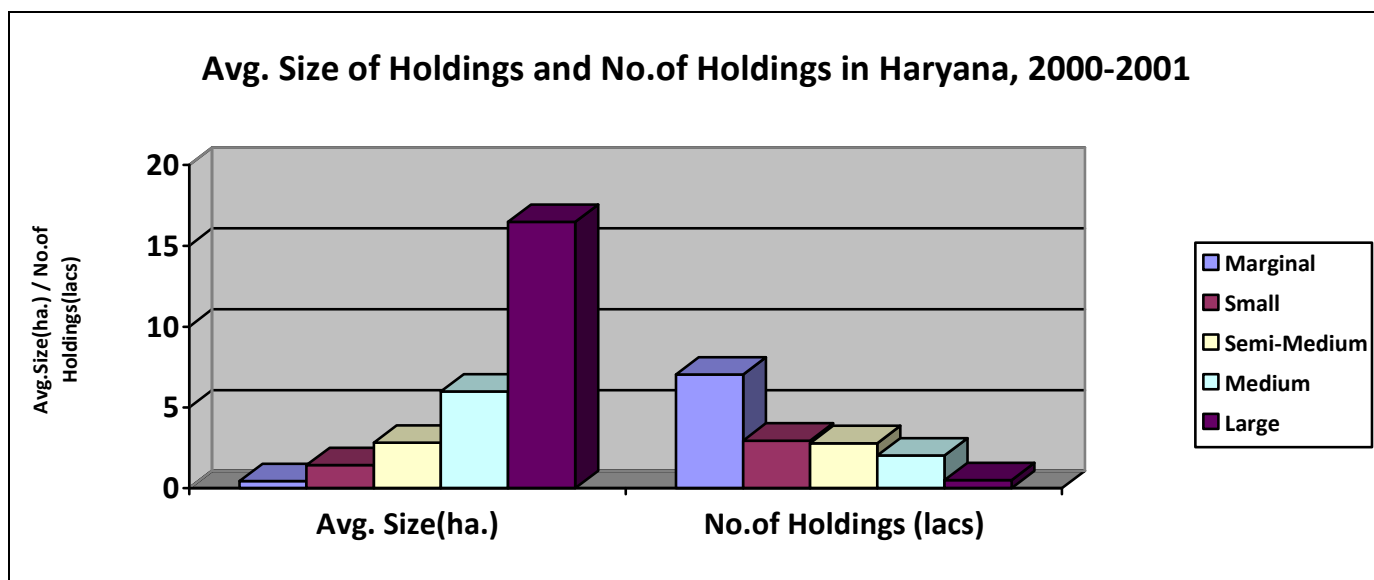


Fig.12

Plan wise annual compound growth rates of area under different crops show that there has been uninterrupted expansion of area under paddy, which is almost twice as compared with 1991-92. So is the case of area under moong and wheat, but rate of increase in area under wheat is not that much. During this period of two decades about 1/3rd more area has been added for growing wheat and there is marginal increase in area under Bajra. But rest of the crops have been getting declining trend. For example, area under jowar, a major fodder crop, is about 1/3rd less than it was two decades earlier. Another important pulse crop gram is almost at the verge of disappearing. Area under which has gone down by about 2/3rd. Similar is the case with barley, lentil and area under other pulses. Area under rape seed mustard, oil seeds and potato is less by 1/3rd to 2/3rd, (table 7a)

Two –three points are needed to be emphasized – one, area under paddy needs to be brought down immediately due to irrigation water shortages, it being not the staple diet of Haryana and soil fertility coming under threat; two, live stock, particularly milk animals being important part of rural life fodder crops like jowar need to be encouraged. Also, area under jowar helps more growth of gram during rabi which also is the need of the time. Third, to meet the increasing demand of fruit and vegetables, more area needs to be shifted towards these crops which are employment, income and environment friendly too.

Production of crops is direct outcome of area, and technological upgradation in the form of quantity and quality of inputs as well as farming practices and weather. Barring one or two cases, we find similar trends in production as was the case of area. The exceptions are jowar, where area decreased but production has gone up slightly, bajra where increase in area was marginal but increase in production is almost three times and maize where area declined by about 1/3rd but production is down by about 4 times (table 7b).

This is also reflected in declining yield level of paddy which is less than it was two decades ago, (Table 7 c). Also, barring 10th Plan, yield shows negative trend during other plans Therefore cultivation of paddy in Haryana needs to be reconsidered.

Table 7 a: Area of Important Crops in Haryana (in '000 Ha)

Year	Rice	Jowar	Bajra	Maize	Wheat	Barley	Total			
							Cereals	Gram	Moong	Massar
1	2	3	4	5	6	7	8	9	10	11
1991-92	637	102	556.6	28.9	1805.8	56	3187.5	306.7	6.2	12.1
1992-93	707.4	118.1	636.4	31.5	1963.4	53	3510	387.9	5	10.8
1993-94	755	90.2	508.3	29.9	1993.6	38.5	3415.5	405.3	6.1	10.6
1994-95	796.1	110	569	26.9	1985.3	49.5	3537.5	399.7	6.8	9.7
1995-96	830	126.1	575.2	26	1972.1	40.6	3570.7	376.7	7	10.4
1996-97	830.5	128.7	570.6	25.7	2017	33.9	3607.7	345.1	11.7	9.3
1997-98	913.7	130.9	584.4	26.1	2057	42.2	3754.6	353.9	16.5	8.6
1998-99	1086	130	613	20	2188	36	4073	357	21	11
1999-00	1083.1	111.8	586.7	20.1	2316.5	34.7	4153	100.4	9.9	8.7
2000-01	1054.3	109.4	608.3	15.4	2354.8	44.1	4186.5	124.5	5.3	6.5
2001-02	1027.5	103.8	585.5	17.9	2299.9	29.7	4064.3	142.5	13.6	9.3
2002-03	905.7	113.1	513.7	15.9	2267.1	30.3	3845.8	54.7	18.3	6
2003-04	1015.2	100.9	624.5	16.6	2315.4	27.1	4099.7	122.8	25.2	6.3
2004-05	1024.2	96.7	565.3	15.8	2316.7	22.4	4041.3	107.9	16.6	5.9
2005-06	1046.6	89.2	631.7	17.5	2302.7	28.2	4116.1	129.8	17.9	5.2
2006-07	1042	89.1	619	13.4	2377.1	37.7	4178.3	107.7	21.4	4.5
2007-08	1072.5	90.7	628	13.8	2400.7	39.5	4305.2	107.3	21.8	3.4
2008-09	1211.2	86.6	612.9	11.8	2461.4	53	4436.9	123.6	14.5	4.9
2009-10*	1206.4	77.7	583.8	12.2	2487.7	42.1	4410	84.1	14.9	4.7
2010-11*	1245	72	661	10	2515	37	4540	112	25	5
CAGR1 %	5.45	4.55	-0.19	-3.56	1.62	-8.37	2.04	1.40	13.05	-4.24
CAGR2 %	4.35	-4.92	0.59	-9.22	3.25	-1.60	2.73	-22.29	-9.27	-3.02
CAGR3 %	1.48	-4.25	2.31	-3.40	0.61	2.27	0.94	3.08	5.23	-11.12
CAGR4 %	4.85	-5.64	0.58	-6.84	1.49	0.26	1.92	-1.64	-0.69	5.49

Before working out production estimates on the basis of area and yield, figures of area were rounded off to the nearest thousand hectare.

CAGR1: Compound Annual Growth Rate during Plan 8th

CAGR2: Compound Annual Growth Rate during Plan 9th

CAGR3: Compound Annual Growth Rate during Plan 10th

CAGR4: Compound Annual Growth Rate during Plan 11th (Data available for 3 or 4 Years)

.....contd. Table 7a

(Area in 000 Ha.)

	Other Pulses	Total Pulses	Total Foodgrains	Rape Seed & Mustard	Total Oilseeds	Cotton Lint @@	Sugarcane (Gur)	Potatoes
1	12	13	14	15	16	17	18	19
1991-92	61.1	389.1	3576.6	637	701.5	505.8	161.9	13
1992-93	55.2	461.5	3971.5	562.3	589.4	532.7	138.4	13.1
1993-94	53.1	477.8	3803.3	576	595.3	563.1	111.8	11.3
1994-95	56.1	474.4	4011.9	579.1	618.7	556.5	118.8	11.7
1995-96	53.4	449.8	4020.5	574.6	611	651.8	143.7	11.8
1996-97	49.8	418.1	4025.8	612.7	672.5	652.6	161.9	13.2
1997-98	49.4	432.5	4187.1	556	616.4	631.7	141.4	7.4
1998-99	18	409	4482	498	526	583	128	14
1999-00	13.4	136.6	4289.6	449.8	462.6	543.7	136.7	12.7
2000-01	19.2	157	4343.5	408.8	414	555.4	143	9.3
2001-02	21.2	188.6	4252.9	536.4	544.5	629.4	161.2	9.6
2002-03	49.4	131.9	3977.7	607	621.2	518.3	187	10.3
2003-04	41.6	198.3	4298	619.2	632.7	526	160.3	10.5
2004-05	44.2	176.2	4217.5	699.8	714.6	621.2	133	10.8
2005-06	39.9	195.3	4311.4	707.8	735.8	583.8	129.2	12.6
2006-07	32.5	169.3	4347.6	598.1	616.2	527.7	140.6	12.8
2007-08	36	172	4477.2	496.5	511.3	482.5	140.4	9.9
2008-09	38.5	184.1	4621	514	527.6	456.1	90.5	11.9
2009-10*	24.9	131.6	4541.6	511.1	523	505.1	79.2	12.3
2010-11*	30	174	4714					
CAGR1 %	-3.00	0.79	1.97	-0.35	-0.18	5.48	0.50	-0.58
CAGR2 %	-19.06	-20.70	0.98	-4.71	-6.57	-1.80	0.22	-2.83
CAGR3 %	4.55	1.50	0.96	3.27	3.63	-1.02	-5.50	6.10
CAGR4 %	-5.15	-2.11	1.78	-4.28	-4.50	-1.86	-19.43	0.65

Table 7 b: Production of Important Crops in Haryana (in '000Tonnes)

Year	Total							Gram	Moong	Massar
	Rice	Jowar	Bajra	Maize	Wheat	Barley	Cereals			
1	2	3	4	5	6	7	8	9	10	11
1991-92	1803	29	314	47	6496	116	8805	202	3.1	7.7
1992-93	1880	46	743	55	7108	123	9955	260	2.6	6.7
1993-94	2061	25	328	36	7217	107	9774	403	3	6.6
1994-95	2230	29	720	44	7297	136	10456	440	3.4	6.5
1995-96	1847	26	409	48	7291	100	9721	381	3.1	7.2
1996-97	2463	29	650	44	7826	90	11102	276	5.7	7.2
1997-98	2556	32	674	50	7528	116	10956	309	8	6
1998-99	2432	25	618	39	8568	100	11782	294	5	7
1999-00	2583	22	582	48	9650	102	12987	58	2	6.2
2000-01	2695	23	656	34	9669	118	13195	80	1.2	5.2
2001-02	2726	22	832	47	9437	86	13150	122	3.1	7.5
2002-03	2468	22	458	29	9188	81	12246	41	2.8	5.4
2003-04	2790	26	1006	41	9111	73	13050	100	4	5.1
2004-05	3010	26	746	39	9043	58	12922	91	6.1	4.7
2005-06	3194	26	706	36	8853	79	12894	72	7.7	3.9
2006-07	3375	27	1021	30	10054	115	14627	90	9.3	3.5
2007-08	3606	42	1156	37	10232	120	15193	54	9.6	2.6
2008-09	3299	44	1087	25	11360	185	16000	129	6.5	3.6
2009-10*	3628	39	930	26	10488	137	15248	62	6.6	3.6
2010-11*	3472	36	1185	19	11630	129	16471	110	12.7	5
CAGR1 %	4.63	-4.37	7.81	-1.52	2.95	-4.61	3.36	8.31	11.14	-0.39
CAGR2 %	2.10	-6.89	3.17	-1.75	5.29	-0.45	4.38	-24.33	-24.10	-0.99
CAGR3 %	5.63	4.45	5.95	-4.59	0.57	3.33	1.95	0.21	29.14	-12.99
CAGR4 %	0.63	5.14	0.81	-11.89	3.21	3.69	2.44	5.54	2.52	10.95

CAGR1: Compound Annual Growth Rate during Plan 8th

CAGR2: Compound Annual Growth Rate during Plan 9th

CAGR3: Compound Annual Growth Rate during Plan 10th

CAGR4: Compound Annual Growth Rate during Plan 11th (Data available for 3 or 4 Years)

.....contd. Table 7b

(Production in 000 Tonnes)

	Other Pulses	Total Pulses	Total Foodgrains	Rape Seed & Mustard	Total Oilseeds	Cotton Lint @@	Sugarcane (Gur)	Potatoes	
	11	12	13	14	15	16	17	18	19
1991-92	59.2	273.1	9078.1	662	757.3	1341	905	235.4	
1992-93	55.9	326.1	10281.1	518	558.5	1411	672	219.5	
1993-94	55.4	468.7	10242.7	798	822.9	1124	646	189.6	
1994-95	65.5	516.3	10972.3	802	860.5	1371	696	160	
1995-96	58.3	450.7	10171.7	729	783.1	1284	809	161.6	
1996-97	56.3	346	11448	894	985	1507	902	179	
1997-98	51	376	11332	368	455.9	1107	750	67.7	
1998-99	16	323	12105	615	653	874	701	213	
1999-00	11.4	78.2	13065.2	595	604.6	1304	764	199.8	
2000-01	13.1	99.8	13294.8	560	562.8	1383	817	141.2	
2001-02	15.3	148.3	13298.3	800	805.4	722	927	203.1	
2002-03	33	82.8	12328.8	697	705.6	1038	1065	291.9	
2003-04	33.6	143.1	13193.1	965	976.8	1407	928	256.9	
2004-05	32.4	134.9	13056.9	824	835.9	2095	823	269.1	
2005-06	27.3	111.8	13005.8	792.8	822.1	1502	831	312.5	
2006-07	31.9	136	14763	804	821.2	1805	965.1	319.9	
2007-08	33.5	101	15294.1	597	617.2	1882	885	177.6	
2008-09	37.5	177.8	16177.8	894.9	911.5	1862	520.6	258.6	
2009-10*	24	97.3	15345.3	847	862	1918	570.7	138.4	
2010-11*	30	158.4	16629.4						
CAGR1 %	0.12	6.64	3.48	7.50	7.02	1.44	1.77	-6.78	
CAGR2 %	-26.82	-24.06	3.80	1.94	-1.28	-7.19	1.38	8.24	
CAGR3 %	9.16	1.18	1.94	0.73	1.15	19.00	-1.88	7.47	
CAGR4 %	-4.46	2.71	2.44	5.77	5.50	1.73	-19.00	-19.25	

Table 7 c: Average Yield per hectare of Important Crops in Haryana
(Yield in Kgs. per hectare)

Year	Total									
	Rice	Jowar	Bajra	Maize	Wheat	Barley	Cereals	Gram	Moong	Massar
1	2	3	4	5	6	7	8	9	10	11
1991-92	2831	236	563	1604	3597	2074	2762	659	491	634
1992-93	2650	394	1168	1772	3621	2324	2836	669	582	611
1993-94	2730	272	646	1190	3619	2816	2862	995	485	619
1994-95	2802	264	1265	1620	3676	2720	2956	1099	500	671
1995-96	2225	238	711	1827	3697	2507	2722	1010	444	692
1996-97	2967	222	1138	1691	3880	2585	3077	799	491	602
1997-98	2800	244	1154	1923	3660	2762	2918	872	500	718
1998-99	2239	192	1008	1950	3916	2778	2893	824	260	685
1999-00	2385	196	991	2400	4165	2914	3127	577	196	930
2000-01	2557	208	1079	2267	4106	2682	3152	640	226	798
2001-02	2652	209	1422	2584	4103	2880	3235	853	229	804
2002-03	2724	195	891	1833	4053	2700	3184	745	159	893
2003-04	2749	257	1607	2412	3937	2701	3183	813	158	816
2004-05	2939	272	1318	2600	3901	2636	3197	843	384	854
2005-06	3051	272	1117	2118	3844	2821	3133	554	431	741
2006-07	3238	300	1649	2308	4232	3026	3501	843	435	788
2007-08	3361	450	1841	2643	4158	3000	3529	505	439	746
2008-09	2724	500	1773	2154	4614	3491	3606	1040	453	728
2009-10*	3008	500	1592	2167	4215	3262	3458	735	400	761
2010-11*	2789	500	1793	1900	4624	3486	3628	982	508	1000
CAGR1 %	-0.75	-5.14	8.02	1.92	1.31	3.77	1.29	6.79	-2.21	0.56
CAGR2 %	-2.18	-2.15	2.59	8.40	1.98	1.44	1.61	-2.70	-16.90	6.09
CAGR3 %	4.10	8.52	3.55	-0.16	-0.04	1.02	1.00	-2.57	22.45	-1.74
CAGR4 %	-4.01	11.93	0.22	-5.71	1.93	3.74	0.51	7.05	2.20	5.09

Source : Director of Land Records, Haryana.

Before working out production estimates on the basis of area and yield, figures of area were rounded off to the nearest thousand hectare.

CAGR1: Compound Annual Growth Rate during Plan 8th

CAGR2: Compound Annual Growth Rate during Plan 9th

CAGR3: Compound Annual Growth Rate during Plan 10th

CAGR4: Compound Annual Growth Rate during Plan 11th (Data available for 3 or 4 Years)

.....contd. Table 7c

(Yield in Kgs. per hectare)

	Other Pulses	Total Pulses	Total Foodgrains	Rape Seed & Mustard	Total Oilseeds	Cotton Lint Sugarcane @@	(Gur)	Potatoes
1	12	13	14	15	16	17	18	19
1991-92	969	702	2538	1004	1080	451	5590	18152
1992-93	1013	707	2589	921	948	450	4855	16697
1993-94	1043	981	2693	1385	1382	339	5778	16729
1994-95	1168	1088	2735	1385	1391	255	5859	13692
1995-96	1092	1002	2530	1269	1282	408	5616	13545
1996-97	1131	828	2844	1459	1465	423	5571	13598
1997-98	1032	869	2706	662	740	195	5304	9130
1998-99	889	790	2701	1235	1241	255	5477	15787
1999-00	851	572	3046	1323	1307	488	5589	15771
2000-01	682	636	3061	1369	1359	424	5713	15226
2001-02	722	786	3127	1490	1479	195	5751	21126
2002-03	668	628	3099	1148	1136	340	5695	28256
2003-04	808	722	3070	1559	1544	455	5789	24417
2004-05	733	766	3096	1177	1170	568	6188	24848
2005-06	684	572	3017	1117	1117	437	6442	24804
2006-07	982	803	3396	1344	1333	581	6864	24941
2007-08	931	587	3416	1202	1207	664	6303	17910
2008-09	974	966	3501	1722	1728	694	5720	21664
2009-10*	964	739	3379	1657	1648	646	7224	11280
2010-11*	1000	910	3528					
CAGR1 %	3.22	5.81	1.48	8.42	7.21	-2.53	1.25	-6.29
CAGR2 %	-9.60	-4.24	2.79	6.96	5.66	-2.53	1.15	11.27
CAGR3 %	4.42	-0.32	0.97	-2.48	-2.39	20.18	3.85	1.31
CAGR4 %	0.73	4.92	0.66	10.38	10.47	3.69	0.56	-19.67

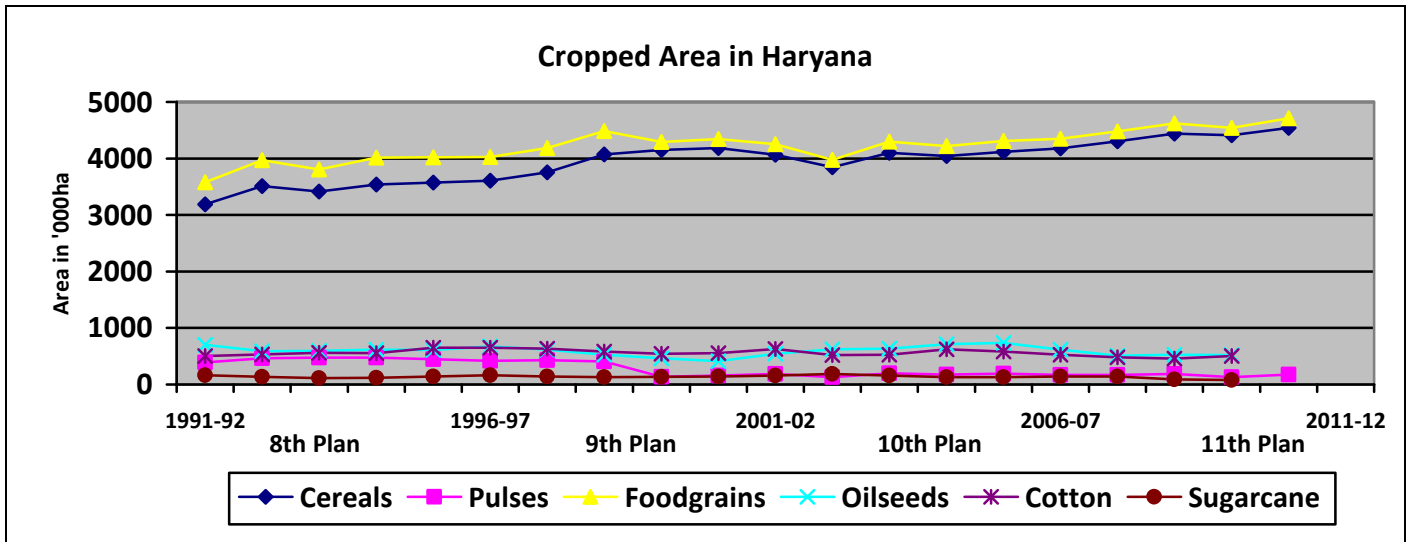


Fig.13

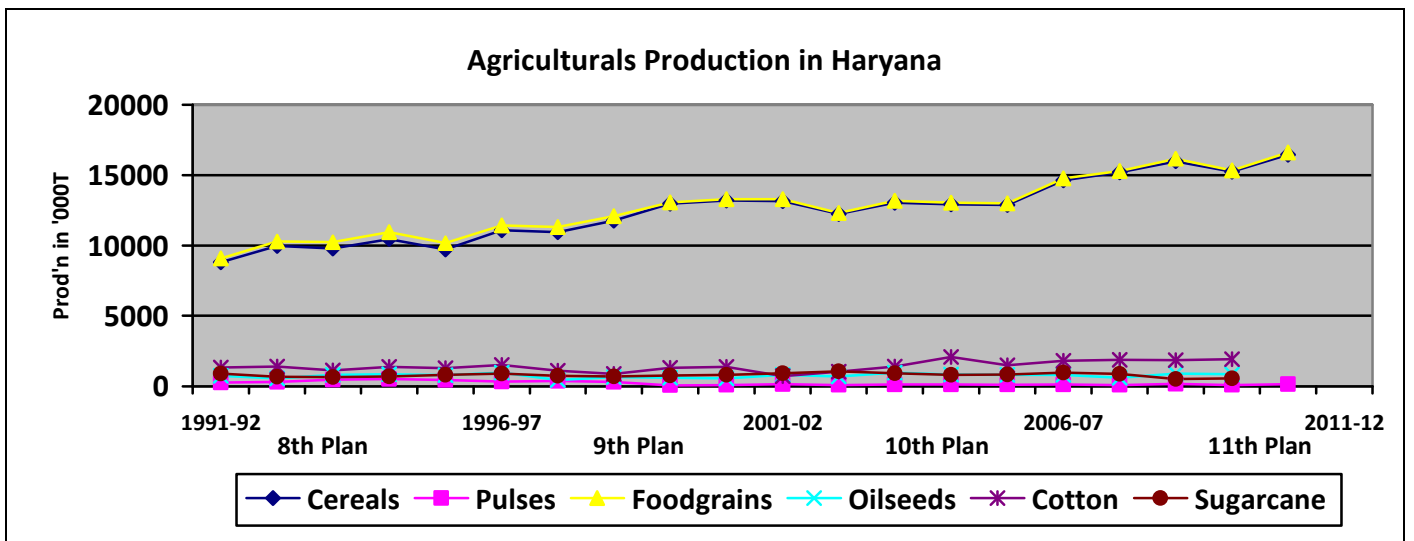


Fig.14

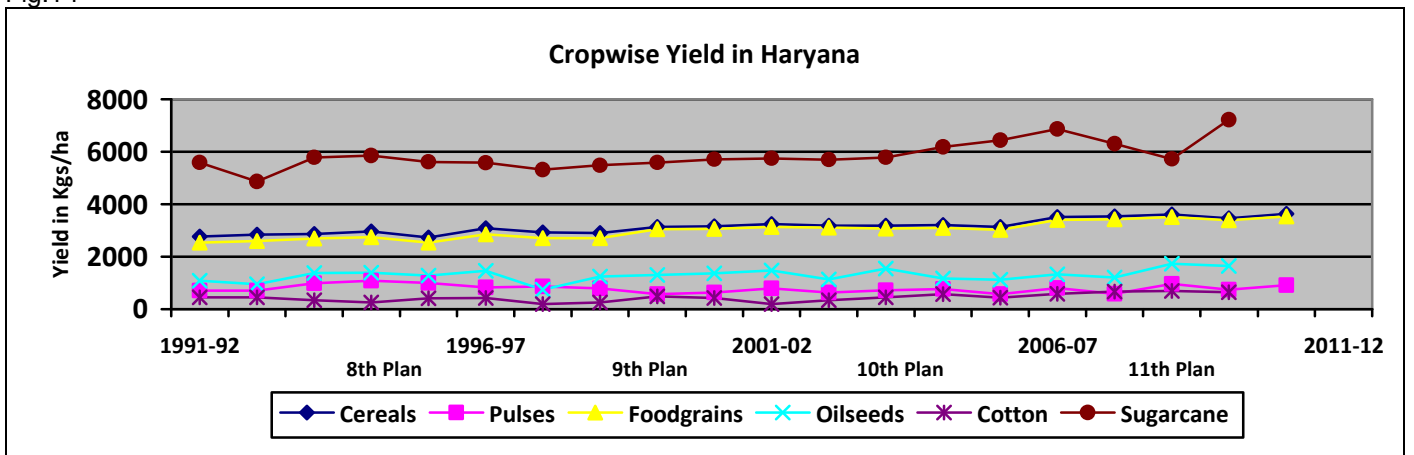


Fig.15

Yield level depends upon level of investment. During the last 5 years investment in agriculture has increased at a compounded rate of around 0.3%, in absolute terms from Rs. 1300 Cr. to Rs. 3650 Cr. or 3 times at current prices (table 8), but at constant prices (table 9), it was much less or twice of what in absolute terms was in 2005-06.

Table 8 : Estimates of Gross Fixed Capital Formation in Haryana (Rs. Cr at current prices)

Industry	2005-06	2006-07	2007-08	2008-09 (P)	2009-10 (P)	CAGR*
1 Agriculture	1300.66	1668.91	2467.16	2912.31	3649.61	0.2996
	(7.80)	(8.20)	(9.30)	(9.10)	(9.60)	
2 Forestry	67.84	67.76	73.16	92.24	70.22	0.0385
	(0.40)	(0.30)	(0.30)	(0.30)	(0.20)	
3 Fishing	7.74	5.22	7.91	9.82	9.66	0.1135
	0	0	0	0	0	
4 Mining and Quarrying	49.44	51.12	54.33	54.53	18.79	0.1706
	(0.30)	(0.30)	(0.20)	(0.20)	0.00	
5 Manufacturing	7449.55	8898.8	11371.09	12998.34	16257.01	0.2141
	(44.80)	(43.90)	(43.00)	(40.80)	(42.90)	
5.1 Registered	4315.72	5309.51	7386.49	8733.01	11559.13	0.2799
5.2 Un-registered	3133.83	3589.29	3984.6	4265.33	4697.88	0.1032
6 Electricity, Gas and Water Supply	1580.02	2456.83	3068.75	4506.95	4376.14	0.3027
	(9.50)	(12.10)	(11.60)	(14.10)	(11.60)	
7 Construction	374.3	400.8	682.72	704.73	1008.81	0.2901
	(2.20)	(2.00)	(2.60)	(2.20)	(2.70)	
8 Trade, Hotels and Restaurants	92.95	96.62	129.08	373.24	397.83	0.5310
	(0.60)	(0.50)	(0.50)	(1.20)	(1.10)	
8.1 Trade	53.49	54.36	85.56	316.39	343.05	0.7295
8.2 Hotels and Restaurants	39.46	42.26	43.52	56.85	54.78	0.1000
9 Transport, Storage and	1234.45	1407.09	1936.22	2036.9	2472.41	0.1923
	(7.40)	(7.00)	(7.30)	(6.40)	(6.50)	
9.1 Railways	315.2	338.21	751.65	653.18	840.65	0.2995
9.2 Transport by other means	277.94	409.04	418.35	504.22	417.88	0.1079
9.3 Storage	5.03	9.35	12.54	5.98	80.92	0.6668
9.4 Communication	636.28	650.49	753.68	873.52	1132.96	0.1559
10 Banking and Insurance	160.06	171.4	247.42	273.64	308.94	0.1952
	(1.00)	(0.80)	(0.90)	(0.90)	(0.80)	
11 Real Estate, Ownership of Dwellings, and Business Services (only Residential Building Part)	2590.89	2933.13	3386.59	3895.67	4251.64	0.1359
	(15.60)	(14.50)	(12.80)	(12.20)	(11.20)	
12 Public Administration	1514.65	1840.14	2658.85	3556.15	4425.83	0.3236
	(9.10)	(9.10)	(10.00)	(11.10)	(11.70)	
13 Other Services	208.31	267.22	380.14	467.42	623.2	0.3166
	(1.30)	(1.30)	(1.50)	(1.50)	(1.70)	
Total	16630.86	20264.32	26463.42	31881.94	37870.09	0.2336
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	

Source :Department of Economic and Statistical Analysis, Haryana. ;* compounded annual growth rate

Note - Figures in brackets are percentages to total. P- Provisional ,

Table 9: Estimates of Gross Fixed Capital Formation in Haryana (constant prices, 2004-05)

Industry	2005-06	2006-07	2007-08	2008-09 (P)	2009-10 (P)	CAGR*
Agriculture	1242.93	1527.54	2033.21	2139.72	2400.25	0.1798
	(7.70)	(8.30)	(9.10)	(8.60)	(8.40)	
Forestry	65.94	62.12	60.05	68.14	49.1	-0.0485
	(0.40)	(0.30)	(0.30)	(0.30)	(0.20)	
Fishing	7.52	4.79	6.51	7.34	6.96	0.0276
	0	0	0	0	0	
Mining and Quarrying	48.32	46.44	44.67	40.4	14.53	-0.2245
	(0.30)	(0.30)	(0.20)	(0.20)	(0.10)	
Manufacturing	7225.33	8067.16	9703.55	10269.93	13033.45	0.1527
	(44.80)	(43.80)	(43.50)	(41.40)	(45.90)	
Registered	4174.77	4818.54	6389.81	7004.19	9539.71	0.2247
Un-registered	3050.56	3248.62	3313.74	3265.74	3493.74	0.0280
Electricity, Gas and Water	1531.53	2250.64	2638.67	3750.53	3120.14	0.2134
	(9.50)	(12.20)	(11.80)	(15.10)	(11.00)	
Construction	366.01	367.01	560.42	521.02	705.87	0.1810
	(2.30)	(2.10)	(2.50)	(2.20)	(2.40)	
Trade, Hotels and Restaurants	90.63	89.05	114.64	286.06	298.54	0.4264
	(0.60)	(0.50)	(0.50)	(1.10)	(1.00)	
Trade	52.09	50.95	79.18	244.22	259.55	0.6127
Hotels and Restaurants	38.54	38.1	35.46	41.84	38.99	0.0118
Transport, Storage and	1197.48	1294.67	1670.31	1648.89	1953.05	0.1298
	(7.40)	(7.00)	(7.50)	(6.60)	(6.90)	
9.1 Railways	306.11	305.77	631.31	512.4	643.07	0.2215
9.2 Transport by other	270.63	387.93	385.62	439.89	354.21	0.0687
9.3 Storage	4.9	7.97	10.29	4.63	59.21	0.5590
9.4 Communication	615.84	593	646.09	691.97	896.56	0.0948
10 Banking and Insurance	155.49	155.94	214.48	202.34	246.12	0.1251
	(1.00)	(0.80)	(1.00)	(0.80)	(0.90)	
Real Estate, Ownership of Business Services (only)	2523.81	2644.92	2747.66	2863.5	2984.68	0.0424
	(15.60)	(14.30)	(12.30)	(11.50)	(10.50)	
12 Public Administration	1470.69	1686.23	2198.27	2682.36	3142.09	0.2193
	(9.10)	(9.10)	(9.90)	(10.80)	(11.10)	
13 Other Services	202.76	242.58	312.18	348.41	453.14	0.2178
	(1.30)	(1.30)	(1.40)	(1.40)	(1.60)	
Total	16128.44	18439.09	22304.62	24828.64	28407.92	0.1537
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	

Note— Figures in brackets are percentages to total, P –Provisional, ;* compounded annual growth rate

Source :—Department of Economic and Statistical Analysis, Haryana.

Same as above

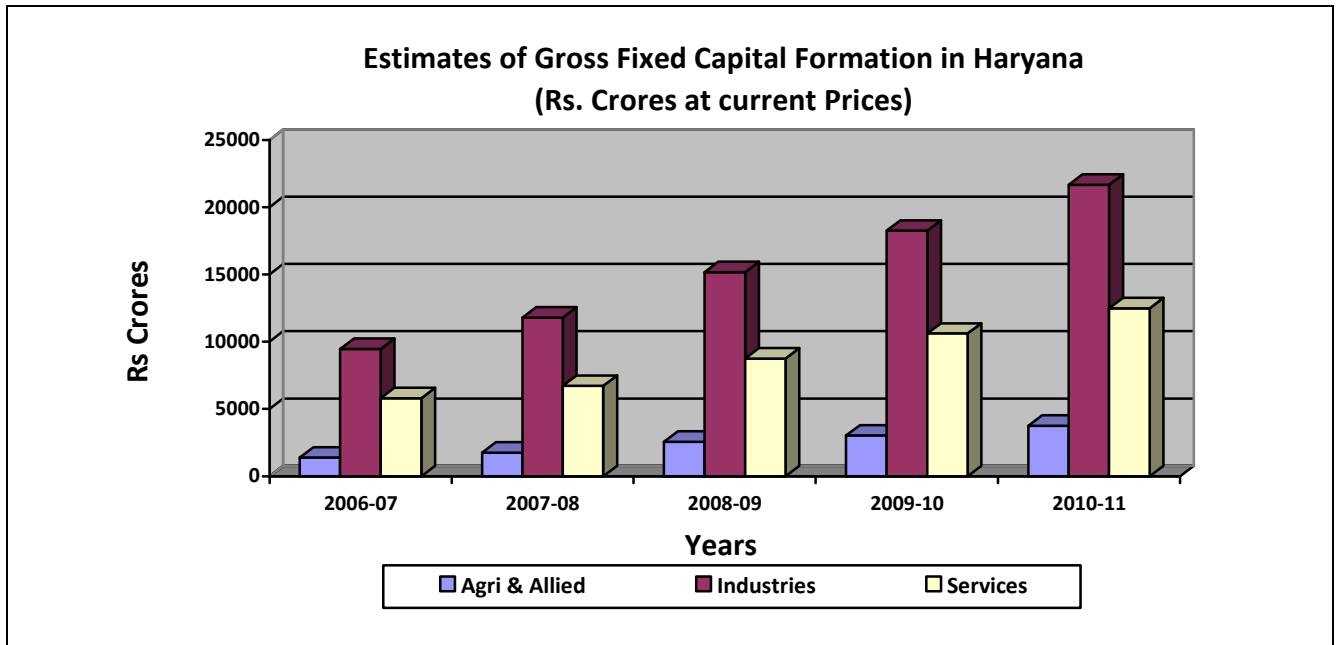


Fig.16

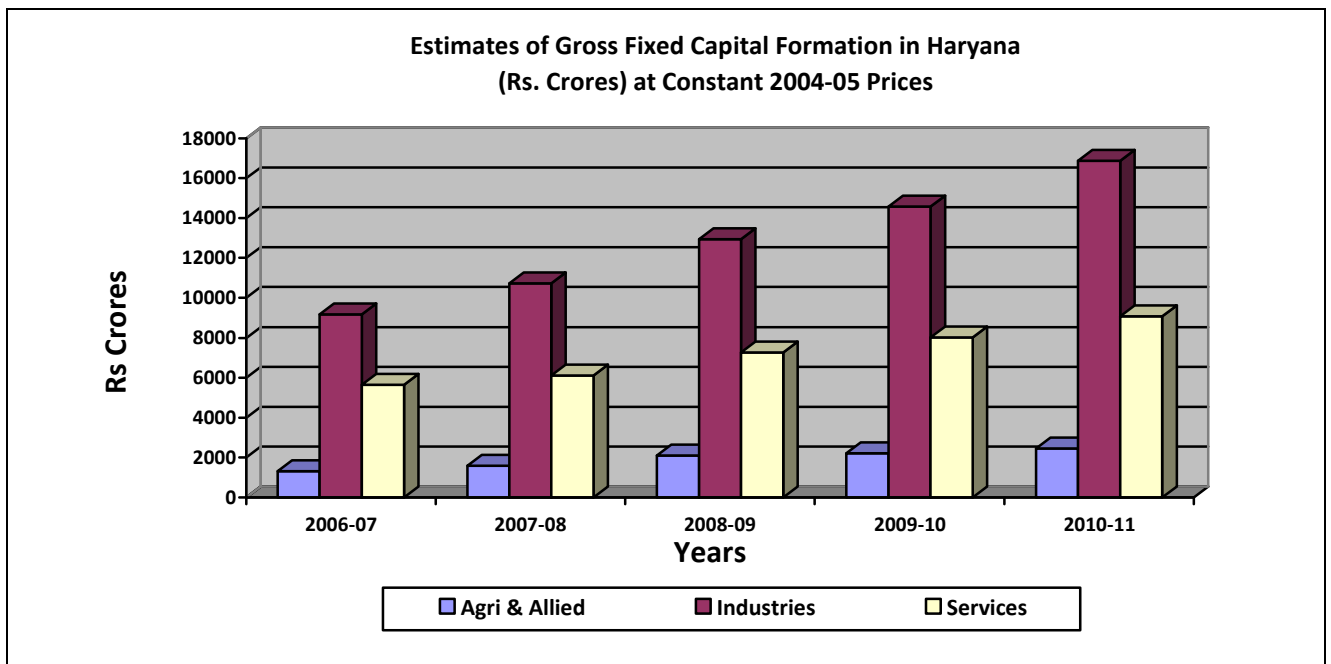


Fig.17

Marketing and storage: The agricultural produce markets were regulated in Haryana under the Punjab Agricultural produce Markets Act, 1961. The progress of regulation was steady and helped improve the state of agricultural marketing in the state. With the increase in volume of arrivals due to increased production as well as due to more commodities coming under regulation, space was inadequate and sub yards were introduced. Later on due to heavy rush of arrivals and delay in disposal village purchase centres were developed. But after liberalization

the APMC system is under attack and private sector is expected to compete with these markets. Therefore further expansion of Regulated markets has come to a stand still for the last so many years (Table 10).

Table 10: Number of markets

Number of regulated markets	2006-07	106
	2007-08	106
	2008-09	106
	2009-10	106
	2010-11	106
Number of Sub-yards	2006-07	178
	2007-08	178
	2008-09	178
	2009-10	178
	2010-11	178
Average number of villages* served per per regulated market	2006-07	64
	2007-08	64
	2008-09	64
	2009-10	64
	2010-11	64
Average area* served per regulated market (Sq. Kms.)	2006-07	417
	2007-08	417
	2008-09	417
	2009-10	417
	2010-11	417

Source :—Haryana State Agricultural Marketing Board.

Storage of agriculture produce is another important aspect of agricultural marketing which is equally important along with transportation and actual handling of the produce in the market. District wise distribution of storage capacity of state owned godowns is mixed. But overall only marginal increase at the rate of 0.06% per annum has been noticed, whereas production of agricultural produce increased by about 2.45% in the case of food grains and about 5.5% in the case of edible oil seeds. We cannot forget that Haryana is a major supplier of food grains to the central pool, meaning a large part of the produce is marketed. Therefore expansion of storage, transportation, market yards etc have to be compatible with the production and arrivals. The private sector is expected to increase its role, but one should not forget it has to work on profitability, if a liquor baron provides more money then private sector will prefer that instead of storing of food grains which may not be as much profitable. In Haryana food grains many times remained in the open fully exposed to weather.

Table 11 Capacity of state owned warehouses ('000 tonnes)

District	2006-07	2007-08	2008-09	2009-10	2010-11
Ambala	103	102	102	102	92
Panchkula	5	5	5	5	2
Yamunanagar	163	163	163	172	177
Kurukshetra	588	588	588	606	601
Kaithal	557	557	595	595	515
Karnal	624	630	649	745	865
Panipat	201	202	202	202	279
Sonipat	159	155	155	179	252
Rohtak	111	110	110	110	117
Jhajjar	13	15	15	15	24
Faridabad	230	235	235	235	226
Gurgaon	104	102	102	111	58
Rewari	57	58	58	58	53
Mahendragarh	46	47	47	49	55
Bhiwani	57	62	62	90	136
Jind	381	379	379	416	420
Hisar	407	404	404	496	441
Fatehabad	481	491	491	593	495
Sirsa	608	608	608	754	792
Palwal				650	102
Mewat				—	35
Total :	4895	4921	4970	6183	5737

Source :—Food and Supplies Department, (Godowns), Haryana.

Natural Resource Management:

Table 12: Land use ('000 ha)

year	Total area according to village papers	Forests	Land not available for Cultivation			Other uncultivated land excluding Fallow Land		
			Land put to non-agricultural uses	Barren and unculturable land	Total (4+5)	Permanent pastures and other grazing land	Land under misc. tree crops and groves	Culturable but barren land
2007-08	4372	40	457	103	560	26	12	28
2008-09	4371	39	470	103	573	31	13	29
2009-10(P)	4371	40	470	104	574	28	13	29

Year	Fallow Land		Total 11+12	Net area sown	Culturable area 8+9+13+14	Area Sown more than once	Total Cropped area 14+16	Cropping Intensity
	other than current fallows	Current Fallows						
2007-08	8	104	112	3594	3772	2864	6458	1.80
2008-09	5	105	110	3576	3759	2924	6500	1.82
2009-10(P)	5	133	138	3550	3756	2801	6351	1.79

Source : Director of Land Records, Haryana.

Land Ceiling in Haryana: Limit on agricultural land was imposed under the land ceiling Act 1972 known as THE HARYANA CEILING ON LAND HOLDINGS ACT, 1972 (Haryana Act No. 26 of 1972) which received the assent of the President of India on the 22nd December, 1972 and was published in the Haryana Government Gazette (Extraordinary) of December, 23, 1972. The Rules under the Act known as THE HARYANA CEILING ON LAND HOLDINGS RULES, 1973 were framed in 1973. Under the Act land was categorized into 'A', 'AA', 'B' and 'C' as follows:

'A category land' means the land under assured irrigation capable of growing at least two crops in a year and irrigated by a canal or State tube well as mentioned in Section 4(1) (a);

'AA category land' means the land under assured irrigation. capable of growing at least two crops in a year and irrigated by private tube wells/pumping sets as mentioned in Section 4(1) (a) read with Section 4(5);

'B category land' means the land under assured irrigation capable of growing. at least one crop in a year as mentioned in Section 4(1)(b); and

'C category land' means land of all other types including land under or charge as mentioned in section 4(1)(c);

The maximum permissible limit of land was fixed 21.8 hectares of C category or equivalent to that of other categories. Other categories of land were adjusted on a formula treating A category of land = 1, AA category =1.25, B category = 1.5 and C category = 3. Thus 1 unit A land = 1.25 units of AA land= 1.5 units of B land = 3 units of C land.. On adjustment ceiling limits were roughly equal to 54.5 acres of "C" land, 27.25 acres "B" land, 22.71 acres AA land and 18.17 acres of A land

The act has been drastically amended in 2011 allowing ownership of any amount of land (both urban and agricultural) to corporate bodies and effected retrospectively from the year it was implemented that is September 1975. The Punjab and Haryana High Court taking a suo -moto notice stayed its implementation. The High court order was stayed by the Apex Court on a petition filed by land developers.

Soil fertility: The maps given below provide district wise information about the level of soil fertility or presence of micronutrients in the state, which should be helpful in making available various types of fertilizers in the districts and imparting education to the farmers to avoid those fertilizers which are not deficient in the concerned districts. For example, phosphorus, potassium, manganese and zinc are not deficient in most of the districts. It is nitrogen which needs to be provided extensively in all the districts. Similarly organic carbon is required to be provided. Considering the deficiency availability of micronutrients in the soil consumption of Phosphorus and Potassium needs to be looked into carefully which are not deficient too.

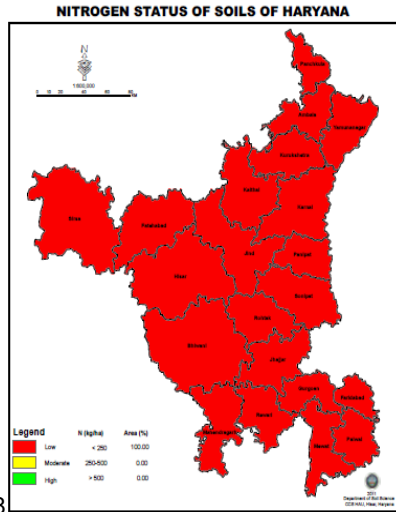


Fig.18

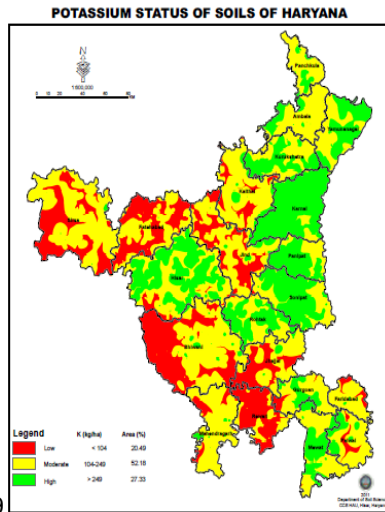


Fig.19

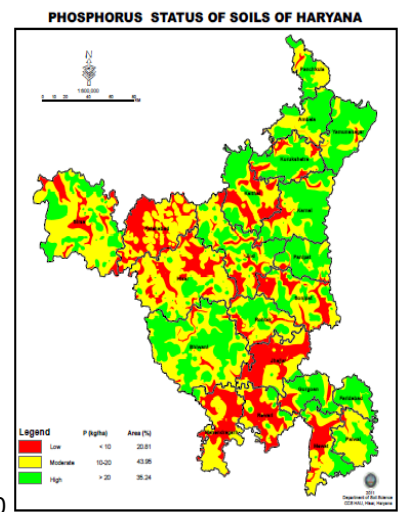


Fig.20

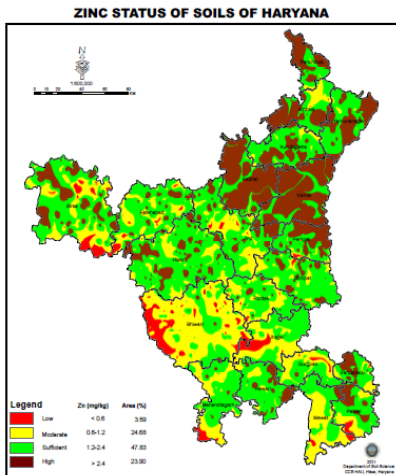


Fig.21

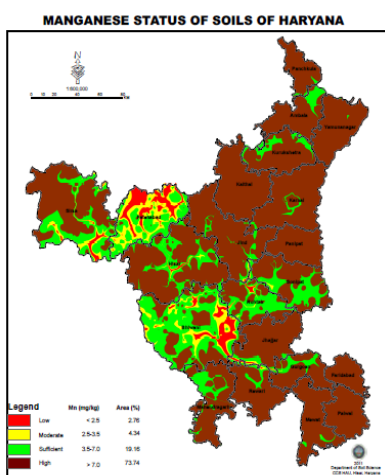


Fig.22

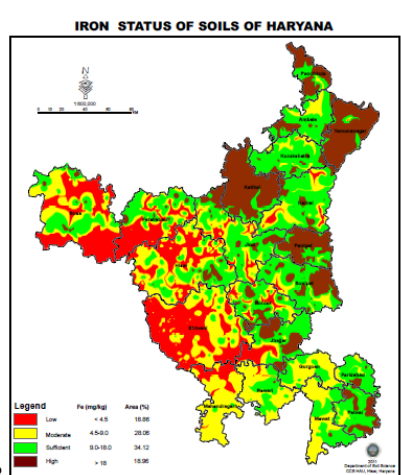


Fig.23

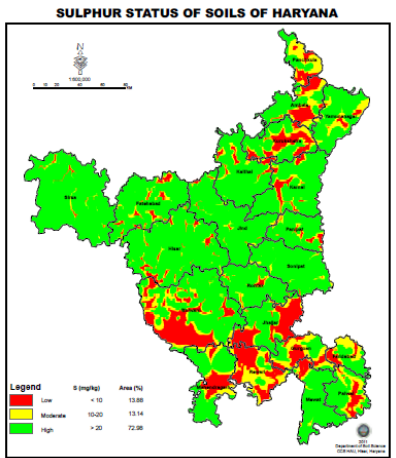


Fig.24

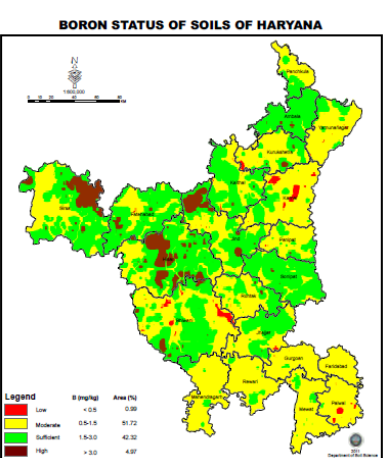


Fig.25

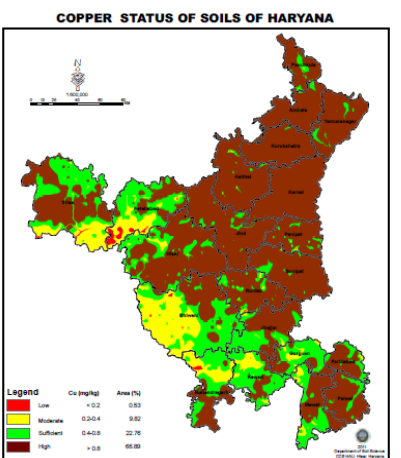


Fig.26

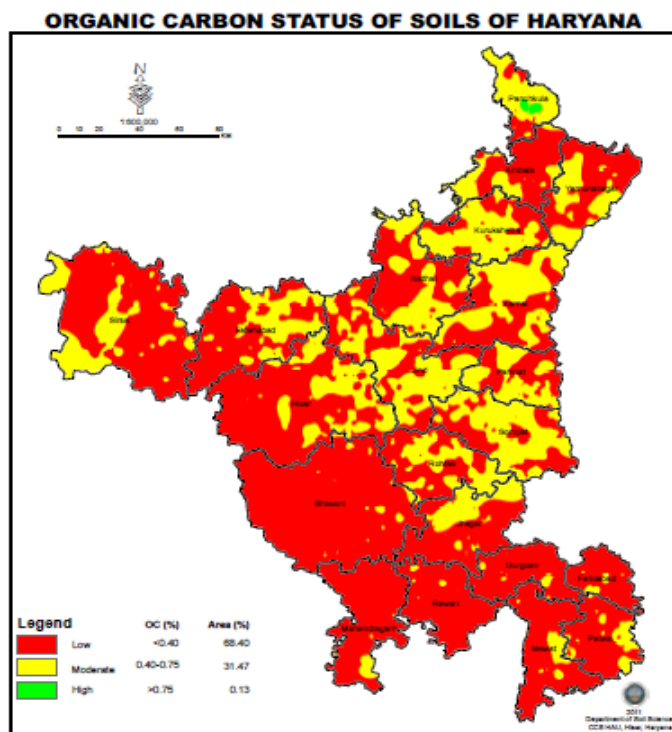


Fig.27

Status of fertilizer consumption in the state is given below (Table 13)

Table 13: Fertilizer Consumption in Haryana (Tonnes)

Year	Consumption			
	N	P	K	Total
2005-06	847427	252570	28674	1128671
2006-07	862642	244115	18217	1121974
2007-08	939502	257273	23592	1220367
2008-09	946266	313512	29361	1289139
2009-10	961875	333165	60648	1355688
2010-11	974045	335950	47627	1357622

Source: Director of Agriculture Haryana (N-Nitrogen, P-Phosphorus, K- Potassium)

Table 14: Consumption of Pesticides (Technical Grade)

Year	Quantity (In Tonnes)	Area covered (In 000 Hectare)
2005-06	4650	8495
2006-07	4600	8415
2007-08	4391	7555
2008-09	4288	7290
2009-10(R)	4070	7119
2010- 11(P)	4060	7110
CAGR	-0.030	-0.040

Source :—Director of Agriculture, Haryana. P—Provisional R—Revised

Consumption of pesticides is another area of concern. We had information with regard to spray of pesticides on vegetables, which were used without considering the seriousness and after effects health of the consumers.

Table 15 Animal Driven implements and equipment Census 2007

	Wooden plough	Steel plough	Cultivator	Disc harrow	Seed-cum-fertiliser/dri ll /Seed drill	Levelle r	Wet land puddle r	Sugarcan e crusher	Cart
1	2	3	4	5	6	7	8	9	10
Panchkula	2363	1532	142	411	200	2235	1185	21	1755
Ambala	1495	2120	1939	2897	1133	2159	583	35	6254
Yamunanagar	1564	8654	1548	2686	647	7658	1254	66	7542
Kurukshetra	1018	635	1691	2349	845	1804	771	8	14520
Kaithal	2157	3005	1092	2656	773	2095	392	25	16704
Karnal	2281	1964	2472	3924	1127	2823	772	81	20240
Panipat	1363	341	1901	2213	607	1512	421	41	14042
Sonipat	2420	573	1399	1390	782	1175	256	21	12109
Jind	14673	17176	6128	10026	3626	13063	627	5	53780
Fatehabad	6653	7354	2217	2005	1976	3434	404	162	6477
Sirsa	6735	4992	2071	1619	1837	3711	570	28	12401
Hisar	25413	35339	8955	11551	6363	16442	3601	77	32826
Bhiwani	13175	18999	4237	4062	3913	4908	634	84	10440
Rohtak	3613	3246	2306	2633	2002	2668	493	70	13437
Jhajjar	498	278	1364	1279	988	1206	338	6	1607
Mahendergarh	4937	1579	9	11	9	1123	2	0	4224
Rewari	1002	339	553	555	609	516	54	0	1024
Gurgaon	1853	964	323	211	305	615	76	93	549
Faridabad	198	42	303	309	235	223	166	10	870
Mewat	320	33	140	136	172	110	32	1	19
Total	93731	109165	40790	52923	28149	69480	12631	834	230820

Mechanization of Haryana agriculture has been fast. Almost animal drought power has been replaced by use of tractors. Many times that has not benefitted the farmers. Status of animal driven implements as 2007 census is give in table 15 above.

Haryana is mostly irrigated about 85% of Net sown area is irrigated by private tube wells and canals. Tank or public sector tube well irrigation is not in vogue in the state (Table16).

Table 16: Net Area under Irrigation in Haryana (000 ha)

Year	canals	Tanks	Wells	Tubewells	Others	Total	% Net area sown
2005-06	1331.0	(a)	(a)	1591.0	14.0	2936.0	82.3
2006-07	1309.0	(a)	(a)	1667.0	14.0	2990.0	84.1
2007-08	1381.0	(a)	(a)	1630.0	14.0	3025.0	84.2
2008-09	1274.0	(a)	1.0	1600.0	2.0	2877.0	80.5
2009-10*	1282.0	(a)	2.0	1783.0	2.0	3069.0	86.4
CAGR	-0.0077			-0.0006	-0.442	-0.0049	-0.0065

Source :— Director of Land Records, Haryana. (a) less than 500 hectares *provisional

Availability of credit in adequate amount, at proper time and at economical costs has been a major constraint on agriculture. The tables below illustrates further. Growth of credit from all sources has been marginal 0.16%. But negative growth from scheduled commercial banks, which is relatively less costly is more serious. It means farmers have to depend upon private sources. Hence, further steps to increase supply of credit are needed.

Table 17 : Ground Level Credit for Agriculture and Allied activities (Rs. Crores)

	2005-06	2006-07	2007-08	2008-09	2009-10	CAGR
Public Sector CBs	4372.34	5535.22	5582.68	7238.01	11835.65	0.25
Private Sector Banks	585.22	674.8	646.25	1766.19	1291.06	0.29
SCB/CBs	4860.7	4625.68	5813.84	4132.89	4910.08	-0.009
Land Development Banks (LDBs)	229.52	184.09		306.97	155.65	
Regional Rural Banks	799.59	972.96	1399.36	1471.25	2044.8	0.26
Other	0.06	-	-	-	10.31	
Total	10847.43	11992.75	13442.13	14915.31	20247.55	0.16

Source: Fertilizer Statistics, FAI, New Delhi, Note- In year 2007-08, SCB/CBs includes LDBs.

Table 18: Credit for Agriculture and Allied activities, Haryana (1-4-2011 to 31-3-2012)

Small Farmers			Non-Agri. ST						
Cash	Kind	Total	RA	NAP	TC	FDR	NSC	Total	
11762.90	193.42	11956.32	21.66	30.38	7.37	211.94	9.77	281.12	
Cash Credit			Huda financing		MT Agri. Advances				
Fertilizer	Revolving	Individual	Total		Dairy	Land Purchase	DRDA	Milch cattle	Total
81.87	41.26	164.14	287.27	110.44	21.07	0.00	1.26	0.25	22.58
Non-agri. MT								Total Advances	
HHKN	SJRY	MV	HouseLoan	Study Loan	SE	CD	Integrated		Total
32.42	1.37	8.10	157.84	1.60	704.69	111.21	154.24	1171.47	13829.20

Livestock is a major source of subsidiary income to the farmers. The state of animal husbandry is given below in Table 19

Table 19 Animal Husbandary and Dairying, Haryana 2012-13

Particulars	Upto Sept.2012
Livestock Pujpoulation (Lacs.)	90.50
Milk Production (Lac tonnes)	66.61
Per Capita/day availability of milk (gms.)	708
Poultry Population (Lacs.)	28785
Eggs Production (Lacs.)	41884
Wool Production (Lac Kgs.)	13.33
Meat Production (Lac Kgs.)	132.07
Veterinary University	1
Veterinary Hospitals	945
Veterinary Dispensaries	1814
Semen Production Cenres	3
Semen Banks	10
Diagnostic Laboratories	20
Haryana Vererinary Vaccine Institute	1
Haryana Vererinary Training Institute	1
Pet Anomal Hospitals-cum-Teaching-Center	1
Veterinary Polyclinics	3
Registered Gaushalas	256
Total Staff	10849

Availability of certified seeds at reasonable rates is equally important and one of the vital inputs of agricultural growth. The state of seeds, viz. availability as well as requirement in the state is given below (table a for Rabi crops and table 20 b for Kharif crops)

Table 20a : Requirement and Availability of Certified Seeds During RABI (Qtls.)

Crop	Requirement	Availability							
		HSDC/SSC	Kribhco / IFFCO	NSC	HAFED	SFCI	HAU	Pvt.	Total
2012-13									
Wheat	1248000	317022	84542	25400	90640	9165	5989	771755	1304513
Barley	30200	10095	0	0	0	1492	990	21000	33577
Gram	8300	1781	0	130	0	1068	60	6468	9507
Lentil	500	359	0	0	0	0	0	255	614
Mustard	20500	3251	288	356	0	1264	1070	16284	22513
Toria	1000	122	0	0	0	0	0	1135	1257
Total	1308500	332630	84830	25886	90640	12989	8109	816897	1371981
2011-12									
Wheat	927000	252241	79464	26500		18483		1406807	1783495
Barley	25600	6294	0	0		3210		19467	28971
Gram	7250	3149	0	400		3293		1627	8469
Lentil	600	313	0	100		0		550	963
Mustard	20300	4614	420	910		3238		11259	20441
Toria	850	55	0	500		0		546	1101
Total	981600	266666	79884	28410		28224		1440256	1843440
2010-11									
Wheat	900000	212038	64042	45900		2765		832537	1157282
Barley	22800	4532	0	0		609		19696	24837
Gram	4500	1354	0	70		817		3820	6061
Lentil	110	87	0	100		0		0	187
Mustard	20300	3459	309	683		2421		13939	20811
Toria	1165	115	0	200		0		1184	1499
Total	948875	221585	64351	46953	0	6612	0	871176	1210677
2009-10									
Wheat	740000	246459	56947	35860		5444		842294	1187004
Barley	36075	15324	0	0		0		36170	51494
Gram	5600	2016	0	709		2271		651	5647
Lentil	400	0	0	100		0		370	470
Mustard	16000	4891	275	500		2627		9436	17729
Toria	1300	596	0	0		0		1176	1772
Total	799375	269286	57222	37169	0	10342	0	890097	1264116

Table 20b : Requirement and Availability of Certified Seeds During Kharif (Qtls.)

Crop	Requirement	HSDC/SSC	Kribhco/IFFCO	NSC	SFCI	Pvt.	Total
2 0 1 2							
Paddy	62500	8849	432	10130	1453	97612	118476
Cotton*	800	0	0	0	385	266	651
Bajra	25000	1003	0	75	0	27860	28938
Moong	20000	11372	0	1325	1153	4195	18045
Arhar	4200	503	0	75	633	5418	6629
Guar	10000	1324	2953	0	1792	5949	12018
Til	35	3	0	0	0	55	58
Moth	300	0	0	0	0	365	365
Total	122835	23054	3385	11605	5416	141720	185180
2 0 1 1							
Paddy	54500	8391	285	9179	697	129576	148128
Cotton*	1110	827	0	23	231	400	1481
Bajra	24300	1844	0	37	0	28995	30876
Moong	5470	2334	0	241	80	2610	5265
Arhar	3650	80	0	110	0	4531	4721
Guar	8800	1869	153	685	260	9784	12751
Til	35	10	0	0	0	40	50
Moth	250	2	0	0	0	195	197
Maize	5050	500	0	3000	0	6100	9600
Groundnut	70	0	0	0	18	110	128
Total	103235	15857	438	13275	1286	182341	213197
2 0 1 0							
Paddy	56000	8436	285	9187	697	147762	166367
Bajra	18500	1844	0	37	0	19795	21676
Cotton*	1160	759	0	0	231	415	1405
Arhar	2950	80	0	110	0	3981	4171
Mothbeans	300	4	0	0	0	317	321
UrdBean	600	17	0	200	31	422	670
Moong	5470	2334	0	255	96	1980	4665
Groundnut	35	0	0	0	18	110	128
Guar	11000	1869	153	685	260	10864	13831
Jowar	7000	0	0	400	0	6800	7200
Til	35	10	0	0	0	40	50
Total	103050	15353	438	10874	1333	192486	220484

* excluding Bt. Cotton