# A Study On Trends Of Public And Private Capital Formation In Indian Agriculture

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Abstract: Capital formation is more important in agriculture as increasing production and productivity of Indian agriculture is of paramount concern to keep pace with the increased population, thus feeding the millions and also in the context of benefiting the majority of small and marginal farmers engaged in agriculture through increased income against all odds, major being the vagaries of monsoon. The study find out whether capital formation in Indian agriculture really declining or increasing? How and to what extent has it affected growth in agriculture? To find out the contribution of private and public sector investment in indian agricultural growth. In this regard, the authors have focused on "Trends of Public and Private Capital Formation in Indian Agriculture".

Keywords: Capital formation, Productivity, Agriculture, Investment, Public and Private.

#### I. INTRODUCTION

Capital is the part of wealth which can be used for further production. The investment rate in agriculture measured as a ratio of gross capital formation to GDP to the sector has improved in recent years, which has in fact doubled since 1999-2000. Currently, private sector constitutes almost 85 per cent of the capital formation in agriculture. Investment credit has emerged as the major driver there by emphasizing the role of Banks to boost farm level investments. However, the recent declining trend in investment credit vis-à-vis crop loan has serious implications for sustaining capital formation in agriculture.

Investment in agriculture is generally undertaken for acquiring physical assets that result in the creation of a stream of incremental income over a period of time. Capital formation through investment in agriculture helps in improving the stock of equipment, tools and productivity of resources employed, which, in turn, enables the farmers to use their resources, particularly land and labour, more productively. Creation of capital goods, thus, is necessary for raising productivity of existing resources and realizing the long-term growth potential. Therefore, the relationship between capital formation and thus agricultural growth and

consequently poverty alleviation are very well documented. Public investment reduces rural poverty through improved growth in agricultural production, agribusiness, rural non-farm employment and lower food prices. While there are often long time lags between investment and visible impact, investments in agricultural research, education, and rural infrastructure are often the most effective in promoting agricultural growth and poverty reduction.

# TRENDS IN AGRICULTURAL CAPITAL FORMATION AFTER LIBERALIZATION

During the eighties and nineties various studies on the trends of capital formation highlighted the issues on the fall in public investment in agriculture and its adverse impact on private investment. The complementarily of public and private investment and consequent inducement effect of public over private investment in agriculture and the linkages with poverty reduction were strongly emphasized.

The trends in agricultural capital formation especially since the nineties show that the ratio of Gross Capital Formation in agriculture (GCFA) to GDP from agriculture was 12.69 per cent in 1990-91 has gone through various phases and reached 19.8 per cent in 2011-12. The ratio reflects

the investment rate in agriculture and the increase in this ratio is reflective of the fact that investment is being ploughed back into the sector through the income generated from the sector. However, this increase has been more pronounced during the latter period.

- ✓ From 1990-91 to 1999-2000(except 1991-92 and 1992-93) the investment rate in agriculture (captured by the ratio of GCFA to GDP emanating from the sector) has continuously declined and during the period 1999-2000 to 2003-04 saw a fluctuating trend. Further, starting 2004-05, there has been a continuous increase in the ratio (except 2010-11) (Chart I & Annexure I).
- ✓ In six years i.e., 2005-06 to 2011-12 the investment rate in agriculture jumped from around 15 per cent (2005-06) to 20 per cent (2011-12). This period also saw three important developments in the field of agriculture credit: (a) Doubling of Agriculture Credit Programme (2004-05 to 2007-08), (b) Providing crop loans at 7 per cent through the Interest Subvention Scheme for Crop loans (not for term loans) in 2006-07, and (c) Debt Waiver of agricultural loans in 2008-09.
- ✓ The ratio of capital formation in agriculture (GCFA) to overall GDP has stagnated at a level below 3 per cent. The average was 2.69 per cent for the period 1990-91 to 2011-12

# PUBLIC AND PRIVATE SECTOR CAPITAL FORMATION IN AGRICULTURE

Investment in agriculture is undertaken by both public as well as by private sectors. While public sector investment is undertaken for building necessary infrastructure, private investment in agriculture is made either for augmenting productivity of natural resources or for undertaking such activities, which supplement income sources of farmers. Private sector investment includes investments made by private corporate and households. The corporate sector investment includes investment by organized corporate bodies like big private companies and unorganized entities like sugar co-operatives and milk co-operatives. The household sector investment comprises investment on farm equipment, machinery, irrigation, land improvement and land reclamation. Private sector constitutes the dominant share in the total GCFA.

# PRIVATE SECTOR CAPITAL FORMATION AND INVESTMENT CREDIT

Agriculture credit can be classified into short term and long term credit (investment credit). All banks (Commercial banks, Cooperative banks and RRBs) disburse both types of loans through the banking system. Crop loans are largely for funding the working capital requirements of farmers while term loans are utilized for assets generation at farmers level, thus accentuating capital formation in agriculture

The Government need to take up the issue of recapitalization of State Cooperative Agriculture and Rural Development Banks (SCARDBs) which largely funds private investment agriculture.

A strong Long Term perspective plan for rural infrastructure need to be given a policy thrust. "Exclusive" planning may be brought out for rural infrastructure based on economic profile of the States. Sector-wise master plans have been prepared by some State Governments. Other may prepare similar such master plans for better policy planning for promoting rural infrastructure. With the announcement in the Union Budget, such planning would facilitate implementation of projects under emerging areas like Rural and urban, Micro infrastructure has been a high impact infrastructure in rural areas. But the micro infrastructure has not been adequately addressed both in planning and funding by Government.

#### II. REVIEW OF LITERATURE

The great economist Prof. M. L. Dantwala (1986) focused on capital formation 'in' and 'for' agriculture. Accordingly, there are broadly two series that capture capital formation with regard to agriculture (i) narrow data series and (ii) broad data series. Central Statistical Organization (CSO) compiles estimates on Capital formation in agriculture with break-up of public and private investments as part of National Accounts Statistics (NAS).

Public sector investment includes investment in irrigation schemes and plantations in forestry sector. Irrigation would account for almost 90 per cent of the gross public capital formation in agriculture (Bisaliah et al, 2013). Private sector investment includes investments by (a) farm households and (b) private corporate. Investments made by farm households on farm equipment, machinery, irrigation, land reclamation and land improvement are included. Household investments would constitute around 90 per cent share in private investment.

The measure of agricultural capital formation that includes capital formation in activities such as production of fertilizers and pesticides, development of agricultural markets, rural roads and communications, agricultural education, research and development of agricultural technology, rural electrification etc. which form part of capital formation 'for' agriculture(broad series) as opposed to capital formation 'in' agriculture(narrow data series).

The broad series captures in a much more exhaustive manner agriculture capital formation. However, the attempts by researchers like Chand (2000; 2001), Roy (2001) and Gulati et al in developing 'broad data series' have been in relation to their individual research work and not directed at constructing a time series continuously on public sector investment in agriculture.

#### III. METHODOLOGY

The following methodology can be adopted for the present study

✓ NATURE OF RESEARCH DESIGN

As the study intends to analyze trends of public and private capital formation in Indian agriculture, the analytical research design used for the study.

# ✓ NATURE OF DATA

The present study is purely based on secondary data.

# ✓ SOURCES OF DATA

The data collected from the various journals and magazines related to agriculture reviews. Period of study:

The period of study covered for nine years i.e., from 2004-2005 to 2012-2013

### STATEMENT OF THE PROBLEM

After independence the public sector has been playing an important role in boosting the production and productivity in the Indian agriculture. During early sixties in view of threat to food security, the objective of expanding food production was kept in motion. The price support for important food grain crops subsidization of key farm inputs, institutions credit supply have been initiated by the government in order to increase the production. Base of the agriculture sector capital formation is one of the vital factors for increasing production in any sector of the economy. The public and private sector have an important role to play in augmenting the capital base of agriculture in terms of inventing in irrigation, rural infrastructure, soil and water conservation and strengthening the institutional base. Agriculture investment and output growth plays a positive role in poverty alleviation and unemployment eradication. In this context, the research paper entitled, A STUDY ON TRENDS OF PUBLIC AND PRIVATE **CAPITAL FORMATION** IN **INDIAN** AGRICULTURE"

# **OBJECTIVES OF STUDY**

- ✓ To study the trends and composition of agriculture capital formation.
- ✓ To analyze the public and private sector capital formation in agriculture.
- ✓ To examine the sector wise investment credit potential.
- ✓ To find out outlays and expenditure on agriculture research and education

# SCOPE OF THE STUDY

- ✓ The study would help to understand the trends in agricultural capital formation
- ✓ The study would help to know the public and private sector capital formation in Indian agriculture
- ✓ The study would light throw on the sector wise investment credit potential and
- ✓ The study would help to find out outlays and expenditure on agriculture research and education.

#### LIMITATIONS OF THE STUDY

- ✓ The study covered for nine years only. Hence the results of the study not applicable for other periods.
- ✓ The study focused on public and private investment in Indian agriculture. But it has not covered in depth analysis in terms of agriculture contribution to the GDP and employment potential.

# IV. DATA ANALYSIS AND INTERPRETATION

(Rs in Crore)

					(210 111	/
Year	Public	AGR	Private	AGR	Total	AGR
	sector		sector			
2004-05	16187	_	59909	-	76096	-
2005-06	20739	28.12	69204	15.51	89943	18.19
2006-07	25606	23.46	75496	9.09	101102	12.40
2007-08	27638	7.93	95679	26.73	123317	21.97
2008-09	26692	-3.42	133655	39.69	160347	30.02
2009-10	33201	24.38	151325	13.22	184526	15.07
2010-11	31968	-3.71	165396	9.29	197364	06.95
2011-12	36887	15.38	214818	29.88	251705	27.53
2012-13	45511	23.37	232328	8.15	277839	10.38

Table 4.1: Gross capital formation in Agriculture and allied sector (at current price)

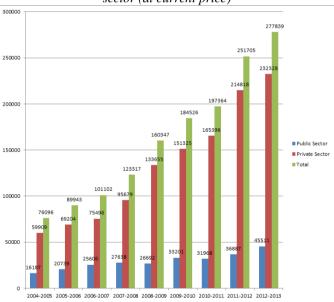


Chart 4.1: Gross Capital Formation in Agriculture and allied sector (at current price)

Public sector gross capital formation in Agriculture and allied sector at current price given in the table .It was found that capital formation of public sector in agriculture and allied sector was increased from Rs.16187 crore in 2004-05 to 45511 crore in 2012-13. However, it was widely fluctuating trend throughout the study period .The higher AGR was observed 28.12 in the year 2005-06 and the negative AGR -3.42 and -3.71 was recorded in 2008-09 and 2009-10 respectively.

Private sector gross capital formation in Agriculture and allied sector at current price is given in the table. It was found that capital formation of private sector in agriculture and allied sector was increased from Rs.59909 crore in 2004-05 to Rs.232328 crore in 2012-13 .The higher AGR was observed 39.69 in the year 2008-09 and lowest AGR was recorded 8.15

in the year 2012-13.It was concluded that private sector capital formation compared with public sector. It was better increasing trend through out the study period.

Total Gross capital formation of private and public sector in agriculture and allied sector explained in the table. It was found that capital formation of total public and private sector together observed upward trend throughout the study period. It was increased from Rs 76096 crore in the 2004-05 to Rs 277839 crore in 2012-13. From the AGR Data, it was found that the highest AGR 27.53 was observed in the year 2011-12 and the lowest AGR was 6.95 recorded in the year 2010-11

(Rs in crore)

Year	Public Investm	Private Invest	Total	GDP at Market	Shar	Share(%)in T	
	ent	ment		price	Public private		Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2004-05	16187	59909	76096	3242209	0.5	1.8	2.3
2005-06	19940	66664	86604	3543244	0.6	1.9	2.4
2006-07	22987	69070	92057	3871489	0.6	1.8	2.4
2007-08	23257	82484	105741	4250947	0.5	1.9	2.5
2008-09	20572	106555	127127	4416350	0.5	2.4	2.9
2009-10	22693	110469	133162	4790847	0.5	2.3	2.8
2010-11	19854	112880	132734	5282386	0.4	2.1	2.5
2011-12	21184	135988	157172	5633050	0.4	2.4	2.8
2012-13	23886	138197	162083	5899847	0.4	2.3	2.7

Table 4.2: percentage share of Gross capital formation in Agriculture and allied sector

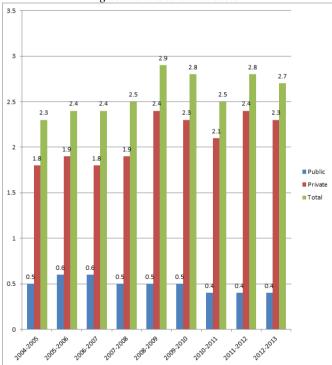


Chart 4.2: Percentage share of Gross Capital Formation in Agriculture and Allied sector

Public and private Investment in Agriculture and allied sector in total GDP is given the table. It is clear from the table it was found that private investment in agriculture and allied sector in GDP was higher than the public investment. Private investment in Agriculture and allied sector in total GDP was increasing trend though out study period. But the public investment in agriculture and allied sector in total GDP was shown fluctuating trend over the period of study. The private investment increased from Rs.59909 crore in 2004-05 to

Rs.13817 crore2012-13.It was observed that the share of private investment in total investment also increased from 1.8% in 2004-05 to 2.4% in 2008.09 and highly declined to 2% in 2010-11. However, it increased to 2.3% in 2012-13.

Even the public investment was shown increasing trend but it was shown fluctuating trend over the period of study. It was observed that the maximum share of public investment in total share was 6% in 2005-06 and 2006-07 and it lowest value in 0.4% for the last three period from 2010-11 to 2012-13. The share of investment the private increased from 2.3% to 2.7% in 2012-13. The hyper total share of investment was 2.9% in 14 year 2008-09.

Sector-wise public sector outlays and expenditure and agriculture sector in terms of Rural development, special area programme Irrigation and flood control, energy, industry, minerals, transport, communication, science, technology general economic services, social services and general services.

General economic services consist of Crop, Animal husbandry, Dairy Development, fisheries, food storage, and warehousing, agriculture and research co-operation, village small industry, civil etc.

Social services consist of Education, Sports, Arts, Culture, Medical, Public Health, family welfare, water supply and sanitation, Housing and Urban Development etc.

General Services covered like Parliament, State, Union Territory, Legislatives, President, Administrative of Justice, election Audit etc.

election, Audit etc.													
S. No	Sector	2007	7-08	200	8-09	200	9-10	2010	-11	2011	1-12	2013-	-16
	/	%	ó	ģ	%		%	%		%	Ď	%	
1	Agricult ure &Allied Activiti es	17 97 1	3. 21	27 27 0	3.9 8	28 77 2	3.62	3698 3	3.9 7	462 55	4.2	5474 8	4.3 6
2	Rural Develo pment	32 49 6	5. 81	39 26 8	5.7	64 74 8	8.14	7079 7	7.6 1	258 21	6.9	7224 8	5.7 6
3	Special Area Progra mme	77 32	1. 38	83 72	1.2	82 95	1.04	8860	0.9 5	124 13	1.1	153	1.2
4	Irrigatio n &Flood Control	38 54 7	6. 89	48 09 4	7.0	50 48 9	6.35	5494 8	5.9 1	640 01	5.8	42	5.7 5
5	Energy	10 62 46	.0 1	12 74 96	18. 62	15 40 12	19.3 8	1953 33	21. 00	208 436	18. 99	7216 9	16. 64
6	Industry &Miner als	25 00 2	4. 47	34 91 9	5.1	45 20 8	5.68	5222 8	5.6 1	564 00	5.1 4	2087 11	5.7
7	Transpo rt	10 18 31	18 .2 2	12 11 16	17. 69	13 55 43	17.0 5	1453 28	15. 63	171 344	15. 61	7149 1	14. 59
8	Commu nication s	25 81 3	4. 61	21 93 7	3.2	16 73 1	2.10	1852 9	1.9 9	202 56	1.8	1830 15	1.2
9	Science, Technol ogy &Envir onment	11 79 1	2. 11	13 27 8	1.9	15 64 2	1.96	1864 4	2.0	221 60	2.0	1541 1	1.9
11	Social Service s	17 26 08	30 .8 9	21 65 48	31. 64	24 73 31	31.1	2958 96	31. 82	356 713	32. 51	5152 5	33. 42
12	General Service s	70 66	1. 26	80 20	1.1 7	11 50 8	1.44	1208 2	1.2 9	282 26	2.5 7	4192 67	5.2 6
	Total	55 87 65	10	68 42 88	100	79 46 16	100	9297 29	10 0	109 720 4	10 0	1254 197	10 0
	$T_{-1}I_{-1}A_{-2}$ (Parkline and an) $C_{-1}I_{-2}$ and $I_{-2}I_{-2}$												

Table 4.3: (Public sector) Sector-wise outlays and Expenditure in Agriculture and alliedsector

Sector-wise (public) outlays and expenditure in Agriculture and allied sector is presented in the table. The

percentage share of Agriculture and allied sector's outlays and expenditure increased from 3.21% in the 2007-08 and 10 increase 4.36% in 2012-13. The percentage share of rural development under agriculture and allied sector was shown fluctuating trend during the period of study. The maximum share of this was 7.61% in 2010-11 the minimum share of this was 5.76% in 2012-13.

In case of the share of special area programmers slightly decreased from 1.38% in 2007-08 to 1.22% in 2012-13. The share of Irrigation and flood control were observed slightly fluctuating throughout the study period. The share of energy's expenditure under agriculture and allied activities was observed higher percentage compared to another sectors.

In case of Industry and minerals outlays and expenditure increased from 4.47% in the 2007-08 to 5.70% in the year 2012-13. Transport outlays expenditure was observed declining trend throughout the study period.

In case of communication and general economic services which all were declining trend throughout the study period. General economic services outlay and expenditure increased from 2.8% in 2007-08 to 4.1% in year 2012-13.

In case of social service expenditure and outlay was observed increasing trend throughout the study period.

Lastly, the general services expenditure and revenue in Agriculture and allied sector was recorded higher percentage (5.26) in the year 2012-13. However, its share was very least in the beginning year of study.

(Rs. in Crore)

					(KS. II	i Crore)
Year	At 2004-	05 Prices	Total	<b>Total At Current Prices</b>		Total
	Public	Private		Public	Private	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2004-05	2.9	10.6	13.5	2.9	10.6	13.5
2005-06	3.4	11.2	14.6	3.3	10.9	14.5
2006-07	3.7	11.2	14.9	3.5	10.4	14.0
2007-08	3.5	12.6	16.1	3.3	11.4	14.7
2008-09	3.1	16.3	19.4	2.8	14.2	17.0
2009-10	3.4	16.7	20.1	3.1	14.0	17.0
2010-11	2.8	15.7	18.5	2.4	12.5	15.0
2011-12	2.8	18.0	20.8	2.5	14.3	16.8
2012-13	3.1	18.1	21.2	2.8	14.1	16.9

Table: 4.4: Shares (%) of Agriculture and Allied Sector



Chart 4.4: (%) Share of Agriculture and Allied Sector

Percentage share of Agriculture and allied sector was presented in the table. It was found that the percentage share of public agriculture and allied sector shown fluctuating trend over the period of study. Whereas, the share of private agriculture and allied sector was shown increasing trend over the period of study. The share of private in agriculture and allied sector was increased from 10.6% in 2004-05 to 14.1% in the year 2012-13 in current price. It was observed that even the growth share of public in agriculture and allied sector decreased. The total share of private and public in agriculture and allied sector together have observed higher share due to the contribution of the private sector to the total share.

Year	Budget Estimate	Revised Estimate	Actual Expenditure
(1)	(2)	(3)	(4)
2003-04	2167.00	2120.00	2050.73
2004-05	2650.00	2945.00	2657.42
2005-06	4179.32	3890.00	3798.69
2006-07	4800.00	4860.00	4860.00
2007-08	5560.00	6927.94	7058.50
2008-09	10105.67	9865.68	9530.30
2009-10	11307.07	10965.23	10870.15
2010-11	15042.00	17254.00	17052.59
2011-12	17122.87	16515.05	16354.70
2012-13	20208.00	17867.32	1730.72
2013-14	21609.00	19000.00	18721.50
2014-15	22309.00	19500.00	NA

Table 5: Outlays and Expenditure on Agriculture and co-

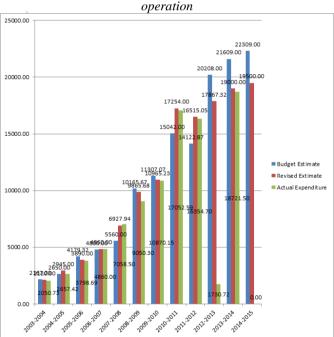


Chart 4.5: Outlays and Expenditure on Agriculture and cooperation

Outlays and expenditure on agriculture and co-operation is given in the table It was revealed that the meager variation between budget estimate and revised estimate in the allotment of outlays and expenditure of agriculture and co-operation department. It was found that the actual expenditure on agriculture and co-operation increased throughout the study period except 2007-08. However, compare to revised estimate it was shown declining trend over the period of study. But compare to budget estimate the actual expenditure was recorded slightly variation.

(Rs.in Crore)

Year	Budget	Revised	Actual
	Estimate	Estimate	Expenditure
(1)	(2)	(3)	(4)
2003-04	775.00	775.00	701.33
2004-05	1000.00	900.00	881.81
2005-06	1150.00	1070.00	1069.58
2006-07	1350.00	1430.00	1428.22
2007-08	1620.00	1434.00	1402.73
2008-09	1760.00	1760.00	1768.71
2009-10	1760.00	1821.32	1821.26
2010-11	2300.00	2307.50	2529.29
2011-12	2800.00	2858.54	2831.60
2012-13	3220.00	2520.00	2519.09
2013-14	3415.00	2600.00	2599.97
2014-15	3715.00	2500.00	1697.50*

Table 6: Outlays and expenditure on Agriculture Research and Education

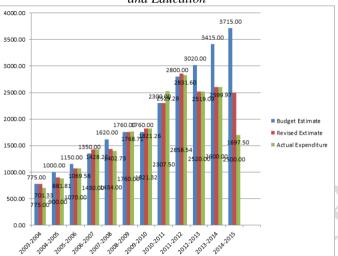


Chart 4.6: Outlays and expenditure on Agriculture Research and Education

Outlays and Expenditure on agriculture, Research and Education is shown in the table.6. It is clear from the table, it was noted that the slightly variation was recorded between budget estimate and revised estimate. The actual expenditure tremendously increased on agriculture research and education from Rs.701.33 corer in the year 2003-04 to 2599.97 crore in 2013-14.But when compared to revised estimate, it declined over the period of study.

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					(1)	s.mcrore)		
Five year plan	Agriculture and Allied Activities		Total I	Plan Outlay		% Share of Agriculture and Allied Activities		
/Annual plan	Plan Outlays	Actual Expenditure	Plan Outlays	Actual Expenditure	Plan Outlays	Actual Expenditure		
(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Ninth Plan(1997- 2002)	37546	37239	859200	941041	4.4	4.0		
Annual plan (1997-98)	6974	5929	155905	129757	4.5	4.6		
Annual plan(1998- 99)	8687	7698	185907	151580	4.7	5.1		
Annual plan(1999- 2000)	8796	7365	192263	160608	4.6	4.6		
Annual plan(2000- 01)	8281	7577	203359	164479	4.1	4.6		
Annual plan(2001- 02)	9097	8248	228893	186315	4.0	4.4		
Tenth	58933	60702\$	1525639	1618460\$	3,9	3.8		

plan (2002-07)						
Annual plan(2002- 03	9977	7655	247897	210203	4.0	3.6
Annual plan(2003- 04)	9940	8776	256042	224827	3.9	3.9
Annual plan(2004- 05)	11109	10963	287843	263265	3.9	4.2
Annual plan(2005- 06)	13840	12554	361239	247177	3.8	5.1
Annual plan(2006- 07	16163	16573	441285	309912	3.7	5.3
Eleventh plan (2007-12)	136381	163105	3644718	367936\$	3.7	4.4
Annual plan(2007- 08)	17971	20014	258765	371809	3.2	5.4
Annual plan(2008- 09)	27270	27087	654288	77263	4.0	5.7
Annual plan(2009- 10)	28772	29498	794616	717035	3.6	4.1
Annual plan(2010- 11)	36983	40369	929725	826268	4.0	4.9
Annual plan(2011- 12)	46255	16194#	1097204	508596##	4.2	3.2

Table 4.7: Five year plan-wise Share of public Sector Outlays and Expenditure in Agriculture and Allied Activities

The five year plan wise share of public sector outlays and expenditure in agriculture and allied activities given in the table.7.It was showed that the share of public sector outlays increased in 11<sup>th</sup> plan .But it was lower share in agriculture compared to 10<sup>th</sup> plan. However, over all actual expenditure increased from 4.6 corers in the year (1997-98) to 4.9 crore in the year 2010-11(Annual plan).

# V. SUMMARY OF FINDINGS

- ✓ It was found that the capital formation of public sector Indian agriculture and allied sector was shown increasing trend during the study period.
- ✓ It was found that capital formation of private sector in agriculture and allied sector was also increased during the study period.
- ✓ It was observed that the private investment in Agriculture and allied sector in total GDP was increasing trends throughout the study period. Whereas, the public investment in agriculture and allied sector in total GDP was shown fluctuating trend over the period of study.
- ✓ It was showed that the share of energy's expenditure in agriculture and allied activities was observed higher percentage growth compared to another sectors.
- ✓ It was observed that transport outlays expenditure was observed declining trend throughout the study period.
- ✓ It was found that the percentage share of Agriculture and allied sector's outlays and expenditure increased over the study period.
- ✓ It was found that the percentage share of rural development in agriculture and allied sector was fluctuated trend during the period of study
- ✓ The total share of private and public in agriculture and allied sector together have observed higher share due to much contribution of the private sector to the total share.

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- ✓ It was revealed that the meager variation between budget estimate and revised estimate in the allotment of outlays and expenditure of agriculture and co-operation department. It was found that the actual expenditure on agriculture and co-operation increased throughout the study period
- ✓ It was found that the share of public sector outlays 11<sup>th</sup> plan .But it was redistricted lower share in 10<sup>th</sup> plan. However over all actual expenditure increased during the study period.

### VI. CONCLUSION

Agriculture is usually considered the backbone of an Indian economy. India has a large amount of grain land .It also has suitable weather condition. Agriculture and allied activities constitute the single largest contributor to the Gross Domestic product. From the study, it was concluded that the public sector investment in Indian agriculture was made inadequate compared to private sector's contribution. Sector wise outlays and expenditure in agriculture such as special area programme, communication and general economic services were shown decreasing trend during the study period. Hence, the government should extend the adequate investment of public sector in agriculture for attaining the higher growth of Indian economy.

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