

# STATE BUDGETARY RESOURCES AND AGRICULTURAL DEVELOPMENT IN HIMACHAL PRADESH



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## FOREWARD

Budget policy of a government plays an important role in the social and economic life of a particular state. Evaluation of government finance and proposals for its reform must therefore take into account the inter relationship between government finance and socio-economic development. Agriculture sector has an important place in the economy of Himachal Pradesh and along-with its allied activities, it contributes around 25 percent of the gross domestic product (GDP) and provides around 70 per cent employment to the total workforce. The growth of agriculture sector has also a direct impact on poverty eradication. Therefore agriculture growth assumes paramount importance in accelerating overall economic growth. Though the plan outlay for agriculture in absolute terms have been increasing continuously over the various plans but the relative share of agriculture in total plan out lays has been decreasing . This shrinkage has a significant effect on the development of agricultural sector. No significant study has been conducted to examine the impact of budgetary resource on agricultural development in the state. The present study has been undertaken in Himachal Pradesh to examine the trends in budgetary allocation of resources in agriculture sector as a whole and sub sectors of agriculture in the state. It also evaluates the impact of agriculture expenditure on production, NSDP, poverty and farm sector distress. It is hoped that the results presented in the report will be useful to planners, policy makers and researchers. The research team of the centre engaged in the study deserves appreciation in bringing out this report.

Officer Incharge

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## **Executive Summary**

**Abstract:** Budget policy of a government plays an important role in the social and economic life of a particular state. The evaluation of government finance and proposals for its reform must, therefore take into account the inter relationship between government finance and socio-economic development. The present study on State Budgetary Resources and Agricultural Development has been conducted in Himachal Pradesh. The analysis of budgetary expenditure on agriculture shows that the aggregate expenditure on agriculture and allied activities has been increased at the rate of 1.14 percent per annum. The share of agriculture and allied services expenditure in total budget, in economic services and in NSDP has decreased from 13.76 per cent to 6.73 per cent, 43.03 per cent to 34.75 per cent and 5.25 per cent to 2.10 per cent respectively during pre reform, reform and 1985-2006. Though expenditure on agriculture and allied sectors has increased at the rate of 1.99 per cent per annum but there has been decline in the growth of expenditure in the reform period as compare to pre reform period. But the rate of growth of the state income from agriculture sector is more (5.71%) in the reform period as compared to pre-reform period (2.10%) thereby meaning that agriculture prices remained very much in the favour of this sector as growth rate of production of food grains, oilseeds etc. have decreased in the reform period as compare to pre reform period. The state government has launched the different type of programmes and schemes to achieve 4 per cent growth per annum in agriculture and allied sector. These programmes were as maize development programme, vegetables development programmes, tea development etc.

### **Objectives of the Study**

The specific objectives of the study are as follows:-

1. To analyses the trends in budgetary allocation of resources to the agricultural sector as a whole and the sub-sectors of agriculture in Himachal Pradesh.
2. To document and analyses schemes under operation in the state contributing to the development of the agriculture sector.
3. To enlist and analyze the impact of control sector schemes operating in the agricultural sector of the state.

### **Methodology**

The present study is based on published and unpublished secondary data. The required information were collected from state Departments of Planning, Finance, Directorate of land Record, Himachal Pradesh, Directorate of Economics and Statistics, Directorate of Agriculture, Animal Husbandry, Horticulture of H.P. Govt. and Department of Population Census, Govt. of India. The data was collected from

1985-86 to 2005-06. For the detailed analysis of the data some well known statistical tools have been used.

### **Agriculture and Public Finance**

Himachal Pradesh, along with other states in India, Introduced planned economic development in 1951 through a series of five years plan to tackle the problem of poverty, unemployment, inequality and infrastructural backwardness. In the first plan the share of agriculture was more than 21 per cent in total outlays which has been decreased to 10 percent in 10<sup>th</sup> plan showing less attention given by the government to agriculture sector.

### **Agriculture Development in the State**

Both state domestic product and net state domestic product have been increased at the rate of more than 16 per cent per annum during the period 1985-86 to 2005-06 at the current prices. Whereas at the constant prices both (SDP and NSDP) have been increased at the rate of 8 per cent per annum during the same period. The share of agriculture sector in GSDP at current prices was about 42 per cent in 1985-86 which decreased to 24 percent in 2005-06 and the work force in primary sector was more than 76 percent in 1985-86 which has also been decreased to 68 percent in 2005-06 but the share of workforce in agriculture sector is still higher as compare to other sectors. The GSDP from the agriculture and allied activities has been increased at the rate of 13.57 percent per annum at current prices during the study period.

### **Land Use and Cropping Pattern**

The total geographical area of the state during 2003-04 was only 4544 156 hectares. The forest area has increased from 884785 hectares during 1985-86 to 1099055 hectares in 2003-04 registering a compound growth rate of 1.10 percent per annum. However an increase of 12.01 percent in barren and uncultivable waste land is unfortunate. The land put to non agriculture uses such as roads etc also increased from 220115 hectares during 1985-86 to 453498 hectares in 2003-04 registering a compound growth rate of 3.43 percent per annum. The area under cultivable waste showed a welcome decline from 3.96 per cent to 2.82 per cent of the total area during 1985-2004.

The area under cereals during 1985-86 to 2003-04 has decreased from 829333 hectares to 782580 hectares. The same trend has been observed in pulses and oilseeds also during the study period. Food grains account 90 per cent of GCA and rest 10 per cent has been shifted to fruits and vegetables crops because of higher return from these crops. The growth in production of total food-grains and cereals was 0.94 and 0.88 percent per annum respectively during the period of 1985-86 to 2003-04. The sugarcane crop recorded highest growth rate of 11.49 percent per annum and the gram crop has showed negative growth of 4.86 percent per annum during the same period. The production of pluses and oilseeds has been increased at the rate of 5.75 and 4.42 percent per annum respectively during the study period. The growth in productivity was observed positive for all crops during the period of 1985-86 to 2003-04. It was highest for pluses i.e. 8.53 percent per annum followed by oilseeds and cereals i.e. 5.95 and 1.27 percent per annum respectively.

### **Trends and Pattern of Budgetary Expenditure on Agriculture**

The analysis of budgetary expenditure on agriculture shows that the aggregate expenditure on agriculture & allied services has increased at the rate of 1.14 per cent per annum. Two components of aggregate expenditure on agriculture and allied activities at constant prices (1993-94) have not registered a similar pattern of growth. The revenue expenditure has grown at the rate of 1.99 per cent per year while the capital expenditure has declined at the rate of 3.74 per cent per year over the period of 21 years. Overall the aggregate expenditure has increased at the rate of 1.14 per cent per annum. The annual rate of growth has been observed more (7.47%) in the pre-reform period as compare to reform period (1.15%). The comparison of per hectare expenditure on current and constant prices on revenue account shows that expenditure on current prices has grown at the faster rate registering 10.26 per cent per year as compare to constant prices (1.99%) per year) during 1985-2004. The comparison of expenditure in the pre-reform and reform period shows that at both constant and current prices per annum rate of growth was higher in the pre-reform period as compare to reform period.

The share of agriculture and allied services expenditure in total budget, in economic services and in NSDP has decreased from 13.76 per cent to 6.73 percent, 43.02 per

cent to 34.75 per cent and 5.25 per cent to 2.10 per cent respectively during 1985-2006.

Within agriculture sector, the expenditure on various components has not grown at a uniform rate. The highest (5.10%) per annum rate of growth has been observed in respect of expenditure on agriculture research and education followed by animal husbandry (4.57%), dairy development (3.67%), forestry and wild life (3.43%) fisheries (2.83%) and crop husbandry (0.31%). The expenditure on food storage and ware housing has decreased at the rate of 7.20 per cent per annum followed by plantation (2.12%), cooperation (2.08%) and soil and water conservation (0.22%).

In the total expenditure on agriculture and allied activities, the percentage share of animal husbandry, dairy development, fisheries, forestry & wild life and agriculture research & education has increased and the maximum (6.76%) increase has been observed in the case of agriculture research and education followed by animal husbandry (4.48%) and forestry & wild life (2.58%). On the other hand the percentage share of crop husbandry, soil and water conservation, plantation, food storage & warehousing and co-operation has decreased and the maximum decrease has been observed in the case of soil and water conservation (6.10%) followed by co-operation (3.64%) and food storage & ware housing (3.20%).

The resource allocation to the agriculture sector by the state through its budgetary resources has been shrinking. It means less attention to this sector is given in reform period. But it does not mean that the importance of agriculture sector in the state economy is becoming less as the state economic growth still is being determined by the trend in agricultural production. It is the major contributor to the total domestic product and has overall impact on other sectors via input linkages, employment, trade etc. Therefore, there is need to avoid the decrease in expenditure on agriculture sector etc.

### **Agriculture Development Schemes**

The state government has launched the different type of programmes and schemes to achieve 4 percent growth per annum in agriculture and allied sector. The state has great potential for the production of off-season vegetables, ginger, potato, tea

and maize. Keeping in view the potential of these crops in the State, the Department of Agriculture implemented various programmes such as accelerated maize development programme, vegetables development programme, ginger development, tea development. Under these programmes the government provided material inputs and technical know-how to the farmers for increasing area and productivity of these crops.

### **Impact of Agriculture Expenditure on Production, NSDP and Poverty**

During 2005-06 agricultural crops constitute 24.28 per cent, horticultural crops 47.7 per cent and animal husbandry 28 per cent of gross value of output of agricultural and animal husbandry sector. Among the three sub-sectors, animal husbandry was showing the best performance with a steadily rising output. On the other hand, output of horticultural crops showed violent fluctuations and moderate growth. The output of agricultural crops showed stagnations which underscores the need for diversifying crop sector and to make it vibrant. The proportion of Himachal's population below the poverty line declined from 26.39 percent in 1973-74 to 7.63 percent in 1999-2000.

The net domestic product originating in agriculture and animal husbandry sector showed wide year to year fluctuations and slow growth. The value of output of most of the activities in primary sector showed wide fluctuations, indicating instability in the production performance. The out-put of primary sector was growing at a slow rate and its share in NSDP was decreasing at a fast rate. As one would expect in a growing economy, the share of agriculture sector was going down in the state.

### **Impact of Agriculture Expenditure on Farm Sector Distress**

The main hindrances and troubles faced by hill agriculture are small size of land holding, lack of irrigation facilities, low consumption of fertilizer, lack of road infrastructure and lack of technology innovations. Though state expenditure/investment can not change the size of land holding but it has helped to maintain the productivity level of the main cereal crops (wheat, maize & rice) by providing irrigation facilities, strengthen the extension services and provided bi-technologically improved seeds. The expenditure with regard to different irrigation

projects and schemes has increased the percentage of net irrigated area to net area sown. Due to various subsidies given on chemical fertilizers the farmers are making use of these fertilizers to increase the production. The peculiar topography of hill agriculture has restricted the benefits of new farm technology. The government investment in case of roads has provided better marketing opportunities to the farmers fetching good prices to their commodities.

The real productive sectors were not growing. Mostly unproductive services sector was rising fast, with government provided sources; leading to heavy burden on rate exchequer. In order to give strength to the economy there is a need to develop agriculture and animal husbandry because the scope of developing secondary sector in the state as constrained by many factors.

The agriculture sector is of paramount importance the economy of Himachal Pradesh due to the reason that this sector alone contributes more than one-third of NSDP; and the state's economy can grow on its own only if agricultural sector is developed because the scope for expanding manufacturing sector is limited.

The importance of agricultural sector got diminished due to the creation of large services sector under government aegis which was not providing internal strength to the economy. In the long-run interest, it is desirable to develop the agricultural sector in the state.

## Executive Table

(CGR IN %)

#	Particulars	Pre reform period (1985-86 to 1990-91)	Reform period (1991-92 to 2005-06)	Overall (1985-86 to 2005-06)
1.	Annual Growth of GSDP	5.97	8.76	8.03
2.	Annual Growth of NSDP	5.85	8.65	7.90
3.	Annual growth in GSDP share of			
	- Primary sector	-3.37	-2.93	-2.86
	- Secondary	2.73	2.49	2.87
	- Tertiary	1.79	0.25	0.17
	- Agril. & Animal Husbandry in	1.78	6.48	5.68
	- Forestry & Logging	2.69	2.59	2.41
	- Fishing	17.32	0.71	5.37
4.	Annual growth in area under			
	- Rice	-1.47	-0.28	-0.77
	- Wheat	-0.08	-0.37	-0.18
	- Maize	1.34	-0.45	-0.19
	- Food Grain	-0.11	-0.57	-0.48
5.	Annual growth in production of			
	- Rice	-2.77	0.65	1.08
	- Wheat	5.70	-1.00	0.14
	- Maize	5.32	0.54	1.48
	- Food grains	4.63	0.02	0.94
6.	Annual growth of yield of			
	- Rice	-1.32	0.94	1.87
	- Wheat	5.78	-0.63	0.32
	- Maize	3.93	1.00	1.67
	- Food-grains	4.75	0.59	1.42
7.	Annual growth			
	- Exp. on Agril. & allied (Total exp)	7.47	1.15	1.14
	- Exp. on Agril. & allied (Rev. exp)	9.60	2.19	1.99
8.	Annual growth in Rev. exp. In			
	- Crop husbandry	9.33	0.72	0.31
	- Soil & Water conservation	-6.28	0.52	-0.22
	- Animal husbandry	6.21	5.06	4.57
	- Dairy development	2.50	4.80	3.67
	- Fisheries	8.97	2.23	2.83
	- Forestry & wild life	6.57	3.17	3.43
	- Plantations	8.48	-5.21	-2.12
	- Food Storage Ware housing	8.84	-13.87	-7.20
	- Agril. Research & Education	11.49	5.60	5.10
	- Cooperation	33.89	0.05	-2.08

## Chapter –1

### INTRODUCTION

#### 1.1 Preamble

In modern days, budget policy of a government plays a vital role in the social and economic life of the country. The growing concern over the necessity of improving the future well being of the two third of the World's Poverty Ridden Population has impelled the governments of the developing countries to imitates socio-economic development so as to overcome the problems persistent poverty, unemployment and economic inequalities. Government revenue and expenditure policies are conditioned by the characteristics of a particular country and adopted to changes in the economic structure; at the same time, policies may have an important impact on the rate and path of development. Evaluation of government finance and proposals for its reform must, therefore, take into account the inter-relationship between government finance and socio-economic development.

The budgetary policy is the policy of household keeping of the nation; and is constructing a scheme of taxation, expenditure, etc. for the efficient conduct of “fiscal household” with satisfactory degree of soundness of public finances in the long run with flexibility from year to year. This may be called budget engineering. The main object of budget engineering is to promote a balance expansion of the economy with available resources in underdeveloped countries. Budgetary policy is to be made an instrument of development with stability and of promoting national income, savings and investment. The objectives of budgetary policy in under developed countries should be (a) to make available for economic development, the maximum flow of human and material resource consistent with minimum current consumption requirement, (b) to maintain reasonable economic stability in the face of long run inflation pressure and short term international price movement, (c) to reduce, wherever they exist, the extreme inequalities in wealth, income, and consumption standards which undermine productive efficiency, afford justice and endanger political stability.

In support to the increasing needs of multiplying population including immigration into any region, the activity levels and typology in general witness changes during a period of 5 years to decades. There is an interplay among and dynamics within the primary, secondary and tertiary activities in the region. These changes in proportion of activity levels across various regional units and administrative boundaries, with respect to time, is a resultant of several natural growth patterns, policy interventions, and past development plans.

The study on activity levels is necessary to delineate the short and long-term development priorities, based upon the existing activity levels, and the preferred scenario. The activity typology levels for all three sectors are reflected through several activity and occupation patterns.

It is well known that agriculture is one of the most crucial sectors in the Himachal Pradesh economy and along-with its allied activities, it contributes around 25 per cent of the Gross Domestic Product (GDP) and provides around 70 per cent employment to the total work force. The growth of agriculture sector has also a direct impact on poverty eradication. Therefore, agricultural growth assumes paramount importance in accelerating over-all economic growth.

Keeping in mind the above points, in this study we will critically examine the trend in state budgetary resources and agriculture development in Himachal Pradesh (A Hilly State in India), so as to draw lessons for the future which may be useful in resource allocation in Himachal Pradesh and other hilly areas having similar socio-economic and physical conditions.

## **1.2 Profile of the State:**

Himachal Pradesh is situated in the lap of Himalayan ranges in the North-West of India. Its altitude ranges from 350 m to 6975 m above the mean sea level. Geographically it is bordered by state of Haryana in the South, Uttarakhand in South east and Jammu and Kashmir in North. Punjab in the West and South West and Tibet in the East. It is situated between  $30^{\circ} - 22^{\circ} - 40''$  to  $33^{\circ} - 12'' - 40''$  North latitude

and  $75^{\circ} - 47' - 55''$  to  $79^{\circ} - 04' - 22''$  East longitude, thereby giving rise to agro-climatic conditions suited specially for raising horticulture crops.

Himachal Pradesh was born in April 1948 as a part C state of the Indian Union with the merger of 30 Punjab and Shimla Hill States into the Union. The then Himachal Pradesh covered an area of 2117 thousand hectares divided into four districts, namely, Chamba, Mahasu, Mandi and Sirmour. After about 6 years, the State of Bilaspur was also integrated and that formed the 5<sup>th</sup> districts of the state. For administrative reasons, Kinnaur was carved out of the Mahasu district as a separate district in 1960. The reorganization of Punjab in 1966 doubled the area of Himachal Pradesh by the transfer of the districts of Kangra, Kullu, Lahaul Spiti and Shimla along with a few more areas. Full statehood was granted to Himachal Pradesh on 25.1.1971. Thereafter in, 1972, Hamirpur and Una were formed separate districts, Solan was also named as a separate district while the name of Mahasu district was dropped. Presently, the state of Himachal Pradesh comprises of 12 districts namely Bilaspur, Chamba, Hamirpur, Kangra, Kinnaur, Kullu, Lahaul-Spiti, Mandi, Shimla, Sirmour, Solan and Una. The State Headquarter located at Shimla.

The total population of Himachal Pradesh, according to 2001 census was 60,77,900 which gives a density of population of 109 persons per sq km. There are wide variation in area and population of the districts and district wise density varies from 2 persons per sq. kilometer in Lahaul & Spiti to 369 persons in Hamirpur district. The sex ratio is 968 females per 1000 males. The rural population accounted for 90.20% of the total population residing in 17,495 inhabited villages. The scheduled caste population in the state is 15,02,170 persons which is 24.72 per cent of the total population. The scheduled tribe population of the Pradesh is 2,44,587 persons which is 4.02 per cent of total population. There are 19,63,882 main workers and 10,28,579 marginal workers in the state. Over all literacy percentage of the state was 76.5 per cent. The literacy among males and females was 85.30 per cent and 67.40 per cent respectively.

The Gross Domestic Product at factor cost at constant (new base year i.e. 1999-2000) prices in 2006-07 is estimated at Rs.28,64,310 crore. And the per capita income worked out to be Rs.29,642 in 2006-07. Agriculture happens to be the

premium source of state income (GSDP), about 17.80 per cent of the total GSDP comes from agriculture and its allied sectors.

Roads are an essential ingredient of infrastructure of economy. In the absence of any other suitable and viable modes of transportation like railways and waterways, roads play a vital role in boosting the economy of the hilly state like Himachal Pradesh. The state government has constructed 30,834 kms of motorable roads inclusive of jeepable track till Sept. 2007.

Power is one of the most important inputs for economic development. It has been estimated that about 20,416 MW of hydel power potential can be exploited in the state. Out of this hydel power potential only 6370.12 MW has been harnessed by various agencies in the state. Out of total 17495 villages, 17183 villages have been electrified by the end of Dec. 2007.

Out of the total geographical area of 55.67 lakh hectares the area of operational holdings is about 9.79 lakh hectares and is operated by 9.14 lakh farmers. The average holding size comes to 1.1 hectares. According to 2000-01 Agriculture Census 86.4% of the total holdings are of small and marginal farmers, 13.2% of holdings are owned by semi medium and medium farmers and only 0.4% by large farmers. Nearly 21 per cent of net area sown is irrigated in the state.

Agriculture is by far the major occupation of the people of Himachal Pradesh as it provides direct employment to about three fourths of the total working population. The valley areas of the State are most suited for growing food-grains. Elsewhere, due to climatic conditions varying from sub-tropical to temperate, the agro-climatic conditions are suitable for growing a wide variety of cash crops such as temperate fruits, potatoes, vegetables, ginger etc. Since the scope for extension of cultivation is limited, emphasis has to be laid on increased production by maximizing output per unit area available for cultivation.

As per latest state forest report of FSI an area of 14,353 sq. km. is actual forest cover. This is constituted by 1,093 sq. km. of very dense forests, 7883 sq. km. moderately dense and 5,377 sq. km. with open forest. In addition to this, 389 sq.

km. area has been described as scrubs. Forest wealth of Himachal Pradesh is estimated at over Rs.100000 crore. Most of precious coniferous forests are of such nature that these cannot be truly regenerated by human beings if these are cut once. The state government has imposed a complete ban on commercial felling and the only removals from the forests are either by way of timber distribution rights to the people or salvage extraction. Even the royalty from the silviculturally harvestable volume according to working plan prescription would presently be annually worth over Rs.250 crore. However, the state govt. has been denied of this financial resource for about two decades primarily for preserving the fragile Himalayan ecology and environment to serve the national interests.

At present there are 373 medium and large scale industries and about 34,152 small scale industries with a total investment of about 6,120.11 crore working in the state. These industries provide employment to about 2.09 lakh persons.

Tourism industry in Himachal Pradesh has been given very high priority and the government has developed an appropriate infrastructure for its development which includes provision of utility services, roads, communication net work, airports, transport facilities, water supply and civic amenities etc. Efforts are afoot in providing urban facilities in rural areas thereby promoting tourism not only in urban/metros but in rural areas of the Pradesh. Huge investment is being done to develop the infrastructure for the development of tourism. For the year 2007-08 there is an allotment of Rs.825.30 lakh for the development of tourism and Rs.175.28 lakh for the civil aviation. At present 1852 hotels having bed capacity of 41,511 are registered with the department up to Dec. 2007.

### **1.3 Agriculture and Public Finance**

In countries where a mixed economy exists, as in India, the process of development is initiated and sustained by the Government through planning. Himachal Pradesh, along with other states in India, introduced planned economic development in 1951 through a series of five years plans to tackle the problem of poverty, unemployment, inequality and infrastructural backwardness. An export facto evaluation of government efforts is given through the analysis of plan allocations and the objectives of development as spelt out in the different five year plans. The plan

outlay has been increased from Rs.564.4 lakh in first plan to Rs.1207057 lakhs in tenth plan. Similarly the outlay of agriculture and allied activities has also been increased from Rs.120.27 lakhs in first plan to Rs.120168 lakhs in tenth plan. The share of agriculture in total outlay was more than 21 per cent in first plan. It was decreased to 15 per cent in 2<sup>nd</sup> five year plan and then it has reached at more than 29 per cent in fourth plan outlays. Afterwards again it has decreased to 25 per cent in fifth and sixth five year plan outlays followed by seventh five year plan to 22 per cent, eighth five year plan 17.57 per cent, ninth five year plan about 15 per cent and finally in tenth five year plan it got only about 10 per cent share of the total outlays. This shrinkage may be due to less priority has been given to agriculture sector in the reform period as compared to pre reform period.

#### **1.4 Brief Review of Agriculture Development in the State**

Since the agricultural sector accounts for the lions share in the net state domestic product and employs more than two third of the working population, its growth is vital for the growth of the state economy and consequently, the socio-economic upliftment of the rural masses. From this perspective it is interesting to make a critical appraisal of the changing profile of agriculture in Himachal Pradesh.

**1.4.1 State Domestic Product and Net State Domestic Product** Resource allocation patterns have a direct bearing on the growth and structure of the economy. The table 1.1 shows the compound growth rates of GSDP and NSDP on both current as well as at constant prices (1993-94). An analysis of growth of GSDP and NSDP shows that during 1985-86 to 2005-06 the CGR was almost same (about 17 per cent) at the current prices. At constant prices the CGR of GSDP and NSDP was 8 and 7.90 percent per annum respectively during 1985-2006. Further, analysis reveals that both GSDP and NSDP have been increased with same rate (16 per cent) in both periods (Pre reform and reform period) at the current prices. At constant prices GSDP has increased at the rate of 6 and 9 per cent per annum in pre reform and reform period respectively. The NSDP has an annual growth of 6 and 9 per cent per annum in pre reform and reform period respectively.

**1.4.2 A Review of Growth of State Economy** The growth review of plan wise indicates that Himachal Pradesh achieved an annual average growth rate of 1.6 per cent in the first five year plan period 1951-56. After second five year plan 1956-61 onwards and upto fifth five year plan period 1974-78 the state could achieve a growth rate of about 3 to 4 per cent. During the two plans of 1978-79 and 1979-80 the economy revealed a negative growth rate of (-) 3.6 per cent but again shared a recovery during sixth plan period 1980-85. During seventh plan period 1985-90, state achieved all time high growth rate of 8.8 per cent.

**Table-1.1: Growth of GSDP & NSDP at Current and Constant Prices.**  
(Rs. in Lakhs)

Year	At current Price		At Constant Price 1993-94	
	GSDP	NSDP	GSDP	NSDP
1985-86	137192	123669	279984	252386
1986-87	151695	136342	316031	284046
1987-88	172152	153912	296814	265366
1988-89	215718	193283	342410	306798
1989-90	243555	218378	363515	325937
1990-91	281519	252147	375359	336196
<b>CGR -I</b>	<b>16.15</b>	<b>16.03</b>	<b>5.97</b>	<b>5.85</b>
1991-92	331697	297503	394877	354170
1992-93	382425	341117	406835	362890
1993-94	478268	425003	478268	425003
1994-95	582503	519246	529548	472042
1995-96	669828	593024	553577	490102
1996-97	775527	680287	583103	511494
1997-98	883731	780698	622346	549787
1998-99	1069623	950746	668514	594216
1999-00	1411247	1246700	850149	751024
2000-01	1566118	1385249	910534	805378
2001-02	1714818	1521526	957999	850014
2002-03	1890474	1675127	1010949	895790
2003-04	2072100	1812714	1068093	934389
2004-05	2302411	2026231	1145478	1008075
2005-06	2543501	2238983	1211191	1066182
<b>CGR-II</b>	<b>16.09</b>	<b>15.97</b>	<b>8.76</b>	<b>8.65</b>
<b>CGR ALL</b>	<b>16.78</b>	<b>16.65</b>	<b>8.03</b>	<b>7.90</b>

During eighth five year plan period (1992-97, an annual average growth rate of 6.3 per cent was achieved against the envisaged target of 6 per cent for the state economy. The national economy attained an average growth rate of 6.2 per cent against the target of 5.6 per cent for this period during annual plan 1997-98, the state economy achieved a growth of 6.4 per cent whereas a growth rate of 5 per cent was recorded at the national level. During the ninth five year plan (1997-2002), the state economy achieved a growth of 6.4 per cent at the end of annual plan 2004-05, there is a growth of 7.5 per cent.

**1.4.3 Sector Wise Share of GSDP & Work force** Sector-wise share of GSDP and workforce at current prices has been presented in Table 1.2. The table reveals that the share of primary sector (agriculture, forestry, fishing and mining and quarrying) in GSDP was about 42 per cent in 1985-86 which decreased to 24 per cent in 2005-06 whereas the share of secondary sector (manufacturing, construction, electricity, gas and water supply) in GSDP has increased from about 23 per cent to about 38 per cent during the study period. Similarly the share of territory sector (transport, storage, communication and trade etc.) in GSDP has increased from 35 per cent in 1985-86 to 38 per cent in 2005-06. The increasing share of secondary and territory sectors in GSDP expresses that the economy is shifting from primary to secondary and territory sectors. The table further reveals that the workforce in primary sector was more than 76 per cent in 1985-86 which decreased to 68 per cent in 2005-06 showing shifting the workforce from primary sector to other sectors but still the share of workforce in primary sector is higher as compare to other sectors. In secondary and territory sectors the share of workforce has increased from 8.54 and 15 per cent to 10 and 21.48 per cent respectively during the study period.

**Table-1.2: Sector wise share of GSDP and Workforce at Current Price**

(Percentages)

Year	Primary Share	Workforce	Secondary Share	Workforce	Tertiary Share	Workforce	Total GSDP	Total Workforce
1985-86	41.96	76.45	22.78	8.54	35.26	15.01	137192	2014185
1986-87	40.54	76.16	22.34	8.46	37.12	15.38	151695	2054222
1987-88	36.42	75.88	24.18	8.38	39.40	15.74	172152	2094259
1988-89	36.21	75.61	25.47	8.30	38.32	16.09	215718	2134296
1989-90	36.73	75.36	23.33	8.23	39.94	16.41	243555	2174333
1990-91	35.05	75.11	26.52	8.16	38.43	16.73	281519	2214379
<b>CGR-I</b>	<b>-3.37</b>	<b>-0.35</b>	<b>2.73</b>	<b>-0.91</b>	<b>1.79</b>	<b>2.19</b>	<b>16.15</b>	<b>1.91</b>
1991-92	37.49	74.43	25.35	8.37	37.16	17.20	331697	2291885
1992-93	35.77	73.80	26.52	8.56	37.71	17.64	382425	2369391
1993-94	32.76	73.21	27.46	8.74	39.78	18.05	478268	2446897
1994-95	30.94	72.66	32.18	8.91	36.88	18.43	582503	2524403
1995-96	29.55	72.14	33.53	9.07	36.92	18.79	669828	2601909
1996-97	28.75	71.65	34.68	9.23	36.57	19.12	775527	2679415
1997-98	28.15	71.18	33.47	9.37	38.38	19.45	883731	2756921
1998-99	27.40	70.75	33.28	9.50	39.32	19.75	1069623	2834427
1999-00	23.14	70.33	36.58	9.63	40.28	20.04	1411247	2911933
2000-01	25.25	69.94	35.77	9.75	38.98	20.31	1566118	2989452
2001-02	25.90	69.57	35.54	9.87	38.56	20.56	1714818	3066958
2002-03	24.63	69.21	36.32	9.98	39.05	20.81	1890474	3144464
2003-04	25.07	68.87	36.04	10.08	38.89	21.05	2072100	3221970
2004-05(R)	25.19	68.55	36.49	10.18	38.32	21.27	2302411	3299476
2005-06(Q)	24.05	68.24	37.81	10.28	38.14	21.48	2543501	3376982
<b>CGR-II</b>	<b>-2.93</b>	<b>-0.61</b>	<b>2.49</b>	<b>1.45</b>	<b>0.25</b>	<b>1.57</b>	<b>16.09</b>	<b>2.80</b>
<b>CGR All</b>	<b>-2.86</b>	<b>-0.61</b>	<b>2.87</b>	<b>1.22</b>	<b>0.17</b>	<b>1.85</b>	<b>16.78</b>	<b>2.76</b>

Note: Percentages are calculated to their respective totals.

### **1.5 Growth Rate of Production**

It may be seen from table 1.3 that the growth rate of production in respect of total food grains and cereals were 0.94 and 0.88 per cent per annum respectively for the state as a whole during the period of 1985-86 to 2003-04. The sugarcane crop recorded highest growth rate of 11.49 per cent per annum while the growth in production of gram has become negative i.e. 4.86 per cent per annum during the same period. The annual growth in production of total pulses and total oilseeds was estimated to 5.75 and 4.42 per cent per respectively during 1985-86 to 2003-04 periods. Further table reveals that during the pre reform period the growth in production was positive for all crops except gram and rice which have negative growth rate with 10.14 and 2.77 per cent per annum respectively. During the pre reform period the potatoes production registered highest growth rate of 30.25 per cent per annum while production of gram was decreased at the rate of 10.14 percent per annum. It may also be noted from the table 1.3 that the total oilseeds production has growth rate of 7.89 per cent per annum during pre reform period. The production of cereals and pulses has been increased by 4.67 and 1.60 per cent per annum respectively during the pre reform periods.

In case of cereals the production has registered negative growth of 0.13 per cent per annum during reform period whereas it has increasing with the growth rate of 4.67 per cent annually during pre reform period. Total oil seeds production has been decreasing at the rate of 7.89 per cent annually during pre reform period and 1.88 per cent per annum during reform period. The total pulses production has an increasing trend and the growth rate was 1.60 and 3.92 per cent per annum respectively during the pre reform and reform periods under study. The production for individual crops has increased except gram and wheat crops which have negative growth of 4.04 and 1.00 per cent per annum respectively during the reform period.

**Table-1.3: Growth in Production, Productivity, Crop wise, Himachal Pradesh.**

(Production in Metric tones, yield in Kg/ha)

Year	Rice		Wheat		Maize		Ragi		Gram		Tur	
	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield
1985-86	125400	1382	492015	1305	521074	1740	4021	601	4215	608	0	0
1986-87	105551	1100	451394	1214	562990	1855	4193	524	2946	315	0	0
1987-88	76117	844	351970	938	414978	1383	1633	232	971	128	0	0
1988-89	89827	948	513187	1375	483265	1534	2460	416	2872	499	0	0
1989-90	94532	1066	543689	1467	669197	2134	4355	682	1709	293	0	0
1990-91	106497	1254	601716	1599	654957	2052	4051	682	2225	660	0	0
<b>CGR -I</b>	<b>-2.77</b>	<b>-1.32</b>	<b>5.70</b>	<b>5.78</b>	<b>5.32</b>	<b>3.93</b>	<b>1.61</b>	<b>5.90</b>	<b>-10.14</b>	<b>4.54</b>	<b>-</b>	<b>-</b>
1991-92	103018	1238	593468	1554	589219	1877	3873	752	1500	544	0	0
1992-93	110338	1347	503120	1329	641567	2067	4180	824	1414	584	0	0
1993-94	108311	1233	415176	1105	643192	2109	2116	749	1378	419	0	0
1994-95	111816	1351	586533	1564	632917	2052	0	0	1256	409	0	0
1995-96	111759	1346	502001	1403	663437	2144	0	0	1682	787	0	0
1996-97	108624	1329	561859	1506	589439	1918	0	0	2252	912	0	0
1997-98	120444	1398	641305	1700	620684	1990	0	0	2369	996	0	0
1998-99	116997	1425	481267	1267	662282	2200	0	0	1653	866	0	0
1999-00	120365	1500	583300	1574	681424	2272	0	0	1612	953	0	0
2000-01	124893	1532	251319	693	683642	2294	0	0	857	611	0	0
2001-02	137418	1705	637068	1738	768198	2550	0	0	1004	878	0	0
2002-03	85653	1029	495557	1379	483333	1651	0	0	1012	749	0	0
2003-04	120624	1483	496930	1368	729571	2444	2331	1280	905	676	0	0
<b>CGR-II</b>	<b>0.65</b>	<b>0.94</b>	<b>- 1.00</b>	<b>-0.63</b>	<b>0.54</b>	<b>1.00</b>	<b>-</b>	<b>-</b>	<b>-4.04</b>	<b>3.95</b>	<b>-</b>	<b>-</b>
<b>CGR ALL</b>	<b>1.08</b>	<b>1.87</b>	<b>0.14</b>	<b>0.32</b>	<b>1.48</b>	<b>1.67</b>	<b>-</b>	<b>-</b>	<b>-4.86</b>	<b>5.94</b>	<b>-</b>	<b>-</b>

Source: Annual Season and Crop Report, Directorate of Land Records, Himachal Pradesh.

Table-1.3: contd....

Year	Potatoes		Sugarcane		Sesamum		Repeseed		Mustard		Rapeseed & Mustard	
	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield
1985-86	49334	3368	2712	1002	1531	245	170	431	1520	232	1690	243
1986-87	48694	3157	2641	967	420	58	75	169	1003	131	1078	133
1987-88	34849	2332	2019	675	1098	131	47	134	844	123	891	124
1988-89	110000	7095	1909	640	923	122	93	886	2048	310	2141	319
1989-90	203042	12186	2933	1154	3323	454	915	1378	1639	244	2554	346
1990-91	105858	6677	3168	1288	1547	208	0	0	2870	399	2870	329
<b>CGR -I</b>	<b>30.25</b>	<b>5.07</b>	<b>3.00</b>	<b>16.29</b>	<b>18.98</b>	<b>48.90</b>	-	-	<b>17.14</b>	<b>17.02</b>	<b>19.08</b>	<b>16.44</b>
1991-92	150924	10616	2814	1302	2398	283	0	0	2788	333	2788	310
1992-93	144730	10184	2871	1228	2062	280	1174	376	2292	406	3466	395
1993-94	169352	11746	2614	1098	1583	237	0	0	1236	138	1236	137
1994-95	125462	9500	12436	4970	1569	256	4	364	4000	460	4004	460
1995-96	117674	8621	15908	4886	1523	254	5	147	3620	430	3625	429
1996-97	149416	11662	15343	3943	3161	589	0	0	4040	534	4040	467
1997-98	122653	8247	15300	4458	2675	533	0	0	4860	518	4860	517
1998-99	153303	11084	15354	4581	2122	465	0	0	4707	520	4707	518
1999-00	182543	12700	15529	5145	2080	513	0	0	4950	509	4950	508
2000-01	191645	13686	7854	2788	1738	378	0	0	3190	376	3190	375
2001-02	108207	7802	11219	4258	2404	537	0	0	4750	528	4750	524
2002-03	143054	9777	4649	1589	1890	422	225	970	4043	486	4268	500
2003-04	173367	11547	10395	3942	2674	569	5	192	3811	430	3816	430
<b>CGR-II</b>	<b>0.64</b>	<b>0.27</b>	<b>8.38</b>	<b>6.74</b>	<b>1.34</b>	<b>6.73</b>	-	-	<b>5.76</b>	<b>4.21</b>	<b>4.73</b>	<b>4.69</b>
<b>CGR ALL</b>	<b>5.63</b>	<b>6.14</b>	<b>11.49</b>	<b>10.73</b>	<b>4.74</b>	<b>8.67</b>	-	-	<b>8.32</b>	<b>6.36</b>	<b>7.42</b>	<b>6.06</b>

Table-1.3: contd.....

Year	Common & small millets		Total cereals		Total Pulses		Total food-grains		Total oil seeds	
	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield	Prod	Yield
1985-86	8212	409	1188076	1432	12763	292	1200839	1375	6086	285
1986-87	6908	383	1166438	1403	10439	220	1176877	1340	3395	148
1987-88	4539	233	881881	1069	5159	117	887040	1021	3119	135
1988-89	4290	231	1128323	1346	8237	188	1136560	1289	5210	249
1989-90	8894	548	1357784	1645	10872	269	1368656	1581	7459	361
1990-91	10320	661	1420630	1708	12673	317	1433303	1644	5829	274
<b>CGR -I</b>	<b>5.41</b>	<b>10.41</b>	<b>4.67</b>	<b>4.64</b>	<b>1.60</b>	<b>4.34</b>	<b>4.63</b>	<b>4.75</b>	<b>7.89</b>	<b>9.23</b>
1991-92	7028	455	1332244	1610	12559	295	1344803	1545	6996	307
1992-93	9218	618	1300497	1589	12087	294	1312584	1527	7462	341
1993-94	5572	342	1207493	1481	11659	295	1219152	1426	5534	250
1994-95	8671	560	1377603	1698	15335	420	1392938	1643	8187	382
1995-96	5712	320	1317679	1657	18611	516	1336290	1607	7808	376
1996-97	10385	821	1303459	1621	22888	629	1326347	1579	10422	514
1997-98	10074	1275	1434071	1750	25717	716	1459788	1706	10454	519
1998-99	0	0	1298460	1610	23771	702	1322231	1573	10092	539
1999-00	0	0	1427477	1802	24316	746	1451793	1761	9742	517
2000-01	6548	592	1087946	1388	20460	658	1108406	1360	6391	361
2001-02	5604	568	1585480	2014	22542	763	1608022	1968	9244	509
2002-03	3833	377	1100979	1412	19206	637	1120185	1383	8065	472
2003-04	6594	812	1385706	1771	13884	481	1399590	1725	8658	489
<b>CGR-II</b>	<b>-</b>	<b>-</b>	<b>-0.13</b>	<b>0.42</b>	<b>3.92</b>	<b>7.28</b>	<b>0.02</b>	<b>0.59</b>	<b>1.88</b>	<b>4.37</b>
<b>CGR ALL</b>	<b>-</b>	<b>-</b>	<b>0.88</b>	<b>1.27</b>	<b>5.75</b>	<b>8.53</b>	<b>0.94</b>	<b>1.42</b>	<b>4.42</b>	<b>5.95</b>

## **1.6 Growth in Productivity**

The table 1.3 shows that the productivity of crops in the state has been increasing during the period 1985-86 to 2003-04. The highest growth in yield was recorded in pulses (8.53%/annum), followed by oilseeds and cereals with 5.95 and 1.27 per cent per annum respectively. During this period yield of sugarcane registered highest growth of 10.73 per cent while it was lowest for the crop of wheat with 0.32 per cent per annum. Further table reveals that productivity of cereals and oilseeds has been decreased during pre reform and reform period. In case of cereals yield growth rate was 0.42 per cent per annum in reform period while it was 4.64 per cent during pre reform period. The yield of oilseeds increasing with the growth rate of 9.23 per cent in pre reform period and 4.37 per cent in reform period. It may be seen from the table that the rate of growth in yield of most of the crops was relatively higher during pre reform and lesser during reform period under study. The yield of rice has negative growth of 1.32 per cent per annum in pre reform period and it has positive growth rate of 0.94 per cent per annum in reform period.

## **1.7 Broad Land Use**

The advantage of extensive cultivation can not be taken because of a variety of reasons. The analysis of the land use pattern over time, therefore, assumes great importance in developing a future strategy regarding reallocation of resources to different crops. The land use data are presented in table 1.4. The total geographical area reported by professional survey was 5567300 hectare while the cadastral surveyed area (by village papers) during 2003-04 was only 4544156 hectare. The rest of the area was under snow and was inaccessible. The reported area (by village papers) was considered for analysis of the land use pattern. The forest area has increased from 884785 hectare during 1985-86 to 1099055 during 2003-04 registering a compound growth rate of 1.10 per cent per annum. However, an increase of 12.01 per cent in barren and un cultivable waste land is unfortunate. This could be attributed to soil erosion, which is a disturbing phenomenon. The land put to non agricultural uses, such as roads etc also increased from 220115 hectare during 1985-86 to 453498 hectare during 2003-04 registering a compound growth rate of 3.43 per cent per annum. The area under cultivable waste i.e. land once cultivated and then not cultivated for five years in succession showed a welcome

decline from 3.96 per cent of the total area during 1985-86 to 2.82 per cent of the total area during 2003-04.

Permanent pastures and other grazing lands accounts for 33.34 per cent of the reported area during 2003-04 indicating that the state has good potential for supporting animal husbandry programmes. The land under current fallow is increasing with annual growth rate 1.88 while other fallow land is decreasing at the rate of 0.10 per cent per annum. However, the land under net area sown has marginal decreased from 582600 hectare during 1985-86 to 540518 hectare during 2003-04 registering a negative growth rate of 0.43 per cent annually.

### **1.8 Percentage Change in the Cropping Pattern**

A change in cropping patterns has been taking place in the state as elsewhere in the country. The shift in cropping systems is normally advantage and indicates a dynamic economy. The change depends upon the crop involved and the multifarious stimuli such as the changing economic, technological, and institutional factors. The Annexure 2 shows the area under various major crops grown in the state. During early year of pre reforms, except maize, area under all cereals crops have been decreased whereas during reform period, area under all cereal crops has been decreased marginally. Cash crops like potato, sugarcane, mustard etc show the positive growth during pre reform and reform period. The total cereals area increased from 829333 hectares during 1985-86 to 831583 hectares during 1990-91 showing the growth rate of 0.02 per cent per annum, but during reform period this area has been decreased to 782580 hectares during 2003-04 at the annual rate of 0.45 per cent.

**Table-1.4: Land Use Statistics in Himachal Pradesh.**

(In Hectares)

Year	Total Reported Area	Forests	Barren and unculturable Land	Land put to non agricultural uses	Culturable Waste	Permanent Pastures and other grazing land	Land under misc.tree crops and groves	Current Fallows	Other Fallows Land	Net area Sown	Area sown more than once	Total Cropped Area
1985-86	3227071	884785	159573	220115	128027	1153568	40747	43906	13750	582600	391038	973638
1986-87	3325283	923010	191482	201451	127594	1202246	40538	44031	14003	580928	402158	983086
1987-88	3349546	931552	191702	202706	125573	1215805	43936	45355	17047	575870	398893	974763
1988-89	3357536	924365	190617	209957	126408	1223803	43097	38516	17202	583571	399258	982829
1989-90	3367634	1040863	177778	192775	126758	1127635	45883	48770	25205	581967	388691	970658
1990-91	3367596	1038989	183794	193186	125157	1135437	48168	44690	15378	582797	400802	983599
<b>CGR-I</b>	<b>0.73</b>	<b>3.36</b>	<b>1.38</b>	<b>-2.12</b>	<b>-0.36</b>	<b>-0.75</b>	<b>3.46</b>	<b>0.66</b>	<b>6.89</b>	<b>0.06</b>	<b>0.06</b>	<b>0.06</b>
1991-92	3390471	1034700	196949	202788	115972	1150660	48105	47048	20139	574110	406778	980888
1992-93	3395434	1038003	146075	201311	120360	1202971	42800	48517	22834	572563	400053	972616
1993-94	3399887	1043178	147782	201744	119647	1198300	46242	50232	21018	571744	403487	975231
1994-95	3402429	1049039	149388	198669	118126	1193602	48634	55938	20695	568338	399652	967990
1995-96	3396203	1056143	138853	192088	123500	1203531	45908	52622	25816	557742	392146	949888
1996-97	4161263	1084633	715578	226446	106150	1290727	97751	50781	21663	567534	400683	968217
1997-98	4267196	1086548	775896	224791	103942	1340222	97527	55410	22706	560154	426184	986338
1998-99	4530672	1092384	905730	233110	107393	1491072	67053	56905	27606	549419	420717	970136
1999-00	4531828	1094209	856911	302194	119413	1471536	64161	56233	15714	551457	405310	956767
2000-01	4547280	1093545	807217	313729	124458	1529243	56834	54165	13497	554592	392950	947542
2001-02	4542759	1098661	806574	317469	122114	1518688	60230	56287	13093	549643	406097	955740
2002-03	4543146	1099447	806258	319206	122221	1518025	57957	60314	15143	544575	400630	945205
2003-04	4544156	1099055	672512	453498	128411	1515011	62490	56124	16537	540518	540518	955614
<b>CGR-II</b>	<b>3.30</b>	<b>0.58</b>	<b>18.98</b>	<b>6.38</b>	<b>0.48</b>	<b>2.81</b>	<b>2.73</b>	<b>1.52</b>	<b>-3.86</b>	<b>-0.49</b>	<b>1.00</b>	<b>-0.23</b>
<b>CGR ALL</b>	<b>2.36</b>	<b>1.10</b>	<b>12.01</b>	<b>3.43</b>	<b>-0.36</b>	<b>1.81</b>	<b>3.09</b>	<b>1.88</b>	<b>-0.10</b>	<b>-0.43</b>	<b>0.60</b>	<b>-0.17</b>

Source: Annual Season and Crop Report, Directorate of Land Records, Himachal Pradesh.

**Table-1.5: Percentage Change in the Cropping Pattern.**

(Area as percent to GCA)

<b>Year</b>	<b>Rice</b>	<b>Wheat</b>	<b>Maize</b>	<b>Ragi</b>	<b>Gram</b>	<b>Tur</b>	<b>Potatoes</b>	<b>Sugarcane</b>	<b>Sesamum</b>	<b>Rapeseed</b>
1985-86	9.32	38.73	30.76	0.69	0.71	0	1.50	0.28	0.64	0.04
1986-87	9.76	37.83	30.86	0.81	0.95	0	1.57	0.28	0.73	0.04
1987-88	9.25	38.50	30.78	0.72	0.78	0	1.53	0.31	0.86	0.04
1988-89	9.64	37.97	32.06	0.60	0.59	0	1.58	0.30	0.77	0.01
1989-90	9.13	38.18	32.31	0.65	0.60	0	1.72	0.26	0.75	0.07
1990-91	8.64	38.25	32.44	0.60	0.34	0	1.61	0.25	0.75	0.16
1991-92	8.48	38.93	32.00	0.52	0.28	0	1.45	0.22	0.86	0.07
1992-93	8.42	38.93	31.91	0.52	0.25	0	1.46	0.24	0.76	0.32
1993-94	9.00	38.53	31.27	0.29	0.34	0	1.48	0.24	0.68	0.01
1994-95	8.55	38.73	31.87	0	0.32	0	1.36	0.26	0.63	Neg.
1995-96	8.74	37.66	32.58	0	0.23	0	1.44	0.34	0.63	Neg.
1996-97	8.44	38.52	31.74	0	0.25	0	1.32	0.40	0.55	0.11
1997-98	8.74	38.26	31.62	0	0.24	0	1.51	0.35	0.51	Neg.
1998-99	8.47	39.14	31.02	0	0.20	0	1.43	0.35	0.47	Neg.
1999-00	8.38	38.73	31.35	0	0.18	0	1.50	0.32	0.42	Neg.
2000-01	8.60	38.28	31.45	0	0.15	0	1.48	0.30	0.48	Neg.
2001-02	8.43	38.35	31.52	0	0.12	0	1.45	0.28	0.47	0.01
2002-03	8.81	38.03	30.98	0	0.14	0	1.55	0.31	0.47	0.02
2003-04	8.51	38.02	31.24	0.19	0.14	0	1.57	0.28	0.49	Neg.

**Table- 1. 5: contd.....**

<b>Year</b>	<b>Mustard</b>	<b>Rapeseed &amp; Mustard</b>	<b>Common &amp; small millets</b>	<b>Total cereals</b>	<b>Total Pulses</b>	<b>Total food-grains</b>	<b>Total oil seeds</b>	<b>GCA (000'ha.)</b>
1985-86	0.67	0.71	2.06	85.18	4.49	89.67	2.19	973.6
1986-87	0.78	0.82	1.83	84.54	4.82	89.36	2.33	983.1
1987-88	0.70	0.74	2.00	84.61	4.52	89.13	2.38	974.8
1988-89	0.67	0.68	1.89	85.27	4.45	89.72	2.13	982.8
1989-90	0.69	0.76	1.67	85.01	4.17	89.18	2.13	970.7
1990-91	0.73	0.89	1.59	84.54	4.07	88.61	2.16	983.6
1991-92	0.85	0.92	1.57	84.37	4.34	88.71	2.33	980.9
1992-93	0.58	0.90	1.53	84.12	4.22	88.34	2.25	972.6
1993-94	0.91	0.92	1.67	83.60	4.05	87.65	2.27	975.2
1994-95	0.90	0.90	1.60	83.80	3.77	87.57	2.21	968
1995-96	0.89	0.89	1.88	83.73	3.80	87.53	2.19	949.9
1996-97	0.78	0.78	1.31	83.02	3.76	86.78	2.09	968.2
1997-98	0.95	0.95	0.80	83.09	3.64	86.73	2.04	986.3
1998-99	0.93	0.93	1.21	83.13	3.49	86.62	1.93	970.1
1999-00	1.02	1.02	1.17	82.77	3.40	86.17	1.97	956.8
2000-01	0.90	0.90	1.17	82.70	3.28	85.98	1.87	947.5
2001-02	0.94	0.95	1.03	82.38	3.09	85.47	1.9	955.7
2002-03	0.88	0.90	1.08	82.48	3.19	85.67	1.81	945.2
2003-04	0.93	0.93	0.85	81.89	3.02	84.91	1.85	955.6

The decrease in area under pulses and oil seeds might not be immediately disadvantageous to the farmers because of the present low level output input ratios of these crops, but, nevertheless, it has national repercussions. The GCA of the state has increased marginally during pre reform period showing a compound growth rate of 0.06 per cent per annum but during reform period it has decreased marginally at the rate of 0.23 per cent per annum because the area has been diverted to commercial crops due to relatively higher returns from these crops. In Himachal Pradesh fruit and vegetable crops are given preference in place of the traditional food grain crops.

The crop wise share in GCA has been presented in Table 1.5. The table reveals that the food grains accounted higher share with near 90 per cent of GCA whereas only 10 per cent area covered by other crops in 1985-86. The share of food grain in GCA has declined to 85 per cent in 2003-04 while the share of other crops is 15 per cent of GCA. Table further reveals that total cereals has accounted for 85 per cent of GCA whereas pulses accounted for 4.49 per cent in 1985-86. Both cereals and pulses have decreasing trend during the study period and the share of these was about 82 and 3 per cent of GCA respectively in 2003-04. Wheat and maize are major crops of the state and contribute about 70 percent of GCA. It may be noted from the table that in both periods (pre reform and reform period) the state agriculture is dominated by traditional crops.

### **1.9 GSDP by Sector of Origin**

The compound growth rates of GSDP by sector of origin at current prices from agriculture and allied activities have been presented in Table 1.6. This may be noted from the table that the GSDP has been increasing at the growth rate of 13.57 per cent per annum during 1985-86 to 2005-06. In pre reform period GSDP shows the annual rate of growth of 12 per cent whereas it has been increasing by 13 per cent in reform period. Table further shows that rate of growth of agriculture and animal husbandry was 13.65 per cent per annum in reform period as against 11.57 per cent per annum in pre reform period. Forestry and logging and fishing have an annual growth rate of 12.56 and 29.59 per cent respectively during pre reform period and 9.50 and 7.50 per cent respectively during the reform period.

**Table-1.6 : Compound Growth Rates of GSDP by Sector of Origin at Current Prices**

(Rs. In lakh)

Years	Agril. & Animal Husbandry	Forestry & Logging	Fishing	Total
1985-86	43858	12079	303	56240
1986-87	46387	13424	283	60094
1987-88	47641	12407	352	60400
1988-89	55654	18884	519	75057
1989-90	65125	20424	639	86188
1990-91	74621	19761	1000	95382
<b>CGR-I</b>	<b>11.57</b>	<b>12.56</b>	<b>28.59</b>	<b>11.92</b>
1991-92	94609	24950	1369	120928
1992-93	100572	32040	1447	134059
1993-94	118702	33195	1867	153764
1994-95	138977	35398	1601	175976
1995-96	155880	34273	2055	192208
1996-97	176942	38446	2212	217600
1997-98	195757	42616	2681	241054
1998-99	237828	44383	2756	284967
1999-00	268091	48645	3113	319849
2000-01	330005	57469	3124	390598
2001-02	369160	65895	3268	438323
2002-03	380542	76779	3296	460617
2003-04	429526	80664	3048	513238
2004-05®	486304	83783	3616	573703
2005-06(Q)	508444	92924	3820	605188
<b>CGR-II</b>	<b>13.65</b>	<b>9.50</b>	<b>7.50</b>	<b>12.83</b>
<b>CGR All</b>	<b>14.24</b>	<b>10.70</b>	<b>13.90</b>	<b>13.57</b>

Agriculture comes under the state's list as per Constitution of India. Naturally, it is expected that the resources for agricultural development are allocated primarily by the state in addition to the plan resources given from the Central pool. Over the years, the resource allocation by the States through their budgetary resources has been shrinking specially in some of the states. This shrinkage has telling effect on the agricultural growth and development of resources in the sector. No significant study has been conducted to analyse the impact of shrinkage of resources in the State. Besides, the issue of Central-State relations in agriculture also crops up in this context. The allocation of various schemes resources to the state have been rather adhoc than need-based. Recently, in a study conducted under the 'Farmers at Millennium' it was pointed out that the resource allocation to the states does not follow strict guidelines or principles. In that case, the allocation of resources from the Central pool may cause differential impact across the States and this may lead to imbalance in growth. The present study will analyse the allocation of budgetary resources by the state as well as the balance between Central and State Schemes in Himachal Pradesh.

### **1.10 Objectives of the Study**

The specific objectives of the study are as follows:- :-

1. To analyses the trends in budgetary allocation of resources to the agricultural sector as a whole and the sub-sectors of agriculture in Himachal Pradesh.
2. To document and analyses schemes under operation in the states contributing to the development of the agriculture sector.
3. To enlist and analyze the impact of control sector schemes operating in the agricultural sector of the state.

### **1.11 Methodology**

The present study is based on published and unpublished secondary data. The required information were collected from state Departments of Planning , Finance, Directorate of Land Record, Himachal Pradesh, Directorate of Economics and Statistics, Directorate of Agriculture, Animal Husbandry, Horticulture of H.P. Govt. and Department of Population Census, Govt. of India. The data was collected from 1985-86 to 2005-06. For the detailed analysis of the data some well known

statistical tools have been used. Before calculating the compound growth rates the whole data was converted into logs then the following formula of compound growth rate (Exponential functions) was applied:

$$Y = AB^t$$

For calculating the expenditure GSDP and NSDP at constant prices we used the deflating method which is given below:

$$\text{Real Expenditure} = \frac{\text{Expenditure at current prices}}{\text{Price Index}} \times 100$$

### 1.12 Organization of the Study

The present study has been divided into five chapters. Chapter first sets forth introductory information. It provides the profile of the state followed by the agriculture and public finance, brief review of agricultural development of the state and agricultural productivity growth. The objectives of the study and methodology have been also presented in this chapter. Chapter II has been devoted to analyzing the trend and pattern of budgetary expenditure on agriculture. Further chapter has been divided into four subsections. First section include introduction followed by trends of budgetary agricultural expenditure which was further divided into six sub heads i.e. (a) growth of budgetary expenditure on agriculture at constant prices (b) growth of per hectare budgetary expenditure on agriculture (c) expenditure as a share of total budget (d) expenditure as a share of expenditure on economic services (e) expenditure on agriculture as a percentage of NSDP and (f) changes in the composition of expenditure on agriculture. Third sections we have discussed SAP and changing nature of expenditure on agriculture. Chapter III includes the agricultural development schemes. The chapter start with introduction and agricultural development schemes have been divide into centrally sponsored schemes followed by state sector schemes and externally founded schemes with brief review of available evaluation studies by schemes. Chapter IV is related with the impact of agricultural expenditure on production, NSDP and poverty followed by impact of agricultural expenditure on farm sector distress, impact of government schemes on agriculture development. Finally chapter V pertains to the summary and conclusions.

## Chapter – 2

# TRENDS AND PATTERN OF BUDGETARY EXPENDITURE ON AGRICULTURE

### 2.1 Introduction

The modern state is now considered as a welfare state that exists for the welfare of the community as a whole. Such a view of the state, however extended its functions and it has to make provisions for medical facilities, education, relief to the poor, sanitation and various other services of public utility, so as to increase the welfare of the community as a whole. Thus increasing activities of the government is the cause of increasing public expenditure. The secular increase in public expenditure is generally known as Wagner's Law of "the expenditure scale of state activity". Wagner maintained that as income per capita rises the public sector will grow in importance due to (i) expansion of administrative and protective functions of the state, (ii) expansion of cultural and welfare functions and (iii) creation of public monopolies. Prest attributes three reasons for ever growing government expenditure, namely growth of population, the emergence of strong local opinions and the emergence of world opinion. J.M. Keynes was the first to recognize the role of public expenditure in the determination and distribution of national income. In his "General Theory", he provided a theoretical basis that the government has not only the ability but the responsibility to use its powers to increase production, income and jobs. The role of public expenditure is, therefore, to increase income and employment, efficient allocation of resources, to redistribute income and wealth from the point of view of social justice and to accelerate the rate of economic growth.

State expenditures are classified under two headings: a) revenue expenditures; and b) capital expenditures.

Broadly speaking, the terms 'revenue expenditures' and 'current expenditures' are used interchangeably just as the terms 'capital expenditures' and investment. The correlation is however not exact. There are some investment expenditures on

revenue account (basically capital expenditures) which are required for carrying out general administration of the state, such as housing for civil servants. Like wise, current expenditures shown up on the capital account. Formally, the difference between revenue and capital expenditure is determined on the basis of whether the expenditures are financed from revenue or capital receipts.

Plan expenditures may be either revenue or capital expenditure since the expenditures of a non-capital nature are financed through plan during the plan period (they become non-plan committed expenditures at the termination of the plan), but they are always 'developmental'.

**2.1.1 Revenue Budget** Revenue spending (revenue expenditure) takes place from this budget. Salaries of government employees and military staff, perks for ministers, office furniture, grants to local bodies, subsidies, interest to be paid on loans taken, and pensions are all accounted for here and referred to as revenue spending. Any expenditure for the normal running of the Government, which does not lead to the creation of assets, is called revenue spending. This spending must be financed from revenue receipts, i.e. revenue that the Government earns. Revenue receipts are broadly divided into three parts, namely tax revenue, non-tax revenue and grants in aid from central Government.

**2.1.2 Capital Budget** Capital spending (capital expenditure) refers to the money spent on creating assets (roads, highways and dams), buying land or building, purchasing machinery and equipment. Loans from centre to various institutions or Government run companies are clubbed here, too. Also included are any investments made by the government in shares or other such instruments. This spending is financed from capital receipts, the money that the Government gets from loans. The loans can be from the public (market loans), from the Reserve Bank of India (the country's Central Bank) or from financial institutions.

## **2.2 Trends of Budgetary Agricultural Expenditure**

### **a) Growth of Budgetary Expenditure on Agriculture at Constant Prices:**

The economy of Himachal Pradesh is predominantly dependent upon agriculture and its allied activities and in the absence of strong industrial base, any fluctuations in the

agricultural or horticultural production cause some changes in economic growth also. Agriculture is the core sector providing a livelihood to a significant proportion of the population especially in rural areas. It provides direct employment to 69 per cent of the total workers of the state. About 17.80 per cent of the total GSDP comes from agriculture and its allied sectors. A growing agriculture and allied sector is expected to contribute vastly to overall growth and poverty alleviation. Government expenditure in agriculture, rural development and related areas is very important for agricultural growth. Growth of budgetary expenditure on agriculture and allied sectors at constant prices (1993-94) is given in Table 2.1. The study of the table reveals that the total expenditure on agriculture and allied sectors was Rs.17833.98 lakhs in 1985-86 which increased to Rs.24151.08 lakhs in 2005-06 showing an increase of 1.14 per cent per annum. The revenue expenditure has grown at the rate of 1.99 per cent per year while the capital expenditure has declined at the rate of 3.74 per cent per year. In pre-reform period (1985-86 to 1990-91) and reform period (1991-92 to 2005-06) the growth rate of expenditure on agriculture sector comes out to be 7.47 and 1.15 per cent per annum respectively.

#### **b) Growth of Per Hectare Budgetary Expenditure on Agriculture**

The growth of per hectare budgetary expenditure on agriculture and allied sectors of revenue account at current and constant prices (1993-94) is given in Table 2.2. Total cropped area has been used for the calculation of per hectare expenditure on agriculture and sub sectors. The table reveals that per hectare expenditure on agriculture and allied services at current prices was Rs.667 in the year 1985-86 increased to Rs.4119 in the year 2003-04 showing the per annum rate of growth of 11.67 per cent whereas the per annum rate of growth in the pre reform and reform period has been observed to be 20.05 and 1.49 per cent respectively showing tremendous decrease in the growth rate during reform period. Similarly per hectare expenditure on this sector at constant prices Rs.1360 in the year 1985-86 increased to Rs. 2124 in the year 2003-04 thereby showing per annum rate of growth of 2.79 per cent. The rate of growth in the pre reform and reform period comes out to be 9.54 and 3.83 per cent per annum respectively showing comparatively less growth during reform period.

**Table-2.1: Trend in Expenditure on Agriculture at Constant Prices of 1993-94**

(Rs. in Lakhs)

Year	Total			Economic Services			Expenditure on Agriculture & Allied Services		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
1985-86	96239.48	20776.04	117015.53	30785.39	14727.51	45512.90	13245.00	4588.98	17833.98
1986-87	108673.04	22754.31	131427.35	32969.65	15049.75	48019.40	16499.42	3557.48	20056.89
1987-88	115921.38	26627.09	142548.46	37383.09	18253.14	55636.22	18066.34	4848.33	22914.67
1988-89	132323.05	25995.46	158318.51	39686.85	18178.60	57865.46	19008.32	5378.13	24386.44
1989-90	127028.22	22413.73	149441.96	36246.91	17356.09	53603.00	21690.57	4317.84	26008.40
1990-91	130224.41	23504.23	153728.64	36853.11	17498.09	54351.20	21138.17	3822.63	24960.80
<b>CGR-I</b>	<b>6.22</b>	<b>1.58</b>	<b>5.44</b>	<b>3.62</b>	<b>3.74</b>	<b>3.66</b>	<b>9.60</b>	<b>-0.65</b>	<b>7.47</b>
1991-92	127658.19	27248.68	154906.87	33726.17	16263.39	49989.56	18452.15	4348.64	22800.80
1992-93	132891.91	28084.97	160976.88	34308.21	16561.61	50869.82	16900.34	4322.36	21222.70
1993-94	145403.14	25657.52	171060.66	41666.69	17998.22	59664.91	18640.87	3098.48	21739.35
1994-95	157113.16	49302.38	206415.54	48296.16	39935.14	88231.31	19181.46	4621.58	23803.04
1995-96	170808.62	32076.71	202885.33	48531.97	22177.19	70709.16	18749.45	3766.30	22515.76
1996-97	175821.44	30878.69	206700.13	50769.62	20816.91	71586.53	19030.80	4060.29	23091.08
1997-98	205963.16	42604.96	248568.13	61946.23	31042.08	92988.32	20877.84	4211.41	25089.25
1998-99	225169.54	40657.41	265826.95	62182.09	28224.26	90406.35	24406.99	3621.50	28028.49
1999-00	249955.34	36937.91	286893.25	61196.38	22797.04	83993.42	24326.77	2980.83	27307.59
2000-01	273678.88	31778.21	305457.08	72059.16	17357.49	89416.65	25776.06	3210.43	28986.49
2001-02	255656.97	38274.59	293931.56	63549.91	22747.38	86297.29	24613.94	2644.88	27258.81
2002-03	295853.00	48914.00	344766.99	74699.98	35272.85	109972.83	31286.07	3033.73	34319.81
2003-04	311345.35	44973.37	356318.72	60898.96	28143.81	89042.77	20297.63	2414.55	22712.17
2004-05	315031.70	36824.36	351856.06	59323.75	18921.06	78244.81	19183.83	2056.84	21240.68
2005-06	332251.07	43369.91	375620.98	64390.52	23334.60	87725.13	22375.89	1775.19	24151.08
<b>CGR-II</b>	<b>7.60</b>	<b>2.93</b>	<b>6.89</b>	<b>4.73</b>	<b>1.61</b>	<b>3.76</b>	<b>2.19</b>	<b>-5.40</b>	<b>1.15</b>
<b>CGR All</b>	<b>6.50</b>	<b>3.69</b>	<b>6.09</b>	<b>4.34</b>	<b>2.60</b>	<b>3.84</b>	<b>1.99</b>	<b>-3.74</b>	<b>1.14</b>

Source: Annual Financial Statement (Budget), Finance Department, Government of Himachal Pradesh.

**Table: 2.2 Trends in Expenditure on Agriculture of Revenue Account (Current and Constant Prices).**

Year	(Rs./ha.)	
	Current Prices	Constant Prices
1985-86	667	1360
1986-87	806	1678
1987-88	1075	1853
1988-89	1218	1934
1989-90	1497	2235
1990-91	16.12	2149
<b>CGR-I</b>	<b>20.05</b>	<b>9.54</b>
1991-92	1580	1881
1992-93	1633	1738
1993-94	1912	1911
1994-95	2180	1982
1995-96	2388	1974
1996-97	2615	1966
1997-98	3007	2117
1998-99	4026	2516
1999-00	4220	2543
2000-01	4677	2720
2001-02	4609	2575
2002-03	6191	3310
2003-04	4119	2124
2004-05	N.A.	NA
2005-06	N.A.	NA
<b>CGR-II</b>	<b>11.49</b>	<b>3.83</b>
<b>CGR All</b>	<b>11.67</b>	<b>2.79</b>

**c) Expenditure as a Share of Total Budget**

Expenditure on agriculture and allied sectors as a share of total budget of revenue account is given in Table 2.3. The table shows that in the year 2005-06 the share of agriculture sector is 6.73 per cent as against 13.76 per cent in 1985-86 showing decrease of 7.03 per cent over the period of 21 years. The comparison of pre-reform and reform period shows that in the pre-reform period the share of agriculture expenditure in total budget increased from 13.76 per cent to 16.23 per cent while in the reform period it has decreased from 14.45 per cent to 6.73 per cent. Thus less attention is given to agriculture sector in the total budget during reform period and over the period of 21 years.

**Table-2.3 : Expenditure on Agriculture of Revenue Account as share of Total Budget and as a share of Economic Services.**

<b>Year</b>	<b>As a share of total Budget</b>	<b>As a share of Economic Services</b>
1985-86	13.76	43.02
1986-87	15.18	50.04
1987-88	15.58	48.33
1988-89	14.36	47.90
1989-90	17.07	59.84
1990-91	16.23	57.36
<b>CGR-I</b>	<b>3.18</b>	<b>5.78</b>
1991-92	14.45	54.71
1992-93	12.72	49.26
1993-94	12.80	44.74
1994-95	12.21	39.72
1995-96	10.98	38.63
1996-97	10.82	37.48
1997-98	10.14	33.70
1998-99	10.84	39.25
1999-00	9.73	39.75
2000-01	9.42	35.77
2001-02	9.63	38.73
2002-03	10.57	41.83
2003-04	6.52	33.33
2004-05	6.09	32.34
2005-06	6.73	34.75
<b>CGR-II</b>	<b>-5.02</b>	<b>-2.43</b>
<b>CGR All</b>	<b>-4.23</b>	<b>-2.25</b>

Note: Percentages have been calculated from Economic Services and total budget of Revenue Account.

**d) Expenditure as a share of Expenditure on Economic Services**

Expenditure on agriculture and sub sectors as a share of expenditure on economic services of revenue account is given in Table 2.3. It can be seen from the table that in the year 1985-86, the share of agriculture expenditure was 43.02 per cent to the expenditure on economic services which decreased to 34.75 per cent in the year 2005-06 thereby showing decrease of 8.72 per cent over the period of 21 years. During pre-reform period this share increased from 43.02 per cent to 57.36 per cent. The share was estimated to be maximum (59.84%) in the year 1989-90. During reform period this share decreased from 54.71 per cent to 34.75 per cent thereby showing decrease of 19.96 per cent. Thus within economic services also less attention is given to agriculture sector during reform period and over the period of 21 years.

**e) Expenditure on Agriculture as a Percentage of NSDP**

Expenditure on agriculture and allied activities of revenue account as a percentage of NSDP at constant prices (1993-94) is given in Table 2.4. The net state domestic product is estimated to be Rs.1066182 lakhs in the year 2005-06 as against Rs.252386 lakhs in the year 1985-96 registering an increase of 7.90 per cent per annum. During pre-reform period and reform period increase in NSDP comes out to be 5.85 and 8.65 per cent per annum respectively. Expenditure on agriculture and allied activities increased from Rs.13245 lakhs to Rs.21138.17 lakhs and from Rs.18452.15 lakhs to Rs.22375.89 lakhs during pre-reform and reform period respectively. The rate of growth of expenditure on this sector comes out to be 9.60, 2.19 and 1.99 per cent per annum during pre-reform, reform and on the overall period respectively. The expenditure on agriculture as a percentage of NSDP is estimated to be 2.10 per cent in the year 2005-06 as against 5.25 per cent in the year 1985-86 showing decrease of 3.19 per cent. The comparison of pre-reform and reform period shows that during pre-reform period expenditure on agriculture as a percentage of NSDP increased from 5.25 per cent to 6.29 per cent and in reform period it has decreased from 5.21 per cent to 2.10 per cent.

**Table-2.4: Expenditure on Agriculture at Constant Prices 1993-94 base.**

(Rupees in lakh)

Year	Expenditure on Agriculture	NSDP	Expenditure on agriculture as a percentage of NSDP (Revenue account)
1985-86	13245.00	252386	5.25
1986-87	16499.42	284046	5.81
1987-88	18066.34	265366	6.81
1988-89	19008.32	306798	6.20
1989-90	21690.57	325937	6.65
1990-91	21138.17	336196	6.29
<b>CGR-I</b>	<b>9.60</b>	<b>5.85</b>	<b>3.53</b>
1991-92	18452.15	354170	5.21
1992-93	16900.34	362890	4.66
1993-94	18640.87	425003	4.39
1994-95	19181.46	472042	4.06
1995-96	18749.45	490102	3.83
1996-97	19030.8	511494	3.72
1997-98	20877.84	549787	3.80
1998-99	24406.99	594216	4.11
1999-00	24326.77	751024	3.24
2000-01	25776.06	805378	3.20
2001-02	24613.94	850014	2.90
2002-03	31286.07	895790	3.49
2003-04	20297.63	934389	2.17
2004-05	19183.83	1008075	1.90
2005-06	22375.89	1066182	2.10
<b>CGR-II</b>	<b>2.19</b>	<b>8.65</b>	<b>-5.95</b>
<b>CGR All</b>	<b>1.99</b>	<b>7.90</b>	<b>-5.48</b>

## **f) Changes in Composition of Expenditure on Agriculture**

### **f (i) Changes in the composition of expenditure on agriculture of revenue account as a share of agriculture expenditure:**

While examining government expenditure for agriculture, it is important to look at the expenditure on agriculture and its allied activities separately. Expenditure on agriculture and allied services include expenditure on crop husbandry, soil & water conservation, animal husbandry, dairy development, fisheries, forestry & wild life, plantations, co-operation etc. within agriculture sector, the percentage share of each above mentioned sectors has been worked out in Table 2.5 to examine the shifts in expenditure within these sectors.

#### **Crop Husbandry**

Crop husbandry is an important component of agriculture sector. Rice, wheat and maize are important cereal crops of the state. Groundnut, soyabean and sunflower in kharif and rapeseed/mustard and toria are important oilseed crops in Rabi season. Urd, bean, moong, rajmash in kharif season and gram, lentil in Rabi are important pulse crops. The state government is laying emphasis on production of off-season vegetables, fruits, potato, ginger, pulses and oilseeds besides increasing production of cereals through timely and adequate supply of inputs, demonstration and effective dissemination of improved farm technology, replacement of old variety seed, promoting integrated pest management, bringing more area under efficient use of water resources and implementation of watershed development projects. Out of total expenditure on agriculture the share of crop husbandry is estimated to be 24.43 per cent in the year 2005-06 as against 25.87 per cent in the year 1985-86 showing decrease of 1.44 per cent but it reveals no clear picture it is rather marked by fluctuations during different years. Similarly the percentage share of plantations in agriculture has decreased from 0.22 per cent to 0.10 per cent during 1985-2006.

**Table-2.5: Changes in the Composition Expenditure on Agriculture of Revenue Account as a share of Agricultural expenditure.**

(Percentages)

<b>Year</b>	<b>Agriculture &amp; allied Services</b>	<b>Crop Husbandry</b>	<b>Soil &amp; Water Conservation</b>	<b>Animal Husbandry</b>	<b>Dairy Development</b>	<b>Fisheries</b>	<b>Forestry &amp; wild life</b>
1985-86	100	25.87	12.06	10.09	1.06	1.00	32.81
1986-87	100	28.42	9.91	9.10	1.14	0.90	35.23
1987-88	100	27.12	8.57	9.18	0.95	0.91	33.21
1988-89	100	26.03	7.57	8.84	1.09	0.90	33.80
1989-90	100	39.00	6.41	7.70	0.76	0.98	29.64
1990-91	100	21.09	5.36	9.02	0.82	0.91	29.81
1991-92	100	28.27	6.32	9.47	0.81	1.04	35.84
1992-93	100	20.76	6.51	10.59	0.77	1.06	39.86
1993-94	100	28.19	6.90	10.23	1.02	1.14	34.84
1994-95	100	25.68	8.73	10.46	1.29	1.00	33.96
1995-96	100	22.23	8.48	11.12	0.92	1.22	36.31
1996-97	100	21.81	7.29	11.24	1.19	1.08	37.38
1997-98	100	24.61	6.89	11.85	1.55	1.05	33.17
1998-99	100	24.88	6.33	10.77	1.10	1.07	41.36
1999-00	100	19.85	6.21	11.97	1.19	1.08	46.23
2000-01	100	20.04	5.33	11.99	1.11	1.03	47.36
2001-02	100	19.46	5.26	12.44	1.21	1.11	46.03
2002-03	100	16.82	4.05	9.89	0.85	0.77	56.10
2003-04	100	24.08	7.30	14.99	1.14	1.14	34.06
2004-05	100	21.59	7.37	15.74	1.58	1.22	35.83
2005-06	100	24.43	5.96	14.97	1.33	1.15	35.39

**Table-2.5: contd...**

<b>Year</b>	<b>Plantations</b>	<b>Food storage warehousing</b>	<b>Agril. Research &amp; Education</b>	<b>Agril. Finance Institutions</b>	<b>Cooperation</b>	<b>Other Agril. Programme</b>
1985-86	0.22	4.41	6.09	0	6.25	0.14
1986-87	0.26	4.72	6.62	0	3.45	0.25
1987-88	0.20	9.94	6.10	0	3.64	0.18
1988-89	0.25	5.25	10.50	0	5.24	0.53
1989-90	0.22	4.55	6.07	0	4.20	0.47
1990-91	0.22	4.88	6.49	0	20.99	0.31
1991-92	0.26	6.18	7.60	0	3.73	0.48
1992-93	0.32	8.28	7.75	0	3.96	0.14
1993-94	0.32	7.73	7.60	0	1.89	0.14
1994-95	0.21	6.63	7.78	0	4.11	0.15
1995-96	0.26	6.57	9.16	0	3.56	0.17
1996-97	0.19	6.85	9.08	0	3.81	0.08
1997-98	0.20	6.01	11.35	0	3.23	0.09
1998-99	0.18	3.81	7.62	0	2.85	0.03
1999-00	0.17	2.17	8.21	0	2.92	Neg.
2000-01	0.16	1.49	8.65	0	2.84	0
2001-02	0.14	1.15	10.63	0	2.57	0
2002-03	0.09	1.08	8.20	0	2.09	0.06
2003-04	0.16	1.57	12.4	0	3.16	0
2004-05	0.13	1.12	12.4	0	3.02	0
2005-06	0.10	1.21	12.85	0	2.61	0

### **Soil & Water Conservation**

Land and soil functions have a crucial base for all production system. Due to topographical factor the soil is subject splash, sheet and gully erosion resulting into degradation of the soil. Besides, there is a biotic pressure on the land. Therefore, maintenance of physical, chemical and biological balance of the soil besides management of land surface is essential to sub-serve all socio-economic needs. With the increasing population and greater developmental activities, the requirements of the food, fodder and firewood including water indicate that the state will not only have to protect and conserve the soil resources but also have to provide various production management practices. Out of total expenditure on agriculture the share of soil and water conservation is estimated to be 5.96 per cent in the year 2005-06 as against 12.06 percent in the year 1985-86 thereby showing decrease of 6.10 per cent.

### **Animal Husbandry and Dairy Development**

Animal husbandry is also one of the important sector of agriculture. The livestock sector not only provides animal protein but various types of raw material for industrial base. Besides this sector has a large potential for generating employment for unemployed rural youth. As animal husbandry plays an important role to boost the rural economy and as such for livestock development programme attention is paid in the state by way of animal health and disease control, cattle development, sheep breeding & development of wool, poultry development, feed and fodder development, veterinary education and livestock census. Out of total expenditure on agriculture of allied services the share of animal husbandry is estimated to be 14.97 per cent in 2005-06 as against 10.09 per cent in 1985-86 thereby showing an increase of 4.48 per cent but in a fluctuating manner.

Dairy development is an integral part of the animal husbandry. The department of animal husbandry over the plan periods has made systematic efforts to improve productive potential of milch animals by way of cross-breeding, animal health care and adoption of better feeding and management practices. These conditions made livestock rearing as more meaning to agrarian society. The percentage share of expenditure on dairy development in the total agriculture expenditure has also increased from 1.06 per cent to 1.33 per cent during 1985-2006.

### **Fisheries**

Fisheries in Himachal Pradesh are artisanal in character involving roughly 12,500 families of fishermen and engaging from localized subsistence fishing to highly mobile and intensive fishing. Fisheries enterprise is becoming more and more popular as a supplementary enterprise with agriculture among farmers in the rural areas to increase the income of the farmers. Trout and Mahaseer fish farming in the state is being promoted by initiating incentive oriented schemes. State government is providing technical and financial help to fishermen and rural youth to promote aquaculture. Out of total expenditure on agriculture services the share of fisheries is estimated to be 1.15 per cent in 2005-06 as against 1 per cent in 1985-86. The share was observed to be the minimum (0.77%) in the year 2002-03.

### **Forestry and Wild Life**

Forestry & wild life is also one of the important component of agriculture sector. The maintenance of adequate forest cover in the state is of great importance. Protection of forests under the increasing biotic pressure becomes more significant. Similarly it is also important to protect, develop and scientifically manage the wildlife in and out side the protected areas as the state is known for its diversity of animal and bird habitant and population. Out of total expenditure on agriculture and allied sectors the share of forestry and wild life is estimated to be 35.39 per cent on 2005-06 as against 32.81 per cent in 1985-86 thereby showing an increase of 2.58 per cent. This share was observed to be maximum (56.10%) in the year 2002-03.

### **Food storage and Warehousing**

The government has also to incur the expenditure on food storage and warehousing. Out of total expenditure on agriculture and allied activities the share of food storage and warehousing is estimated to be 1.21 per cent in the year 2005-06 as against 4.41 per cent in the year 1985-86 thereby showing decrease of 3.20 per cent.

### **Agriculture Research & Education**

After the enactment of Himachal Pradesh University in 1971 the collage of Agriculture at Palampur, which was established as 3<sup>rd</sup> campus of Pubjab Agriculture University, Ludhiana in 1966 was transferred to Himachal Pradesh University in 1971. The erstwhile Himachal Pradesh University had established two faculties

namely (i) Faculty of Agriculture and (ii) Faculty of Forestry under the Agriculture Complex at Palampur. After the coming up of independent Agriculture University in 1978, new faculties were redesigned as (i) Faculties of Agriculture and animal Science at Palampur (ii) Faculties of Horticulture and Forestry at Solan. Later on in 1985, faculties of Horticulture and Forestry were upgraded as a full-fledged University of Horticulture and forestry and were named as Dr. Y.S. Parmar University of Horticulture and forestry. These two universities are responsible for the entire research support to the state in the relevant fields. Special emphasis is laid on the need based research and transfer of improved technologies developed in universities to the farmer's fields. The research activities are jointly financed by the ICAR and the state government in the shape of grants in-aid flows to these universities. The per centage share of this component in agriculture expenditure has increased from 6.09 per cent in 1985-86 to 12.85 per cent in 2005-06 thereby showing an increase of 6.76 per cent.

### **Co-operation**

Co-operation has aptly been described as a movement rather than a mere programme. It is conceived as an important factor in building up an egalitarian and non-exploitative economic and social order. Co-operative movement in Himachal Pradesh presents a picture of adequate coverage both village wise and family wise. Out of total agriculture expenditure the share of cooperation is estimated to be 2.61 per cent in 2005-06 as against 6.25 per cent in 1985-86 thereby showing a decrease of 3.64 per cent.

### **f (ii) Changes in the Composition of Per Hectare Expenditure on Agriculture of Revenue Account at Constant Prices**

Per hectare expenditure on agriculture and allied sectors of revenue account at constant prices (1993-94) has been given from the period 1985-86 to 2003-04 in table 2.6. The table reveals that per hectare expenditure on agriculture and allied services has increased from Rs.1360 to Rs.2124 during 1985-2004 registering an increase of 2.73 per cent per annum. The rate of growth comes out to be 9.54 and 3.83 per cent per annum in pre-reform and reform period respectively.

In the case of crop husbandry per hectare expenditure has increased from Rs.352 to Rs.511 registering an increase of 3.64 per cent per annum. The rate of growth comes out to be 9.57 and 1.38 per cent per annum in pre-reform and reform period respectively showing less growth in the reform period. In the plantation sector, per hectare expenditure has shown an increase of 10.35 per cent per year in the pre-reform period while in the reform period per hectare expenditure has decreased at the rate of 14.66 per cent per year.

As far as animal husbandry and dairy development are concerned, the per hectare expenditure has increased at the rate of 4.97 and 3.92 per cent per annum respectively during 1985-2004. But it can also be observed from the table that, less attention is given to the animal husbandry and more to the dairy development in the reform period as compare to pre-reform period.

The per hectare expenditure on soil and water conservation has decreased at the rate of 0.05 and 6.38 per cent per annum in the overall and pre reform period respectively. While the expenditure has increased at the rate of 1.10 per cent per annum in the reform period thereby showing greater emphasis on this sector in the reform period.

The per annum rate of growth of per hectare expenditure on fisheries has been observed to be more (8.12%) in pre reform period as compare to reform period (2.78%). The overall per year rate of growth comes out to be 3.29 per cent. Per hectare expenditure on forestry and wild life has increased from Rs.446 to Rs.724 during 1985-2004 registering an increase of 4.91 per cent per annum. While in pre-reform and reform period it is almost same as 6.53 and 6.20 per cent per annum respectively.

In the case of agricultural research and education per hectare expenditure has increased from Rs.83 to Rs.263 from the year 1985-86 to 2003-04 thereby showing an increase of 6.10 per cent per year. Per hectare expenditure on this sector has increased in both the pre reform and reform period but the per year

**Table-2.6: Changes in the Composition of per Hectare Expenditure of Revenue Account  
(Rs/Ha of Gross Cropped Area at Constant Prices of 1993-94)**

Year	Agriculture & allied Services	Crop Husbandry	Soil & Water Conservation	Animal Husbandry	Dairy Development	Fisheries	Forestry & wild life
1985-86	1360	352	164	137	14	14	446
1986-87	1678	477	166	153	19	15	591
1987-88	1853	503	159	170	18	17	615
1988-89	1934	504	146	171	21	18	654
1989-90	2235	871	143	172	17	22	662
1990-91	2149	456	115	194	18	19	641
<b>CGR I</b>	<b>9.54</b>	<b>9.27</b>	<b>-6.38</b>	<b>6.17</b>	<b>3.13</b>	<b>8.12</b>	<b>6.53</b>
1991-92	1881	532	119	178	15	20	674
1992-93	1738	361	113	184	13	18	693
1993-94	1911	539	132	195	20	22	666
1994-95	1982	509	173	207	26	20	673
1995-96	1974	439	167	219	18	24	717
1996-97	1966	429	143	221	23	21	735
1997-98	2117	521	146	251	33	22	702
1998-99	2516	626	159	271	28	27	1041
1999-00	2543	505	158	304	30	27	1175
2000-01	2720	545	145	326	30	28	1288
2001-02	2575	501	135	320	31	29	1185
2002-03	3310	557	134	327	28	25	1857
2003-04	2124	511	155	318	24	24	724
<b>CGR II</b>	<b>3.83</b>	<b>1.38</b>	<b>1.10</b>	<b>5.97</b>	<b>5.68</b>	<b>2.98</b>	<b>6.20</b>
<b>CGR All</b>	<b>2.79</b>	<b>0.64</b>	<b>-0.05</b>	<b>4.97</b>	<b>3.92</b>	<b>3.29</b>	<b>4.91</b>

Table-2.6: contd.....

Year	Plantations	Food storage warehousing	Agril.Research & Education	Agril. Finance Institutions	Cooperation	Other Agril. Programme
1985-86	3	60	83	0	85	2
1986-87	4	79	111	0	58	4
1987-88	4	184	113	0	67	3
1988-89	5	101	203	0	101	10
1989-90	5	102	136	0	94	11
1990-91	5	105	139	0	451	7
<b>CGR I</b>	<b>10.35</b>	<b>8.84</b>	<b>11.38</b>	<b>0</b>	<b>33.85</b>	<b>35.00</b>
1991-92	5	116	143	0	70	9
1992-93	6	144	135	0	69	2
1993-94	6	148	145	0	36	3
1994-95	4	131	154	0	81	3
1995-96	5	130	181	0	70	3
1996-97	4	135	178	0	75	2
1997-98	4	127	240	0	68	2
1998-99	4	96	192	0	72	Neg.
1999-00	4	55	209	0	74	Neg.
2000-01	4	41	235	0	77	0
2001-02	4	30	274	0	66	0
2002-03	3	36	271	0	69	2
2003-04	3	33	263	0	67	0
<b>CGR II</b>	<b>-4.66</b>	<b>-13.61</b>	<b>6.56</b>	<b>0</b>	<b>1.03</b>	<b>-</b>
<b>CGR All</b>	<b>-1.39</b>	<b>-6.41</b>	<b>6.10</b>	<b>0</b>	<b>-1.81</b>	<b>-</b>

rate of growth has been observed to be more (11.38%) in the pre-reform period as compare to reform period (6.56%).

In food storage and warehousing per hectare expenditure has increased at the rate of 8.84 per cent per annum during pre-reform period while it has decreased at the rate of 13.61 per cent per annum during the reform period. On the whole per hectare expenditure on this sector has been decreasing by 6.41 percent annually.

In the case of co-operation sector, in pre-reform period per hectare expenditure has increased at the rate of 33.85 per cent per year. But in the reform period per year rate of growth comes out to be 1.03 per cent showing tremendous decrease in the reform period and overall per hectare expenditure on this sector has decreased at the rate of 1.81 per cent per annum thereby showing less attention to this sector.

### **F(iii) Changes in the Composition of Expenditure on Agriculture of Revenue Account at Constant Prices (1993-94)**

Expenditure on agriculture and allied sectors of revenue account at constant prices (1993-94) has been given in Annexure 8 and compound growth rates of expenditure on agriculture and allied activities of revenue accounts are given in Table 2.7. The analysis reveals that expenditure on agriculture and allied sectors has increased from Rs.13244.10 lakhs to Rs.22375.89 lakhs during 1985-2006 registering an increase of 1.99 per cent per annum. The rate of growth comes out to be 9.60 and 2.17 per cent per annum in pre-reform and reform period respectively.

In the case of crop husbandry expenditure has increased from Rs.3426.45 lakhs to Rs.5465.95 lakhs registering an increase of 0.31 per cent per annum. The rate of growth comes out to be 9.33 and 0.72 per cent per annum in pre-reform and reform period respectively. In the plantation sector expenditure has shown an increase of 8.48 per cent per year in the pre-reform period while in the reform period expenditure has decreased at the rate of 5.21 per cent per annum. Overall the decrease has been observed to be 2.12 per cent per annum during 1985-2006.

As far as animal husbandry and dairy development are concerned, expenditure has increased at the rate of 4.57 and 3.67 per cent per annum respectively from the year

1985-86 to 2005-06. But the per annum rate of growth has decreased in the case of animal husbandry and increase in respect of dairy development in the reform period as compare to pre-reform period.

The per hectare expenditure on soil and water conservation has decreased at the rate of 0.22 and 6.28 per cent per annum in the overall and pre reform period respectively while the expenditure has increased at the rate of 0.52 per cent per annum in the reform period.

The per year rate of growth of expenditure on fisheries has been observed to be more (8.97%) in pre-reform period as compare to reform period (2.23%). The overall per year rate of growth comes out to be 2.83 per cent. Expenditure on forestry and wild life has increased from Rs.4346.27 lakhs to Rs.7919.31 lakhs from the year 1985-86 to 2005-06 registering an increase of 3.43 per cent per year. While in the pre-reform and reform period the rate of growth comes out to be 6.57 and 3.17 per cent per annum respectively.

In the case of agricultural research and education expenditure has increased at the rate of 5.10 per cent per annum during 1985-2006. Expenditure on this sector has increased at the rate of 11.49 per cent and 5.60 per cent per annum in pre-reform and reform period respectively.

In food storage and ware housing expenditure has decreased at the rate of 7.20 per cent per annum during 1985-2006. Expenditure has increased at the rate of 8.84 per cent per annum in the pre-reform period while decreased at the rate of 13.87 per cent per year in the reform period.

In the case of co-operation sector, in pre-reform period expenditure has increased at the rate of 33.89 per cent per year. But in the reform period per year rate of growth comes out to be 0.05 per cent showing tremendous decrease in the reform period. Overall expenditure on this sector has decreased at the rate of 2.08 per cent per year.

**Table: 2.7 Compound growth Rates of Expenditure on Agriculture and allied Activities of Revenue Account.**

(CGR in Percent)

Particulars	Pre reform period 1985-86 to 1990-91	Reform period 1991-92 to 2005-06	Over all 1985-86 to 2005-06
Agriculture & allied Services	9.60	2.17	1.99
i. Crop Husbandry	9.33	0.72	0.31
ii. Soil & Water conservation	-6.28	0.52	-0.22
iii. Animal Husbandry	6.21	5.06	4.57
iv. Dairy Development	2.50	4.80	3.67
v. Fisheries	8.97	2.23	2.83
vi. Forestry & Wild Life	6.57	3.17	3.43
vii. Plantations	8.48	-5.21	-2.12
viii. Food Storage, Warehousing	8.84	-13.87	-7.20
ix. Agril. Research & Education	11.49	5.60	5.10
x. Agril. Finance Institutions	0	0	0
xi. Cooperation	33.89	0.05	-2.08
xii. Other Agril. Programme	33.71	-	-

### 2.3 SAP and changing Nature of Expenditure on Agriculture

Agriculture is one of the important activities of the state economy and accounts for single largest share in the state domestic product. Though expenditure on agriculture and allied activities has increased at the rate of 1.99 per cent per annum during 1985-86 to 2005-06, but there has been tremendous decline in the expenditure on this sector in the reform period (2.19%) as against pre-reform period (9.60%). The resource allocation to the agriculture sector by the state through its budgetary resources has been shrinking. This has direct effect on the agriculture growth and development of the resources in this sector.

The total outlay of plan expenditure from first five year plan to 10<sup>th</sup> five year plan and outlays on agriculture and allied actives (plan wise) has been given in Table 2.8.

It may be observed from Table that the plan outlay has been increased from Rs.564.4 lakh in first plan to Rs1207057 lakhs in tenth plan. Similarly the outlay of agriculture and allied activities has also been increased from Rs.120.27 lakhs in first plan to Rs.120168 lakhs in tenth plan. The table further reveals that the share of agriculture in total out lay was more than 21 per cent in first plan. It was decreased to 15 per cent in 2<sup>nd</sup> five year plan and then it has reached at more than 29 per cent in fourth plan outlays. Afterwards again it has decreased to 25 per cent in fifth and sixth five year plan outlays followed by seventh five year plan to 22 per cent, eighth five year plan 17.57 per cent, ninth five year plan about 15 per cent and finally in tenth five year plan it got only about 10 per cent share of the total outlays. This shrinkage may be due to less priority has been given to agriculture sector in the reform period as compared to pre reform period.

**Table-2.8 : Plan Outlay and Outlay on Agriculture.**

(Rs. In lakhs)

Plan	Plan Period	Total Plan Outlays	Outlays on Agriculture and allied activities	Share of Agriculture in total plan outlays
First Plan	1951-56	564.4	120.27	21.31
Second Plan	1956-61	1472.53	218.53	14.84
Third Plan	1961-66	2793	649	23.24
Annual Plan	1966-67	900	279.16	31.02
Annual Plan	1967-68	1572	459	29.20
Annual Plan	1968-69	1550	376	24.26
Fourth Plan	1969-74	10140	3000	29.58
Fifth Plan	1974-79	23895	5874	24.58
Annual Plan	1979-80	7768	1699	21.87
Sixth Plan	1980-85	56000	14086	25.15
Seventh Plan	1985-90	105000	23357	22.24
Annual Plan	1990-91	36000	6426	17.85
Annual Plan	1991-92	41000	7496	18.28
Eight Plan	1992-97	250200	43965	17.57
Ninth Plan	1997-02	570000	84280	14.79
Tenth Plan	2002-07	1207057	120168	9.96

## 2.4 Conclusions

Thus it can be concluded from the above that two components of aggregate expenditure on agriculture and allied activities at constant prices (1993-94) have not registered a similar pattern of growth. The revenue expenditure has grown at the rate of 1.99 per cent per year while the capital expenditure has declined at the rate of 3.74 per cent per year over the period of 21 years. Overall the aggregate expenditure has increased at the rate of 1.14 per cent per annum. The per year rate of growth has been observed more (7.47%) in the pre-reform period as compare to reform period (1.15%). The comparison of per hectare expenditure on current and constant prices on revenue account shows that expenditure on current prices has grown at the faster rate registering 10.26 per cent per year rate of growth as compare to constant prices (1.99% per year) during 1985-2004. The comparison of expenditure in the pre-reform and reform period shows that at both constant and current prices per annum rate of growth was higher in the pre-reform period as compare to reform period.

The share of agriculture and allied services expenditure in total budget, in economic services and in NSDP has decreased from 13.76 per cent to 6.73 percent, 43.02 per cent to 34.75 per cent and 5.25 per cent to 2.10 per cent respectively during 1985-2006.

Within agriculture sector, the expenditure on various components has not grown at a uniform rate. The highest (5.10%) per annum rate of growth has been observed in respect of expenditure on agriculture research and education followed by animal husbandry (4.57%), dairy development (3.67%), forestry and wild life (3.43%) fisheries (2.83%) and crop husbandry (0.31%). The expenditure on food storage and ware housing has decreased at the rate of 7.20 per cent per annum followed by plantation (2.12%), cooperation (2.08%) and soil and water conservation (0.22%).

In the total expenditure on agriculture and allied activities, the percentage share of animal husbandry, dairy development, fisheries, forestry & wild life and agriculture research & education has increased and the maximum (6.76%) increase has been observed in the case of agriculture research and education followed by animal husbandry (4.48%) and forestry & wild life (2.58%). On the other hand the

percentage share of crop husbandry, soil and water conservation, plantation, food storage & warehousing and co-operation has decreased and the maximum decrease has been observed in the case of soil and water conservation (6.10%) followed by co-operation (3.64%) and food storage & ware housing (3.20%).

The expenditure on agriculture and allied sectors has decreased at the rate of 1.99 per cent per annum but there has been decline in the growth of expenditure in the reform period as compare to pre reform period. This shrinkage may be due to less priority has been given to agriculture sector in the reform period as compared to pre reform period.

The resource allocation to the agriculture sector by the state through its budgetary resources has been shrinking. It means less attention to this sector is given in the reform period. But it does not mean that the importance of agriculture sector in the state economy is becoming less as the state economic growth still is being determined by the trend in agricultural production. It is the major contributor to the total domestic product and has overall impact on other sectors via input linkages, employment, trade etc.

## **AGRICULTURAL DEVELOPMENT SCHEMES**

### **3.1 Introduction**

Agriculture being the mainstay of the people of Himachal Pradesh has an important role in the economy of the state. Agriculture and allied sector account for 21.7 per cent of the Gross State Domestic Product. It provides direct employment to about 71 per cent of the main working population. Planning commission envisaged a growth rate exceeding 4 per cent per annum in agriculture and allied sector. Difference in agro climatic conditions create a scope for the production of variety of cash crops like off season vegetables, potato, tea, ginger in addition to maize, cereals, wheat etc. Effective steps shall be required to be taken towards more efficient use of soil and water for increasing agriculture production. Adoption of improved package of practices like use of agriculture inputs and services are critical in attaining higher productivity levels. In this chapter an attempt has been made to review the development schemes implemented in agriculture, horticulture, animal husbandry and fishery sectors in Himachal Pradesh.

## **DEVELOPMENT SCHEMES IN AGRICULTURE**

### **3.2 Centrally sponsored Schemes**

#### **3.2.1 Integrated Scheme of Oilseed, Pulses, Oil Palm and Maize (ISOPOM):**

The Government of India launched this scheme during the year 2004-2005. In the new scheme all the ongoing scheme of OPP, NPDP and AMDP etc. have been merged. In this scheme only Maize crop has been kept during the year 2006-2007. The main component of the scheme are distribution of hybrid maize seed, block demonstrations, IPM demonstrations, installation of sprinkler sets, distribution of HDPE pipes for carrying water from the source to field, involvement of private sector in seed production, supply of input extension support etc. and publicity regarding development of maize etc.

**3.2.2 Bio-gas Development Programme** Keeping in view depleting sources of conventional fuel i.e. firewood biogas plants have assumed great importance in the low and mid hills in the state. Till December 2007, since inception 42582 biogas plants have been installed in the state. Out of the total biogas produced in the Himalaya, about 90.86 per cent is being produced in Himachal Pradesh alone. During 2006-07, 155 biogas plants were installed in the state against a target of 150 and it was proposed to install 100 biogas plants during 2007-08, against which 20 plants have been installed up to December, 2007. This is 100% centrally sponsored schemes under which Rs.3500 is provided as subsidy on biogas plants up to 1 cubic meter and more than 1 cubic meter the subsidy is Rs.4500.

**3.2.3 Macro Management Approach for Agriculture Development** The centrally sponsored scheme introduced from the year 2000-01. The State Govt had taken up this constraint with the Govt. of India for providing greater flexibility in the implementation of the centrally sponsored programme and also projection of new innovations for accelerated agriculture development in the state. Under this approach the work plans submitted by the state get 90% central support (80% grant and 20% loan) and 10% share from the state plan. Under the scheme major emphasis is being laid on improvement of cereal crops, transfer of technology, and construction of water storage tanks, development of off season vegetables, spices, promotion of quality seed production and integrated nutrient management balance use of fertilizer besides active involvement of women in agriculture. In the work plan flexibility has also been given to state level coordination committee to make changes in allocation if required from one scheme to other. During 2006-07, the department of agriculture got Rs.1614.98 lacs under this scheme. For the year 2007-08, work plan of Rs.1355.64 lacs has been approved which will be under implementation.

### **3.3 State Sector and Externally Funded Scheme**

**3.3.1 Quality Seed Multiplication and Distribution** Department owns 25 Seed Multiplication Farms where foundation Seeds of Kharif and Rabi crops are produced. Annually about 3500 to 4000 Qtls. seed of cereals, pulses and vegetables are

produced. Further about 1,00,000 quintals of Certified Seeds of various crops are distributed to the farmers in the State.

**3.3.2 Soil Testing** Department has 11 Soil Testing Labs besides 2 Mobile soil Testing Labs to provide free soil testing facilities to the farmers. About 1,00,000 No's sample are analyzed annually, 1,00,000 No's Soil Health Cards are being provided to the farmers during 2006-07.

**3.3.3 Crop Protection** The Department exercise vigil on Pest situation. To overcome this, about 300 M.T. of pesticides through 1,500 Sale centers are being supplied to the farmers. For quality control pesticide testing laboratory has been set up with a analyzing capacity of 150 to 250 samples per year. One Bio Control Laboratory has been established at Palampur where various aspect like pest situation conservation argumentation, training of extension staff and farmers is being taken care of. Another one Bio Control Laboratory is under establishment at Mandi for which the construction of the building is already completed.

**3.3.4 Seed Potato Development** The Department owns 14 Potato Development Stations where foundation Seed Potato is produced. More area is being diversified towards cash crops and market maximum potato as table produce only that much seed potato which can easily be marketed outside the State.

**3.3.5 Vegetables Development Project** Annually more than 9.30 lac tones of fresh vegetables are produced. The Department owns three Vegetable Seed Farms where Quality Seed is produced.

**3.3.6 Ginger Development** For production of disease free Ginger, the Department is Providing Training, Demonstrations and Quality Seed. Annually about 33,000 tones of Green Ginger is produced which is marketed to the neighbouring States. The Department owns two Ginger Farms where Quality Seed is produced.

**3.3.7 Agricultural Marketing** This is regulated in the State through new APMC Act. The H.P. Agricultural and Horticultural Produce Marketing (Development and

Regulation) Act, 2005. At present, 10 Market Committees are functioning and 38 No's of functional market yards/sub yards in the State.

**3.3.8 Farmers Trainings and Education** The Department runs two Training Centers one at, Mashobra, District Shimla and other at Sundernagar, District Mandi. Besides this farmers training camps are organized at village, Block and district level.

**3.3.9 Agricultural Economics and Statistics** Under this programme estimates of production of major crops like Wheat, Maize, Rice, Potato and ginger are worked out according to Random Sampling Method.

**3.3.10 Tea Development** Total area under Tea is 2, 312 hectares with a production level of 8.55 lacs Kg. during the year 2005-2006.

**3.3.11 Rashtriya Krishi Bima Yojna (RKBY)** The State government has adopted this Scheme from Rabi 1999-2000 season. Crops covered are Wheat, Barley, Maize, Paddy and Potato. Subsidy in premium is allowed to Small and Marginal Farmers. The scheme is compulsory for loanee farmers and optional for non-loanee farmers. The scheme provides comprehensive risks insurance against yield losses viz. Drought, Hailstorm, Floods, Pests Disease etc. The scheme is being implemented by the Agriculture Insurance Corporation of India (AIC). The farmers of the State can get benefit of this programme.

**3.3.12 Rural Infrastructure Development Fund (RIDF)** The Department of Agriculture is participating under RIDF programme financed by NABARD (90% Share by NABARD in shape of loan and 10% State Share up to Tranche-VII & onwards 95% share by NABARD & 5% State Share) since 1995-1996 and brief details of minor irrigation projects executed under various tranches are as under; Under RIDF-I, Agriculture Department has executed 15 NO's Deep Tube Well Irrigation Schemes with an expenditure of Rs.312.90 lacs covering 612.00 hectare CCA. Similarly under RIDF-II, 12 Nos's Deep tube Well Irrigation Schemes were executed by the Department with an expenditure of Rs.312.33 lacs covering 470 hectare CCA. Under RIDF-III & IV, Agriculture Department did not participate. Under RIDF-V, Department executed 157 Minor Irrigation Projects with an

expenditure of Rs.147.14 lacs covering 3588.49 hectare CCA. Under RIDF-VI, Agriculture Department executed 140 Minor Irrigation Schemes with an expenditure of Rs.1091.95 lacs covering 3031.06 hectare CCA. Under RIDF-VII, Department of Agriculture executed 125 Minor Irrigation Schemes with an expenditure of Rs.779.22 lacs covering 2380.52 hectare CCA. Beside this Department also executed 90 community based Water Harvesting and Natural Resource Management Project in Hamirpur District with a expenditure of Rs.678.96 lacs covering CCA 6128.21 hectare. Under RIDF-VIII, Department did not participate. During RIDF-IX, 28 Minor Irrigation Schemes are executed with an expenditure of Rs.144.76 lacs covering CCA 390.62 hectare. Under RIDF-X, Department executed 60 Minor Irrigation Schemes with an expenditure of Rs.406.63 lacs having CCA 1025.31 hectare. During RIDF-XI, 68 Projects are executed with an expenditure of Rs.577.90 lacs covering CCA 1182.51 hectare. Under RIDF-XII, the NABARD has sanctioned 3 No's Tube wells, 5 No's Water Harvesting Structure and 53 Minor Irrigation Schemes amounting to Rs.633.67 lacs having CCA 987 hectare for the year 2006-2007.

## **DEVELOPMENT SCHEMES IN HORLTCULTURE**

### **3.4 State Sector Schemes**

The Department of Horticulture provides various incentives in the form of assistance to various categories of farmers for helping them take up horticulture under its different programmes. Under the State sector Schemes, the following assistance is available:-

- (a) Subsidy on horticulture production inputs @ 25% to small farmers, 33.3% to the marginal farmers and 50% to the scheduled caste, tribe and backward area farmers.
- (b) Subsidy on pesticides @ 50% to the small farmers and 30% to the big farmers.
- (c) Subsidy on mushroom trays, mushroom compost, pesticides and plant protection equipments for mushroom cultivation @ 25% to the small farmers, 33.3% to the marginal farmers and 50% to the Schedule caste, Schedule tribe, backward area farmers. In addition 10% subsidy on the cost of capital

investment subject to a maximum of Rs.2500 per individual, 3% subsidy on the rate of interest and 100% subsidy on the transportation cost of compost is also available to the above categories of the farmers.

- (d) Subsidy on corrugated fiberboard cartons for the packing of the fruits @ Rs.8 per a 20 kg capacity telescopic carton manufactured by AIPIL subject to a ceiling of Rs. 9600/-
- (e) 50% subsidy is provided for the purchase of the plastic crates.
- (f) Subsidy on the transportation of the wooden packing cases ranging between Rs.0.50 to Rs.1.00 per box is provided for the import of such material from the adjoining States for the packing of fruits depending upon the distance. The transportation subsidy of wooden logs for packing boxes for orchardists owning land less than 10 bighas, is Rs.500/- to Rs.1000/- per truck, depending upon distance.

### **3.5 Horticulture Technology Mission**

The details of assistance available under Horticulture Technology Mission Mini Mission-II, being implemented by the State Department of Horticulture is as follows:-

**3.5.1 Area Expansion** Fruits like apple (spur, colour strains & processing varieties), Pear (colour strains), Plum, Peach, Nectarines, Apricot, Prunes, Cherry, Pomegranate, Hazel Nut, Walnut, Pecan Nut, Aonla, Mango, Litchi, Kiwi, Ber, Guava, Citrus (Sweet Orange, Kinnow, K. Lime), vegetables including root & tuber crops, exotic vegetables and vegetable Hybrids, Flowers, Spices, Medicinal & Aromatic plants etc. are the crops being covered under this programme. Area Expansion also includes replacement of old and senile plants. Assistance @ 50% of the cost of cultivation with a maximum limit of Rs.13,000/- per hectare is available except for floriculture, medicinal and aromatic plants, where the maximum assistance available is Rs.13,000/- and Rs.4,000/-, respectively for an area of 0.2 hectares.

**3.5.2 Creation of Water Sources** For the creation of suitable water sources for ensuring irrigation to horticultural crops, the assistance available is as under:-

@ 50% of the cost subject to a ceiling of Rs.1 lakh for the construction of Community Tanks providing irrigation to 1 hectare area with a maximum limit of Rs. 10 lakh for irrigating 10 hectare area.

@ 50% of the cost subject to a ceiling of Rs.12,500/- for the construction of Tube wells/Bore wells.

**3.5.3 On Farm Water Management** Besides developing water sources, on farm handling of water is also very important to ensure irrigation. Plasticulture technologies have proved beneficial to promote the judicious utilization of water and sunlight and offer protection against natural vagaries. The assistance being made available under this programme is as follows:-

@ 50% of the cost, with maximum limit of Rs.28,500/- per hectare area of drip irrigation system installed, depending on the crop spacing.

@ 50% of cost, with maximum limit of Rs.15,000/- per hectare area of sprinkler irrigation installed.

@ 50% of cost, with maximum limit Rs.7,000/- per hectare for Plastic Mulching.

@ 40% of cost of Rs.200/- sq.m. or Rs.40,000/- whichever is lower for a maximum area of 500 sq. m. of Greenhouses.

@ Rs. 1.50 lakh for establishment of Greenhouses for flower cultivation fitted with temperature, humidity, light controls, fertigation systems, etc. for maximum area of 500 sq. m.

@ 50% of the cost or Rs.5/ sq. m. whichever is lower, for a maximum area of one hectare area under Low Tunnels.

@ 50% of cost or Rs.14/sq. m. whichever is lower for a maximum area of 500 sq. m. for Shade Nets.

@ 50% cost or Rs.500 per tree for a maximum of 50 trees per beneficiary for anti hail nets.

@ 50% of cost or Rs.2000 per hectare for a maximum area of 1 hectare for Bird Protection Nets.

**3.5.4 On Farm Handling Unit** This Programme is targeted to provide grading, sorting and storage facilities of the produce at the farm level. The assistance for

setting up these units is provided @ 30% of the total cost subject to the maximum of Rs.50,000 per beneficiary.

**3.5.5 Production of Planting Material** Planting material is the most important input in horticulture plantations. Production of planting material is given special attention so that genuine material is made available to the farmers. Under this programme, Integrated Multi Crop Nurseries, Progeny and Herbal gardens and tissue Culture Units both in public and private sectors are being established. The assistance being made available under this Programme is as under:-

@ 50% of the cost subject to a ceiling of Rs.8 lakh (Private Sector) and @ 100% of the cost subject to a maximum of Rs.18 lakh (Public Sector) for setting up of Integrated Multi crop Nursery for minimum area of 2 hectare and producing minimum 5 lakh plants per annum.

@ 50% of the cost (Private Sector) and @ 100% of the cost (Public Sector) subject to a ceiling of Rs.3 lakh (Private/Public Sectors) for establishing a Small Nursery with a minimum production capacity of 3 lakh plants per annum.

@ 50% of the cost subject to a maximum of Rs.1.50 lakh (Private Sector) and @ 100% subject to a ceiling of Rs.3 lakh (Public Sector) for establishing a Progeny and Herbal Garden.

@ 50% of the cost subject to a ceiling of Rs.10 lakh (Private Sector) and @ 100% subject to maximum of Rs.21 lakh (Public Sector) for setting up a Tissue Culture Unit with a minimum production capacity of 15 lakh plants per annum.

@ Rs. 12.5 lakh per True Potato Seed Centre (Public Sector) and Rs. 2 lakh per true Potato Seed Centre (Private Sector)

**3.5.6 Transfer of technology through training, front line demonstrations, publicity and training of trainers**

For continually updating the technical knowledge and skills of the Departmental Staff so that the latest technologies are disseminated to the farming community, this Programme comprises the training of technical staff of the Department and farmers, organization of exhibitions, fruit shows and publicity of the programmes of the technology Mission. Exposure visits of the farmers within and outside the State are organized so that they can see the progress

made by their counterparts within and outside the State. The assistance being provided for this purpose is as follows:-

- @ Rs.1,500 per farmer for a training of 7 day duration within the State
- @ Rs.2,500 per farmer for a training of 7 day duration outside the State
- @ actual cost with a maximum limit of Rs.50,000 per trainer (Training of Trainers)
- @ Rs.20 lakh per Supervisory Training Centre
- @ Rs. 2 lakh per Gardeners Training Centre.

**3.5.7 Popularization of Organic Farming and use of Bio-fertilizers** In order to reduce the use of chemical fertilizers, pesticides and insecticides, organic farming is being encouraged. Groups of farmers will be provided assistance for obtaining the certification of their organic produce. The assistance available is as under:

- @ Rs. 10,000 per hectare for adopting organic farming.
- @ 90% of cost limited to Rs.5 lakh per year for Certification
- @ Rs. 30,000 for making Vermi-compost Unit.

**3.5.8 Promotion and Popularization of Horticultural Equipments** Keeping in view the low availability of skilled manpower for carrying out horticultural operations, this programme is targeted to make available manual operated tools, power tillers, Power operated and Diesel engines to the farmers in the State. The assistance being provided for this purpose is as under:-

- @ Rs. 1,000 per farmer for training of farmers as the maximum limit
- @ Rs. 1,500 per farmer for purchase of manually operated equipments as the maximum limit.
  
- @ Rs. 5,000 per farmer for purchase of power operated equipments as the maximum limit
  
- @ Rs. 45,000 per farmer for purchase of Power tillers as the maximum limit
  
- @ Rs. 9,000 per farmer for purchase of diesel engines as the maximum limit.

**3.5.9 Promotion of Integrated Pest Management:-** For the promotion of integrated pest management units for disease and pest forecast are being established to forewarn about the outbreak of diseases and pests. The assistance being provided under this programme is:-

@ Rs. 1,000 per hectare per farmer for adoption of Bio-pesticides.

@ Rs.80 lakh (Public Sector) and @ 50% of the cost with a maximum limit of Rs. 40 lakh (Private Sector) for setting up of Bio control Laboratories.

@ Rs. 4 lakh for establishing Disease Forecast Centre (Public Sector).

**3.5.10 Establishment of Plant Health Clinic** Plant health clinics are being established in private sector by encouraging Agriculture/Horticulture Graduates to provide this service at the farmers' doorstep. Assistance with a maximum limit per unit @ Rs. 20 lakh (Public Sector) and Rs.5 lakh (Private Sector) for setting up these Clinics is available.

**3.5.11 Establishment of Tissue/Leaf Analysis Laboratory** For the determination of essential nutrients availability to the plants and enabling recommendation of different fertilizers and trace elements for supplementing the deficiency of these nutrients, setting up of tissue analysis Laboratories is being encouraged. Assistance @ 100% with a ceiling of Rs.20 lakh (Public Sector) and @ 50% with a ceiling of Rs. 5 lakh (Private Sector) is being made available under this programme.

**3.5.12 Development of Beekeeping** Beekeeping has a predominant role to play in pollination, honey production and wax production. Pollination benefits can be evaluated at higher level as compared to the byproduct produced by the bees. To take honey production the bee colonies have to be migrated depending upon the availability of the flora. Bee breeding aspect has to be also taken care of for providing quality bees to the novice beekeepers. Assistance @ 50% of the cost or Rs. 250/- per colony and @ 50% of cost of Bee hives/equipment or Rs.350/- per set which ever is less is being made available under this programme.

**3.5.13 Entrepreneurial Development of Women Farmers** Women are inextricably involved in horticulture activities in Himachal Pradesh there is a need that these women be organized by making self-help groups and providing them training in different horticulture activities. They should be empowered and be involved in decision making at the household level. The assistance being provided under this programme is as follows:-

@ Rs. 10,000 per district for conducting Base line survey.

@ Rs. 20,000 per district for the development of curriculum.

@ Rs. 10,000 per district for conducting refresher training of facilitators.

@ Rs. 1,000 per woman farmer for training of 5 day duration

@ Rs. 5,000/- for the formation of self help group.

## **DEVELOPMENT SCHEMES IN ANIMAL HUSBANDRY**

### **3.6 Sponsored Schemes in Animal Husbandry Sector in Himachal Pradesh**

To provide 100% coverage of Artificial Insemination to breedable cattle & buffaloes of the State and to provide door step delivery of Artificial Insemination services at farmer's premises:-

**3.6.1 National Project on Cattle and Buffalo Development** National Project on Cattle and Buffaloes Development has been sanctioned by govt. of India on 100% Central assistance for 3 years. Total amount sanctioned under this project for Himachal Pradesh is Rs. 12.75 Crore. Grant-in-aid for implementing first phase of the project amounting to Rs.3.20 Crore has been released. Project aims at strengthening of following activities of animal Husbandry Department.

1. Strengthening of Liquid Nitrogen storage, transport and distribution.
2. Strengthening of sperm stations, Semen Banks and a.I. Centers.
3. Acquisition of high pedigree bulls for sperm stations and for Natural Service in remote areas.
4. Strengthening of training facilities.
5. Computerization.

**3.6.2. Assistance to State for control of animal Diseases (ADCAD)** Due to large scale Interstate Migration from adjoining states and lack of Nutrition grasses and fodder due to hilly topography most of animals are prone to various livestock diseases. Central Govt. has provided assistance to State Govt. for control of contagious diseases under ASCAD which is on the pattern of 75% Central share and 25% State share.

Haemorrhagic septisemia disease has been selected to be eradicated from the State during period of 10<sup>th</sup> Five Year Plan under this project. Other diseases for which free vaccination is being provided to livestock owners under this project are FMD, BQ, Enteroloxaemia, PPR, Ranikhet Disease Marek's disease and Rabies.

**3.6.3. Centrally Sponsored Schemes under District Rural Development Agency(DRDA)** Under Swan Jayanti Swarojgar Yojna (SGSY) Dairy Development Project are being implemented by DRDA. A Dairy animal improvement project is being implemented in District Solan since 2001. On the Same pattern Dairy Development Project have been sanctioned for four more Districts on 75:25(Central Share: State share) pattern and first installment of Central share has been released to respective districts. Detail of Projects is as under:

1. Chamba 6.25 Crores
2. Hamirpur 5.87 Crores
3. Kangra 13.01 Crores
4. Mandi 5.03 Crores.

Activities being covered under these Projects are as under:-

1. Genetic improvement
2. Milch livestock improvement
3. Improved feed and fodder development and management
4. Marketing
5. Improvement of breeding efficiency
6. Extension and training.

**3.6.4 Centrally sponsored Schemes in Poultry Sector** To develop poultry sector in Himachal Pradesh Department is running following poultry development schemes especially in rural areas of the State.

**Back Yard Poultry Development Scheme** The Animal Husbandry Department has introduced Backyard Poultry Scheme under the Centrally sponsored Scheme “ Assistance to the State Poultry Farms” which is a 80:20 scheme. The state share is in kind i.e. land, infrastructure, staff, etc. Since the medium and the large poultry farms have come up of late in the state due to the efforts of the department whereby training and other help in the form of project reports and opening of the units under subsidy have been provided to the poultry farmers. Therefore the department tried to give more attention to the small and marginal poultry farmers who have specific requirements w.r.t. the strain of the poultry bird provided. This is important because with the limited resources such group of poultry farmers need a disease resistant strain with local availability. This was ensured under the Backyard scheme where low input technology bird of coloured strain but disease resistant type are supplied to the farmers of the state @ Rs. 14/-chick of 2-3 weeks age to prevent the early mortality. This scheme has been an instant success because it not only supplement the income of the poor farmers of the state but also provide nutrition of high order to them which is ample clear from the fact that about 2.00 lakh chicks were distributed under the scheme last year.

Under the Backyard Poultry Scheme, various State Poultry farms are being strengthened while the sundernagar and Nahan farms have been fully renovated. Works at Chauntra will be completed within a month time while the works at Palampur farm are 50% complete. The Chamba and Una farms too have been provided funds and the necessary estimates are being prepared prior the start of the strengthening works. The Government of India has sanctioned the following Projects:-

1. 2001-02	Poultry Farm, Nahan	Rs.21.05 lakh
2. 2002-03	Poultry Farm, Sundernagar	Rs.59.87 lakh
3. 2003-04	Poultry Farm, Chauntra	Rs.27.40 lakh
4. 2004-05	Poultry Farm, Palampur	Rs. 25.00 lakh

5. 2005-06	Poultry Farm, Una	Rs. 58,72,500/-
6. 2005-06	Poultry Farm, Chamba	Rs. 58,72,500/-

Besides the above, a project proposal for the strengthening of the Poultry Farm, Kamlahi, Shimla has also been sent to the Government of India recently for the necessary sanction. This project is of Rs.1,05,91,650/- while the Central share comes out to Rs.84,73,320/-. Moreover where only 1st installment has been received, the department has taken with the G.O.I. to release the balance amount which is as follows:-

1. Rs. 27.40 lakh for Poultry Farm, Chauntra
2. Rs. 25.00 lakh for Poultry Farm, Palampur.
3. Rs. 10.00 lakh (appox.) for Poultry Farm, Nahan.

Where the sanctioned amount was less than the proposal.

- Last year there were 7752 beneficiaries under the Backyard Poultry Scheme to whom 1,72,851 chicks were distributed.
- Till date 5 Meetings of the Technical Monitoring Committee have been held (11.8.2004, 3.12.2004, 23.6.2005, 7.10.2005 and 22.4.2006).

As per the feed back from the field small poultry units of both broilers and eggers of 20 to 50 numbers are becoming very popular. There for department with the help of Govt. of India has started a scheme on cost bases for development of backyard poultry. This scheme is on 80:20 pattern (Central Share: State Share). Under this scheme chicks in the multiples of 10 are provided to breeder @ Rs.10/- per chick. Transportation of chicks to nearest road head to breeder is arranged by the Department.

To fully meet the demand of chicks few poultry farms of the State are also proposed to be strengthen under this scheme. Sundernagar and Nahan Hatcheries have already been strengthened. Strengthening of Poultry Farm Chauntra is proposed next. Rupees 54.80 lakh were sanctioned under this scheme for Himachal Pradesh and first installment of Rs.27.40 lakh has been received from Govt. of India.

**3.6.5 Centrally Sponsored Schemes in Sheep Development** In Himachal Pradesh because of ideal agro climatic conditions sheep rearing is a major occupation with majority of Agricultural house holds. To bring desired increase in quality and quantity of wool various centrally sponsored schemes are being run in the State by “H.P. State Co-operative Wool Procurement and Marketing Federation”.

**Integrated Wool Improvement Programme** This project has been sponsored by Central Wool Development Board Jodhpur for the period of 4 years on the 100% Central Assistance pattern. This project is being implemented in District Chamba, Kangra & Kullu. Rupees 1.25 Crores as first year installment have been received by Wool Federation and are being spent on following activities:

- Breed improvement.
- Health Care
- Training camps for sheep breeders.
- Assistance for marketing and product development of wool.
- Establishment of multipurpose extension centers.

**Integrated Sheep and Wool Development Projects:** Integrated sheep and Wool Development Project have been sponsored by Central Wool Development Board, Jodhpur on 100% Central Assistance. These projects are for duration of 3 years and are being implemented in following districts:

District wise Grant released during year 2003-04.

1. ISWDP Chamba-III 12.84 lakh (Bharmour)
2. ISWDP Kangra-III 11.97 lakh (Palampur/Dharamshala)
3. ISWDP Shimla 12.88 lakh (Rohru/Chirgaon)
4. ISWDP Kinnaur – I 13.00 lakh.

Total Rs 50.69 lakh.

Following activities are being covered under these projects:

50,000 sheep are being covered in each district and following facilities are provided to the registered breeders.

- Breed improvement
- Health Care.
- Product development
- Marketing Assistance
- Training camps for sheep breeders.

**3.6.6 Continuous fiber dryer plant** Rupees 7.55 lakh has been received by H.P. Wool Federation as 100% Central Assistance from Central Wool Development Board, Jodhpur for installation of continuous fiber Dryer Plant as an attachment to mini wool scouring Plant Palampur.

**3.6.7 Integrated Angora Development Project** Integrated Angora Development Project is being run in district Kullu and Sirmour by the department of animal Husbandry. This project is being sponsored by Central wool Development Board Jodhpur on 100% Central Assistance Pattern.

A Germ Plasm Centre and Health & Nutrition Laboratory has been established at Nagwain District Mandi under this project and interested farmers are being provided a unit of 4 female+1 male rabbit free of cost along with feed, medicines and cages.

## **DEVELOPMENT SCHEMES IN FISHERY**

### **3.7 State Government Sponsored Welfare Schemes**

**3.7.1 Reservoirs Fishermen Accident Insurance Scheme** Fishing in the big reservoirs is a hazardous job. There is every risk of life during heavy rains and storms. Keeping this in view all active fishermen working in the reservoirs have been

insured for Rs.25000/- in case of permanent disability and Rs.50000/- in case of death of the fishermen. The insurance premium of Rs.14/- is being shared by the Government of India and government of Himachal Pradesh in 50:50 ratio.

**3.7.2 Saving-cum-Relief Scheme (Close Season Assistance)** In order to ensure sustained yield of fish from the reservoirs apart from the other management measure a fishing 'closed-season' of two months from 1<sup>st</sup> June to 31<sup>st</sup> July every year has been enforced. This measure has helped in building up fisheries of considerable magnitude by facilitating free run to the mother fish spawner during breeding season and the auto stocking of the fish seed. Every year fish over 4 crores value is being harvested accounting an income of Rs.60 lakh to the State exchequer. This measure has also generated considerable resentment in the fishermen community and they were insisting on the provision of some financial assistance during this period. Himachal Pradesh is perhaps the 1<sup>st</sup> State in the country which has acceded in the demand of fishermen by introducing a 'Contributory Saving –cum- Relief Scheme' to its reservoir fishermen. Under this scheme each fishermen who is member of the cooperative society deposits Rs.50/- for ten consecutive fishing months from August to May. Proportionate amount is contributed by the Central and State Government with contribution of Rs.225/- and 300/- respectively. The total amount of Rs.1025/- thus, is distributed to the fishermen in two installments during the 'closed season'.

**3.7.3 Fishermen Risk Fund Scheme** Fishing in the reservoir is nocturnal in nature and hence involves a considerable element of risk to the life of the fishermen as well as his fishing equipments. Due to changes in atmospheric pressure, followed by cyclonic storms the reservoir become quite rough and such situation create a lot of hardships to the poor fishermen. To mitigate to a certain extent the losses to the fishermen a 'Fishermen Relief Fund Scheme' has been formulated in the State. Under this scheme each reservoir fishermen contributes Rs.6/- annually, to be collected from him at the beginning of the year while issuing the licenses. The State Government contributes an amount equal to the total contribution of the fishermen. The assistance from the fund to the fishermen is given only on loss of gill nets, wooden boats, and tents. Based on the present value of the equipments the

compensation is given up to 33% of the loss of each item. Maximum assistance is given in case of total loss/destruction of the equipment.

**3.7.4 Grant-in-Aid/Subsidy for the Construction of Fish Ponds** Fish culture is an important activity and aims at improving the nutritional standard of people by increasing production and consumption of fish as well as to improve the economic condition of the operators by providing them with gainful avocation. In order to assist the people to take the fish culture the States Govt. has formulated a scheme to provide subsidy up to maximum of Rs.5,000 for the construction/renovation of ponds. The subsidy is available @ 50% of the total project cost to Scheduled Castes/Tribes, while other living below poverty line @ 20%. The State Government is also providing training and technical guidance to the entrepreneurs.

### **3.8 Centre govt. Sponsored Welfare Schemes**

#### **Objectives of the Fish Farmer's Development Agency**

- a. Progressively reclaim and bring all potential under water bodies fish culture such as swamps, beels, silted up/neglected ponds, water logged/low lying areas etc. for optimum fish production in the State;
- b. To work out the programme in such a way that it serves as a nucleus of activity for further spread to other areas;
- c. To provide training and popularize a new avocation by way of fish culture to the people thereby build-up a trained cadre of fish farmers to undertake intensive fish farming thus providing increased employment to rural unemployed;
- d. Contribute to the strengthening of rural economy by making fish farming economically viable;
- e. To effectively involve financial assistance to provide loans for capital investment to fish farmers for excavating ponds or for improving existing water areas; and;
- f. To provide initial technical and financial assistance to the fish farmers and also as required from time to time.

A package of assistance is provided to the prospective fish farmers under different segments of the schemes, the detail of which is as under:

**3.8.1 Renovation/Reclamation of Ponds and Tanks** The scheme envisages renovation/reclamation of old ponds and tanks which are owned or taken on lease by the farmers. The estimated per hectare renovation cost of the pond is Rs.60,000/- and subsidy @ 20% with a maximum of Rs.12,000/- for Non Scheduled Castes/ other fish farmers and for S.C/S.T. it is Rs.15,000/- per ha. (25%).

**3.8.2 Construction of New Ponds** This scheme has been introduced only during 1991-92 with an aim to create more ponds for increased fish production. The unit cost of the scheme is Rs.3.00 lakh per ha in the plain areas including arrangement water supply either in the form of tube-well or gravity flow. The subsidy component is available @ 20% with a maximum of Rs.60,000/- per hectare for Non Scheduled Castes/other farmers and for S.C/S.T. farmers it is Rs 75,000/- per hectare (25%).

**3.8.3 Fish Culture in Running Water Raceways** The State has abundant network of perennial kuhals & channels. In the past this important resource was being utilized for irrigation only and for running water flour mills. Realizing the potentiality of these kuhals for fish culture this scheme has been initiated. The size of the culture unit has been fixed 100 Sq. meters with a construction cost of Rs.20,000/- per unit. The above cost is inclusive of Rs.4,000 under inputs. The available subsidy is @ 20% with a maximum of Rs.4000/- per unit for Non Scheduled Castes/other farmers and for Sc/ST it is Rs.5,000/- per unit (25%). Individual farmer can avail this facility for 3 such units.

**3.8.4 Integrated Fish Farming** Population outburst and limited resources have necessitated integration of various activities, for increasing employment avenues, and enhanced productivity with minimum inputs. The scheme envisages "Fish-cum-Dairy-cum-poultry/duckery-cum-piggery farming. The unit cost of the scheme is Rs.80,000/- per hectare and subsidy @ 20% with maximum ceiling of Rs.16,000- per hectare for Non Scheduled Castes/other farmers and for SC/ST farmers it is Rs.20,000/- per hectare (25%).

**3.8.5 Construction of Fresh Water prawn & Other Fish Hatchery** Fish seed is the nucleus of aquaculture. The State department of Fisheries at its seed farms is producing 20.0 million fish seed annually which is even not sufficient to meet the fish seed stocking requirements of its reservoirs and open waters. Hence there is a need to involve private entrepreneurs in fish seed production. The scheme envisages Rs.8.00 lakh for a fish seed hatchery with 10 million (fry) capacity for the plain areas and Rs.12.00 lakh with same capacity for the hill States/districts. Subsidy @ 10% with a maximum ceiling of rs.1.60 lakh in the plain and Rs.1.20 lakh in the hilly areas for entrepreneurs only.

**3.8.6 Aerators/Pumps for Seed Hatchery** In order to meet out the gap between the requirements of the water with its oxygen contents in the available water. For this purpose aerators/pumps are provided to the beneficiaries. Under this scheme Rs.50000/- per unit of two 1hp aerator/one 5hp diesel pump are given with subsidy @ 25% with a maximum ceiling of Rs.12500/- for each set of aerators/pump for all categories who have attained a level of production of 3000 kg/ha/year and to raise it further. A maximum of two 1hp aerator/one 5 hp diesel pump for one hectare area is given.

**3.8.7 Establishment of Fish Feed Unit** After meeting out the seed requirement of the beneficiaries. The next important part in the aquaculture is availability of the optimum quantity of the fish feed. For setting up of a fish feed unit the govt. of India sanctioned the cost @ Rs.5 lakh for building, machinery and equipment. These will be set up in the private sector. Subsidy @ 20% with a maximum ceiling of Rs.1.00 lakh is admissible for all groups of farmers.

**3.8.8 Training to Fish Farmers** Prospective entrepreneurs desirous of taking up fish culture are imparted training by the technical personnel of Fish Farmer's Development Agency & Department of Fisheries in aquaculture practices. Apart from the established training center the training camps are held at block level. The trainees are given stipend @ Rs.100/- per day during the training period of ten days and a lump-sum Rs.100/- towards travel expenses/field visits are given per trainee.

**3.8.9 Subsidy on 1st Year Inputs** The fish farmers who avail the benefits of Grant-in-aid subsidy for the renovation and construction of ponds are also provided subsidy on the purchase of 1<sup>st</sup> year inputs such as fish seed, feed and manure etc. @ 20% with a maximum ceiling of Rs.6,000/- per hectare for all farmers except SC's/ST's for whom it is Rs.7,500/- per ha (25%). The total cost per ha has been allowed Rs.30,000/-

### **3.9 Schemes for Youths**

**3.9.1 Construction of New Ponds** Assistance for construction of a pond (size 1 ha) Rs.75,000/- for SC/ST and Rs.60,000/- for General Category farmers.

**3.9.2 Reclamation/Renovation of Ponds** Assistance for a pond (size 1 ha) Rs.15,000/- for SC/ST and Rs.12,000/- for General Category farmers.

**3.9.3 First Year Inputs** Assistance for a pond of one ha Rs.7,500/- for SC/ST's and Rs.6,000/- for general category farmers.

**3.9.4 Running Water Fish Culture** (Earthen pond) Assistance for a unit of 100 sq. meters Rs.5000/- for S.C./S.T. & Rs.4000/- for general category fish farmers.

**3.9.5 Integrated Fish Farming** Additional Assistance for integrated fish farming pond (size 1 ha) Rs.20,000/- for S.S./S.T. & Rs.16,000/- for general category.

**3.9.6 Aerators/Pump** Assistance for purchasing of 1hp aerator/5hp diesel pump. Rs.12,500/- for each set for all categories of farmers.

**3.9.7 Freshwater Fish seed Hatchery** Assistance for setting up hatchery with 10 million seed capacity Rs.1.2 lakh for each unit only.

**3.9.8 Fish Feed Unit** Assistance for setting up fish feed unit in Rs.1.00 lakh on a unit cost of rs.5.00 lakh.

**3.9.9 Setting up of integrated units including hatcheries for ornamental fishes** Assistance for setting up hatchery with 5-10 million (fry) capacity rs.1.50 lakh to all categories of fish farmers.

**TRAINING** Stipend @ Rs.100/- per day during the training period and lump sum @ Rs.100/- towards travel expenses/field visits.

**Table: 3.1 Centrally sponsored Schemes on Agriculture.**

Name of the Schemes	Implemented year	Allocation Rs. In lakh	Nos of beneficiaries agriculture	Target schemes	Achievement
1. ISOPOM	2002-03 to 2006-07	364.93	N.A.	N.A.	N.A.
2. Macro management of agriculture	-do-	5858.08	N.A.	N.A.	N.A.
3. TRS	-do-	79.48	N.A.	N.A.	N.A.
4. ICS	-do-	43.57	N.A.	N.A.	N.A.
5. Vegetables	-do-	58.64	N.A.	N.A.	N.A.
6. Biogas	-do-	78.73	N.A.	N.A.	N.A.
7. Mechanization	-do-	17.72	N.A.	N.A.	N.A.
8. Extension reforms	-do-	152.00	N.A.	N.A.	N.A.
<b>Animal Husbandry Schemes</b>					
1. Control of animal disease (ASCAD)	2002-07	358.42	-	8154375	8919652 Nos of vaccination
2. Dev. of backyard poultry farming	-do-	229.72	-	612200	434628
3. National project on binder pest eradication	-do-	92.61	-	-	-
4. Feed and fodder development programme	2002-06	108.00	-	5368730	6569537 Root plant seed
5. Conservation of threatened breeds of Spiti pony at horse breed farm	2004-07	109.00	-	32 ponies	32 Ponies
6. Intensive dairy development programme	2002-07	388.00	35000	22352	35000 through milk coop. society milk marketing

**Table: 3.2 State Sector Schemes on Agriculture.**

Name of the Schemes	Implemented year	Allocation Rs. In lakh	Nos of beneficiaries agriculture	Target schemes	Achievement
1. Multiplication and distribution of seed	2002-03 to 2006-07	748.63	N.A.	N.A.	N.A.
2. Manure and fertilizers	-do-	1033.85	-do-	-do-	-do-
3. High yielding varieties/Crop insurance	-do-	255.00	-do-	-do-	-do-
4. Commercial crops	-do-	493.56	-do-	-do-	-do-
5. Extension and farmers training	-do-	841.00	-do-	-do-	-do-
6. Agriculture economics and statistics (TRS & ICS)	-do-	60.36	-do-	-do-	-do-
7. Agriculture Engineering	-do-	93.78	-do-	-do-	-do-
8. Small and marginal farmers' assistance spl. 20 point programme	-do-	29.74	-do-	-do-	-do-
9. Major work TSP	-do-	77.15	-do-	-do-	-do-
10. Scheme for supplementation /complementation of state efforts through work plan	-do-	327.62	-do-	-do-	-do-
11. B.A.S.P.	-do-	343.16	-do-	-do-	-do-
12. SCA for tribal pockets	-do-	646.79	-do-	-do-	-do-
13. Soil and water conservation I	-do-	7028.79	-do-	-do-	-do-
14. Soil and water conservation II	-do-	1333.37	-do-	-do-	-do-
15. RIDIF	-do-	4695.43	-do-	-do-	-do-
16. Schemes for supplementation/complementation of state efforts through work plan	-do-	251.65	-do-	-do-	-do-
17. B.A.S.P.	-do-	695.65	-do-	-do-	-do-
18. Agriculture Research and Education	2002-03	6413.68	-do-	-do-	-do-
19. Biogas	2002-03 to 2003-04	77.28	-do-	-do-	-do-
20. Biotechnology		42.67	-do-	-do-	-do-

Contd.....

**Table: 3.2 Contd....**

<b>Animal Husbandry Schemes</b>					
1. Expenditure of Control of animal disease	2002-07	125.00		2718125	2973217 Nos of vaccination
2. Cattle and buffaloes dev. (A.I. Performed with (frozen scheme) Lakh Nos.	-do-	86.19		4.50	5.25 lakh Nos.
3. Poultry development eggs million	-do-	59.01		99.00	77.20 Egg million
4. Sheep and wool development lakh kg.	-do-	80.21		16.50	16.05 lakh kg.
5. Other livestock development	-do-	22.25		-	-
6. Fodder and feed development (seed kg)	-do-	20.25		13400	6911 seed kg.
7. Extension and training	-do-	18.45		-	-
8. Administrative investigations and statistics	-do-	72.07		-	-
<b>Schemes of Fisheries</b>					
1. Fish production (Tonnes)	-	-		15000	34792
2. Carp seed production (Millions)	-	-		50.00	87.17
3. Carp seed farms (Nos.)	-	-		9.00	7.00
4. Trout seed farms Nos.	-	-		9.00	6.00
5. Nursery area (Hect)	-	-		40.00	15.00
6. Trout ora production (Lakh)	-	-		20.00	20.19

**Table: 3.3 Externally sponsored Schemes on Agriculture.**

<b>Name of the Schemes</b>	<b>Implemented year</b>	<b>Allocation Rs. In lakh</b>	<b>Nos of beneficiaries agriculture</b>	<b>Target schemes</b>	<b>Achievement</b>
Agriculture Schemes	Nil	Nil	Nil	Nil	Nil
Animal Husbandry Schemes	Nil	Nil	Nil	Nil	Nil
Fisheries Schemes	Nil	Nil	Nil	Nil	Nil

## **NEXUS BETWEEN STATE INTERVENTION AND AGRICULTURAL DEVELOPMENT**

### **Introduction**

Agriculture is the means of livelihood for vast majority of hill population. Due to low and stagnating productivity, the output of agriculture sector is deficit to meet the requirement and there is no surplus to meet other needs of the population. The conventional land based activities and industrial sectors are not generating adequate employment and income to cope with the increasing demand of rising population and labour force. With decreasing size of land holding and declining productivity of hill agriculture, the capacity of hill agricultural economy to provide food is becoming increasingly inadequate.

The planners in Himachal Pradesh have, by and large, followed the framework and objectives of the National Plan and have thus failed to give much needed regional focus for planned development in the context of distinct physical features and environmental conditions of the state. However, it must be recognized that if the sectoral allocation of resources in the plans is in accordance with the regional resource endowments and the requirements of socio-economic development, the shortcomings involved in not specifying the planned developmental goal might be conveniently over looked.

In Himachal Pradesh highest priority in planning was given to transport and communication up-to fourth plan after that, the highest priority was accorded to water and power development during the fifth, sixth and seventh plan. By and large the second position was given to the agriculture and allied services sector in the various plan of the state.

#### **4.2 Impact of Agricultural Expenditure on Production, NSDP and Poverty**

Like other regions of the country agricultural sector is the major source of employment in Himachal Pradesh. Nearly 67 percent of the total working population of the state was observed in this sector. Due to low level of industrialization, trade and commerce, jobs in the state government departments are the second most important source of employment after agricultural sector. It is reported that the state has highest ratio of government employees to total population in the country. The only option left to cope with the problem of unemployment is to look for creation of suitable jobs in agricultural sector. Himachal Pradesh has achieved remarkable success in fruit and off season vegetable production. During past two decades fruit production is reported to have increased significantly. The success achieved in fruits and vegetables cultivation has exploded the myth that mountains are poverty stricken due to their topography.

The production structure of the state has since changed. The share of the primary sector in NSDP declined sharply during the periods under the study. The work force has also declining trend. However, there is significant growth in the output of agriculture and animal husbandry sectors. The production of crops has been increasing but marginally. On the other hand, total expenditure on agriculture sector has been increasing trend during both the periods under study. The budgetary expenditure per hectare of GCA has increased significantly during the study period.

During 2005-06 agricultural crops constitute 24.28 percent, horticultural crops 47.7 per cent and animal husbandry 28.0 per cent of gross value of output of agricultural and animal husbandry sector. Among the three sub-sectors, animal husbandry was showing the best performance with a steadily rising output. On the other hand, output of horticultural crops showed violent fluctuations and moderate growth. The output of agricultural crops showed stagnations which underscores the need for diversifying crop sector and to make it vibrant.

Himachal Pradesh, in 2000-2001 had a per capita income of Rs.10,306 which is slightly higher than the national average. The proportion of Himachal's population below the poverty line declined from 26.39 percent in 1973-74 to 7.63 percent in 1999-2000. From 1993-94 to 1999-2000, its pace poverty reduction was the highest

among the neighboring states of Haryana and Punjab also as compared to the national average. The grow-poverty reduction linkage holds true in Himachal Pradesh unlike the neighboring states of Punjab and Haryana.

The net domestic product originating in agriculture and animal husbandry sector showed wide year to year fluctuations and slow growth. The value of output of most of the activities in primary sector showed wide fluctuations, indicating instability in the production performance. The out-put of primary sector was growing at a slow rate and its share in NSDP was decreasing at a fast rate. As one would expect in a growing economy, the share of agriculture sector was going down in the state.

The share of primary sector was falling, and that of tertiary sector rising, while secondary sector showed little changes. The ratio of primary, secondary and tertiary sectors indicates the strong weakness emerging in the state economy. The economy was changing but changing was being artificially induced by creating large service sector with government support. The real productive sectors were not growing. Mostly unproductive services sector was rising fast, with government provided sources; leading to heavy burden on rate exchequer. In order to give strength to the economy there is a need to develop agriculture and animal husbandry because the scope of developing secondary sector in the state as constrained by many factors.

The agriculture sector is of paramount importance to the economy of Himachal Pradesh due to the reason that this sector alone contributes more than one-third of NSDP, and the state's economy can grow on its own only if agricultural sector is developed because the scope for expanding manufacturing sector is limited.

The importance of agricultural sector got diminished due to the creation of large services sector under government aegis which was not providing internal strength to the economy. In the long-run interest, it is desirable to develop the agricultural sector in the state.

### **4.3 Impact of Agriculture Expenditure on Farm Sector Distress**

In order to examine the impact of agriculture expenditure on farm sector distress in Himachal Pradesh it is first and foremost important to specify the hindrances and troubles faced by hill agriculture. The main problems that the hill agriculture is facing are small size of land holding, lack of irrigation facilities, low consumption of fertilizer, lack of road infrastructure and lack of technology innovations.

Due of sub division of land holdings, numbers of marginal and small farmers are increasing in Himachal Pradesh. Distribution of land holdings according to 2000-01 agricultural census shows that 86.4 per cent of the total holdings are of small and marginal farmers. The average holding size comes to 1.1 hectare. Not only the land holdings are small, they are fragmented and terraced because of the hilly terrain of the region. This is one of the constraint affecting the productivity level of different crops. Though state expenditure/investment can not change the size of land holding but it has helped to maintain the productivity level of wheat, maize and rice which are the main cereal crops of the state. The government has provided irrigation facilities, strengthens the extension services and provided bio-technologically improved seeds.

In Himachal Pradesh the farming is mostly done under rain fed conditions. About 80 per cent of the total cultivated areas in the state is rainfed and only 20 per cent of the total area is irrigated. But where rainfall is inadequate or erratic yields are poor. To minimize this problem the steps have been taken by the state government are as follows. During 2007-08, 1695 tank irrigation schemes, 40 water harvesting schemes and 600 sprinkler irrigation schemes have been executed where 25 per cent subsidy has been provided to individual farmer. Besides this 45 watershed development projects have been sanctioned covering an area of 1000 hectares with an estimated cost of Rs.1.50 crore. In these projects, major thrust would be on soil and water conservation and creation of employment opportunities on the farm level. And during the year, 96 minor irrigation schemes under RIDF will be completed with a budget provision of Rs. 9.55 crore. Additional irrigation potential of 1180 hectares shall be created during this year. The state investment with regards to different irrigation projects an schemes has increased the percentage of net irrigated area to the net area sown from 17.4 per cent in 1991-92 to 19.4 per cent in 2003-04.

Another attribute of productivity is fertilizer use. In Himachal Pradesh fertilizer use is very low. Fertilizer is a single input, which helps in increasing the production to a great extent. There exists a significant gap between recommended and existing use of fertilizer in various crops. The consumption of chemical fertilizers in the state was about 85 kg per hectare of net area sown during the year of 2004-05 and this is also because H.P. Govt. is giving 100 per cent subsidy on transport of all kind of fertilizers to retail sale points thereby bringing the uniform sale rate in the state. The State Govt. has allowed subsidy on cost of CAN, UREA, and AMONIUM SULPHATE @ Rs.200 per M.T. and on complex fertilizers @ Rs.500 per M.T. In case these subsidies are withdrawn the farmers would be using only farm yard manure from livestock.

The technology innovations in the State are not possible due to mountainous topography, non suitability of available technology to prevailing environment and climatic conditions. Thus despite of the state expenditure in agriculture sector it is not much benefited through new farm technology.

In the absence of any other suitable and viable modes of communication like Railway and Water ways, roads play a vital role in boosting the economy of the hilly state like Himachal Pradesh. The construction of roads in the State is a difficult job and needs heavy investment. Despite all these facts H.P. Govt. has connected 8588 villages with roads up-to September 2007. The investment in this sector has provided better marketing opportunities to the farmers fetching good prices for their commodities.

#### **4.4 Conclusion**

The state government implemented various programmes and schemes for the development of agriculture in Himachal Pradesh. The state has great potential for the production of off-season vegetables, ginger, potato, tea and maize. Keeping in view the potential of these crops in the state the Department of Agriculture implemented various programmes such as accelerated maize development programme, vegetable development project, ginger development, tea development. Under these programmes the government provided material inputs and technical know-how to the farmers for increasing area and productivity of these crops.

The process of agricultural transformation is taking place in Himachal Pradesh wherein the traditional cereal crops based subsistence farming system is giving way to high value cash crop. This process will further intensity as the process of commercialization of agriculture will spread to those areas where presently infrastructure facilities such as rural roads, marketing and credit are lacking.

The main problems, the hill agriculture is facing are small size of land holding, lack of irrigation facilities, low consumption of chemical fertilizer, lack of road infrastructure.

## **SUMMARY AND CONCLUSION**

In modern days, budget policy of a government plays a vital role in the social and economic life of the country. The growing concern over the necessity of improving the future well being of the two third of the world's poverty ridden population has impelled the governments of the developing countries to initiate socio-economic development so as to over come the problems persistent poverty, unemployment and economic inequalities. Development economist regards public finance as an important instrument of promoting socio-economic development. Government revenue and expenditure policies are conditioned by the characteristics of a particular country and adopted to changes in the economic structure, at the same time, policies may have an important impact on the rate and path of development. Evaluation of government finance and proposals for its reform must, therefore, take into account the inter-relationship between government finance and socio-economic development. With this background the present study analysis the allocation of budgetary resources by the state as well as balance between Centre and State Schemes in Himachal Pradesh.

### **Agriculture Development in the State**

Both state domestic product and net state domestic product have been increased at the rate of more than 16 per cent per annum during the period 1985-86 to 2005-06 at the current prices. Whereas at the constant prices both (SDP and NSDP) have been increased at the rate of 8 per cent per annum during the same period. The share of agriculture sector in GSDP at current prices was about 42 per cent in 1985-86 which decreased to 24 per cent in 2005-06 and the work force in primary sector was more than 76 per cent in 1985-86 which has also been decreased to 68 per cent in 2005-06 but the share of workforce in agriculture sector is still higher as compare to other sectors. The GSDP from the agriculture and allied activities has been increased at the rate of 13.57 per cent per annum at current prices during the study period.

### **Land Use and Cropping Pattern**

The total geographical area of the state during 2003-04 was only 4544 156 hectares. The forest area has increased from 884785 hectares during 1985-86 to 1099055 hectares in 2003-04 registering a compound growth rate of 1.10 per cent per annum. However an increase of 12.01 per cent in barren and uncultivable waste land is unfortunate. The land put to non agriculture uses such as roads etc also increased from 220115 hectares during 1985-86 to 453498 hectares in 2003-04 registering a compound growth rate of 3.43 per cent per annum. The area under cultivable waste showed a welcome decline from 3.96 per cent to 2.82 percent of the total area during 1985-2004.

The area under cereals during 1985-86 to 2003-04 has decreased from 829333 hectares to 782580 hectares. The same trend has been observed in pluses and oilseeds also during the study period. Food grains account 90 per cent of GCA and rest 10 percent has been shifted to fruits and vegetables crops because of higher return from these crops. The growth in production of total food-grains and cereals was 0.94 and 0.88 percent per annum respectively during the period of 1985-86 to 2003-04. The sugarcane crop recorded highest growth rate of 11.49 per cent per annum and the gram crop has showed negative growth of 4.86 per cent per annum during the same period. The production of pluses and oilseeds has been increased at the rate of 5.75 and 4.42 percent per annum respectively during the study period. The growth in productivity was observed positive for all crops during the period of 1985-86 to 2003-04. It was highest for pluses i.e. 8.53 percent per annum followed by oilseeds and cereals i.e. 5.95 and 1.27 per cent per annum respectively.

### **Trends and Pattern of Budgetary Expenditure on Agriculture**

The analysis of budgetary expenditure on agriculture shows that the aggregate expenditure on agriculture & allied services has increased at the rate of 1.14 percent per annum. Two components of aggregate expenditure on agriculture and allied activities at constant prices (1993-94) have not registered a similar pattern of growth. The revenue expenditure has grown at the rate of 1.99 per cent per year while the capital expenditure has declined at the rate of 3.74 per cent per year over the period of 21 years. Overall the aggregate expenditure has increased at the rate of 1.14 per cent per annum. The annual rate of growth has been observed more (7.47%) in the

pre-reform period as compare to reform period (1.15%). The comparison of per hectare expenditure on current and constant prices on revenue account shows that expenditure on current prices has grown at the faster rate registering 10.26 per cent per year as compare to constant prices (1.99% per year) during 1985-2004. The comparison of expenditure in the pre-reform and reform period shows that at both constant and current prices per annum rate of growth was higher in the pre-reform period as compare to reform period.

The share of agriculture and allied services expenditure in total budget, in economic services and in NSDP has decreased from 13.76 per cent to 6.73 per cent, 43.02 per cent to 34.75 per cent and 5.25 per cent to 2.10 per cent respectively during 1985-2006.

Within agriculture sector, the expenditure on various components has not grown at a uniform rate. The highest (5.10% per annum rate of growth has been observed in respect of expenditure on agriculture research and education followed by animal husbandry (4.57%), dairy development (3.67%), forestry and wild life (3.43%) fisheries (2.83%) and crop husbandry (0.31%). The expenditure on food storage and ware housing has decreased at the rate of 7.20 per cent per annum followed by plantation (2.12%), cooperation (2.08%) and soil and water conservation (0.22%).

In the total expenditure on agriculture and allied activities, the percentage share of animal husbandry, dairy development, fisheries, forestry & wild life and agriculture research & education has increased and the maximum (6.76%) increase has been observed in the case of agriculture research and education followed by animal husbandry (4.48%) and forestry & wild life (2.58%). On the other hand the percentage share of crop husbandry, soil and water conservation, plantation, food storage & warehousing and co-operation has decreased and the maximum decrease has been observed in the case of soil and water conservation (6.10%) followed by co-operation (3.64%) and food storage & ware housing (3.20%).

Though expenditure on agriculture and allied sectors has increased at the rate of 1.99 per cent per annum but there has been decline in the growth of expenditure in the reform period as compare to pre reform period. The resource allocation to the

agriculture sector by the state through its budgetary resources has been shrinking. This has direct effect on the agriculture growth and development of the resources in this sector.

The resource allocation to the agriculture sector by the state through its budgetary resources has been shrinking. It means less attention to this sector is given in the reform period. But it does not mean that the importance of agriculture sector in the state economy is becoming less as the state economic growth still is being determined by the trend in agricultural production. It is the major contributor to the total domestic product and has overall impact on other sectors via input linkages, employment, trade etc. Therefore, there is need to avoid the decrease in expenditure on agriculture sector.

### **Agriculture Development Schemes**

The state government has launched the different type of programmes and schemes to achieve 4 per cent growth per annum in agriculture and allied sector. The state has great potential for the production of off-season vegetables, ginger, potato, tea and maize. Keeping in view the potential of these crops in the State, the Department of Agriculture implemented various programmes such as accelerated maize development programme, vegetables development programme, ginger development, tea development. Under these programmes the government provided material inputs and technical know-how to the farmers for increasing area and productivity of these crops.

### **Impact of Agriculture Expenditure on Production, NSDP and Poverty**

During 2005-06 agricultural crops constitute 24.28 per cent, horticultural crops 47.7 percent and animal husbandry 28.0 per cent of gross value of output of agricultural and animal husbandry sector. Among the three sub-sectors, animal husbandry was showing the best performance with a steadily rising output. On the other hand, output of horticultural crops showed violent fluctuations and moderate growth. The output of agricultural crops showed stagnations which under cores the need for diversifying crop sector and to make it vibrant. The proportion of Himachal's population below the poverty line declined from 26.39 per cent in 1973-74 to 7.63 per cent in 1999-2000.

The net domestic product originating in agriculture and animal husbandry sector showed wide year to year fluctuations and slow growth. The value of output of most of the activities in primary sector showed wide fluctuations, indicating instability in the production performance. The out-put of primary sector was growing at a slow rate and its share in NSDP was decreasing at a fast rate. As one would expect in a growing economy, the share of agriculture sector was going down in the state.

### **Impact of Agriculture Expenditure on Farm Sector Distress**

The main hindrances and troubles faced by hill agriculture are small size of land holding, lack of irrigation facilities, low consumption of fertilizer, lack of road infrastructure and lack of technology innovations. Though state expenditure/investment can not change the size of land holding but it has helped to maintain the productivity level of the main cereal crops (wheat, maize & rice) by providing irrigation facilities, strengthen the extension services and provided bio-technologically improved seeds. The expenditure with regard to different irrigation projects and schemes has increased the percentage of net irrigated area to net area sown. Due to various subsidies given on chemical fertilizers the farmers are making use of these fertilizers to increase the production. The peculiar topography of hill agriculture has restricted the benefits of new farm technology. The government investment in case of roads has provided better marketing opportunities to the farmers fetching good prices to their commodities.

The real productive sectors were not growing in the state. Mostly unproductive services sector was rising fast, with government provided sources; leading to heavy burden on rate exchequer. In order to give strength to the economy there is a need to develop agriculture and animal husbandry because the scope of developing secondary sector in the state as constrained by many factors.

The agriculture sector is of paramount importance to the economy of Himachal Pradesh due to the reason that this sector alone contributes more than one-third of NSDP; and the state's economy can grow on its own only if agricultural sector is developed because the scope for expanding manufacturing sector is limited.

The importance of agricultural sector got diminished due to the creation of large services sector under government aegis which was not providing internal strength to the economy. In the long-run interest, it is desirable to develop the agricultural sector in the state.

**Annexure-1: Growth of GSDP at Constant Prices Base 1993-94 GSDP at  
Constant Prices Base 1993-94.**

(Rs. In lakh)

<b>Years</b>	<b>Agril. &amp; Animal Husbandry</b>	<b>Forestry &amp; Logging</b>	<b>Fishing</b>	<b>Total</b>
1985-86	89506	24651	618	114775
1986-87	96640	27967	590	125197
1987-88	82140	21391	607	104138
1988-89	88340	29975	824	119139
1989-90	97201	30484	954	128639
1990-91	99495	26348	1333	127176
<b>CGR-I</b>	<b>1.78</b>	<b>2.69</b>	<b>17.32</b>	<b>2.10</b>
1991-92	112630	29702	1630	143962
1992-93	106991	34085	1540	142616
1993-94	118702	33195	1867	153764
1994-95	126343	32180	1455	159978
1995-96	128826	28325	1698	158849
1996-97	133039	28907	1663	163609
1997-98	137857	30011	1888	169756
1998-99	148642	27739	1722	178103
1999-00	161501	29304	1875	192680
2000-01	191863	33412	1816	227091
2001-02	206235	36813	1826	244874
2002-03	203498	41058	1763	246319
2003-04	221405	41579	1571	264555
2004-05	241942	41683	1799	285424
2005-06	242116	44249	1819	288184
<b>CGR-II</b>	<b>6.48</b>	<b>2.59</b>	<b>0.71</b>	<b>5.71</b>
<b>CGR All</b>	<b>5.68</b>	<b>2.41</b>	<b>5.37</b>	<b>5.06</b>

**Annexure-2: Cropping Pattern in Himachal Pradesh.**

(Area in Hectares)

Year	Rice	Wheat	Maize	Ragi	Gram	Tur	Potatoes	Sugarcane	Sesamum	Rapeseed
1985-86	90762	377107	299514	6691	6928	0	14650	2707	6246	394
1986-87	95944	371884	303426	8002	9353	0	15429	2731	7184	443
1987-88	90174	375250	300050	7027	7603	0	14943	2992	8388	350
1988-89	94787	373225	315101	5916	5760	0	15503	2984	7575	105
1989-90	88657	370653	313585	6385	5830	0	16662	2541	7327	664
1990-91	84939	376273	319111	5944	3372	0	15854	2460	7417	1526
<b>CGR -I</b>	<b>-1.47</b>	<b>-0.08</b>	<b>1.34</b>	<b>-4.03</b>	<b>-14.04</b>	<b>0</b>	<b>1.91</b>	<b>-1.97</b>	<b>2.36</b>	<b>21.38</b>
1991-92	83189	381889	313856	5149	2759	0	14216	2161	8475	638
1992-93	81903	378674	310314	5072	2420	0	14212	2338	7384	3123
1993-94	87816	375751	304927	2826	3291	0	14418	2381	6676	84
1994-95	82754	374938	308476	0	3072	0	13207	2502	6116	11
1995-96	83021	357715	309480	0	2138	0	13650	3256	6004	34
1996-97	81740	372992	307291	0	2470	0	12812	3891	5364	1087
1997-98	86178	377343	311861	0	2379	0	14872	3432	5017	7
1998-99	82125	379718	300976	0	1908	0	13831	3352	4563	34
1999-00	80221	370587	299906	0	1691	0	14373	3018	4056	16
2000-01	81519	362680	298052	0	1403	0	14003	2817	4596	22
2001-02	80579	366518	301282	0	1144	0	13869	2635	4475	57
2002-03	83273	359439	292801	0	1351	0	14632	2926	4482	232
2003-04	81345	363369	298542	1821	1338	0	15014	2637	4697	26
<b>CGR -II</b>	<b>-0.28</b>	<b>-0.37-</b>	<b>- 0.45</b>	<b>-</b>	<b>-7.69</b>	<b>0</b>	<b>0.37</b>	<b>1.54</b>	<b>-5.06</b>	<b>-12.4</b>
<b>CGR ALL</b>	<b>-0.77</b>	<b>-0.18</b>	<b>-0.19</b>	<b>-</b>	<b>-10.20</b>		<b>-0.48</b>	<b>0.69</b>	<b>- 3.61</b>	<b>-16.40</b>

Source: Annual Season and Crop Report, Directorate of Land Records, Himachal Pradesh.

Annexure-2: contd....

Year	Mustard	Rapeseed & Mustard	Common & small millets	Total cereals	Total Pulses	Total food-grains	Total oil seeds	GCA
1985-86	6541	6935	20077	829333	43747	873080	21344	973638
1986-87	7661	8104	18022	831111	47399	878510	22909	983086
1987-88	6844	7194	19484	824750	44075	868825	23177	974763
1988-89	6611	6716	18581	838057	43774	881831	20957	982829
1989-90	6707	7371	16241	825126	40476	865602	20665	970658
1990-91	7198	8724	15609	831583	39982	871565	21235	983599
<b>CGR -I</b>	<b>0.13</b>	<b>2.30</b>	<b>-4.52</b>	<b>0.02</b>	<b>-2.62</b>	<b>-0.11</b>	<b>-1.24</b>	<b>0.06</b>
1991-92	8362	9000	15445	827612	42581	870193	22821	980888
1992-93	5646	8769	14905	818211	41067	859278	21891	972616
1993-94	8932	9016	16289	815337	39500	854837	22160	975231
1994-95	8685	8696	15488	811137	36512	847649	21432	967990
1995-96	8407	8441	17852	795358	36058	831416	20784	949888
1996-97	7562	8649	12645	803842	36382	840224	20269	968217
1997-98	9386	9393	7900	819560	35930	855490	20158	986338
1998-99	9056	9090	11763	806498	33849	840347	18707	970136
1999-00	9726	9742	11201	791957	32556	824513	18857	956767
2000-01	8489	8511	11060	783609	31093	814702	17721	947542
2001-02	9002	9059	9862	787375	29559	816934	18178	955740
2002-03	8319	8551	10170	779625	30128	809753	17089	945205
2003-04	8851	8877	8121	782580	28859	811439	17707	955614
<b>CGR -II</b>	<b>1.50</b>	<b>0.05</b>	<b>-5.24</b>	<b>-0.45</b>	<b>-3.14</b>	<b>-0.57</b>	<b>-2.39</b>	<b>-0.23</b>
<b>CGR ALL</b>	<b>1.85</b>	<b>1.29</b>	<b>-4.43</b>	<b>-0.38</b>	<b>-2.57</b>	<b>-0.48</b>	<b>-1.44</b>	<b>-0.17</b>

**Annexure-3: Trend in Expenditure on Agriculture.**

(Rs. in Lakhs)

Year	Total			Economic Services			Expenditure on Agriculture & Allied Services		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
1985-86	47157.35	10180.26	57337.61	15084.84	7216.48	22301.32	6490.05	2248.60	8738.65
1986-87	52163.06	10922.07	63085.13	15825.43	7223.88	23049.31	7919.72	1707.59	9627.31
1987-88	67234.40	15443.71	82678.11	21682.19	10586.82	32269.01	10478.48	2812.03	13290.51
1988-89	83363.52	16377.14	99740.66	25002.72	11452.52	36455.24	11975.24	3388.22	15363.46
1989-90	85108.91	15017.20	100126.11	24285.43	11628.58	35914.01	14532.63	2892.95	17425.63
1990-91	97668.31	17628.17	115296.48	27639.83	13123.57	40763.40	15853.63	2866.97	18720.60
<b>CGR-I</b>	<b>16.43</b>	<b>11.34</b>	<b>15.57</b>	<b>13.57</b>	<b>13.71</b>	<b>13.62</b>	<b>20.13</b>	<b>8.90</b>	<b>17.80</b>
1991-92	107232.88	22888.89	130121.77	28329.98	13661.25	41991.23	15499.81	3652.86	19152.67
1992-93	124918.40	26399.87	151318.27	32249.72	15567.91	47817.63	15886.32	4063.02	19949.34
1993-94	145403.14	25657.52	171060.66	41666.69	17998.22	59664.91	18640.87	3098.48	21739.35
1994-95	172824.48	54232.62	227057.10	53125.78	43928.66	97054.44	21099.61	5083.74	26183.35
1995-96	206678.43	38812.82	245491.25	58723.68	26834.40	85558.08	22686.84	4557.23	27244.07
1996-97	233842.52	41068.66	274911.18	67523.59	27686.49	95210.08	25310.96	5400.18	30711.14
1997-98	292467.69	60499.05	352966.74	87963.65	44079.76	132043.41	29646.53	5980.21	35626.74
1998-99	360271.26	65051.86	425323.12	99491.35	45158.81	144650.16	39051.19	5794.40	44845.59
1999-00	414925.87	61316.93	476242.80	101585.99	37843.08	139429.07	40382.43	4948.17	45330.60
2000-01	470727.67	54658.52	525386.19	123941.76	29854.88	153796.64	44334.83	5521.94	49856.77
2001-02	457625.98	68511.52	526137.50	113754.35	40717.81	154472.16	44058.95	4734.33	48793.28
2002-03	553245.11	91469.17	644714.28	139688.95	65960.24	205649.19	58504.96	5673.08	64178.04
2003-04	604009.98	87248.33	691258.31	118144.00	54598.99	172742.99	39377.40	4684.22	44061.62
2004-05	633213.72	74016.97	707230.69	119240.74	38031.33	157272.07	38559.51	4134.26	42693.77
2005-06	697727.24	91076.81	788804.05	135220.10	49002.67	184222.77	46989.36	3727.90	50717.26
<b>CGR-II</b>	<b>14.85</b>	<b>9.87</b>	<b>14.09</b>	<b>11.79</b>	<b>8.45</b>	<b>10.75</b>	<b>9.08</b>	<b>0.98</b>	<b>7.97</b>
<b>CGR All</b>	<b>15.13</b>	<b>12.09</b>	<b>14.68</b>	<b>12.79</b>	<b>10.91</b>	<b>12.25</b>	<b>10.26</b>	<b>4.05</b>	<b>9.33</b>

Source: Annual Financial Statement (Budget), Finance Department, Government of Himachal Pradesh.

**Annexure-4: Changes in the Composition of Expenditure on Agriculture of Revenue Account as a Share of Agricultural Expenditure Current Price. (Actual Figure)**

(Rs in Lakh)

Year	Agriculture & allied Activities	Crop Husbandry	Soil & Water Conservation	Animal Husbandry	Dairy Development	Fisheries	Forestry & wild life
1985-86	6490.05	1678.96	782.44	654.60	68.91	64.7	2129.67
1986-87	7919.72	2250.78	784.59	720.90	90.19	70.97	2790.14
1987-88	10478.48	2841.35	898.29	962.37	99.48	95.41	3479.48
1988-89	11975.24	3117.69	906.36	1058.21	130.12	108.46	4048.49
1989-90	14532.68	5666.33	931.65	1119.15	110.78	142.91	4307.30
1990-91	15853.63	3360.41	850.22	1429.41	130.44	143.71	4726.46
<b>CGR -I</b>	<b>20.13</b>	<b>19.83</b>	<b>2.72</b>	<b>16.41</b>	<b>12.35</b>	<b>19.44</b>	<b>16.82</b>
1991-92	15499.81	4381.15	979.28	1468.46	125.75	161.20	5555.85
1992-93	15886.32	3297.61	1034.70	1681.74	122.47	167.89	6332.69
1993-94	18640.87	5255.69	1285.72	1906.43	190.55	212.58	6494.22
1994-95	21099.61	5417.87	1841.31	2207.36	272.60	211.54	7165.87
1995-96	22686.84	5043.54	1922.74	2522.13	207.93	277.89	8237.20
1996-97	25310.96	5519.88	1844.63	2844.57	301.17	272.96	9460.11
1997-98	29646.53	7296.27	2042.19	3513.13	460.04	312.36	9833.75
1998-99	39051.19	9715.08	2471.76	4204.00	431.56	418.32	1615.06
1999-00	40382.43	8014.06	2509.76	4835.69	481.22	435.59	18667.09
2000-01	44334.83	8886.61	2364.21	5313.62	490.67	458.52	20996.17
2001-02	44058.95	8573.35	2317.02	5480.62	533.45	490.18	20278.77
2002-03	58504.96	9840.16	2367.37	5785.34	498.40	447.84	32320.3
2003-04	39377.4	9480.31	2874.57	5904.34	448.18	447.12	13413.62
2004-05	38559.51	8324.09	2840.67	6068.23	610.5	470.56	13814.27
2005-06	46989.36	11478.50	2800.92	7032.85	622.93	539.66	16630.56
<b>CGR-II</b>	<b>9.08</b>	<b>7.51</b>	<b>7.29</b>	<b>12.13</b>	<b>11.86</b>	<b>9.12</b>	<b>10.10</b>
<b>CGR ALL</b>	<b>10.26</b>	<b>8.44</b>	<b>7.86</b>	<b>13.04</b>	<b>12.07</b>	<b>11.16</b>	<b>10.79</b>

**Annexure-4: contd.....**

<b>Year</b>	<b>Plantations</b>	<b>Food storage warehousing</b>	<b>Agril.Research &amp; Education</b>	<b>Agril. Finance Institutions</b>	<b>Cooperation</b>	<b>Other Agril. Programme</b>
1985-86	14.48	286.28	395.32	0	405.58	9.02
1986-87	20.70	373.80	524.00	0	273.80	19.85
1987-88	20.83	1041.63	639.12	0	381.14	19.38
1988-89	29.32	628.18	1257.03	0	626.97	63.91
1989-90	31.51	661.69	881.73	0	610.38	69.25
1990-91	34.44	773.10	1028.60	0	3328.09	48.75
<b>CGR -I</b>	<b>18.48</b>	<b>19.29</b>	<b>22.21</b>	<b>0</b>	<b>46.76</b>	<b>46.56</b>
1991-92	39.76	958.77	1177.37	0	577.59	74.63
1992-93	51.54	1315.18	1230.49	0	629.65	22.35
1993-94	60.30	1441.30	1416.32	0	352.70	25.06
1994-95	43.72	1398.91	1642.51	0	867.24	30.68
1995-96	60.85	1490.05	2077.76	0	807.79	38.16
1996-97	47.58	1735.16	2298.83	0	964.55	21.52
1997-98	58.25	1781.74	3363.58	0	958.90	26.32
1998-99	69.13	1488.55	2977.18	0	1112.08	10.46
1999-00	67.68	877.23	3315.58	0	1177.42	1.11
2000-01	68.85	661.04	3837.03	0	1258.11	0
2001-02	61.40	508.48	4681.52	0	1134.16	0
2002-03	51.56	639.50	4796.67	0	1220.53	37.28
2003-04	63.26	619.82	4881.25	0	1244.93	0
2004-05	51.83	432.23	4781.80	0	1165.33	0
2005-06	48.63	568.37	6039.80	0	1227.14	0
<b>CGR-II</b>	<b>1.17</b>	<b>91.93</b>	<b>12.71</b>	<b>0</b>	<b>6.79</b>	<b>-</b>
<b>CGR ALL</b>	<b>5.84</b>	<b>0.32</b>	<b>13.61</b>	<b>0</b>	<b>5.85</b>	<b>-</b>

**Annexure-5: Changes in the Composition of Per Hectare Expenditure on Agriculture of Revenue Account at Current Price.**

(Rs./Ha.)

Year	Agriculture & allied Services	Crop Husbandry	Soil & Water Conservation	Animal Husbandry	Dairy Development	Fisheries	Forestry & wild life
1985-86	667	172	80	67	7	7	219
1986-87	806	229	80	74	9	7	284
1987-88	1075	291	92	99	10	10	357
1988-89	1218	317	92	108	13	11	412
1989-90	1497	584	96	115	11	15	444
1990-91	1612	342	86	145	13	15	480
<b>CGR -I</b>	<b>20.05</b>	<b>19.83</b>	<b>2.63</b>	<b>16.25</b>	<b>11.98</b>	<b>19.35</b>	<b>16.71</b>
1991-92	1580	447	100	150	13	16	566
1992-93	1633	339	106	173	13	17	651
1993-94	1912	539	131	196	20	22	666
1994-95	2180	560	190	228	28	22	740
1995-96	2388	531	202	265	23	29	867
1996-97	2615	570	191	294	31	28	977
1997-98	3007	740	207	356	47	32	997
1998-99	4026	1002	255	433	45	43	1665
1999-00	4220	837	262	505	50	46	1951
2000-01	4677	937	249	561	52	48	2215
2001-02	4609	897	242	573	56	51	2121
2002-03	6191	1041	251	612	53	47	3473
2003-04	4119	991	301	618	47	46	1403
<b>CGR-II</b>	<b>11.49</b>	<b>8.86</b>	<b>8.59</b>	<b>13.77</b>	<b>13.25</b>	<b>10.68</b>	<b>14.03</b>
<b>CGR ALL</b>	<b>11.67</b>	<b>9.34</b>	<b>8.59</b>	<b>14.02</b>	<b>13.06</b>	<b>12.20</b>	<b>13.96</b>

Annexure-5: contid.....

Year	Plantations	Food storage warehousing	Agril.Research & Education	Agril. Finance Institutions	Cooperation	Other Agril. Programme
1985-86	2	29	41	0	42	1
1986-87	2	38	53	0	28	2
1987-88	2	107	66	0	39	2
1988-89	3	64	128	0	64	6
1989-90	3	68	91	0	63	7
1990-91	4	79	105	0	338	5
<b>CGR -I</b>	<b>15.65</b>	<b>19.53</b>	<b>22.09</b>	<b>0</b>	<b>46.46</b>	<b>44.58</b>
1991-92	4	98	120	0	58	8
1992-93	5	135	127	0	65	2
1993-94	6	148	145	0	36	3
1994-95	5	144	170	0	90	3
1995-96	6	157	219	0	85	4
1996-97	5	179	238	0	100	2
1997-98	6	181	341	0	97	3
1998-99	7	153	307	0	115	1
1999-00	7	92	347	0	123	-
2000-01	7	70	405	0	133	0
2001-02	6	53	491	0	119	0
2002-03	5	68	508	0	129	4
2003-04	7	65	511	0	130	0
<b>CGR-II</b>	<b>2.62</b>	<b>-7.06</b>	<b>14.28</b>	<b>0</b>	<b>8.50</b>	<b>-</b>
<b>CGR ALL</b>	<b>6.98</b>	<b>2.62</b>	<b>14.59</b>	<b>0</b>	<b>6.60</b>	<b>-</b>

**Annexure-6: Sector-wise Share of GSDP and Work-force (At Current Prices)**

(Rs.in lakh & workforce in person)

<b>Years</b>	<b>Primary Share</b>	<b>Workforce</b>	<b>Secondary Share</b>	<b>Workforce</b>	<b>Territory Share</b>	<b>Workforce</b>	<b>Total GSDP</b>	<b>Total Workforce</b>
1985-86	57563	1539808	31253	172101	48376	302276	137192	2014185
1986-87	61505	1564488	33884	173806	56306	315928	151695	2054222
1987-88	62705	1589168	41625	175511	67822	329580	172152	2094259
1988-89	78119	1613848	54934	177216	82665	343232	215718	2134296
1989-90	89467	1638528	56820	178921	97268	356884	243555	2174333
1990-91	98677	1663212	74653	180628	108189	370539	281519	2214379
<b>CGR-I</b>	<b>12.23</b>	<b>1.55</b>	<b>19.32</b>	<b>0.97</b>	<b>18.23</b>	<b>4.15</b>	<b>16.15</b>	<b>1.91</b>
1991-92	124367	1705968	84055	191726	123275	394191	331697	2291885
1992-93	136791	1748724	101411	202824	144223	417843	382425	2369391
1993-94	156667	1791480	131342	213922	190259	441495	478268	2446897
1994-95	180182	1834236	187473	225020	214848	465147	582503	2524403
1995-96	197919	1876992	224587	236118	247322	488799	669828	2601909
1996-97	222929	1919748	268988	247216	283610	512451	775527	2679415
1997-98	248777	1962504	295768	258314	339186	536103	883731	2756921
1998-99	293052	2005260	355994	269412	420577	559755	1069623	2834427
1999-00	326580	2048016	516216	280510	568451	583407	1411247	2911933
2000-01	395420	2090778	560245	291611	610453	607063	1566118	2989452
2001-02	444188	2133534	609492	302709	661138	630715	1714818	3066958
2002-03	465697	2176290	686638	313807	738139	654367	1890474	3144464
2003-04	519423	2219046	746778	324905	805899	678019	2072100	3221970
2004-05(R)	580079	2261802	840129	336003	882203	701671	2302411	3299476
2005-06(Q)	611752	2304558	961736	347101	970013	725323	2543501	337689
<b>CGR-II</b>	<b>12.69</b>	<b>2.17</b>	<b>18.98</b>	<b>4.29</b>	<b>16.37</b>	<b>4.41</b>	<b>16.09</b>	<b>-2.95</b>
<b>CGR All</b>	<b>13.44</b>	<b>2.13</b>	<b>20.14</b>	<b>4.01</b>	<b>16.98</b>	<b>4.66</b>	<b>16.78</b>	<b>-0.27</b>

**Annexure-7: Sector wise share of GSDP and workforce/share at Constant Prices of 1993-94 and main workers in person in Himachal Pradesh**

<b>Years</b>	<b>Primary Share</b>	<b>Workforce</b>	<b>Secondary Share</b>	<b>Workforce</b>	<b>Territory Share</b>	<b>Workforce</b>	<b>Total GSDP</b>	<b>Total Workforce</b>
1985-86	117475	1539808	63782	172101	98727	302276	279984	2014185
1986-87	128135	1564488	70592	173806	117304	315928	316031	2054222
1987-88	108112	1589168	71767	175511	116934	329580	296813	209259
1988-89	123998	1613848	87197	177216	131214	343232	342409	2134296
1989-90	133533	1638528	8486	178921	145176	356884	287195	2174333
1990-91	131569	1663212	99537	180628	144252	370539	375358	2214379
<b>CGR-I</b>	<b>2.39</b>	<b>1.55</b>	<b>89.36</b>	<b>0.97</b>	<b>7.87</b>	<b>4.15</b>	<b>3.85</b>	<b>8.85</b>
1991-92	148056	1705968	100065	191726	146756	394191	394877	2291885
1992-93	145522	1748724	107884	202824	153429	417843	406835	2369391
1993-94	156667	1791480	131342	213922	190259	441495	478268	2446897
1994-95	163802	1834236	170430	225020	195316	465147	529548	2524403
1995-96	163569	1876992	185609	236118	204398	488799	553576	2601909
1996-97	167616	1919748	202247	247216	213241	512451	583104	2679415
1997-98	175195	1962504	208287	258314	238863	536103	622345	2756921
1998-99	183158	2005260	222496	269412	262861	559755	668515	2834427
1999-00	196735	2048016	310973	280510	342440	583407	850148	2911933
2000-01	229895	2090778	325724	291611	354914	607063	910533	2989452
2001-02	248150	2133534	340498	302709	369351	630715	957999	3066958
2002-03	249036	2176290	367186	313807	394727	654367	1010949	3144464
2003-04	267744	2219046	384937	324905	415412	678019	1068093	3221970
2004-05(R)	288597	2261802	417975	336003	438907	701671	1145479	3299476
2005-06(Q)	291310	2304558	457970	347101	461911	725323	1211191	3376892
<b>CGR-II</b>	<b>5.58</b>	<b>2.17</b>	<b>11.47</b>	<b>4.29</b>	<b>9.03</b>	<b>4.41</b>	<b>8.76</b>	<b>2.80</b>
<b>CGR All</b>	<b>4.94</b>	<b>2.13</b>	<b>13.15</b>	<b>4.01</b>	<b>8.22</b>	<b>4.66</b>	<b>8.23</b>	<b>5.25</b>

**Annexure-8: Changes in the Composition of Expenditure on Agriculture of Revenue Account  
at Constant prices 1993-94**

<b>Year</b>	<b>Agriculture &amp; allied Services</b>	<b>Crop Husbandry</b>	<b>Soil &amp; Water Conservation</b>	<b>Animal Husbandry</b>	<b>Dairy Development</b>	<b>Fisheries</b>	<b>Forestry &amp; wild life</b>
1985-86	13244.10	3426.45	1596.82	1335.92	140.63	132.04	4346.27
1986-87	16499.42	4689.12	1634.56	1501.87	187.89	147.85	5812.79
1987-88	18066.34	4898.88	1548.78	1659.26	171.52	164.50	5999.10
1988-89	19008.32	4948.71	1438.67	1679.70	206.54	172.16	6426.17
1989-90	21690.57	8457.21	1390.52	1670.37	165.34	213.30	6428.80
1990-91	21138.17	4480.55	1133.63	1905.88	173.92	191.61	6301.95
<b>CGR -I</b>	<b>9.60</b>	<b>9.33</b>	<b>-6.28</b>	<b>6.21</b>	<b>2.50</b>	<b>8.97</b>	<b>6.57</b>
1991-92	18452.15	5215.65	1165.81	1748.17	149.70	191.90	6614.11
1992-93	16900.34	3508.10	1100.74	1789.08	130.29	178.61	6736.90
1993-94	18840.87	5255.69	1285.72	1906.43	190.55	212.58	6494.22
1994-95	19181.46	4925.33	1673.92	2006.69	247.82	192.31	6514.43
1995-96	18749.45	4168.21	1589.04	2084.40	171.84	229.66	6807.60
1996-97	19030.80	4150.28	1386.94	2138.77	226.44	205.23	7112.86
1997-98	20877.84	5138.22	1438.16	2474.03	323.97	219.97	6925.18
1998-99	24406.10	6071.92	1544.85	2627.50	269.72	261.45	10095.66
1999-00	24326.76	4828.95	1511.90	2913.07	289.89	262.40	11245.23
2000-01	25776.06	5166.63	1374.54	3089.31	285.27	266.58	12207.07
2001-02	24613.94	4789.58	1294.42	3061.80	298.02	273.84	11328.92
2002-03	31286.07	5262.12	1265.98	3093.76	266.52	239.49	17551.00
2003-04	20297.63	4886.76	1481.74	3043.47	231.02	230.47	6914.24
2004-05	19183.84	4141.34	1413.27	3019.02	303.73	234.11	6872.77
2005-06	22375.89	5465.95	1333.77	3348.98	296.63	256.98	7919.31
<b>CGR-II</b>	<b>2.17</b>	<b>0.72</b>	<b>0.52</b>	<b>5.06</b>	<b>4.80</b>	<b>2.23</b>	<b>3.17</b>
<b>CGR ALL</b>	<b>1.99</b>	<b>0.31</b>	<b>-0.22</b>	<b>4.57</b>	<b>3.67</b>	<b>2.83</b>	<b>3.43</b>

Annexure-8: contd....

Year	Plantations	Food storage warehousing	Agril.Research & Education	Agril. Finance Institutions	Cooperation	Other Agril. Programme
1985-86	29.55	584.24	806.77	0	827.71	18.41
1986-87	43.12	778.75	1091.67	0	570.42	41.35
1987-88	35.91	1795.91	1101.93	0	657.14	33.41
1988-89	46.54	997.11	1995.28	0	995.19	101.44
1989-90	49.03	987.60	1316.01	0	911.01	103.36
1990-91	45.92	1030.80	1371.47	0	4437.45	65.00
<b>CGR -I</b>	<b>8.48</b>	<b>8.84</b>	<b>11.49</b>	<b>0</b>	<b>33.89</b>	<b>33.71</b>
1991-92	47.33	1141.39	1401.63	0	687.61	88.84
1992-93	54.83	1399.13	1309.03	0	669.84	23.78
1993-94	60.30	1441.30	1416.32	0	352.70	25.06
1994-95	39.74	1271.74	1493.19	0	788.40	27.89
1995-96	50.29	1231.45	1717.16	0	667.60	31.54
1996-97	35.77	1304.63	1728.44	0	725.22	16.18
1997-98	41.02	1254.75	2368.72	0	675.28	18.53
1998-99	43.20	930.34	1860.74	0	695.05	6.54
1999-00	40.77	528.45	1997.34	0	709.29	0.67
2000-01	40.03	384.32	2230.85	0	731.45	0
2001-02	34.30	284.07	2615.37	0	633.61	0
2002-03	27.57	342.98	2565.06	0	652.69	19.93
2003-04	32.61	319.49	2516.1	0	641.72	0
2004-05	25.79	215.04	2379.00	0	579.77	0
2005-06	23.16	270.65	2876.09	0	584.35	0
<b>CGR-II</b>	<b>-5.21</b>	<b>-13.87</b>	<b>5.60</b>	<b>0</b>	<b>0.05</b>	<b>-</b>
<b>CGR ALL</b>	<b>-2.12</b>	<b>-7.20</b>	<b>5.10</b>	<b>0</b>	<b>-2.08</b>	<b>-</b>

Annexure-9  
Comments on Draft Report



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December 19, 2008

Dr. Ranveer Singh  
Officer Incharge  
Agro-Economic Research Centre  
Himachal Pradesh University  
Summer Hill  
**SHIMLA – 171 005.**  
**HIMACHAL PRADESH**

Dear Dr. Ranveer Singh,

I have received your report on ***State Budgetary Resources and Agricultural Development in Himachal Pradesh.*** I have gone through the report and found that you have done a good job. However, I am enclosing a few minor comments which you may incorporate in the report.

With warm regards,

Yours sincerely,

M J Bhende

## Comments on Draft Report

1. In chapter-I, table 1.1 should be 'Growth of GSDP' as per our table format. But in your report it is table 1.4. Table 1.1 of u r report should be table 2.8.
2. Table 1.3 should be 'Growth in Production and Productivity Crop wise' and table 1.4 should be 'Land use statistics'.
3. Table 1.8 and 1.9 of your report should be merged in one table as per our table format and it should be table number 1.3.
4. Table 1.4 of your report should be 1.6 as per our table format.
5. Table 2.7 (our table format) is missing.
6. Table in Chapter III should be as per our table format.

## Annexure-10

### Action Taken Report

Title of the draft report examined: **State Budgetary Resources and Agricultural Development in Himachal Pradesh**

Date of receipt of comments on the draft report: **19.12.2008**

Date of dispatch of final report: **30.03.2009**

Comment 1: Action has been taken in accordance with the comment.

Comment 2: Action has been taken in accordance with the comment.

Comment 3: Action has been taken in accordance with the comment.

Comment 4: Action has been taken in accordance with the comment.

Comment 5: Action has been taken in accordance with the comment.

Comment 6: Action has been taken in accordance with the comment.

(Dr Ranveer Singh)