

# **Annual Plan 2001-2002**



**UTTARANCHAL**

# **Annual Plan 2001-2002**



**UTTARANCHAL**

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PLANNING COMMISSION

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# **Annual Plan**

**2001-2002**



उत्तरांचल शासन

**GOVERNMENT OF UTTARANCHAL  
STATE PLANNING COMMISSION  
NOVEMBER, 2001**

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## Chapter 1

# GENERAL PROFILE

Uttaranchal emerged as the 27<sup>th</sup> State of Republic of India on 9th November, 2000. It was carved out from the State of Uttar Pradesh by bifurcating the hill region and comprises of 13 districts. The State lies in the central zone of Himalayas and covers an area of 53483 sq. km. It is surrounded by Himachal Pradesh in the west, Uttar Pradesh in the south, Nepal in the east and Tibet (China) in the North. The state possesses strategic importance since it has an international boundary on two sides. The newly created State consists of 13 districts further splitted into 49 tehsils and 95 development blocks. These community development blocks comprise 673 Nyay Panchayats and 15669 villages. There are 71 urban local bodies of different status from a Municipal Corporation to Notified Area. Uttarkashi, Chamoli and Pithoragarh districts join the international boundary with Tibet(China) in the North and Pithoragarh, Champawat and Udham Singh Nagar form the international boundary with Nepal in the East. The Internal boundaries of Uttarkashi and Dehradun join Himachal Pradesh in the North – West and Dehradun, Hardwar, part of Nainital and Udham Singh Nagar join the boundaries with Uttar Pradesh in the South. Vast potential of natural resources and their gifts of water, hydro power and fertile soils to the northern Indian sub-continent makes it a unique entity. The higher mountain ranges are perpetually snow clad and are the source of perennial rivers. Comprising some highest peaks in the world, the Himalayas have always provided a challenge to human adventure and to intellectual curiosity. They constitute a refuge zone for natural species and are home to flora and fauna of great ecological diversity and a veritable botanical and zoological paradise.

The great holy shrines of Badrinath, Kedarnath, Gangotri, Yamnotri and Hemkunt Sahib coupled with Panch Kedars, Panch Badris and Panch Prayags are located in the newly formed State and lakhs of pilgrims from every nook and

corner of the country visit them every year, specially during the summer. Holy places such as Hardwar and Rishikesh, numerous places of thrilling scenic beauty, the snow fed rivers, the rich flora and fauna, coupled with bracing climate year round attract tourists worldwide to the State of Uttaranchal.

## 1.1 Topography

The State of Uttaranchal can be broadly divided into three topographical regions: i) the plains districts of Hardwar and Udham Singh Nagar, the plains of Dehradun district and the Bhabar and Terai areas of Garwal and Nainital; ii) the middle Himalayan region, and iii) the higher Himalayas. Whereas the plains region is endowed with rich fertile soil, the hill region is characterized by undulating topography, rugged and mountainous terrain, varied climate and soil texture, limited cultivable land, preponderance of scattered and marginal holdings, difficult agricultural conditions with predominance of terrace farming, relatively higher unit cost of infrastructure development, low returns on investment, etc.,

## 1.2 Habitation Pattern

Given the topography of the State, habitations are sparsely populated and widely scattered, specially in hill area. As per the 1991 census, the population of 51.6 percent villages was less than 200 and that of 83.7 percent villages less than 500. Roughly only about 6 percent villages had population more than 1000. According to the 1991 Census, villages can be classified as shown in Table 1.1.

**Table 1.1 Populationwise classification of villages(1991)**

s. no.	Population	Villages(No.)	Percentage
1.	Less than 200	8084	51.6
2.	200- 499	5029	32.1
3.	500 - 999	1631	10.4
4.	1000 - 1499	435	2.8
5.	1500 - 1999	199	1.3
6.	2000 - 4999	250	1.6
7.	5000 and above	41	0.3
	Total	15669	100

Quite a sizeable number of villages with scant population are located in far flung remote areas, accessible only by foot. According to Census 2001 the districts with largest area have the lowest population density, for example Uttarakashi(37), Chamoli(48) and Pithoragarh(65) are thinly populated whereas Hardwar(612) Udham Singh Nagar(424) and Dehradun(414) are densely populated. The remaining districts show a population density between 108 and 205.

Scheduled castes and Scheduled Tribes population figures for 2001 are not yet available. However, according to the 1991 Census the percentage of Scheduled Caste population to total population was 17.52% and of Scheduled Tribes 3.0 percent. Further, the Scheduled Tribes population is largely concentrated in Dehradun, Udham Singh Nagar and Pithoragarh. districts, accounting for about 88 percent of the total scheduled tribes population of the State.

### **1.3 Demographic Profile**

According to the Census 2001 (Provisional) the total population of the State of Uttaranchal was 84,79,562 of which 43,16,401 were males and 41,63,161 females. Uttaranchal thus stands 20th among States and Union Territories in terms of population and 18th in terms of area<sup>1</sup>.

The decadal population growth rate (1991-2001) declined to 19.20% from 24.23% in 1981-91 and is lower than the all India growth rate of 21.34%.

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<sup>1</sup>source: Census of India 2001, Uttaranchal, Series 6, Provisional Population Totals.  
(All the Census figures of 2001 are provisional)

## 1.4 Sex ratio

The sex ratio also increased in 2001 to 964 compared to the previous census(936). The sex ratio has usually been quite high in the hill districts compared to plains. The sex ratio in Uttaranchal is better than the all India ratio of 933 and only 8 States ranked above it.

## 1.5 Literacy

Literacy is an important indicator for assessing qualitative aspects of life. In Census 2001 a total of 13,19,393 persons in the age group 0 – 6 years were not taken into account while measuring literacy. The total literacy rate has thus risen dramatically to 72.28 percent from 57.75 percent in 1991, which is significantly higher than the national average of 65.38 percent. Male literacy has risen to 84.01 percent while female literacy stands at 60.26%<sup>2</sup>. Uttaranchal thus ranks 9<sup>th</sup> among the States of India in terms of literacy.

## 1.6 Birth rate - Death rate

The Sample Registration System (SRS) is a large scale demographic survey that provides reliable annual estimates of birth rate, death rate, fertility and other mortality indicators at the national and sub-national levels. As per the Sample Registration System(SRS) of the Registrar General of India<sup>3</sup> the estimated birth rate in 1999 was 19.6 versus the national average of 26.1. The total death rate was 6.5 in Uttaranchal, which is significantly below the national average (8.7). Infant mortality rate was 52 versus the national average of 70. The death rate was however, above the national average in rural areas at 10.5 in Uttaranchal against all India average of 9.4, contrarily in the urban area this rate was 3.5 in Uttaranchal versus 6.3 the all India level. Interestingly the death rate among females(5.9) was less than among males (6.9) and infant mortality among females(43.8) significantly less than among males(60.0) in Uttaranchal.

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<sup>2</sup>Census of India, 2001, Uttaranchal, series 6, Provisional Population Totals.

<sup>3</sup>SRS Bulletin, April, 2001 Registrar General, India.

## 1.7 Land use pattern

Predominantly a hill region, with a large snow covered area and steep slopes, the greater part of Uttaranchal is under forests and a substantial portion not available for cultivation or any other use. The land use pattern as per data available for the year 1996-97 is given in Table 1.2.

Table 1.2 Land use pattern in Uttaranchal

Sl. No.	Category	Area in hectares	% Area Reported
1.	Total Reported Area.	55,95,939	100.00
2.	Forests	34,99,687	62.54
3.	Barren & Unculturable land	2,99,608	5.36
4.	Land put under non-agricultural uses	1,63,836	2.93
5.	Culturable waste	3,20,228	5.72
6.	Permanent pastures and other grazing land	2,27,398	4.06
7.	Land under misc. tree crops and groves etc.	2,18,817	3.91
8.	Current Fallows	11,423	0.20
9.	Other Fallows	67,659	1.21
10.	Net Area sown	7,87,283	14.07

The National Statistical Commission, GOI observed in its interim report: 'Reliable and timely information on crop area and land use is of great importance ..... India possesses an excellent infrastructure and has a long standing tradition of generating a comprehensive series of crop and land use statistics though, of late, there has been a disturbing deterioration in their quality. .... The performance of the system was quite satisfactory until 2-3 decades ago but it has since become dysfunctional essentially due to administrative apathy and inaction. It is still not too late to revamp the system and restore its credibility'.<sup>4</sup>

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<sup>4</sup> National Statistical Commission – Interim Report, Feb. 2001 pp.2

The foregoing observation needs to be taken into account in this newly created State so that corrective measures may be taken right from the start. Indicating the deficiencies, the Interim Report further states that the nine fold classification of land use based on village records is not adequate and does not, for instance, provide information on such characteristics as social forestry, marshy and waterlogged land, snow covered land, built up land etc. which are important for local development plans.<sup>5</sup>

## 1.8 Size of Holdings

The main occupation of the people in Uttaranchal is agriculture though the net cultivated area is only 14.07% of which 22.4 percent falls in Udham Singh Nagar and Hardwar districts alone.

About 49 percent holdings are less than 0.5 hectares and 21.51% holdings are between 0.5 and 1 hectare. Thus over 70% holdings are marginal with an average size of about 0.37 hectare. This small size coupled with the rugged and undulating nature of land worsens the situation. The pattern of holdings is described in Table 1.3.

**Table 1.3- Distribution of Landholdings in Uttaranchal - 1990-91.**

Sl. No.	Size of Holdings (Hectare)	Percentage of Holdings	
		No.	Size
1.	Less than 0.50	48.60	11.54
2.	0.50 - 1.00	21.51	15.36
3.	1.00 - 2.00	17.07	24.39
4.	2.00 - 4.00	9.52	26.56
5.	4.00 - 10.00	3.05	17.35
6.	10 hect. & above	0.25	4.80

<sup>5</sup>- Ibid - pp. 26.

## **1.9 Poverty**

Per Capita income is a key to measure the level of economic development in any region, but per capita income estimates are not available for this new State. However, the tentative estimates of per capita Gross State Domestic Product(GSDP) provided by the CSO give some idea of the economic status. The tentative per capita GSDP in 1996-97 was about Rs. 15,232 at factor cost at current prices was higher than the national average of Rs. 12,805. Similarly per capita NSDP of Rs. 13,710 in 1996-97 in Uttaranchal was above the national average of Rs. 11434.<sup>6</sup>

Although GSDP/NSDP per capita estimates indicate a rather healthy picture, the State is facing severe poverty. The BPL survey conducted by the Rural Development Department found that about 36.44 percent of all rural families live below the poverty line.

## **1.10 Employment Profile**

The 2001 Census results regarding the classification of workers and non-workers are not yet available. However, according to 1991 Census, full time and part time workers together constituted about 40 percent of the total population and the remaining 60% were non workers. Of the total workers, 88 percent were full time workers and the remaining 12% categorized as marginal. Among the full time workers 54.22% were cultivators, 9.04 percent agricultural laborers, 4.74 percent in household industries and remaining 32 percent were engaged in other jobs.

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<sup>6</sup>- Source: Central Statistical Organization, GOI



Public sector establishments recorded 2,35,824 employees and private sector establishments 37,414 in the year 1998-99 in Uttaranchal<sup>7</sup>.

The Employment Directorate registered 66,597 persons during 1997-98, of which jobs were provided to only 1,743 aspirants. The cumulative figure of unemployed persons at the end of 1997-98 was 3,14,717. However, this figure had reduced to 2,68,980 by April, 2001. Category wise break up of this last figure is given in Table 1.4<sup>8</sup>.

**Table 1.4 Categorywise description of Unemployed person in Uttaranchal ( April, 2001)**

Category	Numbers
Total Candidates	2,68,980
Scheduled Caste	44,214
Scheduled Tribes	4,333
Backward Class	13,152
Females	42,366
Handicapped	3,269
ITI trained	13,276

However, the table presents only a partial picture of magnitude of unemployment. The growing number of educated youth in particular poses a serious challenge.

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<sup>7</sup>- Economic & Statistics Division, State Planning Institute, U.P.

<sup>8</sup>- Employment Directorate, Uttaranchal.

## Chapter 2

# PLAN IN OUTLINE

Creation of the new State of Uttaranchal out of the State Uttar Pradesh is a development of great significance for both the States. The practice of treating the hills as a separate unit for 'planning and development' and having a "Sub-Plan" for the same has long been followed in which problems peculiar of the hill areas were always given due weightage but, understandably, not to the desired and fullest extent. With the formation of the new State, the old linkages between these areas would need to be redefined and this would necessitate more careful planning on the part of both the States, at least in the initial years after separation.

### 2.1 Annual Plan 2001-02

The Annual Plan 2001-02 has been formulated within the framework of the State's Ninth Five Year Plan, keeping in view the past experience of the first three years of the Ninth Plan and the outlay approved for the fourth year (2000-01). An attempt has been made in the Annual Plan 2001-02 to compensate the shortfalls and to raise the overall growth rate of the State's economy to the extent feasible. This would be possible only if the rates of growth in agriculture and manufacturing sectors of the economy go up substantially than in the recent past. The State Government is taking several steps for this purpose, more particularly, for attracting large private investment in these sectors than before. In fact, the government has already initiated a series of measures in the critical areas to streamline the present processes, practices and procedures so that the irritants to development are removed.

The distribution of Ninth Plan outlay and the likely expenditure in the first four years of this Plan among the major Heads of Development is given below to give an idea of the relative priorities attached to the various sectors in the allocation of plan funds.

(Rs. in Lakh)

Major Head of Development	Ninth Plan Outlay	Expenditure in Annual Plans			Anit. Expend. 2000-01	Total	Balance Outlay
		1997-98	1998-99	1999-2000			
1	2	3	4	5	6	7	8
<b>Economic Services</b>	307098	35310	46646	53120	55324	190400	116698
1. Agrriculture & Allied Activities	86099	7601	8751	9636	21405	47393	38706
2. Rulral Development	50805	5242	7606	6992	4064	23904	26901
3. Irrigation & Flood Control	8112	2118	2418	2546	2482	9564	-1452
4. Energy	41100	4987	6213	5716	6547	23463	17637
5. Industry & Minerals	5970	856	478	612	357	2303	3667
6. Transport	105200	11748	17077	24053	18249	71127	34073
7. Science, Technology & Environment	1140	128	487	62	4	681	459
8. General Economics Services	9652	2746	3439	2113	2216	10514	-862
<b>Social Services</b>	135591	21366	24437	24852	25916	96571	39020
Of which							
(a) Education	31373	8723	8415	11390	6225	34753	-3380
(b) Medical & Public Health	7100	1173	1843	1076	553	4645	2455
© Water Supply & Sanitation	81468	9230	10045	10190	16961	46426	35042
<b>General Services</b>	311	5	61	285	817	1168	-857
<b>Total Outlay</b>	443000	56681	71144	78257	82057	288139	154861

In view of the shortfalls in the earlier Annual Plans, while preparing the Draft Annual Plan for 2001-02, emphasis has been laid on the formulation of a realistic plan based on the expected resources. Thus, for the Annual Plan 2001-02, an outlay of Rs. 1000 Cr. is being proposed which will still leave a shortfall of around Rs. 500 cr. in terms of the overall Ninth Plan outlay.

The proposed allocation of plan outlays for the year 2001-02 under the Major Heads of Development is given in the following table :-

Major Heads of Development	2001-02	
	Proposed Outlay (Rs. in lakh)	Percentage over total
<b>Economic Services</b>	<b>65708</b>	<b>65.7</b>
1. Agriculture & Allied Activities	19279	19.3
2. Rural Development	12056	12.0
3. Irrigation & Flood Control	7184	7.2
4. Energy	6200	6.2
5. Industry & Minerals	1154	1.1
6. Transport	11661	11.7
7. Science, Technology & Environment	108	0.1
8. General Economics Services	8066	8.1
<b>Social Services</b>	<b>31538</b>	<b>31.5</b>
Of which		
Education	8249	8.2
Medical & Public Health	3152	3.1
Water Supply & Sanitation	14475	14.5
<b>General Services</b>	<b>2754</b>	<b>2.8</b>
<b>Total</b>	<b>100000</b>	<b>100.00</b>

## Chapter 3

# ALLOCATION IN VARIOUS PLAN PERIODS AND ANNUAL PLAN 2001-2002

Being a part of the Himalayan Mountainous tract, a substantial area of Uttaranchal has its own Physical, Cultural and Ecological strengths, potentials and conditions which must be taken into consideration while formulating a development Plan for this State. At the same time these very conditions impose limitations on the potentials to generate resources and constraints in capital formulation. The State Government is making all out efforts to increase plan resources within these limitations for accelerating the pace of development. However, there has been a wide gap between the felt needs and actual allocations. The plan expenditure during the previous five year plans /annual plans is given in Table 3.1.

**Table-3.1**  
**Outlays and expenditure during previous plan period:**

S.N.	Plan period	Outlay/Expenditure(Rs.in lakh)
1-	Third Plan[1961-66]	5054
2-	Three Annual Plan[1966-69]	2288
3-	Fourth Plan[1969-74]	7334
4-	Fifth Plan[1974-79]	20202
5-	Annual Plan[1979-80]	7197
6-	Sixth Plan[1980-85]	65887
7-	Seventh Plan[1985-90]	
	[a] Approved Outlay	107500
	[b] Expenditure	121316
8.	Annual Plan[1990-91]	
	[a] Outlay	33000
	[b] Expenditure	33462
9.	Annual Plan [1991-92]	
	[a] Outlay	26000
	[b] Expenditure	28027
10.	Eight Plan Outlay[1992-97]	
	[a] Outlay	210500
	[b] Expenditure	218062
11.	Ninth Plan[1997-2002]	
	Outlay	443000
I.	Annual Plan[1997-98]	

	[a] Outlay	67699
	[b] Expenditure	56681
II.	Annual Plan[1998-99]	
	[a] Outlay	102600
	[b] Expenditure	71144
III.	Annual Plan[1999-2000]	
	[a] Outlay	114000
	[b] Expenditure	78257
IV.	Annual Plan 2000-2001	
	[a] Outlay	90000
	[b] Anticipated -Expenditure	82057
V.	Annual Plan 2001-2002	
	[a] Outlay Proposed	100000

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3.2 Due to resource constraints an outlay of only Rs 100000 lakh has been proposed for the annual Plan 2001-2002. Sub Sectorwise details are given in the Appendix-I.

### 3.3 Earmarking Plan Outlays

Growth and the social justice has been the prime objective of our Planning. The scheduled castes and scheduled tribes belong to the poorest of the poor sections of the society and, therefore, due priority has been assigned for their speedier development. For this purpose, approach of Special Component Plan (SCP) was adopted from the beginning of the Sixth Five Year Plan. Similarly for the economic upliftment of the regional tribes the approach of Tribal Sub Plan (T.S.P) was introduced in Fifth Five Year Plan. With view of transforming these approaches into action, efforts have been made to benefit them by quantifying and earmarking amounts separately for these groups in almost all the sectors of the economy out of the overall outlay/ allocations. The special provisions made for these two components are briefly indicated below.

#### 3.3.1 Special Component Plan(SCP)

The section of population belonging to scheduled castes have, for historical reasons, remained socially and economically backward for a long period. Therefore, in view of the constitutional provision made for the promotion and protection of their interests and Directive Principles of the state policy under Article-46 of the Constitution of India, concerted efforts have been made under the various plans to raise their social and economic status.

In the first four Five Year Plans, welfare programmes were drawn up and implemented for improving the educational and economic status of the scheduled castes. By the end of the Fifth Five Year Plan, however, it was noticed that the strategy for the development of this vulnerable section of the society would have to be based on intensive social and economic efforts so that they could acquire the ability to utilize the fruits of economic development programmes. In view of this the approach of Special Component Plan (SCP) was adopted in the Sixth Five Year Plan (1980-85) in the form of earmarked allocations under SCP.

Accordingly, the programmes for the development of Scheduled Castes were undertaken in various sectors of the plan and further emphasis was laid on the enhancement of welfare of this class. The objectives and processes involved in this approach are as follows:

- The development departments would earmark an amount from their allocated outlays by way of quantification for the Special Component Plan.
- Only those schemes would be taken under SCP which ensure direct benefits to the individuals or families belonging to the Scheduled Castes.
- Outlay for area oriented schemes directly benefiting villages having majority Scheduled Castes population would be allocated under SCP.
- Priority would be given to provision of basic services like primary education, health, drinking water, rural housing roads, rural electrification and nutrition.
- Wage Component Schemes would not be included in the Special Component Plan.

The outlay and expenditure on SCP in the various years of Ninth Plan and proposed outlays for the year 2001-2002 are given in Table 3.2

**Table- 3.2**  
**The Allocation and Expenditure under Special Component Plan**  
(Rs. in lakh)

Sl.No.	Plan Period	Uttaranchal Plan ----- Outlay	SCP ----- Allocation	Percentage
1	2	3	4	5
1	Ninth Plan Outlay	443000	66679	15.05
2	Annual Plan 1997-98	67700	10745	15.87
3	Annual Plan 1998-99	102600	13600	13.26
4	Annual Plan 1999-2000	114000	17321	15.19
5	Annual Plan 2000-2001	90000	15227	16.92
6	Annual Plan 2001-2002	100000	16000	16.00

From the Table 3.2 it is evident that during Ninth Five Year Plan period about 15 percent of the total outlays has been earmarked under the SCP which is broadly commensurate with the percentage of Scheduled Castes population in the State.

### 3.3.2 Tribal Sub Plan

The tribal people of Uttaranchal are among the nascent tribal groups. Many of these tribes live in strategically important and sensitive border areas. The major tribes found are Tharus, Buxas, Bhotias, Jaunsaris and Rajis. All of them are closely linked with forests and have not attained the desired standards of living because of their primitivity mode of life and livelihood. Majority of them are below the poverty line, and exclusively depend on wage employment linked to forest produce and agriculture. Therefore, there is an urgent need to uplift them from their present level of subsistence living. For this Tribal Sub Plan(TSP)



approach is being adopted. The Integrated Tribal Development Project is also being implemented and it is proposed to further expand it. The following objectives and strategies for development of these tribal groups have been laid down:

- Earmarking of funds for T.S.P in proportion to the percentage of Scheduled Tribe population in the state is being ensured. Higher percentage may have to be earmarked to bridge the gap between the development of Scheduled Tribes and the general population so that the two groups can be brought at par.
- The funds allotted under T.S.P should be utilized on such schemes/ programmes as would serve the specific needs of the target groups and should, as far as possible, be beneficiary oriented.
- Increased emphasis will be given to the schemes of Basic Minimum Services i.e. safe drinking water supply, primary health care, public housing assistance, link roads, nutrition, stream lining of Public Distribution System, universal and primary education etc.
- While preparing, Tribal Sub Plan, it would also be ensured that the proposed development programmes are based on employment generation/income generation and the potential of increased income of scheduled tribes families would be estimated while formulating development programmes.
- Plan schemes which benefit the Scheduled Tribes families exclusively would be continued with the condition that the physical targets be fixed against the respective Plan Outlay. In addition to this, clear physical and financial targets would also be fixed for new schemes proposed.
- Proper and adequate rehabilitation of tribals displaced due to execution of major development projects shall be such as to ensure

that standard of living of the affected persons after their displacement is better than earlier.

- Since majority of tribals are unskilled, increased emphasis shall be given to their training in handlooms, carpet weaving, carpentry, black smithy and other allied and hereditary trades.
- Within the broad framework of the Forest Conservation Act 1980, the Tribal should be accorded priority in Joint Forest Management.

In accordance with the above objectives, during the Ninth Five-Year Plan(1997-2002). a separate outlay was allocated and separate Tribal Sub Plan was formulated. As would be seen from the following table Rs.21941 and Rs. 5000 lakhs have been allocated/ proposed to be allocated for the Ninth Plan and proposed in Annual Plan 2001-2002 are shown in Table 3.3.

**Table-3.3**  
**Allocation under Tribal Sub Plan**

(Rs. in lakh)

Sl.No.	Plan Period	Uttaranchal Plan	TSP	Percentage
1	2	3	4	5
1	Ninth Plan (1997-2002)	443000	21941	4.95
2	Annual Plan 1997-98	67700	3428.80	5.06
3	Annual Plan 1998-99	102600	4356.69	4.24
4	Annual Plan 1999-2000	114000	5619.00	4.93
5	Annual Plan 2000-2001	90000	4676.00	5.20
6	Annual Plan 2001-2002	100000	5000.00	5.00

## Chapter 4

# SPECIAL CENTRAL HILL ASSISTANCE

- 4.1 It is well known that given its undulating and highly rugged and difficult terrain and topography, widely varying climate conditions, poor soil cover and high vulnerability to erosion and slope instability, etc., the hill region suffers from serious constraints of development. The other factors severely inhibiting the pace of development, inter alia, include the very limited cultivable land, overwhelming percentage of small and marginal holdings (about 75 percent less than 1 ha.) difficult agriculture conditions, sparse settlement patterns (88.56 percent of the villages have population of less than 500), severe soil erosion, deficiencies in infrastructure and amenities (especially in the remote and inaccessible areas), long gestation period of projects, relatively higher per unit cost of infrastructure development and low returns on investment. Inadequate development of technologies suitable for hill areas and unscientific management and land use patterns have also resulted in low productivity on the one hand and depletion of resources and ecological deterioration, on the other. Further, sub regional variations in the levels of development must be taken into account.
- 4.2 Unstable rocks and the fragile nature of the hills also create hurdles in the development process. While it is difficult, in the first instance, to develop infrastructure facilities like roads, irrigation, electricity etc in hill areas, the regular occurrence of land slides and severe climate conditions seriously compound the problem by causing damage to the infrastructure already built. Recent landslides in August, 1998 at Ukhimath (Rudra Prayag) and Malpa (Pithoragarh) caused heavy loss of people and property and human life.
- 4.3 Earth quakes, landslides and cloudbursts, etc., have been a regular phenomenon in the Uttarakhand. The 1991 earth quake in Uttarkashi district left behind considerable devastation and the more recent earthquake in March 1999 in Chamoli district likewise played a devastating role. Attending to such natural calamities divert attention and resources which could otherwise have been utilized for further development of the area. Rehabilitation of people hit by calamities and providing

them safe shelters and housing facilities becomes all the more imperative if human lives are to be saved in future natural calamities..

4.4 Pithoragarh district in the Kumaon-division and Chamoli and Uttarkashi district in the Garhwal division have borders with Tibet and Nepal and, accordingly, are of strategic importance and require special attention with respect to development, both from the point of view of raising the living standard of the population in these areas and the laying down of infrastructure which could also impinge on security needs.

4.5 Keeping in view the specific requirements of the hill area, Special Central Assistance was being provided by the Govt. of India under the "Hill Area Development Programme" (HADP) while Uttaranchal was a part of U.P. Special Central Hill Assistance provided during the various Plans and for the Ninth Plan in particular are given in Table 4.1.

**Table 4.1 Special Hill Assistance during various plan period. (Rs. in lakh)**

S.N.	Planned Period	Approved Outlay	Central Assistance (S.H.A.)	% of Central Assistance to total outlay
1-	Fifth Plan [1974-79]	20402	10400	50.98
2-	Annual Plan [1979-80]	7033	3250	46.21
3-	Sixth Plan [1980-85]	57000	35000	61.00
4-	Seventh Plan [1985-90]			
	[a] Approved Outlay	107500	55300	51.48
	[b] Annual Aggregate	119250	67919	57.02
5-	Annual Plan [1990-91]	33000	18201	50.58
6-	Annual Plan [1991-92]	35701	18201	50.51
7-	Annual Plan [1992-1993]	38701	18201	47.03
8-	Eight Plan [1992-97]	210500	100500	47.74
9-	Ninth Plan [1997-2002]	443000	127500	28.78
10-	Annual Plan [1997-1998]	67700	22500	33.23
11-	Annual Plan [1998-99]	102600	36241	35.32
12-	Annual Plan [1999-2000]	114000	45786	40.16
13-	Annual Plan [2000-2001]	90000	47073	52.30
14-	Annual Plan [2001-2002] Proposed	100000	47073	47.07

- 4.6 It is evident from the table that the percentage of Special Central Assistance to the total plan outlay has been decreasing over the various plan periods. In 1995-96, 1996-97 and 1997-98 respectively Rs. 225 crores were provided by the Govt. of India under this Programme. Consquent to special efforts directed towards augmenting the flow of additional resources in the Uttaranchal Hill areas, and keeping in veiw the area and population of the region and its comparative position with reference to some other Hill areas (Himachal Pradesh for example), in 1998-99, Additional Central Assistance of Rs. 112.41 crores was sanctioned by the Govt. of India, including Rs. 12.41 crores under the HADP and Rs. 100 crores by way of one-off Additional Central Assistance. In addition, together with the rest of the State of U.P., an amount of Rs. 25 crores was provided for the Hill areas for restoration of flood and landslide damages. In 1999-2000, Rs. 240.86 crores were provided by the GOI as Special Central Assistance under the Hill area Development programmes and Rs. 217 crores as one time Additional Special Central Assistance. The State Govt. has been continuously requesting the Central Planning Commission to enhance the Special Central Assistance based on the State's area, population and comparative positions vis-a vis other Special Category Hill States/Designated Hill Areas.
- 4.7 It is also relevant to state that, hitherto the hill areas were being considered as a part of the undivided State of the U. P. and the Central Assistance for them was really an additionality, which should not, and can not be seen in exclusivity as the totality of the legitimate requirement of the newly created State of Uttaranchal. Besides, the newly created State consists not only of the hill areas, but also of the two large and populous districts of Udham Singh Nagar and Haridwar, besides the sizeable plains areas of the Dehradun district. Further, in recognition of the specific geo-physical and socio-economic conditions of Uttaranchal, the Government of India has recently decided to accord "Special Category" status the State.
- 4.8 In this background, it is proposed that the Planning Commission should treat the entire amount of Rs. 470.73 crores granted in 2000-2001 as the base level of Central Assistance under the HADP and grant to the State a significant step up in the overall level of assistance to enable it to meet its necessary current development requirements and gradually fill the backlog that has built up from the past.

## Chapter 5

### **NEW INITIATIVES AND THRUST AREAS FOR ANNUAL PLAN 2001-2002**

The Uttaranchal Region is ecologically extremely fragile and sensitive. Hence, issues relating to environment management, forest cover and water resources management assume great significance. Added to these are the imperatives of employment generation and growth of physical and social infrastructure, not to mention seismic sensitivity of the region.

Such specific characteristics demand specific approaches and priorities. These have been adequately reflected in the IX Plan and the general thrusts of the yearly plans. But in terms of the implementation of these approaches, many new initiatives and schemes find a place in the plan of the current year.

#### **5.1 Establishment of a Disaster Management Center :**

A Disaster Management Center at the ATI, Nainital as a professional, research supported body to advise and guide the disaster management and control activities in the region. The DMC will, in the medium run, evolve operational packages and plans for disaster management in each district of the region.

#### **5.2 Setting Up of Van Panchayats and their activities:**

A large portion of the civil and soyam forests is degraded. It would appear that regeneration of these lands could be effected through concerted action of newly established Van Panchayats or invigoration of those already existing. Specific Programmes will be launched and joint forestry management (JFM) principles will be utilized to create synergies between the Forest department and the local institutions.

### **5.3 Water Recharging and Rain-Water Harvesting Schemes :**

Broad-based schemes will be implemented to recharge depleted water sources and to support extensive rain water harvesting projects in both rural and urban areas. Such scheme will also support the surveys, research & documentation required as well as awareness and sensitisation programmes.

### **5.4 Promotain of tourism in Badrinath, Kedarnath, Gangotri, Yamunotri as well as Eco-Tourism :**

Tourism will be promoted in the above areas and funds will be managed by specially constituted societies. The process is expected to attract private investments and charities. This scheme will be further supported by the development of MASTER PLAN for the important tourist circuits of the region.

### **5.5 New Tourism Projects**

Two new major tourism projects are to be taken up from the current year. Development of Dyara Bugyal as an all-season resort/ski-resort and secondly, development of George Everest Region for eco-tourism.

### **5.6 Industrial promotion and Industry Infrastructure Projects:**

Several projects are being initiated in the current year to provide a growth impetus and to catalyze divergent sectors :

- Establishment of the Indian Institute of Handloom Technology
- Establishment of the software Technology Park (STP) in Dehradun
- Modernization of Kashipur Design Center
- Setting up a Wool Bank

## **5.7 Diversification of agriculture/horticulture activities :**

Many new initiatives have been proposed in these areas e.g.

- Development of tea cultivation and processing
- Establishment of horticulture research centers and tissue culture schemes.



## Chapter 6

### SECTORAL PROGRAMMES

## 6 AGRICULTURE & ALLIED SERVICES

### 6.1 CROP HUSBANDRY

#### 6.1.1 AGRICULTURE

Agriculture production is directly related to the land use pattern in the State specially in the hilly areas. The disturbance of soil on the slopes means more erosion. But demand for food and other agricultural products is increasing due to increase in population and the imperatives of improved standards of living. Thus it is essential to find ways and means to put the land under most judicious and optimum use with due regard to ecological and environmental considerations. It is difficult to envisage an ideal uniform land use pattern throughout the State owing to its vast geophysical diversity, on the other hand, the mainstay of the population is agriculture, including horticulture and, therefore, this inelastic and invaluable asset holds the key to rural and agrarian prosperity in the State. This is further emphasized by the fact that the scope to develop processessing and manufacturing activities in the hill regions are severely limited on account of a variety of obvious reasons, and that in the plains is affected by raw material and market limitations.

The State of Uttaranchal has widely varying types of agriculture depending upon the climate, altitude, slope conditions , etc. On this basis, the State can be divided in to the following five categories:-

- Plains, Tarai and Bhabar areas;
- Areas up to 1000 meters altitudes;
- Areas between 1000-1500 meters altitudes;
- Areas between 1500-2400 meters altitudes; and
- Areas above 2400 meters.

The area of Plain, Tarai and Bhabar is characterized by rich soil and good irrigation facilities. The climate is tropical, rainfall is around 250 Cm. and mean temperature is 29.5<sup>0</sup> C. The area have excellent agriculture and can be termed as the granary of the region. However, the soils in these areas are now showing micro-nutrient and humus deficiencies. The part of Haridwar distt. ( Bahadra Bad, Laxar and Bhagwanpur blocks) called “Ghar” area for example, is characterized by light soil devoid of humus and irrigation facilities, and very deep water table restricting production and productivity. The hilly area is characterized by low productivity, susceptibility to erosion, poor of irrigation and low humus content and soil depth.

The problems of hill agriculture development are different from those in the plains due to physio-geographical, agro-climatic and socio-economic variations such as undulating topography, sloppy fields requiring soil and water conservation measures, limited irrigation, risk and uncertainty due to weather, small size of holdings and their fragmentation and wide dispersal, inadequate infrastructural facilities, lack of post harvest technology and facilities pertaining to storage, processing, marketing etc., and, in these contexts, the lack of an integrated sub –regional and ecological approach to agricultural planning and management. The productivity of land, particularly of rain fed areas, is declining due to degradation of forests ( which constitute the support area for agriculture), soil erosion, lack of new knowledge and skills in the farming community and absence of science and technology in agriculture to a large extent.

#### **A. Present status and target for 2001-02**

Agriculture in Uttaranchal started as early as human habitation in this area. Over the years, efforts have been made to improve agricultural production as indicated below

:-

Item	Unit	8 <sup>th</sup> plan	1997-98	1998-99	1999-2000	2000-2001	2001-2002
		Achievement	Achievement	Achievement	Achievement	likely Achievement	proposed target
<u>1-Food grains</u>	“000” MT.						
1.Rice	”	547.29	575.00	600.00	614.00	655.00	656.00
2.Wheat	”	687.00	700.00	705.00	809.00	792.00	930.00
3.Maize	”	39.78	50.00	55.00	50.00	50.00	53.00
4.Pulse	”	20.84	30.00	32.00	23.00	26.00	13.00
5.Other food grains	”	310.83	325.00	350.00	333.00	335.00	349.00
Total food grains	“000” MT.	1605.74	1680.00	1742.00	1829.00	1858.00	2001
2.Commercial crops , Oil seeds	“000” MT.						
1. Til	”	0.29	0.52	0.60	0.65	1.00	1.00
2. Mustard	”	18.60	10.00	11.00	9.00	9.00	10.00
3.Other oil seed	”	0.95	0.50	0.52	1.00	1.00	1.00
Total oil seed (pure)	”	19.84	11.02	12.12	11.00	11.00	12.00
4.Soyabean	”	16.25	24.00	25.00	25.00	26.00	26.00
Total oil seed	“000” MT.	36.09	35.02	37.12	46.65	48.00	50.00
3. Distribution of improved seeds	“000” MT.	3.405	3.47	3.88	4.20	4.10	5.20
4.Fertilizer distribution	“000” MT.						
1.Nitrogen	”	61.88	72.76	77.12	98.00	88.00	110.00
2.Phosphate	”	18.47	27.90	21.27	26.00	25.00	30.00
3.Potash	”	6.42	9.91	6.90	13.00	11.00	9.00
Total N.P.K.	“000” MT.	86.77	110.57	105.29	137.00	124.00	149.00
5. Small Fertilizer packet distribution	“000” No.	132	4	-	-	-	-
6.Plant protection services	“000” MT.	-	-	-	-	-	-
Pesticides		956	0.668	0.76	0.60	0.78	0.53
Area treated	“000” Ha.	99	932.00	950.00	1203.00	1198.00	1157.00
Farmers	“000” No.	-	98	102	104	114	113
7. HYV seed distribution in tribal blocks	Quintal	16485	2449	2502	2518	2472	2210
8.Fertilizer demonstration	No.	29131	-	-	-	-	-

## B. VISION

As stated earlier, agriculture, in Uttaranchal is characterized by different eco-climatic conditions. There is wide variation from place to place. This also has a positive aspect, viz., that the climate and geography of the area makes it possible that a variety of crops suited to different climatic conditions from tropical to temperate, can be cultivated in Uttaranchal. Thus there is a wide scope for diversified agriculture development. On the otherhand, considering the fragility of the ecosystem, one has to be very careful in planning and choice of strategies keeping this in view, future development of agriculture in the State can be visualized as follows: -

1. Both planning and agricultural practices have to be eco-friendly because 87 percent of the geographical area is sloppy, susceptible to erosion and largely rain fed. Therefore, careful land utilization planning is very important.
2. Since the area under assured irrigation is only 3.40 lakh hectares, the planning has to be largely based on water harvesting and conservation techniques and development of varieties suited to rain fed farming.
3. The economy of the state is largely dependent on agriculture. So this has to be maximum return oriented. There is need for diversification from low return activities to high return activities. Diversification is required not only from crops to horticulture but also from low value crops to high value crops and complementary activities such as animal husbandry, sericulture and agro processing, etc.
4. Use of plastics in agriculture needs to be encouraged. Plastic mulching, drip / sprindler irrigation, shade nets, green houses, low tunnels, anti bird nets, hail nets, etc are useful for horticulture and agricultural crops. Distribution and propogation of these items and techniques will be made through different schemes.
5. Off- season and high value vegetable crops need more emphasis in Uttaranchal. This will help in improving the economy of hill farmers. More area will be brought under these crops for cultivation.
6. Floriculture is another important area, which can bring prosperity to the farmers. who will encouraged to undertake floriculture. They will be trained

in the cultivation of suitable flower crops. Efforts will be made to strengthen the marketing network.

7. Cultivation of medicinal and aromatic plants on marginal lands on a wider scale can bring prosperity to farmers, and will be encouraged in a focussed manner processing facilities would also need to be established along with proper marketing infrastructure.
8. In the rainfed areas, there are limitations to the use of chemical fertilizers to boost agriculture production. In these areas efforts will be made to shift to suitable pulses and oilseed crops in such areas..
9. Also in such areas emphasis would need to be given to promote organic farming. This will help in utilization of ample organic wastes available in the hills. Products of such farming are also likely to fetch premium price.
10. In the plains, Tarai and Bhabar areas, emphasis will be on high yielding varieties of suitable crops. For this better seeds and quality agriculture inputs will be made available.
11. There is 3.21 lakh hectares land presently classified as 'culturable waste'. This can be developed and put to productive use through different centrally sponsored schemes such as Integrated Wasteland Development and NWDPR.

## **C. STRATEGY**

The main factors adversely affecting agriculture in the hill areas of Uttaranchal are the variable agro- climate factors, small size and scattered pattern land holdings, traditional cropping patterns and package of practices, poor irrigation facilities, steep slopes, land slides and soil erosion, poor consumption of fertilizers etc. As per decision taken at Govt. of India level, 5.1 percent growth rate per year has been proposed for the agriculture sector in Uttaranchal. To achieve this target, the following strategy has been proposed.

### **(a) HILL AREA**

Certain traditional crops such as *jhingora*, *mandua*, *ramdana* and some local varieties of rice are being grown in the area where other high yielding crops can not be grown successfully. These lands are marginal in nature and rainfed. The yield of these crops is poor because high yielding varieties are not available. So the strategy for these

area and crops is to develop high yielding varieties with the help of the Agriculture University Pant Nagar and Vivekanand Agriculture Research Institute Almora. In addition, diversification of agriculture in Hills towards as off-season vegetables, spices, aromatic and medicinal plants, flowers etc. will be emphasized to make agriculture profitable. In turn, this has to be linked with demonstrations, value addition packages and activities.

Improved methods of irrigation like sprinklers and drip irrigation are to be made popular. Use of man/ bullock operated implements is to be given due priority so that quality and output of different agricultural operations may be improved and drudgery of women in farming reduced. For this the services of Agriculture University Pant Nagar Centre for implements at Pauri will be utilized. The phenomena of soil erosion and landslides are a major problem in the hills. Soil conservation work undertaken till now had been done in isolation and these works were not conducted in an integrated manner with other programmes. In future soil conservation works will be taken up on a watershed basis in a phased and integrated manner.

Being largely rain-fed, higher consumption of chemical fertilizers cannot be advocated. Hence use of bio-fertilizers will be given high priority to maintain / increase the productivity of land. Similarly bio-pesticides and integrated pest management practices will be adopted. Conclusively, organic and bio-practices will be given top priority and these practices will be so strengthened as to gradually replace use of chemicals in Hills. Inflow of improved technology is to be made timely and fast. To make the flow of research to field faster and effective the Agriculture University Pant Nagar, Viveka nand Agriculture Research Institute Almora and DARL Pithoragarh will adopt two micro-watersheds in each district and will demonstrate the new techniques in the micro- watershed on lab to land pattern.

For faster dissemination of knowledge, it is further planned have a Kisan Vigyan Kendra(KVK) in each district of the State.

Quality of inputs will be ensured through effective enforcement of the relevant Orders/ Act.

In general, farmers are not in a position to hold on to their agriculture produce. So, arrangements will be made by which farmer can get information of rates of agriculture produce prevailing at different places, made as also to enable than to store their produce at the minimum possible storage charges and without exploitation.

## **(b) PLAINS AREA**

In the plains areas of Uttarakhand, agriculture is well developed. The major emphasis shall be on the following activities.

- **Timely supply of inputs** - Quality seeds of high yielding varieties and other inputs in needed quantities shall be ensured.
- **Market intervention**- Wherever necessary the government would intervene to ensure that farmers get remunerative prices for their produce.
- **Agricultural Implements**- The need to establish 'Agro Service Centres' cannot be over emphasized. With the bullock- power rapidly diminishing in the countryside, there is need for establishment Centres at the Nyaya Panchayat level to ensure timely cultural operations such as, preparation of land, sowing, inter-cultivation and crop harvest.
- **Transport and Marketing infrastructure**- Adequate arrangements for transport of produce from farms to the market centres shall be made.
- **Export**- The cultivation of crops such as Basmati rice, Litchi, and small millets, buckwheat etc. shall be promoted as export crops. Necessary infrastructure facilities, transport and marketing network shall be developed.
- **Seed Procurement**- The area is highly suitable for quality seed production. The seed production activities shall be diversified to cover more crops including Vegetables and, more particularly, hybrid varieties of vegetables.

## **D. POLICY INITIATIVES**

The State Agriculture Policy envisages a minimum of 5.1% growth rate. Towards, this objective the following thrust areas have been identified:

- Promotion of suitable agro-business activities on the basis of a watershed approach.
- Promotion of selected traditional crops grown in the hill regions of the State with emphasis on increased productivity and marketing linkages.
- Emphasis on appropriate Land Utilization.
- Conservation of natural biodiversity.

- Transforming agriculture from subsistence agriculture to market oriented, industry, and export oriented diversified agriculture.
- Development of Horticulture, Vegetables and floriculture.
- Revival of Tea industry in the region.
- Promotion of sericulture.
- Promotion of cultivation of medicinal and aromatic plants.
- Seed Production of temperate vegetables and crops varieties suitable for hilly areas.
- Greater emphasis on seed production of hybrid varieties of vegetable crops for export in joint collaboration with foreign entrepreneurs.
- Establishment of a KVK in each of the 13 districts of the State with the assistance of I.C.A.R (presently only 3 KVKs are working in the Tehri and Pithoragarh districts) to ensure faster and timely inflow of technology inputs.
- To further strengthen linkages between research activities and line departments.
- Emphasis on training programs for women workers/ cultivators.
- Promotion of sprinkler/ drip irrigation systems.
- Propagation of Poly-house based cultivation of high yielding and off-season crop varieties.
- Promotion of power driven implements in the plains areas and manually/ bullock-operated implements in hill areas. Power tillers will also be made available in suitable areas.
- Promotion of agro based industries. Promotion of organic farming and integrated plant protection activities.
- Priority to quality control and setting of the required facilities for this purpose.
- Expansion of area under pulses and oilseeds under rainfed conditions.



Following Schemes have been proposed for the year 2001-2002.

## **E. CENTRALLY SPONSORED SCHEMES**

### **(a) Macro-Management scheme for supplementation /**

#### **Complementation Of State Efforts through Work Plan :-**

27 development schemes for promotion of Agriculture, Horticulture, Forest, Co-operative and sugarcane have been formulated and put into operation under the Work Plan.

### **(b) Agriculture**

- Production and distribution of seeds of High Yielding Varieties of different crops.
- Promotion of organic farming. The compost programme is being envisaged with the help of NGOs and SHG.
- Promotion to the use of suitable modern agricultural implements.
- In selected micro-watersheds the remaining work under NWDPRAs scheme is being taken up with the association of Mitra Krishak Mandal's.

### **(c) Horticulture**

- Vegetable programme: Promotion of off season cultivation of selected vegetable crops and seed production.
- Promotion of tropical, arid and temperate fruits cultivation, including rejuvenation of old orchards.
- Increase use of Plastics.

### **(d) Co-operative Department**

- Special scheme for upliftment of SC/ST.
- Assistance to women co-operative for upliftment of women.
- Promotion of medicinal and aromatic plants and arrangements for their marketing.

### **(e) Sugarcane**

- Promotion of sugarcane production through field demonstrations, farmers training and seed production programme.

## (f) Forest

Following two schemes pertaining to forest department have been included in this Project.

- R.V.P. Ramganga
- F.P.R. Upper Ganga and Upper Yamuna

Main thrust of these schemes is to check the soil erosion in the selected areas through afforestation and soil conservation practices.

Macro-management programme is on the basis of 90:10 central, state share. In the first phase direction was given to prepare a macro management plan with Rs. 14 Crore central share, therefore, Work Plan of Rs. 15.55 Crore was prepared in which share of the forest department was Rs. 227.40 lakh. However, Forest department has pointed out that the funds being made available are consistent with the sanctions given in the project approved by is proposed under macro management Plan for the year 2001-2002.

(In Lakh Rupees)

	Central share	State Share	Total
Agriculture	965.52	107.28	1072.80
Forest	489.30	54.37	543.67
Horticulture	160.74	17.85	178.59
Co-operative	48.78	5.42	54.20
Sugarcane	25.03	2.78	27.81
Total	1689.37	187.70	1877.07

## (g) Accelerated Maize development programme

This is an ongoing programme and was being implemented in district Dehradun only. From year 2001-2002 two districts viz -Dehradun and Haridwar have been taken for this programme. An outlay of Rs. 14.10 lakh has been proposed for the year 2001-2002 on the basis of funding pattern of 75:25. Hence the Central share is Rs. 10.65 lakh and the State Govt. share is 3.45 lakh for which administrative approval of the Central Govt. has been received.

The following components are covered under this scheme:

- Field demonstrations.
- I.P.M. demonstrations.
- Training of farmers.
- Incentives for use of improved implements etc.

#### **(h) Cotton seed development programme**

This scheme is being implemented only in Haridwar district. An outlay of Rs. 0.88 lakh has been proposed for the year 2001-2002 on the basis of 75:25 funding pattern. Programme of nucleus /foundation seed production is taken up under this scheme for the benefit of the cotton growing farmers.

#### **(i) Oilseed Development Programme**

This programme is being implemented with the aim of increasing the production of oilseeds especially suitable for Uttaranchal. An outlay of Rs. 66.70 lakh has been proposed for the year 2001-2002, on the basis of 75:25 ratio. Administrative approval of Rs. 66.70 lakh has already been received from Govt of India. The main thrust of this programme is to increase the coverage area and productivity of oilseed crops such as groundnut, soyabean, Toria, mustard/ sunflower etc. All districts of Uttaranchal are covered under this programme according to ecological suitability.

The components under this programme are as follows:

- Purchase of foundation seed.
- Seed production.
- Seed distribution.
- Minikits distribution.
- Plant protection programme for oilseed crops.
- Distribution of agricultural implements /plant protection implements etc.

### **(j) National Oilseed Vegetative Board Programme**

The (NOVOD) is also providing assistance to the state Government for the increasing oilseeds production. An outlay of Rs. 2.50 lakh is proposed for this scheme on the basis of 100% Central Govt. funding.

### **(k) Pulse Development Programme**

This is an ongoing scheme. An outlay of Rs. 40.00 lakh has been proposed for the year 2001-2002 on the basis of 75:25 Central/State Govt. share. Administrative approval for the programme of Rs. 40.00 lakh has been received from the Central Govt., out of which 30.00 lakh is the share of the Central Govt.

The component under this programme are as follows:

- Seed distribution.
- Minikits distribution.
- Demonstrations.
- Distribution of Rhizobium culture/P.S.B.
- Distribution of improved implements. The main thrust of this programme is on *urd, moong, arhar*.

### **(l) Crop Insurance Scheme**

The programme is proposed with aim of protecting the interests of farmers who may be affected by the natural calamity. An outlay of Rs. 55 lakh has been proposed for the year 2001-2002 on the basis of 50:50 Central /State share.

### **(m) Timely Reporting Scheme (TRS) for estimation of area, production and productivity of major crops**

This scheme being funded on a 50:50 Central /State share basis, and is being implemented in all the districts of the State. For this purpose staff have been deployed in the three districts so that the data concerning agriculture may be reported in time. An outlay of Rs. 5.16 lakh has been proposed for the year 2001-2002.

## **(n) Improved Crop Statistics (ICS) Scheme for improvement of agricultural statistics**

This scheme is also being run in all of the districts of Uttaranchal, and a on 50:50 Central /State share basis. An outlay of Rs. 4.95 lakh has been proposed for the year 2001-2002.

## **F. STATE SCHEMES**

### **DISTRICT SECTOR**

#### **(a) Intensive multiple cropping scheme**

The main thrust of this scheme is to increase productivity of the major crops viz: rice, wheat and maize. For this purpose demonstrations are being conducted. High yielding varieties seed distribution programme for tribal blocks, which was being run separately, has been merged with this programme to strengthen the whole programme. An outlay of Rs. 16.20 lakh has been proposed for the year 2001-2002. This scheme is totally under the district plan.

#### **(b) Transfer of Technology to Women farmer**

It is well known that agriculture in Uttaranchal has a very high participation ratio of Women farmers. This scheme has been devised with the aim of educating and imparting skills to them. An outlay of Rs. 16.90 lakh has been proposed for the year 2001-2002.

#### **(c) Kisan Mitra Yojana**

This is an ongoing scheme to provide a communications bridge between farmers and State extension machinery. Under this programme 'Kisan Mitras' are selected and trained so that they may Transmit technology to other farmers. The Kisan Mitras also collect soil samples and send them to the laboratory for analyzing major and micro nutrient deficiencies and enable the farmers to take corrective measures. An outlay of Rs. 16.80 lakh has been proposed.

#### **(d) Scheme for control of Kurmula Pest**

The Kurmula Pest is a dangerous hazard in the unirrigated areas of the State. Under this scheme 50% subsidy is admissible on chemicals used to control the Kurmula Pest. An outlay for Rs. 13.00 lakh has been provided for the scheme for the year 2001-2002.

### **G. STATE SECTOR**

#### **(a) General Establishment of the Agriculture Department**

Under this scheme expenditure on the office of the Project Officer (Agriculture), Udham Singh Nagar is being borne. An outlay of Rs. 13.76 lakh has been proposed for the year 2001-2002:

#### **(b) General Establishment of Plant Protection Office, Udham Singh Nagar**

Under this scheme expenditure of the Plant Protection office, Udham Singh Nagar is being borne. An outlay of Rs. 6.05 lakh has been proposed for the year 2001-2002.

#### **(c) Seed and Agriculture Farms**

There are 10 Agricultural farms in Uttaranchal which are being used to produce quality seed. An outlay of Rs. 21.30 lakh has been proposed for them for the year 2001-2002.

### **H. EXTERNALLY AIDED PROJECTS**

#### **(a) Diversified Agriculture Support Project (DASP)**

The main object of this Project is to promote, develop and strengthen the diversification of agricultural activities with the help of specialists in the fields of Agriculture, Horticulture, Sericulture, Public Works Department, Animal Husbandry, Panchayati Raj, etc, with the aim of optimising crop production and providing backward and forward linkages within an integrated framework. In order to achieve desired targets and objectives under this Project a well-planned strategy has been formulated. The project management is undertaking PRA exercises at the village and district levels,

and various NGOs / SHGs have been involved in specific activities. Till the last year this programme was being implemented in two districts of Uttaranchal, i.e., Dehradun and Udham Singh Nagar. This year one more district i.e. Nainital has been included. At the State level a Project Co-ordination Unit has been established at Dehradun. At the district level a Management Committee has been formed comprising officers of the various line departments and the Chief Development Officer.

The main activities being carried out under the project are indicated below:

- To optimally harness and develop natural resources, specially land and water through a watershed approach.
- To promote comprehensive agro-based development and growth through productive programmes in the fields of agriculture, animal husbandry, horticulture and sericulture.
- To improve rural infrastructure such as rural roads, cattle markets, etc.
- To promote the development downstream agro-based projects and activities.

## **6.1.2 CANE DEVELOPMENT**

Notification for re-organization of the Cane Development and Sugar Industry Department was issued on April 5,2001 Before the re-organization the sanctioned strength of staff was 530, against which only 421 posts have been sanctioned in the new structure. All the departmental schemes are being implemented through this staff.

The activities of the department are concentrated in the four districts of Dehradun, Hardwar, Udham Singh Nagar and Nainital. The total Sugarcane area in the State is 1.669 lakh hectares. Ten Sugar factories with 34500 T.C.D total Crushing Capacity, are functioning in the State. The developmental Schemes of the department are being run by 9 Cane Development Councils (one in each Sugar factory area) and 12 Cane Development Unions.

Besides the above, there is a **Ganna Kishan Sansthan** situated at Kashipur (district Udham Singh Nagar) which imparts training to Cane growers/departmental staff in order to acquaint them with the latest scientific techniques of sugar cane cultivation so as to achieve optimum Sugarcane production. Efforts are being made to get it transferred to Uttaranchal from Uttar Pradesh.

**Sugarcane Research Center** has also been established at Kashipur evolving new high yielding/high sugare, disease free/resistant varieties suited to the conditions of Uttaranchal. Efforts are being made to bring this also under the control of the Uttaranchal Govt.

### **A. Khandsari Industry**

Khandsari Licensing Scheme is in force in the State so that Sugar Factories may be able to meet their maximum requirement from their respective Reserved Areas. Power-crushers for Khandsari production, Gur & Rab producers, except vertical power crushers, are required to obtain a license under this scheme. They have to pay Purchases Tax on the purchase of Sugarcane.

### **B. Objectives & Strategies**

- To increase sugarcane production through increase in the area under sugarcane cultivation and productivity through varietal improvement. At present (2000-01) the productivity level i.e. Average yield, of sugarcane in Uttaranchal is at 63M.T./Hec. which is proposed to be enhance to 70M.T./hect.
- To increase the area under sugarcane from the present level of 1.67 lakh hectares to 1.75 lakh hectares. During 2001-02 new high yielding Sugarcane varieties are being introduced in the state.
- Early maturing varieties cover about 19% of the total cane area during 2000-01 which is proposed to be raised to 24%.
- To substitute/ supplement the use of chemical fertilizers by using bio fertilizers in order to increase the soil fertility and productivity of



sugarcane. Further, at present fertilizer application (N) per hectare is 82.84 Kg/hect, which is proposed to be enhanced to 100 Kg/Hect.

- Pesticides and insecticides will be distributed through Cane unions to the cane growers on subsidized rates. This is expected help in achieving the desired productivity levels of Sugarcane.
- Under the ratoon management scheme, farmers will be provided with subsidies on pesticides/insecticides for soil treatment and spraying of urea on Ratoon crop. This practice will help to boost cane production in Uttaranchal.
- At present the Sugar factories are crushing only 38-39% of Sugar cane produced in their respective area. It is proposed to achieve a drawl percentage atleast 50%.
- To facilitate the Cane growers to supply the cane at cane purchasing centres and at the sugar mills gate, a programme to develop a network of link roads is being implemented under the village link Road Scheme.

Keeping in view the above approach and strategy, the programmes to be implemented during Annual plan 2001-02 are as follows :-

### **C. District Sector Schemes**

#### **(a) Improved Cane seed production scheme**

Foundation and Primary seed nurseries will be established in growers' fields for production and distribution of quality seeds to cane growers under this scheme. The nursery holder will get the subsidies as follows:

	<u>Nurseries (Rs./ha.)</u>	
	Foundation	Primary
• General growers	1000	500
• SC/ST growers	2000	1000

There is a budget provision of Rs. 13.12 lakh for this scheme.

## **(b) Seed & soil Treatment**

Under this scheme seeds & soils are treated with germicides and pesticides with a view to control and reduce the losses due to pest attacks and diseases. Subsidies are being also provided to such cane growers who purchase germicides & pesticides from Co-operative Cane Unions. The rate of subsidy is 25% for cane growers coming under the command area of the sugar factories having crushing capacity upto 2500 T.C.D. and 12.50% for cane growers in the command area of sugar mills having a capacity above 2500 T.C.D. The State Government gives 50% of the subsidy and the rest is provided by cane development councils and the sugar mills. Physical Targets and Financial allocations on these items are as under.

<b>Item of works</b>	<b>Target (hect)</b>	<b>Financial allocation (Lakh Rs.)</b>
Seed Treatment	22000	8.64
Soil Treatment	30000	

## **C. Ratoon Management Programme**

Under this programme folier application of urea mixed with pesticides is undertaken over the ratoon crop to protect it from pests, and improve the yield of ratoon crop by using lesser quantity of fertilizer. Subsidy is provided under district plan as on seed & soil treatment scheme. The target under the scheme is 33000 hect, for which a financial allocation of Rs. 3.10 lakh has been made.

### **(a) Village Link Road Scheme**

The objective of this scheme is to facilitate the sugarcane growers to supply their produce i.e., sugarcane to sugar factories more quickly. Roads are constructed for linking the villages to the cane purchasing centres and the Mills on a contributory basis. The beneficiaries i.e., cane unions, cane development councils and sugar factories provide 50% of the amount and the remaining 50% is met by the State Govt, 35.00 Kms Roads are to be constructed with a targeted expenditure of Rs. 112.10 lakhs during the year 2001-2002.

## D. Centrally Sponsored Scheme

Under this scheme 90% grant is made available by Central Govt. and the remaining 10% is borne by the State Govt. for the following programmes.

- **Front Line Demonstration** : At Sugarcane Research Center at Kashipur four Frontline Demonstrations sowing separately in one hectare each for autumn and spring are being conducted for (a) Package and Practices of Plant cane, (b) Package and Practices of Ratoon Management, and (c) Pest and disease management in order to improve sugarcane production under the guidelines of I.C.A.R. A provision of Rs. 0.60 lakh has been made for 2001-2002.
- **Field Demonstrations**: Demonstrations are laid on the fields of progressive cane growers who are adopting the modern scientific techniques of sugarcane cultivation. A subsidy of Rs. 5000/- per demonstration of 0.5 Hect., is given to such growers. who are selected by each Cane Development Councils according to financial allocations made by the department. The total provision in the budget is Rs. 2.30 Lakhs.
- **Seed Multiplication** :- A sum of Rs 2000/- per hectare or 10% of the cost of production of such seeds, whichever ever is less, is given as subsidy to progressive cane growers selected by the Cane Development Councils. A provision of Rs. 1.30 lakhs for this has been made for 2001-2002.
- **Distribution of Agricultural Implements** :- For scientific cultivation and helping the cane growers, subsidy is provided on useful agricultural implements in the following manners :-
- **Animal/Human Driven Implements** :- 50% of the cost of the implements subject to a maximum limit of Rs 1500/- per implement. The total allotment for this is Rs. 3.75 lakhs.

- **Tractor/power Driven Implements** - 25% of the cost of the implement subject to a maximum limit of Rs. 10,000/- per implement. The total allotment for this is Rs. 11.00 Lakhs.
- **Breeder Seed Production** : Seed nurseries are established under the direction of I.C.A.R. Rs. 20,000/- per Hect. is given for such nursery holders/Research Center. The total allocation for this scheme is Rs. 5.00 lakh.

## E. New Schemes

- **Bio-Composting - Press mud composting (Macromode)**

For boosting the sugar cane production and minimizing the cost of production of Sugarcane press-mud composting scheme is being implemented. For one unit of 100MT, Rs 20,000/- per unit is being provided. This programme is to be implemented in all the factory zones of the State. Meanwhile, an ambitious project to convert the press mud of four co-operative sugar factories into the bio-composting fertilizers is being carried out, which is expected to have a dramatic effect in terms of soil treatment as well as productivity. This is to be launched under Centrally Sponsored Scheme with a budget provision of Rs. 2.40 Lakhs

- **Watershed Management:-** To increase the productivity of sugarcane in water logged areas of the State, this scheme is being launched. An outlay of Rs. 14.50 Lakhs has been proposed for this, and the scheme will be implemented through the DRDAs.
- There is a saving of about Rs. 127 lakhs from the agreed outlay of Ninth Plan (1997-02) for which a Scheme for strengthening the Training/Research Programmes and standardising the collection and /analysis of statistical data has been proposed.

*The sugar recovery percentage has improve from 9.19 last year to 9.45 this year , thanks to the cumulative impact of these schemes.*

## **F. Outlay & Expenditure :**

During the Eighth Five Year Plan an expenditure of Rs. 250 lakhs was incurred. An outlay of Rs. 250 lakhs had been fixed for the Ninth Five Year Plan. During 1997-98 & 1998-99 expenditure of Rs. 78 lakhs and Rs. 83 lakh respectively was made. For the year 1999-2000 expected expenditure is Rs. 69 lakhs. An outlay of 101 lakhs. was proposed for the year 2000-2001 against which Rs. 81.45 lakhs is expected to have been utilized. The plan out lay for the year 2001-02 is Rs. 75.00 lakhs. This includes Rs. 35.00 lakhs of loan from N.C.D.C. for the construction of Manure godowns in the State.

### **6.1.3 HORTICULTURE AND FOOD PROCESSING**

The distinctive geographical features of Uttaranchal, particularly in the dominantly mountainous regions, coupled with Bhabar and Tarai regions, makes it a unique area for growing a wide variety of fruits, flowers and other horticultural crops. During the previous Five Year Plans the main emphasis of nearly all- horticultural schemes has been towards increasing the area and production of fruits and vegetables. Marketing and post harvesting management have received very negligible attention. Further, the schemes were formulated within a narrow band of activities i.e. only those schemes which received attention of the horticulture commercial wing of the Ministry of Agriculture. Consequently schemes, which could have special importance for the mountainous tracts like tea cultivation, herbs and medicinal and aromatic plants and other species neither received attention nor resources. Commodities which fell outside the charter of Ministry of Agriculture, like tea, silk and spices which are looked after by the Ministry of Commerce, and Medicinal and Aromatic plants for which no particular Ministry was responsible so far, remained marginalized and neglected.

#### **A. Restructuring & Broad-banding**

- The opportunity afforded by creation of new State has been seized upon to broad-band the regime of horticultural activities by addition and amalgamation of activities like tea development herbs and medicinal plants, sericulture within the sphere of horticulture and corresponding restructuring and rationalization of the

addition and amalgamation of activities like tea development; herbs and medicinal plants, sericulture.

- The Horticulture Department was so far directly managing as many as 104 Government Orchards, all of which were loss-making, 48 community canning and training centers none of which had achieved FPO standards and two regional training centers which required substantial changes and up-gradation in the syllabi. Research and development had remained un-attended and was being without proper technical supervision or association with technical institutions. All these shortcomings of the sector have been reviewed thoroughly with the help of Horticulture & Food processing department of G.B. Pant University of Agriculture & Technology and other institutions in the field. Considering that with the division of the State a large number of senior and middle level officials had moved to Uttar Pradesh, the opportunity were also availed to reorganize the staff and organisational structure, on the one hand, and to revamp training institutions, on the other. Right-sizing of the organization will also permit flow of more funds for identified priority activities, substantial improvement in the marketing activities and, above all, assistance to the efforts of entrepreneurs and farmer groups, specially in the post harvest management practices and infrastructure.
- After the creation of the new State, assistance of horticulture experts of Pantnagar University and other institutions has been availed to visit each of the major Government Orchards and all the community Canning & Training Centers and training institutions. Based on the expert committee recommendations only 27 Govt. orchards are proposed to be retained for development as State/Govt. Orchards; 9 are proposed to be converted into Krishi Vigyan Kendras (K.V.K.) with the focus on Sericulture, tassar, tea cultivation, medicinal and aromatic plants and spices, depending on the location, and the remaining are proposed to be offered on long term lease to the premier institutions of the country who are ready to invest in the State, by way of new technology, resources etc. good response has been received and each proposal for leasing of Govt. Orchards will be decided on merit by the state Govt. Till now Dabur Research Foundation, Tata Energy Research Institute and Kalindi Agro Biotech Ltd. have shown interest in 6 horticulture gardens, which are under the consideration of Government .

- To address the most important need of providing market access for horticulture produce, to start with contact has been established with the Division of Fruit & Vegetable Project Division of the National Dairy Development Board and Mother Dairy. The Fruits and Vegetables processing centre at Ramgarh, which had been lying closed, has been provided with a state of the art fruit processing plant with the assistance of Fruit & Vegetable Project and has started functioning. The Fruit & Vegetable Project is also surveying the entire State with a view to prepare infrastructure development projects for post harvesting management of fruits and vegetables. The survey is in an advanced stage of completion, and the approach would be to assist individual entrepreneurs or groups of farmers with necessary infrastructure assistance and to avail support under various schemes offered by the National Horticulture Board, NCDC, Office of the Horticulture Commissioner, Govt. of India, Food & Processing Ministry, coupled with finance and bank, back-ended subsidies. A project for exporting *litchi* has also been prepared with the help of APEDA, NHB. Another project for setting up of a floriculture park is under preparation. (Fruit & Vegetable project assistance has also been availed to dispose off surplus tomatoes in Uttarkashi district, surplus Ginger in the hilly tracks of Dehradun district and plans to add the surplus citrus fruit production in Chamoli district. The regional office of NHB has also been setup in Dehradun and post-harvesting projects are being sanctioned with itself). It is proposed to establish a series of commodity parks, agri-export zones (AEZ) and horticulture based private enterprises during the current year and a project prepared by the NDDDB will also be funded during the 10th five year plan, beginning with small assistance during the current year.
- Over the past few years tea cultivation has been commenced in around 500 acres in the districts of Nainital, Almora, Champawat and Chamoli. It has shown encouraging results and the State Govt. has now approved an ambitious project for bringing 22000 acres under tea cultivation during the next 12 years. Tea Board of India has agreed to extend schemes for non-traditional regions and now in association with the horticulture department it is expected to generate a large very sizeable self-employment opportunities for the local youth farmers. Growing organic/ green tea has been adopted as a strategy to neutralize market difficulties on the one hand, and to give assured good prices to the growers, on the other.

Assistance of Tea Board of India is also being availed for setting up an R & D center to back up the tea cultivation activity, which is proposed to be anchored with the Pantnagar University.

- With a view to promoting the development of Medicinal and Aromatic plants as a major economic and income generating activity in the State a Medicinal and Aromatic Plants Board has been constituted under the chairmanship of the Chief Minister. The Board will simultaneously promote activities pertaining to large-scale cultivation, processing, ISM, tourism and assist in the formulation of Policy. It is expected that with the setting up of the Board the existing Jodi Buti Shodh & Vikas Sansthan (Herbal Research and Development Institute) at Gopeshwar, Chamoli, as the apex implementing agency will be significantly activated. The herbs development activity in the cooperative and forest sectors also be significantly pushed up under the overall supervision of the Medicinal and Aromatic Plants Board.
- It would be seen from the foregoing paragraphs that horticulture development has been accorded a very high priority by the State Govt., and through restructuring, broad-banding and right sizing; the sector is being enabled to receive more public and private sector resources, technologies, and horti-enterprises are expected to receive a major boost.
- An ambitious project to set up a horticulture college, centered on horti-business promotion, has been sanctioned at Bharsar, district Garhwal. Till date a sum of Rs. 26 crores has already been sanctioned and University has designed a 5 year integrated horti-business management course. For supporting the post harvest management infrastructure proposals from the private and farmer groups a sum of Rs. 28 crores has been provided in the budget which will enable us to provide the back-ended subsidy to match the assistance available through the NHB, Food Processing Ministry, etc.
- The various activities of Uttaranchal Diversified Agricultural Support Project (DASP), which is in its third year of operation has also been regrouped and restructured its strategy; and is now fully functioning. The activities have now



been fully decentralized and as its major activities villages and hats, rural link roads, ropeways, high-tech nurseries etc. are being organized and Uttaranchal Diversified Agricultural Project resources are now re-aligned to fill critical gaps like rapid marketing surveys of various commodities, bench mark surveys and major infrastructure projects like agri-export zone, food parks etc.

## **B. Convergence of Resources**

- In view of the proposed sizable expansion in the horticulture development activities in the State, in addition to the budgetary support additional resources are also being converged from other sources and schemes. With the help of the State Nodal Agency, projects of individual enterprises and eminent NGOs/ companies/ cooperatives are being forwarded to the funding agencies/ NHB/ Food Processing Ministry on the one hand, and projects which could be funded under the various rural development programmes like the Swarnjayanti Gram Swarajgar Yojana are also being prepared and submitted, on the other. A major mushroom development project is one such project under implementation in three districts; while organic composting project which was being implemented in 3 districts so far, is now proposed to be expanded to the remaining 10 districts of the State also. The various activities in this sector are also being adopted as key economic activity by hundreds of Self Help Groups (SHGs) which are being organized in the State under the Rural Development and Poverty Allevation schemes.

## **C. Present Status**

As a result of implementation of various horticultural schemes during the pervious plans, where main emphasis was laid on increase in the area and production of fruits, vegetables, potato and spices etc., the following achievements were made till the end of Eighth Five Year Plan:-

## Financial Expenditure: VIII Plan

(Rs. in lakh)

S.N	Programme	92-93	93-94	94-95	95-96	96-97
1-	Fruit Development	267.48	264.16	193.78	214.85	218.92
2-	Development of Vegetables and Spices	13.63	16.21	23.61	12.19	22.53
3-	Development of Floriculture & Ornamental gardening	14.11	27.40	3.20	0.66	3.25
4-	Development of Mushroom	14.36	32.86	22.72	35.56	30.56
5-	Food processing		4.20			
6-	Bee keeping	3.31	3.65	3.35	4.65	1.00
7-	Special Component & Tribal Sub Plan	15.10	15.11	12.20	10.83	10.47
8-	Other	91.61	206.07	44.58	115.12	196.97
	Total	419.60	569.66	303.44	393.86	486.70

## Physical Achievements during VIII Plan

S.N	Programme	92-93	93-94	94-95	95-96	96-97
	<b>Fruits</b>					
a)-	Area L.Ha.	1.76	1.79	1.82	1.81	1.86
b)-	Production L/Tons	4.62	4.69	4.95	5.02	5.80
c)-	Productivity T/Ha.	2.62	2.63	2.72	2.73	2.75
	<b>Vegetables</b>					
a)-	Area L.Ha.	0.61	0.65	0.67	0.68	0.69
b)-	Production L/Tons	3.05	3.26	3.45	3.76	3.80
c)-	Productivity T/Ha.	5.00	5.01	5.53	5.52	5.80
	<b>Potatos</b>					
a)-	Area L.Ha.	0.185	0.19	0.195	0.200	0.206
b)-	Production L/Tons	3.82	3.92	4.05	1.141	4.28
c)-	Productivity T/Ha.	20.64	20.63	20.72	20.80	20.81

## Ninth Five Year Plan

### D. Objectives

- To upgrade the quality and infrastructures of the selected departmental nurseries (27 in all) so as to produce quality seeds and planting material etc.
- To disseminate improved technology with area expansion in respect of horticultural crops production.
- To increase the productivity and quality, suitable to export marketing.
- To enhance and strengthen technology for up gradation of technical knowledge of the farmers in respect of production and post harvest management & marketing techniques.

- To encourage and motivate the growers to arrange the necessary inputs as well as processing and marketing of produce.
- To develop small scale industry in private sector based on horticultural produce.
- To strengthen the network of marketing facilities with cool chain systems.
- To promote the perfume production and commercial drug process products in the region.
- To increase the area and production of tea/sericulture/medicinal and aromatic plants and to enhance the rearing of silkworm and honeybees in the private sector to generate employment round the year.

## **E. Strategy**

In order to achieve objectives of the 9<sup>th</sup> five years plan, major thrust is as follows :

- Introduction of improved varieties of different horticultural crops and modern cultivation/cultural practices.
- Concentrated development of individual horticultural crops in best-suited agro climatic areas only where minor millets are grown.
- Technological improvement of existing nurseries and to encourage private nurseries for multiplication of planting materials.
- Diversification of horticulture by increasing area under low volume high value crops (Nuts, Tea, Aromatic/ Medicinal. Mushroom, Beekeeping and Sericulture).
- To create post harvest infrastructure in order to save the losses of horticultural produce.
- Transfer of technology for human resources development.
- Demonstration of vegetables, fruit crops, spices, flowers and post harvest management. Training of departmental employees and farmers..
- Use of high-density plantation method in orchards establishment and establishment of nutritional gardens in rural areas.
- Establishment of pre-cooling units and C.A. stores under post harvest management.

## **F. Facilities Available to Growers:**

### **(a) Departmental Schemes:**

- 50% subsidy on the Planting, materials for orchards establishment and potato cultivation under special component plan to schedule cost growers
- Fifty percent subsidy to the fruit growers on corrugated packing boxes cost.
- Fifty percent subsidy on demonstration of flowers to general growers and 100% subsidy to scheduled caste growers.
- 100% subsidy on top working of Pears on Mehal trees.
- 5-Free demonstration of different off season vegetables and spices on growers field.

### **(b) CENTRALLY SPONSORED SCHEMES:**

- Free distribution of vegetable minikits.
- Cent percent subsidy on expansion of area under fruits, rejuvenation of old orchards, training with stipends to growers, demonstration of fruit plantation for increasing productivity under tropical arid zone fruit development scheme.
- Forty percent subsidy on construction of poly houses and 35 to 50% subsidy on drip irrigation system under use of plastic in agriculture scheme.
- Commercial cultivation of flowers.
- Distribution of minikits (TPS) under development of root and tuber crops schemes.
- Development of mushroom.
- Development of spices.
- Production of vegetable seeds.

### **(c) SCHEMES ASSISTED BY NATIONAL HORTICULTURE BOARD:**

- Development of Commercial Horticulture through production and post harvest management.
- Capital investment subsidy scheme for construction expansion modernization of cold storages for horticulture produce.
- Technology development .
- Establishment of nutritional gardens in rural areas.
- Market information service for horticulture crops
- Horticulture promotion services

The main objectives are to boost up the production of different horticultural crops by expansion of area, increasing productivity through transfer of technology, control of pests/diseases and diversification of horticultural crops.

## G. OUTLAY AND PHYSICAL TARGETS OF NINTH FIVE YEAR PLAN

As per experience of 8th plan ten major on going schemes are proposed to be continued in Ninth Plan alongwith new initiatives started after attaining statehood. For annual plan 2001-2002 the physical and financial targets are given below :

### Financial Targets:

(Rs. in lakh)

SN	Schemes/ Programmes	Ninth Plan 1997-2002 outlay	Expenditure			Budget Provision	
			1997-98	98-99	99-2000	2000-01	2001-02 Provision
1-	Development of fruit	1006.63	200.81	179.12	149.98	62.33	938.96
2-	Vegetable / Spices	359.56	21.59	70.67	26.49	2.53	53.71
3-	Horticulture & ornamental gardening	62.45	3.24	3.10	2.52	0.51	1.84
4-	Mushroom	58.74	11.74	7.70	3.08	2.53	1.11
5-	Beekeeping				-	0.08	-
6-	Special component & Tribal sub plan	40.04	4.99	4.76	3.06	0.57	82.51
7-	Food processing/ Marketing	56.24	22.20	1.93	0.56	0.19	-
8-	Herbal and Aromatic Plant	4.00	-	-	-	-	20.00
9-	Tea	53.76	-	-	-	-	234.00
10-	Others	358.58	39.14	27.73	18.08	45.32	2415.16
	<b>Total</b>	<b>2000.00</b>	<b>303.71</b>	<b>295.01</b>	<b>203.77</b>	<b>114.06</b>	<b>3747.29</b>
11-	Sericulture	2500.00	146.388	113.236	136.200	115.157	139.00
	<b>Grand total (Horti+ Seri)</b>	<b>4500.00</b>	<b>450.098</b>	<b>408.346</b>	<b>339.970</b>	<b>229.217</b>	<b>3886.29</b>

<b>Physical Targets:</b>								
			Achievement				Target	
SN	Programme		Ninth plan 97-2002	97-98	98-99	99- 2000	2000- 2001	2001- 2002
	<b>Fruit</b>							
a)-	Area	L.Ha.	1.90	1.87	1.88	1.89	1.897	1.901
b)	Production	L/Tons	6.70	5.15	5.20	5.30	4.89	5.50
c)-	Productivity	T/Ha.	3.63	2.76	2.77	2.80	2.59	2.89
	<b>Vegetable-</b>							
a)-	Area	L.Ha	0.75	0.70	0.70	0.71	6.20	0.71
b)	Production	L/Tons	4.85	3.98	4.01	4.08	4.21	4.40
c)-	Productivity	T/Ha.	6.50	5.67	5.70	5.72	6.79	6.70
	<b>Potato-</b>							
a)-	Area	L.Ha.	0.23	0.21	0.21	0.21	0.21	0.214
b)	Production	L/Tons	5.06	4.39	4.39	4.39	4.64	4.75
c)-	Productivity	T/Ha.	22.00	20.82	20.83	20.87	22.87	22.19
	<b>Spices</b>							
a)-	Area	Ha.	6150	4928	5247	5520	5835	5837
b)	Production	Tons	25584	21032	21295	22632	23982	24310
c)-	Productivity	Ha.	4.16	4.26	4.05	4.10	4.11	4.16
			Achievement				Target	
SN	Programme		Ninth Plan 97- 2000	97-98	98-99	99- 2000	2000- 2001	2001- 2002
	<b>Floriculture</b>							
a)-	Area	Ha.	280	161	190	220	255	279
b)	Production	Tons	344	195	226	268	311	321
c)-	Productivity	T/Ha.	1.23	1.21	1.19	1.22	1.22	1.15
	Mushroom(Govt.)							
	Production	QT.	1007.50	57.33	220.02	201.50	201.50	211
	Beekeeping(Govt.)							
	Production	QT.	500.00	78.18	27.31	100.00	100.00	110
	Special component plan /Tribal sub plan(Govt.)							
	Area	(Ha.)	1200	135.66	187.83	300.00	300.00	310
	Food Processing /Marketing(Govt.)							
	Production	( Mt.)	2502.50	343.51	314.682	343.51	314.682	500.50

## Physical Target of Sericulture

S. N	Items	Unit	Proposed IX Plan 97-02	Achievement 97-98	Achievement 98-99	Achievement 99-2000	Achievement 2000-01	Proposed Target 2001-02
1	Cocoon production	Mt	1045	142	98	133	151	250
2	Beneficiaries	Nos	24500	4100	4386	4300	4500	5000
3	Oak Tasar Production	Lakh Nos	2	0	0	0	0	10
4	Silk Cooperative societies	Nos	25	3	3	2	2	10
3	Private silk reeling units.	Nos	10	3	0	1	1	0
5	Silkyarn production	Mt	96	10	8.6	9.8	10	15
4	Rearers benefited(CDP)	Nos	500	0	0	250	50	200

### (a) Fruit Development

Various steps are needed to be taken to increase high quality production and productivity; for example, establishment of new orchards in private sector, rejuvenation of old orchards, improved crop protection management, horticultural training for farmers, application of irrigation systems and to reduce the post harvest losses and develop the marketing infrastructure .

### (b) Vegetable Development

Production of high quality seeds, integrated pest and disease management, use of hybrid seeds are needed to increase the productivity level. For adoption of vegetable production by the local farmers, demonstrations in open field and in poly- houses with promotion of technical know-how are to be done.

### (c) Potato development

As per the demand of high quality potato seeds, production of ten thousand quintals of foundation and certified seeds is proposed. Demonstration and distribution of the potato seeds is also proposed.

### (c) Floriculture development:

Nainital, Dehradun, Udham Singh Nagar, Haridwar and Tehri districts are developing floriculture activities. Flowers produced in these districts have a very good market in Delhi. 50% subsidy is to be given to the growers for gladiolus planting material and a tissue culture laboratory is to be established in Nainital. Commercial cultivation of flowers in polyhouse also needs to be encouraged.

### **(e) Mushroom Development:**

The most important aspect of this project is to supply readymade pasteurized quality compost, which is to be supplied by two compost plants established at Jeolikote (Nainital) and Dehradun. The Compost will be supplied to the growers on no profit no loss basis.

15 days mushroom training is being provided to the mushroom growers for which stipend is also given to the trainees.

### **(f) Spices Development:**

Practices for improved cultivation and demonstration of these practices to the local farmers for the species like Turmeric, Ginger, Chilli, Garlic etc are to be done.

### **(g) Bee Keeping:**

To encourage beekeeping among private beekeepers, short and long term training programmes are being organized at Jeolikote (Nainital) and Talwari (Chamoli) and more honey producing Italian bee variety (*Apis mellifera*) is also being supplied to the Beekeepers.

## **H. New Schemes**

As stated earlier an exercise of restructuring, rationalization and strengthening of various activities was done and accordingly following new works has been planned to be taken up.

### **(a) Infrastructure Assistance for upgrading 27 state horticulture farms/gardens.**

In Uttaranchal at present there are 104 horticulture gardens in different districts. Now it has been decided that out of these 104 Horticulture gardens only 27 gardens will be developed as "model orchards" with the technical support of G.B.Pant University of Agriculture & Technology, Pant Nagar. Accordingly specialists from the university visited the gardens and recommended following measures to be taken by the State Government.



**The garden which will be developed by the horticulture department are as follows:**

- Govt. Orchard Farm Rudrapur, Udham Singh Nagar
- Govt. Progeny Orchard, Kashipur (Udham Singh Nagar)
- Govt. Progeny Orchard Satbhuga, Nainital.
- Govt. Nursery, Kaladhungi, Distt Nainital
- Govt. Garden Ramgarh Distt Nainital
- Govt. Garden Dunagiri (Almora).
- Govt. Orchard Chaubattia, Almora.
- Raja Anand Singh Govt. Progeny Orchard, Patoriya, Almora
- Govt. Progeny Orchard Naugaon, Bageshwar.
- Govt. Nursery, Bageshwar.
- Govt. Progeny orchard Bishad, Pithoragarh.
- Govt. Potato Seed Production Farm Balati, Munsyari, Pithoragarh.
- Rajkiya Udyan, Khirsu, Pauri.
- Rajkiya Udyan Chamali, Pauri
- Govt. Progeny orchard Mudiyani, Champawat.
- Govt. Progeny orchard Paaton, Champawat
- Rajkiya Alu Prakshetra, Koti, Joshimath, Chamoli.
- Rajkiya Adarsh Udyan, Narainbagar, Chamoli.
- Rajkiya Adarsh Udyan, Ukimath, Rudraprayag
- Rajkiya Bahudhani Udyan, Jakhadhar, Rudraprayag
- Rajkiya Udyan Dhanaulti, Tehri
- Rajkiya Udyan Evam Paudhalya Prakshetra, Magra, Tehri
- Rajkiya Udyan, Zermola, Uttarkashi
- Rajkiya Udyan Dwari, Uttarkashi
- Rajkiya Udyan, Circuit House, Dehradun.
- Rajkiya Alu Beej Utpadan Prakshetra, Ganga Lahari, Dehradun.
- Rajkiya Audyanik Prakshetra, Sikandarpur, Dist. Haridwar.

**(b) The recommendation made by the specialist who visited the gardens are:**

- In-charge of all the centers should reside at the center along with other supporting staff members.
- All those centers not yet connected with roads should be connected by pucca roads.
- First aid, electricity and telephone facilities should be made available in all the centers.
- One emergency vehicle must be provided to each center.
- Additional state funds may be provided to the centers for above facilities and repair of houses, fences and irrigation facilities.
- The in-charges and staff should be given proper training in the subject matter.

**(c) The budget is required for:**

- Developing new infrastructure and upgrading existing infrastructure of the gardens.
- Uprooting of the dead, dying and diseased fruit trees and replacing them with high quality new trees.
- Development of facilities for multi farious activities in the gardens.

**(d) Food Processing:**

- **Up gradation of Horticulture & food Processing Training Institute at Kotdwar:-**

Earlier in Uttaranchal there were 2 centers at Nainital and Kotdwar to provide one year diploma course in food processing, cookery & bakery. Presently the center at Nainital has been merged with Kotdwar training institute. But it has not obtained recognition from Technical Education Board, as it is not fulfilling the required standards prescribed by the Technical Education Board.

G. B. Pant University of Agriculture and Technology was assigned the job to give suggestions for the necessary requirements to upgrade the Institute.

According to the suggestion made by the Food Processing & Technology Department of the University, it is needed to develop infrastructure i.e. building space, equipments and training materials in the Institute as per the standard norms of the Technical Education Board for which requirement of Rs. 500 lakh has been estimated.

**Financial Target proposed:**

• Buildings( Hostel, Office room,Workshop) (Rs. lakh)	200
• Equipments (Rs. lakh)	200
• Training Material (Rs. lakh)	100
<hr/>	
Total (Rs. lakh)	500
<hr/>	

**(e) Upgradation of Government Community Canning-cum-Training Centers:**

In Uttaranchal there are 48 Community Canning-cum-Training Centers. According to the suggestions of Food Processing & Technology Department of G.B.Pant University of Agriculture & Technology, out of these 48 centers only 28 need to be retained and upgraded so that each center can have distinct *locus standi* the market. For this the centers are proposed to be upgraded according to the norms and specifications required for FPO license. Subsequently the staff of all the 48 centers will be redeployed in these 28 upgraded centers.

- **Development of multi product horticulture belt:**

In Uttaranchal it is always demanded that “multiproduct horticulture belts” should be developed in different districts of the State. In these belts focused attention has to be given to develop not only various horticulture species but also floriculture and medicinal plant species.

Thus it is proposed that one such belt is to be identified, created and then developed in each district initially. These belts will gradually serve as prominent business centers & then export zones.

In these belts potential farmers will be provided with all kinds of support starting from high quality planting materials to storage of their product so that not only productivity of that region will be enhanced but also the farmers will be able to get more economic returns.

**(f) Other Units of the Horticulture Department:**

Private sector nurseries	57
Fruit Preservation centers	48
Food science Training centers	02
Bee keeping centers	01
Mobile Team	186
Compost Pasteurization plant	02
Horticulture Experiment/Research center/Sub center	12
Govt. Cols Storage(Under Construction)	02
Horticulture Training Center	01

At Production units about 250.00 lakh. Fruit plants, 235 quintals Vegetable seeds, 10000 Quintals Potato seed are being produced annually. Besides experiments and trials an various cultural aspects of horticultural crops are being conducted at department centers. Technical guidance and Training are also imparted too the growers. In order to increase home scale preservation of fruits and vegetables about 140000 persons/house wife are Trained and 5.00 lakh Kgs. Fruit and vegetables products are prepared at 48 fruits preservation centers every year. To Promote the Mushroom cultivation in two compost pasteurization Plants are in operation at Jeolikot (Nainital) and Dehradun for making pasteurized compost to make available to growers. Short term Training is also being imparted in the Mushroom Production Technique. In the bee keeping programme, about 250 persons are being Trained annually.

**(g) Strengthening of mobile teams under different categories:**

In reorganization of Horticulture department existing 186 mobile teams are placed in A,B,C categories as developed, developing and undeveloped in respect of horticultural activities. It is proposed that in 'A' category is to be strengthened with the mobile van, and adequate experienced staff with all facilities by which all horticultural activities may function properly , while 'B' category will be strengthened as 'A' category but the mobile team and the experienced staff will be comparatively less from 'A' category whereas 'C' category the facilities will be provided more or less than 'B' category. In Haridwar district at present no mobile team is existing and hence it is proposed that three mobile teams will be shifted from above category.

In strengthening of 'A' 'B' and 'C' categorized mobile teams, the facilities like, office/ residencial building, mobile van, maintenance etc. will be required. The districtwise list of mobile team under different categories is as given below.

SN	Name of Districts	Categories			
		A	B	C	Total
1-	Almora	3	4	16	23
2-	Bageshwar	1	2	2	5
3-	Nainital	11	4	7	22
4-	Udham Singh Nagar	3	3	-	6
5-	Pithoragarh	5	4	11	20
6-	Champawat	3	2	3	8
7-	Tehri	6	7	10	23
8-	Pauri	4	4	18	26
9-	Chamoli	2	6	9	17
10-	Rudraprayag	2	1	-	3
11-	Uttarkashi	3	3	14	20
12-	Dehradun	4	3	6	13
13-	Haridwar	-	-	-	-
	Total	47	43	96	186

### J. Infrastructure for Krishi Vigyan Kendra in existing Govt.Gardens in Uttaranchal:

In reorganization of Horticulture Department it has been decided that 9 Govt. gardens will be developed as Krishi Vigayan Kendra under the organization of I.C.A.R Vivekanand Krishi Anusandan Shala Almora and G.B.Pant University . The list of garden in which K.V.K are proposed is given as under-

Name District	Under		Area in (Ha.)
	I.C.A.R. K.V.K.	University K.V.K	
1-Almora	Govt. garden Dunagiri	-	103.60
2- Almora	Govt. garden Chaubattia	-	106.91
3-Nainital	-	Govt.Garden Ramgarh	126.50
4-Bageswar	-	Govt.Garden Karmi	27.88
5-Pithoragarh	-	Govt.Garden Balati	23.20
6-Chamoli	-	Govt.Garden Parsari	21.50
7-Rudraprayag	-	Govt Garden Ghimtoli	12.00
8-Uttarkashi	-	Govt Garden Raithal	30.00
9-Dehradun	-	Govt. Garden Dhakarani	28.80

## **K. Co-ordination between Horticulture departmental research and G.B.Pant university Pantnagar:**

In restructuring of horticulture department, it is decided that 12 Govt. horticultural experiment and training centers /research sub centers will function under the technical guidance of G.B.Pant. university Pantnagar. The university and departmental experts will work together in formulating the scientific aptitude. Both, the department and the University will prepare the scheme for the financial aids from I.C.A.R, CSIR, UGC etc, so that the experts of the department may increase technical knowledge and development of new technology. The responsibility has been fixed for evaluation of the centers and to manage these farm technically and financially. Beside this, the Govt.garden at Bharsar, (Pauri) has been transferred to the G.B.Pant University for establishment of horticulture college.

- Horticulture Research and Training Center Chaubattia(Almora)
- Govt. Fruit Research center Srinagar(Pauri)
- Govt. Fruit Research Center Gaina(Pithoragarh)
- Govt. Fruit Research Center Jeolikot(Nainital)
- Govt. Vegetable Research Center Matela (Almora)
- Govt. Fruit sub Research Center Kotialsain(Chamoli)
- Govt. Fruit sub Research Center Dunda (Uttarkashi)
- Govt. Fruit Research Center Chakrata(Dehradun)
- Indo-Italian Fruit Research Center Dhakrani (Dehradun)
- Govt. Research Sub Center Kumbhichaur (Pauri)
- Potato Research Center Gaggar (Nainital)
- Govt. Fruit Research sub Center Ancholi(Pithoragarh)

## **L. Tea Development:**

The agroclimatic conditions of Uttaranchal are suitable for production of tea. Kumaon Mandal Vikas Nigam Nainital, established Tea Directorate at Kausani(Bageshwar) which has taken tea production and development programmes in whole Uttaranchal with following objectives.

- To increase the quality and production of tea.
- To increase productive area under tea gardening.

- To increase the economic upliftment of farmers, landless labours, women and weaker sections of society.
- To provide self employment to the poor and unemployed youth through new technology.

**(a) Strategy:**

- To organize self help groups to encourage the farmers.
- To privatize the most of the function of tea productions.

**(b) Proposed Programme:**

- Development of new tea nurseries for production of quality plants.
- Plantation of tea in farmers field.
- To give technical guidance for increase the production of tea.
- To induce new techniques for leaf processing.
- To promote marketing infrastructure for tea export.

**M. Medicinal Plants Development:**

Within the Uttaranchal Himalayas, vast varieties of medicinal plants are found as native species. Medicinal plants can be most valuable cash crop for Uttaranchal and for many marginal cultivators. Considering that there is high potential for the development of medicinal plants to contribute to improve living standards and sustainable land use system in Uttaranchal, the objective is to achieve “conservation, regeneration, development of improved sustainable low cost techniques of mass production, effective marketing after value addition and, creation of large scale trained personnel, in medicinal plants.

**O. Objectives**

- Codification & preservation of traditional indigenous knowledge about medicinal plants to dispassionate scientific scrutiny & separate facts from fiction & then patenting them.
- Carrying out survey of medicinal plants for their distribution, availability and to rationalize its collection.
- Institute & excite conservation of medicinal plants with active participation of local people.

- Encourage cultivation of medicinal plants on large scale both in forest area and adjacent private area and carry out mass production of planting material of selected species after developing low cost nursery techniques.
- Development Technology for processing and value addition.
- Linking the activity of conservation, propagation and cultivation of medicinal plants with employment generation.
- Developing a network of marketing systems for the produce.
- Creating awareness among the public for adopting medicinal plant cultivation as a productive alternative to the traditional agricultural practices prevailing in the State.
- Creation of adequate personnel in this field to make it sustainable in future.

The strategy to achieve the objectives will be to adopt traditional biodiversity conservation practices (insitu conservation) along with generating economic returns for small cultivators( exsitu conservation).

In Uttaranchal since the time immemorial medicinal plants provide subsistence to local population residing in & around forests. Thus there exists strong economic implications & a considerable scope of commercial cultivation of medicinal plants for socio-economic advancement of the people of Uttaranchal present involvement of numerous agencies does aim at linking local economy with the medicinal plant resources. Such involvement will prove vital both to the dwindling natural resources & impoverished forest triage communities. Thus the strategy will be “conservation, development & cultivation of medicinal plants with participatory approach & to generate employment for the local communities”.

In Uttaranchal state agroclimatic condition is suitable for the production of commercial medicinal and aromatic plants. The area of medicinal and aromatic plants is increasing for maximum use in medicine preparation. Most of the important medicinal plants are grown only in Uttaranchal. A directorate is established in Gopewar (Chamoli) for promotion of commercial cultivation of important medicinal and aromatic herbs.



**P. Strategy:**

- To increase the production area of important medicinal Plants
- To Increase the economic status of farmers by growing of commercial herbs.
- To create employment in Uttaranchal with production and processing herbs.
- To utilize the unused land under herbal garden.

However, keeping in view the resources available An Total outlay of Rs. 425 lakh has been proposed for the year 2001-2002. Efforts for out sourcing the major new programmes are on.

## 6.2 SOIL AND WATER CONSERVATION

Soil erosion is the major concern of hill Agriculture. Arable & non-arable areas are badly affected by continuous erosion caused by excessive run off. The fertile top soil of arable hilly terrain, having outer slopes have been washed out, resulting in poor crop yield. Similarly non-arable and drainage lines are badly affected by excessive run off. There is urgent need to tackle the problem on watershed basis along with active participation of beneficiaries. The following action needs to be taken up-

- Institute moisture conservation and harvesting of run off water through mechanical and vegetative measures such as bundling, stone check dam, burst walls, retaining walls, water harvesting ponds, contour vegetative hedge, filter etc.
- To control further deepening of drainage lines Gabion structure and intensive vegetative measure should be adopted on large scale.
- In Bhawar and Trai area where torrents are coming from reserve forest are a causing excessive damage to agricultural land needs joint efforts by agriculture and forest department.
- Area affected by landslides will be treated both by mechanical and vegetative measures.
- Roof rainwater harvesting will be encouraged in water scarcity area.

An outlay of Rs 250.00 lakh has been proposed for the year 2001-2002.

### A. SOME IMPORTANT CHANGES

#### (a) Re-structuring of Agriculture Department

In the newly created State it was felt that the present organizational structure of the agriculture department is quite bulky and not according to the need and available resources of the State. Therefore the Agriculture department has been restructured to reduce the Non Plan burden. In the restructuring all the divisional offices have been abolished. The directorate and district level offices have been strengthened. All the district level offices

and district level offices have been strengthened. All the district level offices have been unified under chief Agriculture officer who will be responsible in all manner.

### **(b) Formulation of Seed Certification Agency**

Seed, according to the agro-climatic zone is the basic need of agriculture development. To make it available a separate Seed Certification Institution for the state have been formulated. To start its work 1 crore Rupees have been allocated in the Plan 2001-2002 as revolving fund and it has started its work.

## **6.2.1 AGRICULTURAL DEPARTMENT**

Being difficult and undulating topography of Uttaranchal, State needs special attention towards Soil and water conservation programme. Funds for this programme are very short while a huge problem area is to be treated, For agriculture department an outlay of Rs 200.00 lakh has been proposed for the year 2001-2002.

## **6.2.2 INTEGRATED WATERSHED MANAGEMENT PROJECT**

Subsequent to the worst-ever floods in northern India in August 1978, the GOI appointed a Working Group to formulate an action plan for flood control in the Indo-Gangetic Basin. The Group presented recommendations in that same year and the GOI decided to take up treatment of catchment areas of various rivers and their tributaries in the Upper Ganga basin. A beginning was made in this direction with the establishment of a Watershed Management Project (WMP) in 1982 and another undertaken in 1983 in the Himalayan region of UP. Financial assistance was provided by the World Bank and the European Economic Community for 8 subwatersheds covering 3000 km<sup>2</sup> in Nayar, Panar and southern Bhagirathi.

### **A. Status at end of Eighth Five-Year Plan (March, 1997)**

As of the end of the Eighth Five-Year Plan, Rs. 140.22 crores had been spent for the various watershed management projects undertaken by the Agricultural Department. Of the 5671 km<sup>2</sup> area designated for treatment, 4257 km<sup>2</sup> were treated. The projects undertaken by the WMP are listed below.

i) EEC-funded Southern Bhagirathi: First Integrated Watershed Management Project (IWMP) (1982-83 to 1988). Implemented over an area of 192 km<sup>2</sup> under 6 MWS in Tehri district. Total expenditure for the entire project period was Rs. 6.46 crores.

ii) World Bank-funded Himalayan Watershed Management Project (1983-84 to 1992). An area of 2867 km<sup>2</sup> under 75 MWS was taken up- in Nayar watershed of Garhwal district and Panar subwatershed of districts Almora and Pithoragarh. Total expenditure for the entire project period was Rs. 80.49 crores.

iii) EEC-funded Southern Bhagirathi: Second IWMP (1988-89 to 1996). Implemented over an area of 542 km<sup>2</sup> under 18 MWS in Tehri district. Total expenditure for the entire project period was Rs. 19.56 crores.

iv) EEC-funded Bhimtal IWMP (1991-92 to 1998). Implemented over an area of 216 km<sup>2</sup> under 8 MWS in Nainital district. Total expenditure incurred was Rs. 10.49 crores.

v) EEC-funded Doon Valley IWMP (1993 to date). Under implementation over an area of 1854 km<sup>2</sup> in the Doon Valley, lying mostly in Dehra Dun district with a small portion in Tehri district under 42 MWS and 254 villages. The estimated cost of this project is 23.70 million ECU (Rs. 100 crores). To date an expenditure of R. 23.22 crores has been incurred.

## **B. Present status: Ninth Five-Year Plan (1997-2002)**

A per the plan strategy for hills, the entire hill region of erstwhile Uttar Pradesh was to be gradually covered by an integrated watershed management project over a span of 20 years.

Hence watershed management projects in Uttaranchal need to be taken up on a priority basis irrespective of whether external funding is available or not. To ensure continuity of integrated watershed management activities, projects should be sanctioned under the State plan for implementation by a multidisciplinary team, as was done for the Doon Valley project; this plan is available with the WMP.

In the Ninth Five-Year Plan the area to be treated covers 2030 km<sup>2</sup> and an expenditure of Rs. 152.19 crores anticipated. An employment generation of 1.05 crore

mandays is projected, of which Rs. 69.18 crores will go to the current project and Rs. 83.01 crores to new projects with a target area of 1416 km<sup>2</sup>.

The important activities proposed in the ongoing WMP are: plantation in 26,255 ha, construction of 33,000 checkdams, 1129 km river bank protection, repair of agricultural terraces over 1270 ha, horticultural development of 4754 ha, field trials and agricultural minikit distribution for 3065 ha and pasture development over 2496 ha.

In the first four years of the Ninth Five-Year Plan (1997-2001) the total expenditure was Rs. 105.93 crores. In this period an area of 2408 km<sup>2</sup> was treated under the Doon Valley project, an area of 1273 km<sup>2</sup> under 410 villages under IWDP (Hills-II) project, 13,996 ha placed under plantation, 49.5 thousand and 1.87 lakhs m<sup>3</sup> dams constructed, 235 km and 71.7 thousand m<sup>3</sup> river-bank protection installed, 3422 ha agricultural terrace repaired, 2472 ha placed under horticultural development, field trials and agricultural minikits distributed for 3396 ha, pasture developed over 1684 ha and 120 NBCs established for improvement of milk cattle.

### **C. Prospection**

The foremost priority is to arrest and restore the degradation of the ecosystem. Rejuvenation of natural resources, restoring the health of degraded forests and putting the arable area to optimal use in keeping with ecological equilibrium are some of the important priorities of the new State. While the aforesaid are paramount, of equal importance is finding ways and means whereby the income from natural resources in rural areas can be enhanced by adopting better agricultural practices, diversification of crops, better management of animal husbandry, better management of rainfed farming systems and giving due emphasis to horticulture. Provision of fuel and fodder is another important priority. Watershed Management attempts to achieve all these goals through people's participation.

### **D. Strategy**

There are 1103 MWS in Uttaranchal, of which 153 have been treated and 349 are under treatment. There are 204 MWS which cannot be treated due either to snow cover or some other reason. Plans for treatment of the remaining 397 MWS are under preparation, of which 105 are proposed for treatment in 2001-2002. Details are given in Table 6.2.

Table 6.2 Progress of MWS

Sl. No.	District	No. of MWS	Treated	under treatment	un treated	untreatable (due to snow etc.)	available for treatment	Proposed MWS for treatment (2001-02)
1	2	3	4	5	6	7	8	9
1	Pauri	127	40	53	34	10	24	5
2	Dehra Dun	98	3	40	55	2	53	20
3	Chamoli	150	31	48	71	28	43	5
4	Uttarkashi	147	16	41	90	33	57	12
5	Tehri	133	15	48	70	1	69	12
6	Rudraprayag	48	13	24	11	4	7	5
7	Almora	105	9	37	59	0	59	11
8	Bageshwar	62	6	13	43	9	34	9
9	Pithoragarh	124	3	19	102	90	12	12
10	Champawat	27	3	10	14	8	6	3
11	Nainital	82	14	16	52	19	33	11
	<b>Total-</b>	<b>1103</b>	<b>153</b>	<b>349</b>	<b>601</b>	<b>204</b>	<b>397</b>	<b>105</b>

Various departments are presently executing different WDPs, with Agriculture, Soil and Water Conservation, Rural Development, Forest Dept. and Watershed Management Directorate as the main ones. All these departments are working independently, with little co-ordination at the State level. To bring uniformity into approach and methodology of treatment as well as co-ordination into project formulation and financing among the various departments, the WMD is to act as a nodal agency at the State level.

The WMD programme will be implemented through people's participation. The community will be involved in planning, execution, monitoring and evaluation, maintenance and sustainability of the project. For treatment of these MWS resources will be mobilised from donor agencies such as external funding organisations (World Bank, EU, etc.), Ministry of Agriculture, GOI, Ministry of Rural Development, GOI, Wasteland Development Board, GOI, etc.

### E. Policy initiatives

To co-ordinate all the works relating to the WDPs, irrespective of funding/assistance, a Task Force has been constituted under the chairmanship of the Secretary of Watershed and Agriculture/Chief Project Director, IWDP. To oversee and assist the Task Force in its basic objective of quality work in WDPs and preparation of a Shelf of Projects for each and every district, fixation of priority at the State level to ensure uniform assistance and fund flow, a 'State Level Co-ordination Committee'

(SLCC) on watershed management under the chairmanship of the Principal Secretary and Commissioner, Forests and Rural Development has also been formed.

A proposal for reorganization of the Watershed Management Directorate as a nodal agency envisions establishment of these major units:

- Project Survey and Planning
- Geographical Information System (GIS)
- Management of Information System (MIS)
- Training
- Monitoring and Evaluation
- Documentation and Record Keeping

The Land Survey Directorate is also working along these same lines and is to be integrated with the WMD.

#### **F. Annual plan 2001-2002**

An outlay of Rs. 50 crores is proposed for 2001-02, of which Rs. 38.34 crores is reimbursable. Project details are given below.

***EEC-aided Doon Valley IWMP (cost 23.70 MECU):*** As mentioned above this ongoing project is being implemented over an area of 1854 km<sup>2</sup> in Doon Valley. From 1997-98 the project area was expanded to southern Bhagirathi division (area 186 km<sup>2</sup>, district Tehri) and Bhimtal division (area 368 km<sup>2</sup>, district Nainital). As of March 2001, an expenditure of Rs. 96.31 crores had been incurred for the project and an outlay of Rs. 3.81 crores proposed for up to Dec. 2001 for maintenance work.

***World Bank-aided IWDP (Hills-II):*** Estimated cost Rs. 186 crores, area 1273 km<sup>2</sup>. As noted above, the project area lies in districts Pauri, Nainital and Udham Singh Nagar. As of March 2001, an expenditure of Rs. 30.57 crores had been incurred and an outlay of Rs. 46.19 crores has been proposed for the year 2001-2002.

The important physical activities proposed for the year 2001-2002 include: plantation of 2160 ha, construction of 3.9 thousand dams and 58.8 thousand m<sup>3</sup> checkdams, 44.8 m<sup>3</sup> river-bank protection, horticultural development of 365 ha, distribution of 55.5 thousand horticultural plants, repair of 1569 ha agricultural terraces, distribution of agricultural field trial and seed minikits for 744 ha, distribution of fodder minikits for 383 ha, pasture development of 321 ha, castration of 1411 scrub bulls, establishment of 55 NBCs, installation of 425 biogas plants, construction of 866 water storage tanks and a 43-km irrigation channel and improvement of 38 km rural road.

## 6.3 ANIMAL HUSBANDRY

The objectives of the animal husbandry development programme are: increase in production of milk, meat, eggs, wool and other animal bioproducts through disease control, assurance of animal health through quantitative and qualitative improvement in production potential and elimination of non-descript population, thereby reducing pressure on land and forest, encouraging people to take up animal husbandry, providing subsidiary occupation to small/marginal farmers, landless agricultural labour and weaker sections of society, and providing employment opportunities for unemployed educated youth.

To achieve these objectives a multipronged approach has been made through various Five-Year Plans to improve genetic potential of livestock, increase feed and fodder resources, provide adequate health cover and modern scientific disease control facilities, and improve management practices as well as market intervention.

The results of application of modern science and technology have been quite encouraging. Significant improvement is apparent in animal husbandry practices, animal health coverage, awareness of animal health care, application of preventive measures such as vaccination against dreaded diseases—all of which have markedly reduced mortality and morbidity, thereby making livestock and poultry farming a remunerative venture.

### A. Livestock population

As per the 1993 census, livestock and poultry population stood at 48.95 lakhs and 8.20 lakhs respectively.

### B. Production level of livestock products

The objective of the livestock development programme is to boost livestock production and achievements thus far are shown in the following.

Item	1995-96	1996-97	1997-98	1998-1999
MILK[000 TON]	779.771	829.689	856.230	916.664
EGG[LAKH]	661.740	702.797	745.056	800.986
WOOL[000 kg]	463.615	476.048	482.433.	490.495



### **C. Financial allocation for animal husbandry programme**

During the Eighth Five-Year Plan Rs. 2742 were expended and for the Ninth Five-Year Plan a total outlay of Rs. 2000 lakhs fixed, of which Rs. 874.57 lakhs was spent during the financial years 1997-98, 1998-99 and 1999-2000.

The expenditure for the financial year 2000-2001 was Rs. 183.93 lakhs. An total outlay of Rs. 355 lakh has been proposed for the year 2001-2002.

Improved breeding facilities are being provided through deep frozen semen/liquid nitrogen semen by artificial insemination centres /sub centres.

Multiplication of high-potential sheep such as Rambouillet and Russian Merino is being done at 13 Govt. sheep-breeding farms. Rams are distributed to sheep flocks through 13 sheep and wool extension centres/stud ram centres, which also handle health coverage, drenching, dipping and wool shearing as well as purchase.

Angora rabbit rearing has been initiated in both Govt. and private sectors and there are presently five rabbit-breeding farms that will continue to function.

The four existing Govt. poultry farms are being strengthened, new high-potential parent birds of both layer and broiler variety under scrutiny, and intensive poultry development projects have been established in 8 districts. Two poultry disease investigation labs have been set up, one at Haldwani (Nainital) and the other at Kotdwar (Pauri Garhwal).

Two hoggeries for quality pig supply are functioning, one at Kashipur (Nainital), the other at Pashulok (Dehra Dun).

Feed and fodder play a vital role in livestock production. A pilot fodder research project was initiated in 1988-89 in co-ordination with the Indian Institute of Fodder Research, Jhansi and results in terms of nutritive pasture grasses suitable for tropical and temperate zones are encouraging. Four fodder research centres have been set up-- Pashulok (Dehra Dun), Bhararisein (Chamoli), Munshiari (Pithoragarph), Bhainswara (Almora)—together with 21 fodder nurseries and 14 Govt. sheep and agriculture and livestock farms now constitute the nucleus for distribution of certified fodder seeds, pasture grass seeds and clones. For faster augmentation of fodder production and development of resources in an integrated manner, a fodder development agency was established in 1993-94 at Almora and a sub centre at Pashulok. A scheme for fodder production will soon be submitted to the Govt.

An angora goat breeding farm in Gwaldam (Chamoli) is presently working on goat development, in particular its acclimatization in the high-altitude zone of Uttaranchal.

#### Constraints

The major constraints in livestock development are poor genetic potential of parental livestock, inadequate feed and fodder, lack of appropriate feeding strategy in drought conditions, lack of developed grazing facilities at the village level, inadequate semen facilities, use of untested bulls for semen production, shortage of trained manpower, inadequate extension services for transfer of technology and lack of proper infrastructure for processing and marketing.

The following programme was proposed to offset these constraints under the Ninth Five-Year Plan and will continue through 2001-02:

### **D. Cattle and buffalo development**

In the selected A.I. areas, all scrub bulls will be castrated strictly for potential improvement of cows and buffaloes.

In areas other than the A.I. programme, cow and buffalo bulls of improved quality will be provided to the Gram Sabhas etc. under the State cow and buffalo development project submitted to GOI. To increase coverage of breeding facilities, production of high-yielding cows and pedigreed bulls will be taken up at existing Govt. farms in Uttaranchal.

In 1987-88 an embryo transfer and training centre was proposed at Nariyal gaon, district, Champawat but due to lack of sufficient technology the programme had to be dropped. It is proposed that the centre be utilized for A.I. activities under the proposed cow and buffalo development project.

To further extend breeding facilities the GOI is considering another cow and buffalo development project that will be 100% Centrally aided.

Sterility is a problem in milch animals and a scheme for its control has been proposed for the current financial year 2001-02.

To enable milk societies to provide multiple facilities to milch animals—artificial insemination, castration, treatment—a scheme is under consideration for the current financial year.

## **E. Sheep, goat, rabbit development**

## **F. Poultry development**

As mentioned earlier, poultry farming has become an important component in the rural economy and provides additional income and job opportunities. To increase and develop the self-employment programme for the weaker sections of society an 'Uttaranchal Poultry Development Extension and Marketing Project' of five-year duration has been proposed for initiation in the current financial year 2001-02. The existing Govt. poultry farm hatcheries will be strengthened for quality chick supply and health care and training facilities ensured through disease investigation labs.

## **G. Feed and fodder development**

Strengthening of existing fodder seed production farms and fodder production units of existing livestock/sheep-breeding farms will be taken up and their infrastructural resources, purchase of agricultural equipment and machinery and development of irrigation facilities given priority.

Special emphasis will be given to fodder tree plantation and perennial forage varieties will be encouraged on hill slopes. Efforts will be made to encourage biomass production on available wasteland and common grazing land.

## **H. Livestock development**

Veterinary health cover is provided by veterinary hospitals and dispensaries, including mobile dispensaries and disease investigation laboratories.

To prevent epidemics, the mass vaccination programme against contagious diseases will be made more timely and additional medicine supplied. To intensify the foot-and-mouth disease control programme will require Central assistance. Given the difficult geographics of the hill region, some cattle owners have not been able to avail of the beneficial resources. To extend services to remote and far-flung areas the following programmes have been proposed

- Establishment of vety. hospital, mobile hospital—45
- Involvement of Mahila Mangal Dal for vety. health services—2100
- Establishment of backyard poultry unit—3150
- Establishment of new Angora breeding farm and rabbit wool production centre 1
- Establishment of Angora rabbit units—900
- Establishment of mule production centres--16
- Strengthening of carcass utilisation centre—1
- Establishment of statistical cell—1
- Strengthening of existing cattle-breeding embryo transfer research training and extension farm of Nariyal Gaon (Pithoragarh)—1
- Strengthening of Central Disease Investigation Laboratory at Pashulok—1
- Organisation of sterility camp

After careful review, of the above programme only (1) Involvement of Mahila Mangal Dal for vety. health service and (2) Establishment of backyard poultry units, initiated in 1998-99, are being wound up from this financial year while the sterility camp will be organised from the financial year 2001-02.

## **I. NEW SCHEME FOR 2001-2002**

### ***(a) Uttaranchal Cattle and Buffalo Breeding Project***

This project, an ambitious breed improvement and employment generation undertaking, was proposed for the year 2001-02 with 100% Central govt. assistance. The major thrust has been on improving cattle and buffalo population of the state through cross-breeding and utilisation of existing institutions, in particular liquid nitrogen and frozen semen plants. It is proposed to introduce facilities for cross-breeding through artificial insemination or natural breeding in those areas where such are not presently available.

### ***(b) Uttaranchal Poultry Development Marketing and Extension Agency***

Keeping in view the possibilities of poultry development in Uttaranchal, this scheme was proposed for gearing up existing intensive and functional poultry development units in the state to act as demonstration units in the area concerned. A central unit will be established at Rishikesh and demonstration units will be tagged 'SJSRY' in the districts. Poultry farmers will be provided feed and chicks at equal rates in every part of the state and marketing of their produce also handled.

An outlay of Rs. 292 lakhs, with assistance from the Central govt., has been proposed for 2001-2002.

### **(c) Additional Facilities to Milch Animals through Milk Societies**

This scheme was previously managed by dairy development. After careful review and in an effort to rationalize schemes, it was transferred to the Animal Husbandry Department where health care and breeding will also be covered for dairy societies.

An outlay of Rs. 20 lakhs has been proposed for 2001-2002.

### **(d) Sterility Camp Programme**

Cross-bred animals are prone to infertility problems. Past experience has shown that many valuable animals in various parts of the state suffer from sterility, a problem that adversely affects animal health and milk production. Under this scheme sterility camps will be organized in different parts of the state and animals suffering from sterility treated.

An outlay of Rs. 5 lakhs has been proposed for 2001-2002.

## **J. Objectives and Thrust Areas**

- Consolidation of animal husbandry development activities
- Strengthening and expansion of animal husbandry development programmes
- Extension and upgradation of fodder development, breed improvement and health cover programme, including milk societies of the state for the purpose of increasing milk production
- Providing self-employment to unemployed rural and urban youth through animal husbandry activities—dairy, poultry, piggery, etc.
- Enhancing the general upliftment of people of the state and increasing economic status

## **K. Methodology**

- Revitalisation of potential departmental units
- Reorganisation of non-functional units in the various fields of the Animal Husbandry Department
- Re-estimation of economically non-viable units of the Department
- Better training of animal, poultry and piggery breeders

- Provide training to all staff of the Animal Husbandry Department, especially in the extension approach
- Research and development in the field of animal breeding, housing and health cover
- Strengthening of departmental functional farms to improve them as genetic nucleus institutions and supply centres of good-quality bulls for natural breeding - Strengthening such animal husbandry activities as milk production enhancement through artificial insemination with frozen semen, natural breeding through good-quality bulls, provision of emergency veterinary services to breeders and members of milk societies, feed and fodder development, vaccination of all types of animals, organisation of sterility camps, etc.
- Co-ordination and supervision of the use of existing facilities of animal husbandry by NGOs, e.g. BAIF, universities and institutions with proven credentials
- Ensurance of interdepartmental linkages, especially with the dairy development department and similar other departments involved with animal husbandry developmental activities

## 6.4 DAIRY DEVELOPMENT

### A. Objectives and Strategies

Dairy farming is an effective subsidiary occupation in particular for rural people. Given the fact that there is little industrial growth in Uttaranchal, dairy farming is a good supplement to agriculture, offering an additional source of income for the farmer in addition to better nutrition.

### B. Status

The dairies of Uttaranchal, including Hardwar and districts Dehra Dun, Nainital, Almora, Srinagar, are well equipped and engaged in fluid milk supply to consumers of nearby towns as well as milk products, i.e., paneer, ghee, butter, milk cake, etc. In the flush season these dairies also export liquid milk surplus to IMF Moradabad and FBD Meerut for conversion into milk powder. The Lalkuan dairy also supplies about 8000 L milk daily to Mother Dairy Delhi under the National Milk Grid (NMG). This dairy is also supplying milk to Srinagar and Chamoli dairy as per their need under the NMG. There are no milk powder plants in the four districts mentioned above. Districts Tehri Garhwal, Pithoragarh and Uttarkashi also have only small dairies engaged in liquid milk supply. A small dairy (installed capacity 5000 litres per day) has been commissioned this year for district Chamoli.

Chilling centres function at Bhawali (Nainital), Khatima, Bajpur (Udham Singh Nagar), Tarikhet, Chokhutia, Marchula (Almora), Bageshwar, Thal (Pithoragarh), Champavat and Kotdwar (Garhwal). This year DRDA has also sanctioned Rs. 22 lakhs for construction of a chilling centre at Hardwar and work will commence soon. The Cattle Feed Factory at Udham Singh Nagar with a capacity of 100 Mt day<sup>-1</sup> is also operative.

The 1740 Village Dairy Co-operatives (VDCs) in Uttaranchal with a total membership of 92,000, procure and process 78,00 L milk daily and sell about 67,000 L processed milk day<sup>-1</sup>.

### C. State Sector Scheme

#### (a) Dairy Development Scheme

##### Civil work plant, machinery and equipment

In the newly constructed Simili dairy in Chamoli district, the civil work of hard park, approach road and boundary wall is proposed for completion. In addition the

boundary wall and internal electrification of Uttarkashi dairy, wire fencing of Tehri dairy campus, civil work of extension of Bajpur chilling centre and Lalkuan dairy plant are to be started.

A total outlay of Rs. 122 lakhs has been proposed for the year 2001-2002.

### **(b) Transport subsidy**

The transport cost for procurement and sale of milk is very high in the hills due to the low handling capacities of dairies and chilling centres. As the population in hill towns is very low, the scope of milk marketing is limited which further adds to transport cost. But mindful of the requirements of local consumers, milk must be provided even if sold in minimal quantities—another factor adding to per-litre transport cost. Further, milk production in this area is low and thus VDC milk collection is not economical, which enhances transport cost in milk procurement. To offset this uneconomical transport cost, the Dairy Milk Unions are being supported until with time, they reach a viable level; the transport subsidy will be commensurately reduced. An outlay of Rs. 50 lakhs has been proposed for 2001-02. Neither Nainital nor Udham Singh Nagar Dairy Milk Union is covered under this scheme.

### **(c) Managerial subsidy**

In the Seventh and Eighth Five-Year Plans it was felt that shortage of extension workers and field staff in the Dairy Development Scheme adversely affects utilisation of the full capacity of dairy plants, thereby causing losses to the Milk Unions. After careful deliberation, it was proposed in the Ninth Five-Year Plan to post field/extension staff on a contract basis through selection from secretaries of milk societies, in particular women secretaries. The Govt. agreed to this proposal and to meet the expenditure, not otherwise affordable by the Milk Unions, a subsidy was provided, with the expectation that in future the unions will be strong enough to bear the expense of extension workers. Since Nainital and Udham Singh Nagar Milk Unions are capable of bearing their own expenses, neither is included in the Annual Plan for 2001-02. Compared to last year's outlay of Rs. 30.40 lakhs an outlay of Rs. 28 lakhs has been proposed as the managerial subsidy for the year 2001-02.



#### **(d) Mahila dairy Vikas Yojana**

Women dairy development projects have been launched in different phases right from 1994-95, and the Women Dairy Development Project is presently operative in 12 districts of Uttaranchal. Incorporation of Hardwar district into the project is in the process of being sanctioned by the GOI. The first phase of the project was launched in 1994-95 with the help of UNICEF and the UP Govt. The second phase was launched in 1995-96 for a duration of 3 years, project cost of Rs. 318.527 lakhs, and covered four districts of Uttaranchal, namely, Pithoragarh, Chamoli, Uttarkashi and Tehri Garhwal. The target was 148 women dairy co-operative societies. The third phase of the project was launched in 1997-98, also for a period of 3 years, in districts Udham Singh Nagar, Nainital and Almora.

The fourth phase of the project came into operation in 1998-99 covering five districts—Rudraprayag, Dehra Dun, Pauri Garhwal, Bageshwar and Champawat. The fifth phase was sanctioned by the Department of Women and Child Development, GOI for a period of 3 years as a repeat for the four districts sanctioned earlier (Pithoragarh, Chamoli, Uttarkashi and Tehri Garhwal). The period of this phase is 1999-2000 to 2001-02.

The sixth phase is a repeat for the districts sanctioned under phase 3, namely, Almora, Nainital and Udham Singh Nagar.

Financing of the ongoing six phases of the 'STEP' project is on the basis of 90% GOI and 10% State. The State govt. share at 10% comes to Rs. 16.43 lakhs for the year 2001-02.

'STEP' projects are now ongoing in all districts of Uttaranchal except Hardwar. Under the Ninth Five-Year Plan these districts were covered in the Self-Help Group scheme (SHG) for the period 1997-98 to 2001-02 and the target set for 450 SHGs. As the year 2001-02 is the last year of the Ninth Five-Year Plan, the SHG scheme will continue through the financial year 2001-02 in the Annual Plan. These groups will enact the concepts of rural saving, lending habits and income generation, in addition to enhancing general awareness, health education, legal literacy, gender development, creche and women delivery centres and all women who are members of the Mahila Dairy Societies will be benefited. To achieve the goals of the SHG outlined above, a provision of Rs. 160.55 lakhs has been made exclusive of the 16.43 lakhs covered under the STEP scheme of the Mahila Dairy Project sponsored by GOI.

## **D. District sector schemes**

### **(a) Strengthening of Milk Co-operative in the Rural Area**

Under this scheme 64 new Village Dairy Co-operatives (VDCs) are to be organised and 68 closed VDCs reopened. Aside from the various inputs related to organisation and operation of the VDCs, the financial pattern of each society is to be revised. Thus the funds for establishing new VDCs are to be held to the rate of Rs. 0.35 lakh per VDC for the first year, 2001-2002, and Rs. 0.10 lakh per VDC allocated for revitalisation of the closed VDCs.

Establishment is proposed additionally of milk development centre/bulk cooling units in distant areas where Milk Society routes are scattered, in order to protect the milk obtained by these societies from spoilage in the event of landslides, road blocks, etc. This would also reduce the transport cost of milk as larger and economically more favourable quantities can be held in the bulk cooling units. This would further ensure procurement of milk of better quality, as per the standard laid down by ISO-9000.

To meet the estimated expenditure of R. 7.20 lakhs and R. 9.70 lakhs for bulk cooling units of capacity 1000 litres and 2000 litres respectively, a total outlay of Rs. 154.64 lakhs has been proposed for the year 2001-02.

### **(b) Co-operative Fodder Development and Cattle Management Scheme**

Under this programme, up to the year 2000-01, financial assistance was given by the State Govt. to conduct fodder development programmes, natural and artificial breeding for cattle breed improvement, primary cattle services, emergency veterinary services, cattle immunization, etc.

Now it has been decided that from this year onwards, these programmes will be conducted by the Animal Husbandry Department on all milk routes. To continue these programmes through the level of milk unions, a 'Cattle Development Fund' will be created under which 5 to 10 paise per litre will be deducted from payment of societies and the equivalent amount given by the Milk Unions. This fund will be utilised for continuation of the aforesaid programmes in the interest of milk-producer members. A proposal to this effect will be passed by the general body of the concerned Milk Union and according to need a grant by the State gov't. also incorporated.

## **E. NEW SCHEME FOR THE YEAR 2001-2002**

### **(a) Saghan Minidairy Project**

Commencing from the current year, this scheme will be conducted by the Uttaranchal Co-operative Dairy Federation through the Milk Unions. Beneficiaries will be selected at the village Panchayat level and granted bank loans to establish minidairies comprising two milch cows of high milk yield. The unit cost will be Rs. 35,580, of which Rs. 26,000 will be the bank loan at Rs. 13,000 per cow, Rs. 8580 Govt. subsidy and Rs. 1000 beneficiary contribution. In all, 1205 minidairy units will be established in Uttaranchal in 2001-02. For successful implementation of the project, a General Manager will be appointed by the Federation and one project officer (vety. doctor) with one vety. assistant posted to each district.

An outlay of Rs. 125.02 lakhs has been proposed for the year 2001-02.

### **(b) Uttaranchal Co-operative Dairy Federation**

The objective of the dairy development programme in Uttaranchal can only be successfully achieved when a better and well-equipped marketing system is provided for milk and milk products. The scope for production of milk and milk products as well as the rewards are considerable. To harness this vast potential, the role of the Uttaranchal Co-operative Dairy Federation is paramount not only for organising the activities pertinent to milk, but in providing the technical know-how, marketing infrastructure and channels for vegetable growing, fruit growing, tea plantations, floriculture and various other income-generating skills. After due consideration of these aspects, the Govt. proposed Rs. 1 lakh as capital share in the establishment of the Uttaranchal Co-operative Dairy Federation for the year 2001-02.

## **F. Objectives**

- Consolidation of dairy development activities.
- Strengthening and expansion of the dairy department programmes.
- Extension and upgrading of animal breeding and health coverage as well as fodder development programmes for the purpose of increasing milk production in rural areas.
- Effecting economic equality and social justice by training women milk producers and functionaries of co-operatives.
- Strengthening the milk-processing infrastructure and increasing the operational efficiency of dairy plant chilling centres.

- Providing consumers with assured quality milk and milk products at reasonable prices.

## **G. Methodology**

- Revitalisation of non-functional village dairy co-operatives.
- Organisation of VDCs in precise accord with the Anand Model by the staff of the District Milk Unions and Women Dairy Projects, together with extension support from staff of the Dairy Development Department.
- Only Women Milk Co-operative Societies shall be organised in the 13 districts of Uttaranchal.
- Major emphasis shall be given to training of women milk producers, chairman and members, managing committees, testers, lay inseminators and first-aid workers of the VDCs.
- Major emphasis shall also be given to training and orientation of all staff involved in the dairy, milk procurement, processing and marketing disciplines.
- Creation of the Uttaranchal Co-operative Dairy Federation to organise marketing of milk, milk products, fruits and vegetables produced within the area of operation of the VDCs to raise returns and income of milk producers and fruit and vegetable growers.
- Furtherance of R & D in the fields of cattle breeding, housing and health coverage, rearing of bulls and calves, efficiency of A.I. and Natural Breeding Centres.
- Marketing of biomass, balanced diet cattle feed and wheat bhusa.
- Creation of Garhwal-Kumaon milk grid for shipment of milk from surplus to deficit areas.
- Enhancement of milk production activities such as artificial insemination with frozen semen, natural breeding, veterinary first aid, emergency veterinary services, feed and fodder development, vaccinations, calf rearing, sterility camps, etc. as a means of increasing milk yield of cows/buffaloes as well as their breeding efficiency.
- Monitoring adherence to the democratic process in VDCs and district Milk Unions to ensure recognition of women during elections of chairman and members and managing committees.

- Organisation of Women Village Dairy Co-operatives and Self-Help Groups with inclusion of programmes pertaining to general awareness, motivation, child and health care problems, sanitation aspects that will specifically benefit the women participants.
- Maximising use of existing facilities of Animal Husbandry, BAIF, NGOs, universities and institutions.
- Instead of increasing inventory of Govt. staff and staff of other projects to carry out the various activities, inventory of staff of VDC District Milk Unions and Uttaranchal Co-operative Dairy Federation shall be encouraged.
- Maximising use of existing modern technology and available technical experts/scientists in the field of embryo transplantation and thereby obtaining high-breed genetic development of milch cattle in a single generation.

## 6.5 FISHERIES

The fishery resources of Uttaranchal are fast-flowing rivers and their tributaries, high- and low-altitude natural lakes, pond and diggies. Of the total stream length of approx. 2686 km, about 725 km are suitable for food and game fishes such as trout, assaila and mahseer. The available area of natural lakes in Uttaranchal is 297 ha and of ponds 628 ha. In addition, an area of 20,075 ha man-made water reservoirs can be utilised as a good source of fish production.

### A. Objectives and Strategies

- Microsurvey of the area and manpower for more effective utilisation of available resources for fishery development programme and identification of local problems in such development.
- Establishment of hatcheries of commercially important cold-water fishes such as trout, mahseer and mirror carp for breeding, rearing and culture purposes.
- Stocking of seed of mahseer and trout in suitable stretches of rivers and streams for rehabilitation of diminished stock and promotion of angling.
- Provision of Govt. assistance through FFDA and extension of available fishery technology for fish culture to fish farmers.
- Development of departmentally managed lakes for increasing productivity up to 90 kg ha<sup>-1</sup> y<sup>-1</sup>.
- Making techniques of fish breeding, seed production and culture available to fish farmers at one place through established Matsya Vikas Kendra in Uttaranchal.
- Creation of infrastructural facilities for fish marketing.
- Assistance to NGOs in Uttaranchal.
- Of the schemes developed for 2001-02, Rs. 2.52 lakhs have been proposed under the Special Component Plan and Rs. 0.24 lakh for the Tribal Subplan.

### B. SCHEMES PROPOSED FOR 2001-2002

#### District sector ongoing scheme

#### (a) Establishment of New Hatchery Units and Modernisation of Existing Farms/Hatcheries

To raise the production of fish seed of cold-water fish species for rehabilitation of diminished stock in rivers and streams as well as lakes, establishment of one mirror carp hatchery in Tehri district and one major carp hatchery in Dehra Dun district and

modernisation of existing farms in districts Chamoli, Uttarkashi, Nainital and Udham Singh Nagar are proposed.

**(b) Development of Game Fisheries in Hill Region**

This scheme is being launched to provide angling facilities to tourists in departmentally managed lakes in Nainital and Chamoli district. About 2000 permits are issued to anglers every year for use of the existing resources. An outlay of Rs. 1 lakh is proposed for the year 2001-2002.

**(c) Fish Farmer's Development Agency**

Under this scheme pond tanks are constructed and developed for fish culture purposes in the private sector. Institutional finance and subsidy are provided to fish farmers through the Fish Farmer's Development Agency of Uttaranchal. Training and supply of quality fish seed are also extended to fish farmers. An outlay of Rs. 12 lakhs is proposed for 2001-02, including 75% Central assistance.

**(d) Development of Lakes in Hill Region**

Three lakes (Bhimtal, Naukuchiatal and Sat-tal) are managed by the Dept. of Fisheries in district Nainital. Under this scheme it is proposed to increase the productivity of these lakes by stocking exotic fish species from UP Matsya Vikas Nigam and Pant Nagar University. An outlay of Rs. 0.50 lakh is proposed for 2001-02.

## 6.6 AGRICULTURAL RESEARCH

### A. Ninth Five-Year Plan (1997-2002)

A sum of Rs. 3893.75 lakhs was received from the State Govt. in the Ninth Five-Year Plan period, of which Rs. 1989 lakhs were earmarked for pay and allowances and share of AICRD, Rs. 495.19 lakhs for construction of buildings and renovation of various labs in different colleges and Rs. 1499.66 lakhs for establishment of a Horticulture College at Bharsar (distt. Pauri). All construction works have been completed except the Veterinary College and the Horticulture College. The latter was inaugurated by the Honorable Chief Minister, Uttaranchal on 12 June 2001. Construction of the two college buildings is now underway.

Provision of Rs. 25 lakhs for an International Hostel and Rs. 17.46 lakhs for a Working Women's Hostel has yet to be made in the year 2001-02.

Details of construction works completed/to be completed are given below.

- Pant Nagar Water Scheme artesian well and construction of overhead tanks and pipelines.
- Construction of P.G. lecture complex at Agriculture College.
- Construction of Drainage Lab. at College of Agric. Centre Engg.
- Renovation work of labs in different colleges.
- Construction of Girls hostel.
- Construction of building for Veterinary College's new Dept.

### B. Uttaranchal Rajya Beej Pramanikaran Sanstha

The URBPS has established its office at M-4, Chanderlok Colony, 101 Rajpur Road, Dehra Dun and is under operation. It will certify kharif 2001 agricultural and vegetable seed crops in Uttaranchal, which will greatly promote production and export of certified seeds from the State of Uttaranchal to other states and neighboring countries.

Rs. 1 crore has been sanctioned in the budget to create a revolving fund to facilitate operations of this agency, which shall operate on a no-profit/no-loss basis and return the loan in due course.



## 6.7 CO-OPERATION

Co-operation institutions play a vital role in the supply of agricultural inputs, including credit, distribution of consumer goods and generation of self-employment opportunities. Their main objectives are to strengthen the co-operative credit and banking institutions, restructure primary agricultural credit societies, expand consumer co-operative activities, strengthen the public distribution system and arrange marketing and storage facilities for cultivators of agricultural, horticultural and herbal produce.

### A. Ninth Five-Year Plan

A total outlay of Rs. 875 lakhs was proposed for the Ninth Five-Year Plan. From this Rs. 231.04 lakh were spent in 1997-98, Rs. 192.37 lakhs in 1998-99, R. 164.65 lakhs in 1999-2000 and Rs. 165.51 lakhs in 2000-01.

The main thrust of the 2001-2002 Annual Plan is to strengthen the credit movement by coverage of maximum agricultural families of the weaker section under the co-operative aegis, strengthen consumer activities, marketing of surplus agricultural produce, cultivation of herbs and medicinal plants with their marketing under price support and market intervention schemes, marketing and processing of oil-seeds to encourage dryland farming, generation of local employment and to reduce exodus of the rural population.

The existing co-operative structure has to be strengthened and streamlined for effective co-ordination at different levels. A total outlay of Rs. 200 lakhs for co-operation and Rs. 25 lakhs for activities relating to herbs and medicinal plants has been proposed and the following programmes envisaged for the year 2001-02.

### B. CREDIT AND BANKING

Under this programme ST, MT and LT loans will be given to farmers through PACS. Agricultural inputs will also be sold by the societies. Rs. 179 lakhs have been offered in the plan outlay and Rs. 8000 lakhs sanctioned for MT and Rs. 2000 lakhs for LT loans. Rs. 70 lakhs will be collected as share capital from 16,000 new members.

### C. MARKETING AND STORAGE

No financial targets are proposed in this scheme but 11,000 qtl certified seed distribution and agricultural produce of farmers worth Rs. 2550 lakhs will be purchased

under the price-support scheme and 26,000 Mt wheat purchased through Co-operative Societies.

#### **D. CONSUMER CO-OPERATIVES**

Consumer Co-operatives were launched to provide consumer goods at reasonable prices in remote areas through fair-price shops of the Co-operative Societies. Rs. 5 lakhs have been sanctioned as outlay for 2001-02, of which half will go to providing goods to members of the Co-operative Societies at reasonable prices and Rs. 2500 lakhs to operational costs of the Societies.

#### **E. HERBAL AND MEDICINAL PLANT DEVELOPMENT PROGRAMME**

Medicinal plants are abundant in the Himalayan region but have long been exploited only by individuals. The Govt. is now emphasising cultivation of herbs in this region to curtail their private exploitation. Rs. 20 lakhs have been proposed as outlay for cultivation and harvesting of such plants, 3000 nali of land earmarked for cultivation and 500 persons are to be selected and trained specifically for this purpose. Bhashaj Sanghs will initiate three new nurseries and herb cultivators will be provided 2-year interest-free loans. For these projects an outlay of Rs. 25 lakhs has been proposed for 2001-02.

#### **F. EDUCATION, TRAINING AND EXTENSION**

Two training centres are presently functioning in Uttaranchal, one operated by the Co-operative Union (PCU) of Uttar Pradesh and the other by NCUI in Dehra Dun. Rs. 6 lakhs have been proposed in Plan outlay, which will ensure training of some 300 Co-operative department personnel and co-operators at these institutes.

#### **G. SUBSIDY FOR TRANSPORT OF SOYBEAN AND FERTILISER**

Fertiliser consumption is very low in remote hill areas. To provide it in these areas at the same price charged in plain areas, a transport subsidy of R. 349 lakhs has been proposed in Plan outlay and 80,000 Mt fertiliser is to be sold in Uttaranchal. To provide financial assistance to soybean growers, a transport subsidy of Rs. 10 lakhs has been proposed.

#### **H. NCDC SPONSORED SCHEME**

The NCDC is presently conducting the ICDP scheme at Hardwar. Proposals for districts Chamoli, Pithoragarh and Uttarkashi are under consideration at different levels. A sum of Rs. 932.50 lakhs has been budgeted for the current year by the State govt. but

as NCDC schemes lie outside the purview of sponsored schemes, no Plan outlay is required.

### **I. SPECIAL COMPONENT PLAN**

The Ninth Five-Year Plan and Annual Plan 2001-02 emphasise the need for economic upliftment of Scheduled Castes and Scheduled Tribes. Assistance is available upon joining Co-operative Societies but many of these persons lack the money for subscription fees. So a target of short- and medium-term loans amounting to Rs. 675 and 180 lakhs respectively has been set with an initial outlay of Rs. 30 lakhs in 2001-2002.

### **J. TRIBAL SUBPLAN**

Distribution of short- and medium-term loans to the tune of Rs. 690 and 120 lakhs respectively has been proposed and it is hoped that membership of the Co-op Societies can be raised by 2400 members and a share capital of Rs. 15 lakhs concomitantly raised during 2001-02. Towards achievement of these targets, an outlay of Rs. 25 lakhs has been proposed.

## 6.8 FORESTRY & WILD LIFE

Uttaranchal with a total geographic area of 53,485 km<sup>2</sup> has a forest cover of 34,661 km<sup>2</sup>, constituting 43.5% of the forest land covered with snow or barren. Given the variation in altitude, aspect, geology, rocks and soil, the fauna and flora are very varied and biodiversity rich. There are six national parks and six wildlife sanctuaries inhabited by numerous types of wild animals and birds of subtropical to alpine zones.

The national forest policy of 1988 gives much emphasis to people's participation and co-operation in management of forest ecosystems. The economy of the hill people and rural livelihood are highly dependent on the forest since the productivity of rainfed agriculture, fodder and availability of water are directly forest related. Thus conservation of the forests is essential for the maintenance of environment and stability of the ecosystem.

### A. Sectoral approach

- Maintenance of environment and ecological balance through conservation and scientific management of the forest.
- Increasing the forest cover and its productivity through a forestation and soil conservation measures.
- Introducing joint forest management with people's participation and decentralization of powers.
- Formation of forest Panchayats from civil soyam and khat forest and placing them under scientific management.
- Conservation of biodiversity by providing the best protection to areas of national parks and sanctuaries.
- Creation of village and urban forest by introducing the idea *Apna gaon apna van* and *Apna shahar apna van*.
- Creation of a green belt in each forest division through planting and seed sowing.
- In plantation areas at least 20% of the plants will be fruit plants such as aonwala, harad, bahera, jamun, kafal, chura, etc.
- Encourage ecotourism and fish breeding in suitable areas.
- Beautification of lakes and roadsides, especially along pilgrimage routes.
- Provide immediate relief/compensation to persons mauled or killed by wild animals and compensation to villagers for loss of agriculture and other property caused by wild elephants.

- Boost production of palatable grasses, fodder and fuel wood through plantation of degraded areas.
- Encourage cultivation of medicinal plants in suitable areas with help of the local people.

## **B. Changes from the previous plan**

The seven ongoing schemes of the previous year that proved of little value have been discontinued and allocation of funds for more important schemes such as joint forest management and protection of forest and wildlife increased. A new scheme for pollution control and public awareness has been introduced, with full advantage to be taken of centrally sponsored schemes and externally aided projects. The centrally sponsored schemes of RVP and FPR have been merged under the macromode supplementation and complementation of state efforts through the Work Plan. The nodal agency is the State Agriculture Department, which is making provisions for the outlay of these 2 schemes under the macromode.

## **C. Achievements since creation of the State**

- Creation of the forest development corporation for scientific management of the forests and efficient utilisation of forest produce.
- The role of the Forest Department is under change from regulatory to participatory mode through attitudinal change and training and placement of more areas under joint forest management and creation of local institutions, viz., Village Forest Committees, Forest Panchayats and Ecodevelopment Committees.
- New Forest Panchayat Niyamawali 2001 has been enunciated with a view to giving more powers, funds, functions and responsibility to the Panchayat for effective forest management.
- The State has initiated a 'Hariyali Diwas/Abhiyan' for massive tree planting by public and school children.
- The State has declared:
  - Monal -- State bird
  - Musk deer -- State animal
  - Brahma kamal -- State flower
  - Burans -- State tree

- Boosting developmental activities of the state through 356 forest land transfers with approval of the GOI since creation of the State.

#### D. Plan outlay

**Eighth Five-Year Plan:** The Plan outlay for the Eighth Five-Year Plan (1992-1997) was Rs. 12,000 lakhs and the expenditure incurred Rs. 9986 lakhs.

**Ninth Five-Year Plan (1997-2002):** The year-wise outlay and expenditure for Hills, Uttaranchal are presented in Table 6.4.

**Table 6.4 Yearwise Outlay and Expenditure (Rs. in lakhs)**

Sector	Outlay				Expenditure	
	(IX-Plan)	1997-98	1998-99	1999-00	2000-01	2001-02 (Proposed)
1- Forestry and wild life	37,000	2,070.26	3,091.91	3,954.60	4743.03	7,396.00
2- Soil conservation	4,000	1,348.12	1,150.58	1,105.07	1157.86	1,206.22
3-Agricultural research & education	100	-	-	-	-	-
<b>Total</b>	<b>41,100</b>	<b>3,418.38</b>	<b>4,242.49</b>	<b>5,059.67</b>	<b>5,900.89</b>	<b>8,602.22</b>

The financial achievement is less than the agreed outlay due to the transfer of a few plan schemes to the non-Plan side. These schemes include: Forest Protection, Forest Statistics and Monitoring, Forest Communication, Revision and Preparation of Working Plan, Intensive Management of Wildlife Sanctuaries, etc.--all of which were for payment of salaries.

In addition to the above agreed outlay, Rs. 185 crores of World Bank-aided Uttaranchal forestry project was revised to Rs. 127 crores only after bifurcation of UP and settled in the midterm review of the project.

## E. Physical achievements

Table 6.5 : Forestry and wild life sector

(in hectares)

Schemes	Up to 8th Plan	1997-98	1998-99	1999-00	2000-01	2001-02 (Proposed)	Total
1	2	3	4	5	6	7	8
1-Industrial and Economic Plantation	257216	5867	5564	4460	4222	4063	24176
2- Fuel wood and Fodder Project	48047	1076	52	1172	1296	1158	4754
3- Pt. Dean Dayal Biotic regeneration	8304	1471	1449	1360	948	950	6178
4- Construction of Buildings (in no.)	1135	5	45	43		40	133

## F. Externally aided projects

World Bank-aided Uttaranchal forest projects commenced 1 February 1998 and will be completed 31 January 2002. The work of imparting training, capacity building and institutional development, and work and research on biodiversity conservation will be completed this year. So far 1217 JFM committees have been established for management and protection of forests over 206,000 ha forest area. An expenditure of Rs. 7000 lakhs will be incurred this year to complete the various activities.

## G. Soil conservation sector

Under this sector the ongoing State Plan scheme of Development of Civil and Soyam Forersts in Kumaon and Garhwal Region shall be continued in the Ninth Plan also. In addition, the Centrally sponsored schemes of Afforestation in the catchment of River Valley Project Ramganga, Integrated Watershed Management in the catchment of the Indo-Gangetic Basin and Integrated Wasteland Development Project are also being continued in the Ninth Five-Year Plan.

**Table 6.6: Soil conservation sector****(in hectares)**

Schemes	Up to 8th Plan	1997-98	1998-99	1999-00	2000-01	2001-02 (Proposed)	Total
1- Development of Civil Soyam Forest	1,27,952	4282	3835	2573	2947	3600	17,237
2- River Valley Project (Ramganga)	61,217	743	250	725	300	655	2,673
3- Flood Prone River (Sindhuganga)	42,583	1799	895	1981	2034	730	7,439
4- Integrated Waste land Development	34,875		3550	3494	2194	3615	12,853
5- Plantation in Catchment of Tehri Dam	32,813	1651	1650	2135	1524	2720	9,680

The proposed outlay of the Ninth Five-Year Plan is Rs. 4000 lakhs. Expenditures incurred in 1997-98, 1998-99, 1999-2000 and 2000-01 were Rs. 1348.12 lakhs, Rs. 1150.58 lakhs, Rs. 1105.07 and Rs. 1157.86 lakhs respectively. The proposed outlay for 2001-02 is Rs. 1206.22 lakhs.

## H. Forest research sector

The outlay was Rs. 100 lakhs in the Ninth Plan but no expenditure was occurred in this section during the Plan period because the scheme was transferred to non-Plan in 1997-98.

## I. Tribal sub plan

The outlay for the Ninth Plan is Rs. 850 lakhs. Expenditures incurred in 1997-98, 1998-99, 1999-2000 and 2000-01 were Rs. 58.43 lakhs, Rs. 180 lakhs, Rs. 114.73 lakhs and Rs. 15 lakhs respectively. The proposed outlay for 2001-02 is Rs. 45 lakhs.

Plantation raised during 1997-98 was 675 ha, 1998-99, 1127 ha, 1999-2000, 1010 ha and 2000-01, 900 ha. The proposed outlay for 2001-02 is Rs. 45 lakhs and the target for plantation 950 ha.



There is no separate scheme for development of the tribals. However, works are carried out under the State plan with specific allocation as quantified by the concerned District Magistrate.

## **J. Special component plan**

The development and prosperity of the Scheduled Castes generally depends on the forest. The outlay for the Ninth Plan was Rs. 4350 lakhs. Expenditures incurred in 1997-98, 1998-99, 1999-2000 and 2000-01 were Rs. 460.73 lakhs, Rs. 351.16 lakhs, Rs. 309.71 lakhs and Rs. 274.01 lakhs respectively. The proposed outlay for 2001-02 is Rs. 352.24 lakhs.

Plantation raised during 1997-98, 1998-99, 1999-2000 and 2000-01 was 3367 ha, 2943 ha, 1900 ha and 1700 ha respectively. The proposed target for plantation during 2001-02 is 1700 ha.

## Chapter 7

# 7 RURAL DEVELOPMENT

Rural development implies both the economic betterment of people and greater social transformation. Increased participation of people in the rural development process, decentralization of planning, better enforcement of land reforms and greater access to credit and inputs go a long way to providing rural people with better prospects for economic development. To boost rural development, the State govt. recently brought out its commitment, comprising generation of gainful and regular employment opportunity through diversification of NGOs/Private Sector and creation of durable assets suited to development and backward linkages.

After creation of Uttaranchal State, phenomenal changes were effected in the rural development department. A new directorate for Gram Vikas and Panchayati Raj was formed including three departments, viz. Rural development, Panchayati Raj and Rural Engineering Services.

Centrally sponsored schemes have been reviewed in the context of Uttaranchal's geographics and infrastructure. Proposals for amendment of the GOI guidelines in the Centrally sponsored schemes have been referred to the apex level for proper implementation and perfection of ongoing schemes.

Steps have been taken to cover all the 18,000 existing villages through SGSY programmes by targeting at least one SHG in each village of Uttaranchal by March 2002. Project 'Operation Self-help Group' (SHG) has been constituted for strengthening Swarn Jayanti Gram Swarojgar Yojana (SGSY). To accelerate the ambitious target in this single poverty elevation programme, all the possibilities in the development departments have been sorted out. Every development department has been shorn up to implement the SGSY. To expedite the latter, a group of anchor NGOs has been selected in each district to guide other NGOs.

Another ambitious project under TTDC--compost biofertiliser--has been launched as a pilot project in Uttaranchal to replace use of chemical fertilisers in boosting mass economic development and to generate employment in the newly created State.

In pursuance of TTDC Saras 'Composting', Part 1, three districts--Nainital, Hardwar and Dehra Dun--were designated and the total number of beneficiaries targeted 1440. TTDC, Part 2 has proposed coverage of the remaining 10 districts of the State and

targeted 6840 beneficiaries, with an outlay of Rs. 999.97 lakhs envisaged. The proposal has been sent to the Rural Development Department, GOI. Further, under the TTDC, 13 Market Development Centres will be developed for selling the products of the TTDC beneficiaries.

The State govt. has also proposed various housing schemes, such as IAY, Credit-cum-Subsidy Housing Scheme, Samagarh Awash Yojana, Innovative Housing Scheme, and Rural Building Centres under the slogan 'Mission Rural Housing' to compensate such natural calamities as landslides and earthquakes in seismic zones. The ambitious 'Mission Rural Housing' comprises modern technology, training, communication modes and infrastructural development in rural reconstruction.

## 7.1 Jawahar Gram Samridhi Yojana

This new programme came into effect from 1 April 99, replacing the earlier Jawahar Rozgar Yojana. The new JGSY is dedicated entirely to the development of rural infrastructure at the village panchayat level. The panchayats will have sole authority for preparation of Annual Action Plans and their implementation and are empowered to execute works with the approval of the Gram Sabha. The primary objective of the scheme is creation of a demand-driven community village infrastructure, including durable assets at the village level and assets to enable the rural poor to increase opportunities for sustained employment. A second objective is generation of supplementary employment for the unemployed poor in rural areas. The special safeguards built into the aforesaid schemes for the weaker sections of the community are:

- 1) 22.5% annual allocations shall be earmarked for SCs/STs individual beneficiary schemes;
- 2) wage employment shall be given under the programme to families below the poverty line.

Funds for the programme are to be shared between Central and State govts. in the ratio of 75:25. An outlay of Rs. 447.95 crores was earmarked for 1999-2000 by GOI against which a State share of Rs. 112 crores was required.

**Annual Plan 1999-200:** In this year Rs. 33.23 crores were spent and 76.11 lakh mandays employment generated.

**Annual Plan 2000-01:** Rs. 33.72 crores were spent and 40.06 lakh mandays employment generated.

**Annual Plan 2001-02:** Under the Jawahar Gram Samridhi Yojana, Rs. 26.10 crores have been proposed as Central govt. outlay and State share of Rs. 8.89 crores. The outlay proposed in the District plan is Rs. 5.14 crores and the targeted employment generation 28 lakh md. The State share will be met by excess releases of State share to districts in previous years.

## 7.2 Indira Awas Yojana

Indira Awas Yojana was introduced as a sub scheme of the Rural Landless employment guarantee programme in 1985-86. From 1989-90 this scheme became part of the Jawahar Rozgar Yojana. From 1995-96 it has been implemented as an independent scheme. Earlier this scheme served only the SCs/STs. The main objective of the scheme is provision of free-of-cost housing to homeless families living below the poverty line in rural areas. Beneficiaries are selected in an open meeting of the Gram Sabhas normally held in the first quarter of the financial year. Houses are constructed by the beneficiaries themselves on their personal plots and the housing grant paid in two installments by account payee cheques. The beneficiary is free to choose the design and to purchase building materials from the open market. The only restriction is that the plinth area of the constructed house must be 20 m<sup>2</sup>. Govt. departments and organizations provide technical assistance. To empower the woman of the family, the Indira Awas is allotted to her.

### **Schematic changes during the Ninth Plan**

An outlay of Rs. 100 crores has been proposed for the Ninth Five-Year Plan and the proposed target is construction of 2.50 lakh houses under this scheme.

**Annual Plan 1997-98:** An outlay of Rs. 20 crores was proposed, of which an expenditure of Rs. 2.32 crores was incurred and 5251 houses constructed.

**Annual Plan 1998-99:** An outlay of Rs. 2.39 crores was earmarked, of which an expenditure of Rs. 2.62 crores was incurred under the State share, and 7211 houses constructed.

**Annual Plan 1999-2000:** It was decided that 80% of the allocation was to be spent on construction of new houses and 20% on upgradation of kachha houses. An expenditure of Rs. 8.43 crores was incurred.

**Annual Plan 2000-01:** An outlay of Rs. 7.21 has been proposed and construction of 15,645 houses targeted.

**Annual Plan 2001-02:** An outlay of Rs. 22.43 crores has been proposed against which the State share is Rs. 7.48 crores and construction of 17,448 houses targeted.

### **7.3 Employment Assurance Scheme**

This scheme was initiated 2 October 1993 to provide employment to agricultural labour normally employed in the crop sowing and harvesting seasons and out of work in the lean period. The scheme intends to provide 100 days of assured employment to members of such families.

An outlay of Rs. 210 crores was proposed for the Ninth Plan and employment generation targeted for 1340.42 lakh mandays.

**Annual Plan 1997-98:** An expenditure of Rs. 7.07 crore was incurred in generating 60.90 lakh md employment.

**Annual Plan 1998-99:** An expenditure of Rs. 13.07 crores was incurred in generating 78.19 lakh md employment.

**Annual Plan 1999-2000:** An expenditure of Rs. 6.95 crores was incurred in generating 42.17 lakh md employment.

**Annual Plan 2000-01:** An expenditure of Rs. 18.91 crore was incurred in generating 21.40 lakh md employment.

**Annual Plan 2001-02:** An outlay of Rs. 15.54 crores has been proposed against which the State share is Rs. 5.18 crore and generation of 16.34 lakh md employment targeted.

### **7.4 Swarn Jayanti Gram Swarozgar Yojana**

A new programme known as 'Swarn Jayanti Gram Swarozgar Yojana' was launched 1 April 1999 and the earlier programmes IRDP, TRYSEM, DWCRA, SITRA, GKY and MWS discontinued. The unspent balances of these erstwhile programmes as of 1.4.99 were pooled under the heading SGSY and are being utilised as per the new guidelines.

The objective of the SGSY is to lift the assisted poor families (Swarozgari) above the poverty line in three years by providing them with income-generating assets through a mix of bank credit and Govt. subsidy. This would mean ensuring a family monthly net income of at least Rs. 2000 subject to availability of funds. Efforts are underway to cover 30% of the poor families in each block during the next five years.

Quality is the hallmark of the SGSY in achieving its goals.

### **Salient feature of Swarn Jayanti Gram Swarozgar Yojana**

- SGSY aims to establish a large number of microenterprises in the rural areas, rooted in the concept that the rural poor in India possess competencies which, given the right support, can make them successful producers of valuable goods/services.
- Assisted families (henceforth to be known as Swarozgaris) may be individuals or groups (SHG). Emphasis will be on the group approach.
- The SGSY's primary objective is to bring every Swarozgari above the poverty line in three years.
- Towards realisation of this objective, the SGSY is conceptualised as a holistic programme of microenterprises covering all aspects of self-employment, viz. organisation of the rural poor into SHGs and augmentation of their capabilities, planning of activity clusters, enhancement of infrastructure, technology, credit and marketing.
- In establishing microentreprises, emphasis will be on the cluster approach. Four-five key activities will be identified for each block based on resources, occupational skills of the people and availability of markets. Key activities (cluster approach) will be selected with approval of the Panchayat Samities.
- A project approach will be adopted for every key activity and project reports prepared. Banks and other financial institutions will be closely associated in the preparation of project reports to preclude delays in sanctioning of loans and to ensure adequacy of financing.
- The existing infrastructure for the cluster of activities will be reviewed and hiatuses identified. Critical gaps in investments will be subject to a ceiling of 20% (25% in the north-eastern part of the State) of the total programme allocation for each district. This amount will be maintained by the DRDAs as

SGSY infrastructure fund and also utilised to generate additional funding from other sources.

- As the ultimate objective of the SGSY is to cover 30% of the poor families in each block in the next five years, efficient planning of key activities is paramount for ensuring coverage of a maximum number of Panchayats without jeopardising the quality of the programme.
- Focus on the group approach means organising the poor into SHGs and building up their capabilities. Aside from including women in each SHG, women-only groups will be formed with at least half the groups in each block consisting exclusively of women. Group activity will be given preference and gradually most of the funding will go to SHGs.
- The Gram Sabha will authenticate the list of families below the poverty line identified in the BPL census, such identification of individual families suitable for each key activity occurring through a participatory process.
- Although SGSY is a credit-cum-subsidy programme, credit will be the critical component with subsidy only a minor contributory element. Accordingly, banks will be closely involved in the planning and preparation of projects, identification of activity clusters, infrastructural planning as well as augmentation of capability and choice of SHG activity, selection of swarozgaris, precredit activities and post-credit monitoring, including loan recovery.
- Multiple credit rather than a time-credit 'injection' will be sought and the credit requirement of each swarozgari will be carefully assessed. Credit intake will be allowed and, in fact, encouraged over the years.
- Emphasis is to be given to skill development through well-designed training courses. Those sanctioned loans will be assessed and given necessary training. The design, duration and curriculum of the training programme will be tailored according to the needs of specific activities. DRDAs will be allowed up to 10% of the SGSY allocation for training and these monies maintained as the 'SGSY Training Fund'.
- Marketing of goods produced by the SGSY swarozgaris will be promoted through provision of market intelligence, development of markets,

consultancy services and institutional arrangements made for marketing of these goods, including exports.

- Subsidy under the SGSY will be uniform at 30% of project cost, subject to a maximum of Rs. 7500. For SCs/STs, however, the subsidy will be 50% and Rs. 10,000 respectively. For SHGs, the subsidy will be 50% of the cost of the scheme, subject to a ceiling of Rs. 1.25 lakhs. There will be no monetary limit on the subsidy granted for irrigation projects. Subsidies will be back-ended.
- Since focus will be particularly on vulnerable groups among the rural poor, accordingly SCs/STs will account for at least 50% of the swarozgaris, women 40% and the disabled 3%.
- SGSY will be implemented by the DRDAs through the Panchayat Samities. Since planning implementation and monitoring will mean integration of banks and other financial institutions, PRIs, NGOs as well as technical institutions in the district, the DRDAs will be suitably revamped and strengthened.
- Funds for the SGSY will be shared by the Central and State Govts. in the ratio of 75:25.

**Progress under SGSY:** In the year 2000-01 Rs. 9.04 crores were utilised and 6950 individual swarozgaris benefited.

**Annual Plan 2001-02:** An outlay of Rs. 11.30 crores has been proposed with 39,785 individuals targeted. Under a special programme of the SGSY, 15% has been allocated for such projects as mushrooms and TTDC in the outlay and State share.

## **Biogas**

**Annual Plan 2001-2002:** An outlay of Rs. 25 lakhs has been proposed.

## **Smokeless Chulha**

**Annual Plan 2001-2002:** An outlay of Rs. 10 lakhs has been proposed as a 100% grant from GOI.



## 7.7 Credit-cum-Subsidy Scheme for Rural Housing

A large number of households (below and above the poverty line) in the rural areas could not be covered under the Indira Awas Yojana either because they do not fall within the range of eligibility or due to limits imposed by the available budget. On the other hand, due to limited repayment capacity, these rural households cannot take advantage of fully loan-based schemes. The needs of this large group are to be met through a part-credit/part-subsidy scheme launched by the GOI.

Target group: Rural households with an annual income of up to Rs. 32,000 only.

Target area: The State is to decide independently whether it wishes to implement this scheme state-wide or within a few districts/blocks.

Criteria of allocation: Central share 75%; State share 25%

Outlay for 2000-2001 (Rs. in lakhs)

Total areas    Total outlay: 136.82    Central share: 102.52    State share: 34.30

**Annual Plan 2001-2002:** An outlay of Rs. 0.69 crores has been proposed, of which the State share is Rs. 0.17 crores and the target 690 houses to be constructed.

## 7.8 Drought-prone Area Programme (DPAP)

This special area development programme has been implemented in Uttaranchal as a 75:25 Centrally sponsored District sector plan since 1974-75. The programme is presently operative in 36 blocks of 7 districts of the State.

### *Programmes for the Ninth Plan*

During the Eighth Five-Year Plan an expenditure of Rs. 1719 lakhs (State share) was incurred for the programme. An outlay of Rs. 2500 lakhs was proposed for the Ninth Plan. Schemes under the programme include soil and water conservation, afforestation and pasture development, and development of water resources. To improve the effectiveness and maintenance aspects, programme implementation will adhere to the guidelines laid down by the GOI in the light of local needs of the beneficiaries.

## **7.9 DRDA Administration Fund**

An outlay of Rs. 7.24 crores has been proposed, of which the State share is Rs. 2.41 crores.

## **7.10 Community Development Programme**

Under this programme a Vikas Bhawan has been constructed for 13 departments. Four Vikash Bhawans will be constructed in the current year together with residential and non-residential buildings of the development blocks.

Rs. 6.42 crores were sanctioned for the Ninth Plan, of which Rs. 2.92 crores and Rs. 4.44 crores were spent in 1997-98 and 1998-99 respectively.

For 1999-2000 an outlay of Rs. 9.88 crores for border areas was fixed, of which Rs. 3.96 crores were spent. An outlay of Rs. 8.05 crores was proposed for 2000-01. For 2001-02 the proposed outlay includes Rs. 0.24 crore for SIRD, Rs. 6.43 crores for construction of Vikas Bhawan of districts and residential and non-residential buildings in development blocks, and Rs. 7.50 crores for development of border block. The total outlay proposed under this programme for the year 2001-2002 is thus Rs. 14.17 crores.

## **7.11 Special Area Development Programme**

### **7.11.1 Vidhayak Nidhi**

To ensure development of the local area, the Legislative Council and Legislative Assembly of the State Govt. created a local area development fund generally known as 'Vidhayak Nidhi' in 1998-99. A total of 24 members represented the Uttaranchal region in the two State houses. Now that the State of Uttaranchal has been formed there are 30 representatives in the State legislature. The objective of the Nidhi is to fund schemes/projects of prime importance at the local level which are generally not covered under other development schemes/projects of the district.

These schemes are identified by members of the legislature in their respective constituencies on the basis of local requirement and felt needs of the people and approved at the district level only. Generally the schemes undertaken in the Vidhayak Nidhi pertain to construction of link roads, minor bridges, school buildings, electrification of villages, installation of hand pumps, etc.

In 1998-99, Rs. 12 crores were released under this scheme and Rs. 25 lakhs given to each assembly/council constituency. In 1999-2000, Rs. 1200 lakhs were earmarked and Rs. 50 lakhs given to each member's constituency. For 2000-01, Rs. 13 crores was proposed under the Vidhayak Nidhi.

For 2001-02 Rs. 75 lakhs have been earmarked for Vidhayak Nidhi in each member's constituency and a total outlay of Rs. 35 crores allocated. However, Rs. 22.50 crores for 2001-02 and an additional amount of Rs. 7.50 crores were released for the year 2000-01.

### **7.11.2 Panchayati Raj**

An outlay of Rs. 4315 lakh was approved in the Ninth Five-Year Plan (1997-2002). The approved outlay for Annual Plans 1997-98, 1998-99 and 1999-2000 was Rs. 362.81 lakhs, Rs. 188.01 lakhs and Rs. 178.27 lakhs respectively. The expenditure in 1997-98, 1998-99 and 1999-2000 was Rs. 362.81 lakhs, Rs. 188.01 lakhs and Rs. 178.27 lakhs respectively. The proposed outlay for 2000-2001 was Rs. 124.58 lakhs.

The State Govt. is committed to developing the administrative and financial powers of the PRIS and strengthening these institutions of local self-government; 1999-2000 was declared the year of decentralisation and people's participation. In the first phase, the State Govt. transferred in 1999-2000 selected activities/functions of the following departments and handed over nearly 10% of the Annual State Plan outlay.

- 1) Primary, Junior High and Non-formal Education
- 2) Irrigation
- 3) Jal Nigam
- 4) Youth Welfare
- 5) Food
- 6) Medical and Health
- 7) Women and Child Development
- 8) Animal Husbandry
- 9) Agriculture
- 10) Rural Development
- 11) Panchayati Raj

In addition, the services of village level workers/officers of 10 departments have been placed under the administrative control of village Panchayats along with their salaries. The State Govt. has further declared cadres of all state Govt. employees whose services have been transferred to the administrative control of village Panchayats dying cadres and the Govt. posted at least one functionary as secretary of the village Panchayat in each and every village Panchayat. The assets within the territory of the village Panchayat of those departments whose selected functions have been transferred to village panchayats will be handed over to the concerned Panchayat for its maintenance.

The State Govt. has also entrusted the following works to Kshetra Panchayats:

- Construction of primary health centre.
- Construction of block level veterinary hospital.
- Construction of seed centre.
- Implementation, monitoring and evaluation of programmes of rural development to be conducted at the Kshetra Panchayat level.
- Supervision and co-ordination of works covering more than one village Panchayat.

In addition, the following major decisions were taken regarding Zila Panchayats.

- Chairperson of the Zila Panchayat appointed chairperson of the DRDA.
- Meetings of the 'Sichai Bandhu' (Irrigation Committee) shall be held under the chairperson of the Zila Panchayat.
- Senior IAS officer shall be posted as the Chief Executive Officer of a Zila Panchayat in a district of 15 or more blocks.
- District level officers of those departments whose functions have been transferred shall be under the control of the Zila Panchayat.
- The village Panchayats shall submit an annual plan to the Kshetra Panchayat which, after incorporating the plans of the village Panchayats, will send its annual plan to the Zila Panchayat. The Zila Panchayat in turn will put up a plan for rural area development to the District Planning Committee after incorporation of the plans of the Kshetra Panchayats.

To ensure effective implementation and monitoring of the above decisions, the State Govt. has taken the following actions:

- Constituted a Panchayati Raj Council to be chaired by the Chief Minister comprising Ministers, Secretaries and Chairpersons of Zila Panchayats.
- Nominated the Agricultural Production Commissioner as the nodal officer for implementation of decisions taken by the above Council at the field level under the designation of 'Additional Chief Secretary of the Government'.

Construction of Panchayat Bhawan at the Gram Panchayat level. The object of this scheme is to provide an office in each village Panchayat in which village-level workers can work together to co-ordinate village activities. Construction of one Panchayat bhawan required a sum of Rs. 1.35 lakhs of which Rs. 75,600 was the Govt's share, Rs. 45,900 the JRY and Rs. 13,500 the village panchayat share. To provide Panchayat bhawans in the other villages during 1999-2000 a sum of Rs. 238.90 lakhs was estimated, of which Rs. 47.63 lakhs was earmarked for SCP. A total of 316 village Panchayats will benefit, of which 63 will be for SCP. An outlay of Rs. 93 lakhs is proposed for the year 2000-2001. The proposed target is construction of 69 Panchayat bhawans and drainage (khandanja and nali) works.

The rural population suffers very much, especially during the rainy season, due to poor conditions in the village Panchayats; muddied water spreads disease. Hence khandejas and nalis are being constructed in village pavements by the Panchayat Raj, for which a sum of Rs. 1lakh is required for construction of 1250 m<sup>2</sup> khandanja, of which Rs. 90,000 is a Govt. grant and R. 10,000 the village Panchayat share.

As of 1 April 1999, of 15,090 revenue villages, 981 Ambedkar villages were covered by khandanja. An outlay of Rs. 94.10 lakhs was proposed for 1999-2000 from which 105 Ambedkar village Panchayats will benefit. For 200-2001 the outlay proposed was Rs. 162 lakhs and the target 180 villages. For 2001-02 the proposed outlay is Rs. 50.81 lakhs under Panchyati Raj, Rs. 183,30 lakhs under Panchyat Ghar and Rs. 122.14 lakhs for rural sanitation.

### **7.11.3 Grant to Zila Parishad**

Since the financial position of the Zila Parishad was very critical, a decision was taken in the Fifth Five-Year Plan to give it a grant. During the Seventh Plan regular grants were provided to the Zila Parishad to improve its assets and for the construction of roads in rural areas. Rs. 304.58 lakhs were released during 1985-90 for small link roads, culverts and upkeep of assets of the Zila Parishad, and in 1989-90 at the rate of Rs. 3 per

capita of rural population, funds provided to serve the emergent needs of small works of local importance of newly elected bodies of the Zila Parishad.

## Chapter 8

# 8 IRRIGATION AND FLOOD CONTROL

## 8.1 Major and Medium irrigation

Irrigation and flood control works are carried out by the Irrigation Department to provide water for crop irrigation and relief from flood damage.

Uttaranchal Govt. has sanctioned 69 irrigation schemes costing Rs. 2555.47 lakhs for construction of new and renovation of old schemes, as well as flood protection schemes costing Rs. 893.73 lakhs during the year 2001-2002.

At the end of the Eighth Five-Year Plan, i.e., March 1997, 224,359 ha potential had been created in Uttaranchal from 6900 km canals and 409 tubewells.

During the Ninth Five-Year Plan the target of 7486 ha additional potential creation was fixed for which Rs 12,489.50 lakhs would be required in 12 districts of Uttaranchal (irrigation in Hardwar district continues to be managed by the UP Govt.).

In the first four years of the Ninth Plan Rs. 4395.91 lakhs have been spent under the District plan for construction/renovation of canals and Rs. 2056.90 lakhs spent on tubewells in Garhwal and Kumaon, and 6091 ha irrigation potential created. In the State sector, Rs. 1097.60 lakhs were spent on flood control schemes in Garhwal and Kumaon. For the year 2001-2002, targets of Rs. 2235 lakhs for construction/renovation of canals and Rs. 1251.58 lakhs for tubewells in district sector and Rs. 1195.44 lakhs for State sector have been proposed. An outlay of Rs. 5780 lakhs is thus proposed for the last year of the Ninth Five-Year Plan.

## 8.2 Minor Irrigation

In the hill region of Uttaranchal numerous water resources are available, which are utilised for irrigation. Geographically, the whole Uttaranchal region may be divided into tarai, bhabbar and hill areas. In the hill region only minor irrigation schemes are economical. Hence gravity channels, hydram sprinkler system, drip irrigation, guls and hauz pipeline schemes, free boring, tubewells, etc. are constructed by the Minor Irrigation Department in the hill areas. In the tarai and bhabbar areas, e.g. district Dehra Dun, Pauri

-Garhwal and Udham Singh Nagar, shallow tube wells, artesian wells, free boring, pump sets, etc. are major means of irrigation, depending on the availability of groundwater.

### **A. Financial progress of Ninth Five-Year Plan, year ending 2000-2001**

The total outlay sanctioned for the Minor Irrigation Department in the Ninth Five-Year Plan (1997-2002) was Rs. 16 crores and the physical target of additional irrigation potential of 4461 ha. Irrigation potential would be achieved through various minor irrigation like; schemes--hydram lift scheme, gravity guls, hauzs, artisan wells, private boring, pump sets, etc. An irrigation potential of 5265.49 ha was achieved in 1997-98 by constructing 401.31 km guls, 504 hauz, 38 hydrams, 5 artesian wells and 556 free borings/pump sets/tube wells.

In 1998-99, 333.248 km guls, 373 hauzs, 41 hydrams, 9 artesian wells and 181 free borings/tube wells were constructed, of including various GOI- sponsored schemes as deposit works. Thus of the total irrigation potential of 3670.888 ha created, 1999.48 ha were realised through deposit works. The financial allocation granted and spent on the sanctioned works in 1998-99 was Rs. 195.29 lakhs.

In 1999-2000, 175.26 km gules, 245 hauz, 35 hydrams, 4 artesian wells and 19 tube wells/free borings/pump sets were constructed and 1996.572 ha irrigation potential was created. During the financial year the Plan expenditure was Rs. 373.33 lakhs.

The financial allocation of Rs. 706.835 lakhs for District plans in the year 2000-2001 had been utilised by the end of the year. The physical targets achieved were 90.981 km guls, 121 hauzs, 48 hydrams, 9 artesian wells and 122 free borings/pump sets/tubewells. Five deep borings were also constructed in district Hardwar. The irrigation potential achieved during this financial year was 1430.04 ha against the target of 954 ha.

### **B. Proposed financial and physical targets for 2001-2002**

As described above, Minor Irrigation schemes are more popular in hill areas because they constitute the economical means for assured irrigation for small fields. In this financial year as per demand, the physical target has been enhanced in the District plan. Previously, maximum funding was available from Centrally-sponsored schemes through the DRDA but this year no funds are available through the DRDA level because the GOI has changed the working systems for different Centrally-Aided schemes. The money available in these schemes is disbursed through the Zila Panchayat and Kshetra



Panchayat. The budget proposed therefore, for the year 2001-2002 has been enhanced to achieve the following targets: 148 km guls, 30 hauzs, 54 hydrams, 10 artesian wells, 500 free borings and 10 deep borings in district Hardwar.

### **C. Central assistance**

The Minor Irrigation Department has prepared a project for installation of hydram machines for the hill region of Uttaranchal comprising Kumaon and Garhwal Mandal with Central assistance from Department of Land Resources, Ministry of Rural Development, GOI. As per the instructions and guidelines of this Department, 60% financial assistance will be provided by the Ministry of Rural Development, GOI and the remaining 40% will be borne by the concerned state. Keeping in view the aforesaid instructions, the Minor Irrigation Department has prepared a project of hydram installation for Rs. 1566 lakh covering a 3-year period, i.e., 2001-2002, 2002-2003 and 2003-2004. The Central share from the Ministry of Rural Development, Dept. of Land Resources Development will be 915 lakh and the State share Rs. 960 lakh. Participation of beneficiaries is also provided in the form of a labour-component cost of Rs. 42.50 lakhs. Some central assistance is expected for the financial year 2001-02, say Rs. 305 lakh, with a matching grant borne by the State of Uttaranchal of Rs. 203 lakh. In this case the State of Uttaranchal will have to provide the aforesaid sum in the State sector plan in the year 2001-2002.

### **D. Acceptability and advantage of Minor Irrigation Scheme in Uttaranchal State**

The main objective of the Minor Irrigation Department is to increase the irrigation potential through constructing guls, storage tanks, hydram lift irrigation schemes, artesian wells, shallow boring and deep boring according to topographical requirement of the places. Since groundwater is available in the terai and bhabar areas, deep tubewells are sunk. In district Udham Singh Nagar and the plain area of districts Dehra Dun and Hardwar both shallow boring and deep tubewells are undertaken. For shallow boring the Dept. provides a subsidy of Rs. 3000 in general for small farmers, Rs. 4000 for marginal farmers and Rs. 5000 for Scheduled Castes and Scheduled tribes farmers. Shallow boring is usually done for individual farmers. Deep boring is done in plain fields to a depth below 70 m and a subsidy of 50% or 1.00 lakh whichever is less provided, against the total cost of the deep tube well. In some areas of district Udham Singh Nagar,

artesian wells are constructed in which the mild steel pipe is lowered to the pressure-bearing water strata. Since the pressure in the water-bearing strata is greater than the atmospheric pressure, water comes up automatically from the ground. This water is regulated through a valve and made available for irrigation through distributary channels. Artesian wells are constructed as community schemes.

Where only surface water is available, irrigation is mainly provided through construction of pucca channels and guls by diverting the water source. Storage tanks are also constructed for irrigation purposes wherever discharge is less at the source. The water is collected from source to tank through pipelines and from the tank through distributary channels to the field.

In the hill area many rivers and perennial water sources are available at low altitudes but fields sown at higher altitudes. A hydram system is constructed at such sources to lift the water to the higher altitudes for irrigation.

Thus in the State of Uttaranchal minor irrigation schemes are the more important means of providing irrigation facilities to farmers, it is further obvious that the Minor Irrigation Department must continue to provide such schemes. The GOI fully realising this has begun rationalisation of minor irrigation schemes on a permanent basis by collecting data on number of newly constructed schemes, the potential created and utilisation of this potential.

During the first four years of the Ninth Five Year plan the Minor Irrigation Department constructed 999.8 km guls, 1253 water storage tanks and 161 hydram schemes in the hill region of Uttaranchal; 27 artesian wells in the terai and plain areas of district Udham Singh Nagar; and in districts Hardwar and Udham Singh Nagar 884 private shallow borings for small and marginal farmers and 17 deep borings for larger farmers whose landholdings exceed 10 ha. As the extra irrigation potential created during this four-year period is 12,363 ha, the achievements of the Minor Irrigation Department have far exceeded the targeted goal of 4461 ha.

## Chapter 9

# 9 ENERGY

## 9.1 Uttarakhand Power Corporation

The Kumaon and Garhwal Mandal of the State of Uttarakhand is mostly a hill area and developmental activities are challenging. To upgrade the standard of living of the inhabitants of this area, strengthening and enhancing the power network and village electrification have taken on priority.

### A. Eighth Five-Year Plan (1992-97)

The level of distribution network in Kumaon and Garhwal at the end of the Eighth Plan is shown in the following.

#### Power distribution network (VIII Plan)

S.N.	Item	Unit	Level
1.	33 KV Lines	Ckt. Km.	2052.186
2.	33/11 KV Substations	No.	100
3.	11 KV Lines	Ckt. Km.	19101.84
4.	L.T. Lines	Ckt. Km.	19101.84
5.	11/0.4 KV Substations	No.	11,174
6.	Electrified Villages	No.	8581
7.	Private Tubewells	No.	9846

### B. Ninth Five-Year Plan (1997-2002)

An outlay of Rs. 34,000 lakhs was approved for the Power Sector in the Ninth Plan. To provide reliable power supply to consumers and electrification of villages, development of a power network is imperative. It was thus proposed to construct with this financial outlay 268 km of 33 KV lines, 18 no. 33/11 substations, 224 km 11 KV lines, 167 km L.T. lines and 333 no. 11/0.4 KV

substations, as well as to electrify 3190 villages, 2810 Anusuchit basties and 500 hamlets and to energise 2150 private tubewells.

### C. Annual Plans 1997-98 to 2000-2001

The approved financial outlay and year-wise expenditure incurred in the first four years of the Ninth Plan are shown in Table 6.8. It can be seen that during the years 1997-98 to 2000-2001 an outlay of Rs. 22,824 lakhs was sanctioned and an expenditure of Rs. 15,001.59 lakhs incurred for various developmental works.

#### Outlay & Expenditure during IX Plan (Rs. in lakhs)

S.N.	Year	Approved outlay	Expenditure incurred
1.	1997-98	6519.00	2632.00
2.	1998-99	6379.00	4423.00
3.	1999-2000	6179.00	4000.00
4.	2000-2001	5000.00	3946.59
	Total ( 4 years)	24,077.00	15,001.59

### D. Physical achievements

During this four-year period 294 km of 33 KV line, 20 no. 33/11 KV substations, 317 km of 11 KV line, 492 km L.T. line and 576 no. 11/0.4 KV substations were constructed and the existing capacity of 23 substations increased.

In the past L.T. lines were erected on wooden poles that rotted or were damaged with the passage of time. Hence 11,064 such poles were replaced with S.T. poles and PCC poles. In addition 703 villages, 198 hamlets and 493 S.C. basties were electrified and 1398 private tubewells were energised.

### E. Achievement in financial year 2000-2001 (financial and physical)

Against the budget provision of Rs. 5000 lakhs, an expenditure of Rs. 3946.59 lakhs was incurred.

Against a target of 14 substations and 221.88 km lines respectively, 12 33/11 KV substations and 162 km 33 KV lines were constructed. Against the

target of 4 substations, the capacity of only 3 33/11 KV substations was increased. Progress towards the targeted construction of 104.40 km 11 KV line, 122.50 L.T. line and 169 no. 11/0.4 KV S/s respectively reached only 90.451 km, 115.122 km and 135 substations. Similarly, of the 5490 damaged wooden poles targeted for replacement by S.T. poles, only 3759 were replaced.

Keeping in view the Prime Minister's programme for electrification of cent-per-cent villages by the end of the Tenth Five-Year Plan, against a target of 152 villages, 83 S.C. basties and 162 hamlets respectively, 158 villages, 105 S.C. basties and 91 hamlets have already been electrified and 106 of the targeted 114 private tubewells energised.

## **F. Progress achieved since creation of the State of Uttaranchal**

After the new State of Uttaranchal came into being, emphasis has been given to strengthening the power network for the benefit of its inhabitants, for which a separate corporation named the Uttaranchal Power Corporation was created 1 April 2001 to implement all programmes independently. As of the end of March 2001, 113 villages, 80 Anusuchit basties and 91 hamlets had been electrified. Further, new 12 /41 MVA, 33/11 KV substations and 128 km associated 33 KV lines were constructed in addition to 80 km 11 KV line, 104 km L.T. line, 114 no. 11/0.4 KV substations and I/c of 151 no. 11/0.4 KV substations.

Residents of Uttaranchal have benefitted from the above developmental activities through better power voltage. Trade and commerce opportunities have been enhanced and education enriched with computer network and other power-related facilities.

## **G. Annual Plan 2001-2002**

No amount has been received from the Rural Electrification Corporation during the last four years despite an approved outlay of Rs. 15,200 lakhs. Thus the targets fixed for village electrification could not be achieved while in other T & D works the targets achieved exceeded the targets fixed for the Ninth Plan. During this plan period, due to the creation of new districts--Rudra Prayag, Udham Singh Nagar, Bageshwar and Champawat--and inclusion of district Hardwar in the new State of Uttaranchal, it has become very necessary to enhance the development activities in the Power Sector. Therefore, an outlay of Rs. 5500

lakhs has been proposed for this year as a loan to the Power Corporation and a provision of Rs. 500 lakhs made as share capital for proper establishment of the Uttaranchal Power Corporation Ltd.

## H. Physical target

To transmit the power to load centres, creation of a separate grid and improvement of voltage condition, strengthening of the primary transmission system is essential. It has therefore been proposed to take up the following transmission works during the year 2001-2002 (Table 6.9):

**Table 6.9 Proposed transmission works 2001-2002**

S.N.	Name of Work	Proposed outlay (Rs. in lakh)
1.	220 KV C.B. Ganj, Haldwani line(balance work)	200
2.	220 KV Haldwani substation(balance work)	150
3.	132 KV Almora-Pithoragarh line	200
4.	132 KV Pithoragarh S/S	200
5.	132 KV Bay for Pithoragarh line at 132 KV S/s, Almora	70
6.	132 KV Double circuit inter connection between 220 KV Haldwani and 132 KV Haldwani	125
7.	132 KV Bay for above line at 132 KV S/s Haldwani	70
8.	132 KV Khatima-Kichha line for survey and Forest clearance	5
9.	132 KV Kotdwar-Kalagarh line for survey and preparing Forest case	10
10.	400 KV substation, Haldwani/Kashipur for land & preliminary works	10
11.	"Lilo" of 400 KV Moradabad-Rishikesh line at 400 KV S/S Haldwani/Kashipur for survey, Forest clearance case and other preliminary works	25
12.	220 KV substation, Majra	10
13.	"Lilo" of 220 KV Khodri-Rishikesh line at Majra S/S	25
14.	Increasing capacity of following substations:- a) 132 KV Majra S/S-Second 40 MVA b) 132 KV Purkul Gaon S/S-Second 20 MVA c) 132 KV Kichha S/S d) 132 KV Srinagar S/S - Third 3x5 MVA Single phase e) 132 KV Bhowali S/S-Second 3x5 MVA Single phase	300
	Total	1400

From Table 6.9 it is clear that the work of 220 KV Haldwani S/s and associated 220 KV C.B. Ganj, Haldwani line has been proposed for this year to improve the quality and reliability of power availability in the area. In addition, work on other 400 KV and 132 KV S/s and associated lines will also be taken in hand. It is further proposed to enhance the present capacity of 5 existing 132 KV substations (Majra, Purkul gaon, Kichha, Srinagar, Bhowali).

Keeping in view the deficiency in the distribution system, construction of 79 km 11 KV line, 97 km L.T. line and 188 11/0.4 KV substations together with replacement of 3050 damaged wooden poles is proposed.

The Prime Minister recently declared that all villages/towns will be electrified during the next 7 years and electricity provided to each and hamlets has been proposed for 2001-02. To uplift the agricultural sector, 130 P.T.W. energisation has been targeted.

### **I. Special Component Plan for 2001-2002**

To improve the living standard of the weaker section of society in Uttaranchal electrification of 138 Anusuchit basties has been targeted, for which financing exists under the heading village electrification.

### **J. Tribal Sub Plan 2001-02**

Expansion of the distribution network and village electrification programme as outlined above will extend electricity to the tribal people of the area.

### **K. Other works proposed for 2001-02 under other financial resources**

An outlay of Rs. 3500 lakh has been proposed by the GOI under A.P.D.P. against which Rs. 400 lakh matching fund has been sanctioned by the Uttaranchal Govt. also. Under this programme in district Udham Singh Nagar two 33/11 KV sub-stations and associated lines, 25 km 11 KV line and 40 no. 11/0.4 KV substations will be installed and the capacity of 6 no. 33/11 KV sub-stations

increased. Works at substations and lines will also be improved. To enhance billable energy and reduce metering loss, 3000 electromechanical meters will be replaced with electronic meters. To provide better service to consumers, Spot Billing Centres will be established at Rudrapur, Khatirna, Kashipur and Haldwani.

To improve the distribution network of Dehra Dun, construction of two 33/11 KV S/s of 5 MVA capacity each has been proposed. Further, installation of 12,100 electronic meters on consumer premises and 6 Spot Billing Centres have been targeted for Dehra Dun under A.P.D.P.

Under the Electricity Distribution Circle, Roorkee two 33/11 KV substations of 5 MVA each and associated lines have been targeted. Increasing the capacity of 7 existing 33/11 KV S/s is also in the mill. Installation of 7333 electronic meters, 5 Spot Billing Centres and 12.96 MVAR capacity shunt capacitors have also been proposed under A.P.D.P.

#### **L. P.M.G.Y. (Pradhan Mantri Gramodaya Yojana)**

With the target of completion of the Village Electrification Programme by the end of 2006-07 being emphasised by the Prime Minister, and an outlay of Rs. 280 lakhs under the P.M.G.Y. scheme, it is proposed to electrify 41 villages, 24 hamlets and 24 S.C. basties.

The programme will cover the districts of Nainital, Almora, Bageshwar, Pithoragarh, Champawat, Tehri, Uttarkashi, Pauri, Hardwar, Dehra Dun, Chamoli and Rudra Prayag. Under this scheme those villages/hamlets have been selected which are nearest to the existing power grid to enable electrification of the maximum number of villages/hamlets with minimum financial burden. District-wise financial and physical targets are enumerated in Table 6.10.



**Table 6.10 Financial & Physical targets under PMGY.**

S.N.	Name of District	Physical Targets			Proposed financial Provision (Rs.in lakhs)
		Villages No.	Hamlets	S.C. Basties No.	
1.	Nainital	01	11	-	20.80
2.	Almora	05	-	04	20.80
3.	Bageshwar	04	-	02	20.00
4.	Pithoragarh	02	-	01	20.00
5.	Champawat	02	-	01	20.00
6.	Dehra Dun	-	03	-	5.00
7.	Pauri Garhwal	05	-	03	55.00
8.	Tehri Garhwal	16	-	10	45.00
9.	Chamoli	-	09	-	30.00
10.	Rudra Prayag	-	01	-	5.00
11.	Haridwar	04	-	02	29.20
12.	Uttarkashi	02	-	01	10.00
	<b>Total</b>	<b>41</b>	<b>24</b>	<b>24</b>	<b>280.00</b>

**M. Continuation of the electrification programme**

After creation of the State of Uttaranchal the need arose to transmit power to load centres and to establish a separate grid for Uttaranchal. Further, to improve the voltage and to implement the rural electrification programme and provide electrical connection to all households in the State, it is imperative that the power network be strengthened, for which continuation of construction activities proposed during the year 2001-02 is of paramount importance.

**9.2 Non-conventional Sources of Energy**

Various non-conventional energy systems had been installed in Uttaranchal by the erstwhile State of Uttar Pradesh. These energy systems, installed in the hill areas, are non-commercial and non-conventional, viz. solar, bio, hydro and wind energy based devices. The UP govt. agency for non-conventional energy was the Non-conventional Energy Development Agency, UP (NEDA). A similar state nodal agency for non-conventional energy has been created in Uttaranchal, namely the Uttaranchal Renewable Energy Development Agency (UREDA). The main objectives of UREDA for the year 2001-2002 are as follows:

- \* Large-scale generation of energy through non-conventional energy sources in the private and public sectors.
- \* Demonstration of non-conventional energy systems to create public awareness.
- \* Harnessing solar energy, bioenergy, hydroenergy and wind energy through standardisation of energy systems and devices and their decentralised extension.
- \* Taking up a broad-based energy conservation programme.
- \* Promoting the sale of non-conventional energy systems.
- \* Since the State of Uttaranchal has numerous remote unelectrified villages, a major objective of NEDA is energisation of these villages by non-conventional energy devices.
- \* NEDA has been successful in inculcating the concept of renewable energy in the masses. Since the topography of the hill area differs markedly from other regions, another prime objective of the agency is to convince the rural people to change and adopt new and efficient technologies through demonstration, large-scale publicity and grass-roots training.

### **A. Financial progress**

To implement and popularise non-conventional systems in the hill area, Rs. 1452 lakhs were spent on NEDA programmes up to 1991-92 and Rs. 2320 lakhs spent during the Eighth Five-Year Plan period. An outlay of Rs. 3100 lakhs has been proposed for the Ninth Five-Year Plan (1997-2002). Details of outlay and expenditure for the various Plan periods are given in Table 6.11.

**Table 6.11 Outlay/ Expenditure under various plan periods.**

Sl. No.		Expenditure/Anticipated expenditure /Proposed outlay (Rs.in lakh)
1.	Cumulative expenditure upto the end of 1991-92	1452.05
2.	Eighth plan (1992-97)	2320.00
3.	Ninth Plan (1997-2002)	3100.00
4.	Annual Plan (1997-98) Outlay/ expenditure	600 / 804
5.	Annual Plan (1998-99) Outlay/ expenditure	894 / 790
6.	Annual Plan 1999-2000 Outlay/ expenditure	3060 / 600
7.	Annual Plan 2000-2001 Outlay/ expenditure	588 / 656.41
8.	Annual Plan 2001-2002 Proposed outlay	200.00

**B. Annual Plan 2001-2002**

A total plan including MNES of Rs. 2676.45 lakhs has been proposed for this Annual Plan and the following programmes will be taken up during 2001-02.

**C. Small hydropower projects**

Twenty-nine small hydro schemes have been constructed in the region with the assistance of MNES, DST and the State govt. These schemes have a total capacity of 2.08 megawatts. Seven schemes are currently under implementation, of which three are under the UNDP/GEF programme. Capacity augmentation from the schemes under implementation will be 1.03 MW. All the schemes under implementation, except one, which will be grid connected, are for rural electrification. To date, 163 villages have been electrified by these schemes and another 44 will be electrified by the projects presently under implementation.

**Table 6.12 Microhydel Schemes in Uttaranchal.**

<b>Microhydel Schemes under implementation(kw)</b>	
1. Lathi(Bageshwar)	100
2. Seragad(Chamoli)	15
3. Lyonigad(Chamoli)	15
4. Bursol(Chamoli)	200
<b>Schemes under implementation under UNDP-GEF Project(kw)</b>	
1. Bhikurigad(Pithoragarh)	500
2. Gangotri-2(Uttarkashi)	100
3. Kanwashram(Pauri)	

The programme is being implemented in 35 blocks of the State under the direction of MNES. No new block will be added in the current financial year; instead energy consumption pattern studies will be conducted in five blocks. In the selected blocks various efficient energy devices and new and renewable energy systems shall be promoted for domestic and production purposes. Seven solar projects will be initiated in the current financial year, of which one project, namely Choting in Pindar valley, has already been sanctioned by MNES. Survey and investigative work on 40 rivers/rivulets will also be initiated with the assistance of MNES.

Under the MNES programme establishment of 100 improved water-mills will be taken up in the current year, and detailed proposals are currently under preparation for submission to MNES. The water-mills to be taken up will be of two types--one to carry out the mechanical work and the other to produce electricity, which will be used for many purposes, e.g. household lighting, driving motors for grinding grain, etc. Rs. 1638.30 thousand is proposed for surveying, construction of the proposed projects and installation of the 100 improved water-mills.

## **D. Solar photovoltaic programme**

### **(a) Solar Home-lighting System**

From the inception of the programme to the end of the Eighth Five-Year Plan, 14,132 home-lighting systems were distributed. In the current financial year the target is distribution of 5000 systems. The programme has proved very popular in the rural areas and a large demand exists for this system. Use of photovoltaic lighting systems has greatly improved the quality of life at night in the difficult hill terrain. For after-sales service, every district has a service centre that can maintain the lights and ensure their longevity. MNES provides a subsidy of Rs. 5500 for each system and the State share is Rs. 875 per set of domestic lights.

### **(b) Solar Lantern**

From the inception of the programme to the end of the Eighth Five-Year Plan 14,731 solar PV lanterns have been distributed. The target in the current financial year is distribution of 6500 lanterns. These lanterns are very popular in

households; children study by them at night, and household and field chores are accomplished with their illumination. The quality of life of the beneficiaries has thus been markedly improved. MNES provides a subsidy of Rs. 1300 for each system and the State share is Rs. 400 per set of solar lanterns.

### **(c) Village Electrification by Solar Energy**

Under this programme as of the end of the Eighth Five-Year Plan 316 villages in all districts of Uttaranchal had been electrified. In the current year lighting will be provided to 100 more villages using solar energy. NEDA initiated this programme in 1994-95 in Uttaranchal, realising the difficulties of energising remote villages by grid. Every year a list of villages is collected from the Power Corporation which certifies that these villages cannot be energised by electricity. The Uttaranchal Govt. has initiated the same exercise of identifying remote villages/hamlets for which electrification by grid is not economically feasible. Rs. 556.97 lakh have been proposed as the State share and about Rs. 505.10 lakh will be provided by MNES as Central assistance.

## **E. Solar thermal programme**

### **(a) Solar Cooker**

As of the end of the Eighth Five-Year Plan 5063 solar cookers had been distributed in the hill districts. A target of 400 solar cookers has been set for the current financial year. The parabolic solar cooker, subsidised by MNES, will also be taken up in the current year. Rs. 40 thousand have been allocated in the Plan for this programme.

### **(b) Solar Water Heater**

This programme has been very successful in Uttaranchal. The total capacity of installed systems at the end of the Eighth Five-Year Plan was 303,800 lpd. The target for this year is 22,000 lpd installed capacity. The major beneficiaries of solar water heating systems are households, nursing homes, school hostels and hospitals. Rs. 4,000 is proposed as State subsidy for a collector area of 2 m<sup>2</sup>.

## **F. Night soil based biogas plants**

These plants are being installed in slum areas and semi-urban areas for biogas generation and its utilisation. Already 46 projects have been installed in Uttaranchal and another 14 will be installed in various districts of the State in the current financial year. MNES provides a subsidy for this programme. Rs. 2030 thousand is expected as Central assistance for which a detailed proposal has already been sent to the Ministry, and Rs. 25.23 lakh is proposed as the State share for the current year.

## **G. Wind monitoring systems**

In the previous year 11 masts were installed in Uttaranchal for monitoring wind velocities. In the current financial year 20 wind masts are targeted for various potential sites to measure wind velocities. Rs. 6.50 lakh are proposed as the State share for surveying and wind-mapping programme.

## **H. Gasifier programme**

The programme was taken up in the last financial year in districts of Uttaranchal. Two gasifier projects were sanctioned by MNES in district Udham Singh Nagar, of which one 300 kW gasifier has been installed and the other, 600 kW gasifier will be installed shortly. Gasifiers of 1.5 MW installed capacity are planned for the current financial year.

## **I. Power generation from municipal solid waste**

To date no project has been taken up in Uttaranchal for power generation from MSW. One is currently being planned for the city of Dehra Dun which generates about 450 tons of solid waste daily.

## **J. Biomas taluka study**

A few staggered studies of biomass were carried out over several years with MNES assistance. This year 10 studies will be conducted in different districts of the State of Uttaranchal. Rs. 150 thousand have been proposed as the State share for this programme with an equal amount to be provided by MNES as Central assistance.

## K. Integrated rural energy programme

lanterns, solar home lights, pressure cookers and NSBP are being distributed under this subsidised programme. An outlay of Rs. 50.00 lakhs has been proposed for IREP in the Annual Plan 2001-2002. As the IREP is Central govt. sponsored, no separate assistance will be provided by MNES.

All the non-conventional energy programmes proposed for the financial year 2000-2001 are summarised in Table 6.13 and those for the year 2001-2002 in Table 6.14.

**Table 6.13: Financial year 2000-2001 (Rs. in lakh)**

S.N.	Scheme	Plan outlay	Expenditure	Physical Targets	Achievement
1.	<b>Bio Energy</b>				
	1. NSBP	35.28	35.28	09	08
	2. Biomass Taluka study	0.00	0.00	-	-
2.	<b>Solar Thermal Programme</b>				
	1. Solar Water Heater	8.10	8.10	20250 lpd	20250 lpd
	2. Solar Cooker	0.00	0.00	-	156
3.	<b>S.P.V. Programme</b>				
	1. Solar Domestic Light	28.64	28.64	5000	5000
	2. Solar Lantern	18.30	16.47	4000	4000
	3. Solar Power Pack	367.63	367.63	3370	3370
	4. System Transportation	3.63	3.63	-	-
	5. Solar Power Fencing	9.13	9.13	1	1
	6. Solar P.V. Exhibition	0.00	0.00	-	-
4.	<b>MICROHYDEL PROGRAMME</b>				
	1. Surveying of Schemes	0.00	0.00	-	-
	2. Const. of schemes	73.24	73.24	3	3
	3. Improved Watermill	0.00	0.00	-	-
5.	<b>Misc. Programme</b>				
	1. Exhibition of Systems	3.60	3.60	-	-
	2. Business Meet	0.85	0.85	-	-
6.	<b>WIND ENERGY PROGRAMME</b>				
	1. Wind Mapping Programme	0.00	0.00	-	-
7.	<b>IREP Programme</b>	<b>168.59</b>	<b>165.27</b>	<b>35 Blocks</b>	<b>35 Blocks</b>
8.	<b>ADMINISTRATIVE &amp; OTHER EXP.</b>	-	-	-	-
	<b>Total</b>	<b>716.99</b>	<b>711.84</b>	-	-

**Table 6.14: Financial year 2001-2002 (Rs. in lakh)**

S.N.	Scheme	Plan outlay	Expenditure	Physical Targets	Achievement
1.	<b>Bio Energy</b>	26.73	0.00	-	-
	1. NSBP	25.23	0.00	14	-
	2. Biomass Taluka study	0.50	0.00	10	-
2.	<b>Solar Thermal Programme</b>	9.20	-	-	-
	1. Solar Water Heater	8.10	0.00	22000 lpd	-
	2. Solar Cooker	0.40	0.00	400	-
3.	<b>S.P.V. Programme</b>				
	1. Solar Domestic Light	43.75	0.00	5000	-
	2. Solar Lantern	26.00	0.00	6500	-
	3. Solar Power Pack	356.97	0.00	9200	-
	4. System Transportation	1.60	0.00	-	-
	5. Solar Power Fencing	36.00	0.00	03	-
	6. Solar P.V. Exhibition	2.00	0.00	-	-
4.	<b>MICROHYDEL PROGRAMME</b>	500.00	-	-	-
	1. Surveying of Schemes	25.00	0.00	-	-
	2. Const. of schemes	475.00	0.00	12	-
	3. Improved Watermill	30.00	0.00	100	-
5.	<b>Wind Energy Programme</b>	6.50	-	-	-
	1. Wind Mapping	6.50	0.00	20	-
6.	<b>IREP Programme</b>	50.00	0.00	35 Blocks	-



## 9.3 Uttaranchal Jal Vidyut Nigam Limited

Energy is the key input to all developmental activities. The growth in energy demand during the last decade has been phenomenal and keeping pace with it has not been possible due to financial constraints. The hydropower potential in the State of Uttaranchal is unlimited with 16,000 MW in the large hydropower sector and about 1000 MW in the small hydro (up to 25 MW installed capacity only) power sector. Though efforts to harness this electrical potential have been ongoing, due to several factors only a fraction of both the large and small hydro sectors has been exploited. Despite financial constraints a number of hydroelectric schemes are either under construction or have been proposed for construction in both the public and private sectors.

As of now the total installed capacity of the large hydropower sector is 977.85 MW and that of the small hydropower sector 25.15 MW.

### ***A. EIGHTH FIVE-YEAR PLAN (1992-1997)***

#### ***Major Hydro Projects***

Against an approved outlay of Rs. 17,984 lakhs for major hydropower projects, actual expenditure was Rs. 4564 lakhs; contrarily, against an approved outlay of Rs. 1252 lakhs for renovation of existing power stations, actual expenditure was Rs. 4534.23 lakhs.

The Khara hydropower project with an installed capacity of 72 MW was taken up for construction and completed during the Eighth Five-Year Plan and has been functioning since that time. The proposed approved outlay included construction of the Maneri Bhali Stage--II (304 MW), Lakhwar Vyasi multipurpose hydroelectric project (420 MW), Tehri Stage I (1000 MW), Srinagar (330 MW), Vishnu Prayag (400 MW) and others--all of which had been abandoned in previous years for want of funds. Further, because of continuing financial constraints with the Govt., Srinagar and Vishnu Prayag Projects were transferred to the private sector and as already mentioned, work on the other HEPs likewise could not be taken up for want of funds.

## **B. Small Hydropower Projects (up to 25 MW)**

- During the Eighth Five-Year Plan, 7 SHP with a total capacity of 14.75 MW were installed.
- Generation from these SHPs was utilised for supplying power to the then existing SHP grid to benefit the nearby area.
- Implementation of 5 SHPs with a total installed capacity of 4.05 MW was taken up in the hills, of which Soneprayag (0.5 MW) was designated a demonstration project under UNDP/GEF/HEP.
- In line with Govt. policy, 12 SHPs with a total installed capacity of 124.6 MW were allotted for implementation in the private sector but their PPA has yet to be finalised and executed.
- Jal Vidyut Nigam was given the responsibility by the State govt. to electrify unenergised villages in the close vicinity of the SHPs situated in the hill area. Accordingly, 22 villages in the vicinity of Nigam's SHPs in Dharchula Tehsil in district Pithoragarh were electrified during this Plan period.

Against a total approved outlay of Rs. 6000 lakhs for the Eighth Five-Year Plan, an expenditure of only Rs. 4175.41 lakhs was incurred for the works executed during the Plan period.

## **C. NINTH FIVE-YEAR PLAN (1997-2002)**

### **(a) Major Hydro Projects (more than 25 MW capacity)**

An outlay of Rs. 81,496 lakhs was agreed upon for the Ninth Five-Year Plan, of which Rs. 70,644 lakhs were proposed for major power generation and Rs. 10,852 lakhs for renovation of power stations. Construction of major HEPs such as Maneri Bhali Stage-II (304 MW), Lakhwar Vyasi (420 MW), Tehri Stage-I (1000 MW) and Rajghat (23 MW) was also proposed under this Plan.

### **(b) Small Hydro Projects (up to 25 MW capacity)**

An outlay of Rs. 5330 lakhs was agreed upon for execution of the following projects during the Ninth Plan period: complete construction of ongoing projects, implement new SHPs and augment electrification of villages nearby Nigam SHPs. The Plan also encourages private sector participation and allotment of more schemes to it. The Plan further envisages renovation and modernisation

of 21 microhydel schemes of 10.18 MW capacity lying unfunctional in the erstwhile UPSEB and now transferred to Nigam.

### **E. Financial Years 1997-98 to 1999-2000**

(a) **Major Hydro:** During these three years no capacity addition in major hydro stations was effected. However, new projects were constructed against the approved outlay, incurring an expenditure of Rs. 26,185 lakhs in 1997-98, Rs. 51,050 lakhs in 1998-99 and Rs. 44,900 lakhs in 1999-2000.

(b) **Small Hydro:** During these three years 1.3 MW capacity was added and Urgam SHP with 3 MW and Sobla SHP with 6 MW put on commercial load. In addition, projects with a total installed capacity of 12.2 MW reached various stages of construction. Against the approved outlay of Rs. 1250 lakhs, an expenditure of Rs. 755.24 lakhs was incurred in 1997-98; against an approved outlay of Rs. 1700 lakhs, an expenditure of Rs. 1128.11 lakhs incurred in 1998-99; and against an approved outlay of Rs. 980 lakhs, an expenditure of Rs. 980 lakhs incurred in 1999-2000.

### **F. Financial Year 2000-2001**

In this financial year a budget provision of Rs. 24,619 lakhs was made for Jal Vidyut Nigam, of which Rs. 23,319 lakhs was designated for the energy sector and Rs. 1300 lakhs from Uttaranchal Vikas Bibhag for small hydro projects. The objective of this Annual Plan is to expedite ongoing projects and also boost renovation and modernisation (R & M) of old/existing hydroelectric projects to augment power generation, thereby benefiting the State with more peaking power.

(a) **Major Hydro:** Rs. 1219 lakhs budgeted for R & M of Dhalipur, Khatima, Ramganga, Rihand, Obra, Pathri, Chilla, Maneri Bhali-I, Dhakrani, Matatila, Chibro, Khodri HEPs and other SHPs lying closed and transferred from the erstwhile UPSEB.

(b) **Small Hydro:** Rs. 900 lakhs proposed for the ongoing SHPs, viz. Belka (3000 kW), Babail (3000 kW) and Sheetla (3250 kW) in the plains. Rs. 1300 lakhs proposed for the ongoing schemes of Sobla-II, Relagad, Pilangad,

Soneprayag and Badrinath--II SHPs. These monies shall also cover new schemes to be taken up during this year and R & M of 23 closed MHS of the erstwhile UPSEB now transferred to this Nigam.

## **G. Financial Year 2001-2002**

After creation of Uttaranchal State a new hydro corporation named 'Uttaranchal Jal Vidyut Nigam' was set up 1 April 2001. The UP Govt. has yet to transfer the assets of major and small hydro projects; only the management and administration of these projects has been transferred to the Govt. of Uttaranchal. Nor has the UP Govt. made any provision in its budget for the year 2001-2002 for major and small hydro projects falling in the territory of Uttaranchal.

However, keeping in view the resources available An Total outlay of Rs. 500 Lakhs has been proposed for the year 2001-2002. Efforts for out sourcing the major new programmes are on.

### **(a) Major Hydro:**

- Rs. 1000 lakhs have been earmarked for R & M of Chhibro (240 MW), Khodri (120 MW), Chilla (144 MW). Any balance funding will be made available by the GOI under APDP.
- Rs. 1000 lakhs have been proposed for R & M of Dhakrani (33.75 MW), Dhalipur (51 MW), Kulahal (30 MW), Maneri Bhali-I (90 MW), Ram Ganga (198 MW), Khatima (41.40 MW), Mohmmadpur (9.30 MW) and Pathri (20.4 MW) along with replacement of defective breakers and protection of various outgoing H.T. lines.
- GOI under the APDP programme had sanctioned Rs. 3925 lakhs for Chhibro (Rs. 1045 lakhs), Khodri (Rs. 525 lakhs) and Chilla (2355 lakhs) in the last fiscal year. These monies will be utilised during 2001-2002. Additionally, the GOI had anctioned R. 961 lakhs for Dhalipur (Rs. 547 lakhs) and Dhakrani (Rs. 414 lakhs).

### **(b) Small Hydro:**

- Jumagad, Soneprayag, Pilangad, Relagad, Sobla Stage-II and Badrinath-II with total installed capacity of 9.2 MW to be completed and commissioned (Rs. 740 lakhs).

- Ashiganga Stages I, II and III, Kaldigad, Bhilanganga Stage-II to be initiated (Rs. 400 lakhs).
- Construction of 132 kV Dharchula substations and 132 kV Pithoragarh-Dharchula line (Rs. 120 lakhs).
- Investigation and planning of new small hydroelectric projects (Rs. 40 lakhs).
- R & M work on mini/micropower stations transferred from UPSEB (Rs. 200 lakhs).

## Chapter 10

# 10 INDUSTRY AND MINERALS

## 10.1 Village and Small Industries

In designing the Ninth Plan it was felt that the development interventions in past Plans did not have the impact they ought to have had on the mountain economy. Economic activity never achieved self-sustaining growth. The primary strategy of the Ninth Plan therefore is to focus on interventions that will enable the selected area or sector to experience self-sustaining growth. This may require intervention for a period not necessarily co-terminal with the Plan period.

The potential of handicrafts and the souvenir industry commensurate with the growing volume of tourist traffic in the hills has not been realised. Proper development of the local handicraft sector with particular emphasis on skill enhancement and marketing is imperative.

Environmental considerations and the low carrying capacities of montane areas dictate a 'Small Industry' approach and hence the bulk of the industrial units in these areas should fall in the small-scale sector. This implies a thrust on food-processing, medicinal plants and agro-based industries.

Nonetheless, in the long run Uttaranchal has to attract large industries. The foothills and terai region of Uttaranchal are ideally suited for pollution-free industries and, indeed, this is the current industrial pattern. Some large units may be needed in the upper hill reaches also. Such project possibilities must be identified and suitable sites selected. Given the climatic variations in the geographically distinctive areas of Uttaranchal, the State is best suited for industries based on forest raw material, fruits, crops, herbal plantation and demand-based units.

Furthermore, Uttaranchal is rich in mineral deposits such as magnesite, limestone, etc. In addition, its pollution-free environment is well suited for promoting IT, High Tech, knowledge-based and Biotech industries.

Nevertheless, Uttaranchal region is industrially backward, mainly because the population is not dense and is scattered in various small villages and valleys in the hills. Thus close and immediate marketing of industrial products at one place

is not possible, nor is communication easy. Obviously a fresh approach to industrial development is required and the Govt. of Uttaranchal recently drafted a new Industrial Policy.

#### **A. INDUSTRIAL POLICY-2001 OF UTTARANCHAL**

- Develop critical infrastructural facilities such as roads, power, water supply, telecommunications, etc. with private sector participation wherever possible or feasible.
- Identify thrust areas, in particular industries based on locally available raw materials and skills and draw up integrated developmental plans for each such area for traditional industries, handicrafts, handlooms, wool-based industries, khadi-based industries, biotech-, agro- and food-based industries, floriculture, herbal and medicinal plants, forest-based industries, information technology, entertainment industries, etc.
- Encourage private sector participation including attraction of foreign and non-resident Indian investments. Co-operation should be sought from the Apex Industries associations.
- Develop human resources, focusing on development of entrepreneurship among women, SC and ST, and unemployed youth.
- Marketing facilities: Besides exhibitions in local fairs, a state pavilion will be established at the Trade Fair held in Pragati maidan, New Delhi.
- Ensure protection of the environment: Violation of environmental safeguards will be penalised.
- Develop linkages with all concerned departments, viz Agriculture, Horticulture, Tourist, Forest, Environment, etc. The Govt. will establish a Udyog Mitra at the State level chaired by the Chief Minister and the Minister for Industry. The Chief Secretary and all concerned Secretaries will be members as also the industrial association. At the district level the Udyog Mitra will function under the chairmanship of the District Magistrate.
- Provide adequate institutional arrangements to implement the above strategies through a friendly, responsive and pro-active administration at all levels, and set up an Industrial Development Board (IDB) headed by the Chief Secretary of State to review and take policy initiatives and provide a single window forum for clearance of all major projects.

The Industrial Policy of Uttaranchal proposes the following incentives for industrialisation.

## **B. Power**

- Provision of good-quality, uninterrupted power to industrial units is a crucial factor for ensuring rapid industrial growth. Towards this end, the following decisions have been taken:
- To boost the agro- and food-based industries, a special tariff (lower than the normal industrial tariff) shall be introduced.
- As soon as the State govt. receives its allocation from the Central Pool of Power, the peak hour restrictions on small and medium industries (defined on the basis of power load up to 100 HP) shall be waived.
- Upon operationalisation of the Tehri Dam project, waiver of peak hour restriction for all industries, including heavy industries shall be proposed.
  - Feeders with 75% or more industrial load will be provided uninterrupted power supply with immediate effect.
- The time frame and methodology for load sanction of 11 KVA and 33 KV/66 KV shall be given within 30 to 60 days or connection provided within 60 to 90 days respectively.

## **C. Fiscal**

- Central Sales Tax (CST) for small and medium industries will be reduced on a selective basis from 4% to 1%.
- Interest rate on loans taken by the SSI units from financial institutions shall be subsidised at 2% subject to a ceiling of Rs. 2 lakhs per unit.
- Under the Transport Subsidy Scheme of GOI, 75% of the transport cost on the basis of rates decided by the State govt. or actual freight paid, whichever is less, will be subsidised up to 5 years from date of production.
- Assistance by way of equity/financial participation in infrastructural projects shall be considered and provided on a case-by-case basis.



#### **D. Other measures**

- Without compromising on quality, purchase preference will be given in Govt. purchases for items manufactured by SSI units of the State.
- State Govt. will act as a facilitator for identification, transfer, acquisition/sale and other matters relating to land for the development of industries in the State. For this purpose a special cell will be created in the Directorate of Industry and the offices of the District Industries Centres.
- Encouragement will be given to quality assurance and industrial units obtaining quality certification from approved institutions/research laboratories will be provided assistance to the tune of 50% of the expenditure up to a maximum of Rs. 1 lakh.
- Units obtaining ISO-9000 certification will be given a subsidy up to Rs. 75,000 per unit during the Tenth Five-Year Plan.
- Industrial units that register their patents will be provided assistance to the tune of 75% of the expenses incurred up to a maximum of Rs. 2 lakhs.
- State Govt. will initiate a process to rationalise and simplify the labour laws and procedures.
- Concrete steps shall be taken to rationalise the prevailing system of inspections to preclude harassment.
- State Govt. will try to persuade the GOI into giving a Special Package for Industrial Development along the lines of some Special Category States, which may *inter alia* include income tax holidays, rebate in Central excise and capital investment subsidy.

It is hoped that the above strategies will ensure rapid, balanced and sustainable industrial development of the State of Uttaranchal.

The major physical achievements in the Industries Department in the first four years of the Ninth Plan are given in Table 6.15.

**Table 6.15 Physical achievements during IX Plan**

	1997-98	1998-99	1999-2000	200-2001	
	Achievement	Achievement	Achievement	Target	Achievement
1.(I)- Establishment of Small scale industries units	2214	2203	2141	2555	2354
(II)- Establishment of artesian units	1886	2490	2538	2900	2721
2-(I)- Employment generation in small scale industries	4412	4267	4612	-	4624
3. Special Employment Programme (Loan disbursed) PMRY	3257	3297	3449	5040	4095
4. Preliminary training through entrepreneur dev. training programme	2881	2629	2739	2808	931

Scheme-wise Financial and Physical Targets and Achievements in 2000-2001 and Financial Outlay and Physical Targets for 2001-1001 Ongoing Schemes.

## **E. District sector**

### **(a) Entrepreneur Development Training Programme**

In this scheme preliminary training and guidance will be given to entrepreneurs in general and specified subjects for initiation of their ventures. Training shall be given through District Industries Centres and other agencies in the field such as an Entrepreneur Development Training Institute at designated places in districts to a group of about 25 trainees per training programme. An outlay of Rs. 11.54 lakhs was proposed for 2000-2001 and 2808 trainees expected. Rs. 7.7 lakhs were sanctioned of which Rs. 7.52 lakhs were spent and 931 persons trained. An outlay of Rs. 7.70 lakhs is proposed for 2001-2002 for training about 2808 persons but the budget has not yet been sanctioned. This scheme is essential for future entrepreneurs.

## **(b) Fairs and Exhibitions**

Under this scheme exhibition of industrial products and products of departmental centres shall be organised at various traditional fairs and Saradotsavs, etc. at various places in the districts. In 2000-01 an outlay of Rs. 5.20 lakhs was sanctioned and Rs. 3.72 lakhs spent on 23 fairs and exhibitions. In 2001-02 Rs. 13 lakhs is proposed and about 26 exhibitions expected. Rs. 2.17 lakhs have already been sanctioned and spent. The scheme is essential for marketing of industrial products on the one hand and publicity on the other.

## **F. Indo-China Trade Centre at Gunji, Pithoragarh**

The Uttaranchal Govt. has decided to retain the ancient trade of goods between the Hill Tribal community and Tibetan exporters through the high hill valley route from Gunji, Pithoragarh. Import-export transactions worth about Rs. 40 lakhs were effected in 2000-01, out of which sum staff will be established in the District Sector this year. Rs. 1.66 lakhs have been proposed for 2001-02 with a target of import-export of Rs. 40 lakhs. Rs. 0.27 lakh has already been sanctioned and Rs. 0.23 lakh spent. The scheme is essential for promotion of border trade between Uttaranchal and Tibet.

## **G. Infrastructural Facilities in Industrial Estates**

Industrial estates are established at various places, some having been set up three decades back. It is essential to maintain such infrastructures as electricity, water, and to repair losses, viz. roads, bridges, etc. In 2000-01 against an outlay of Rs. 30.71 lakhs, Rs. 25 lakhs were sanctioned and spent in 3 of the targeted 6 estates. Rs. 2 lakhs have been proposed for maintenance of the other 3 estates during 2001-02. The scheme is essential for maintaining industrial estates and providing facilities to entrepreneurs.

## **H. Renovation of DICs**

District Industries Centres were established in 1979 in each district. It is necessary to modernise them and provide various electronic machinery and some furniture. An outlay of Rs. 4.4 lakhs was approved for 2000-01 and an expenditure of Rs. 4 lakhs incurred. An outlay of Rs. 8 lakhs has been proposed for renovation of DICs in 6 districts in 2001-02.

## **I. Establishment of DIC in Udham Singh Nagar**

A District Industries Centre has been established in the new district Udham Singh Nagar with establishment expenditure on staff borne. An outlay of Rs. 11.25 lakhs was proposed in 2000-01 and Rs. 6.32 lakhs spent. An outlay of Rs. 7.38 lakhs was proposed for 2001-02 and Rs. 6.90 lakhs sanctioned, of which Rs. 2.46 have already been spent. After the new structure is in place, the scheme is expected to be transferred to the non-Plan sector after 2001-02.

## **J. Census of Small Industries**

The Central Govt. established a nuclear cell in the earlier Directorate of UP for the purpose of collecting data pertaining to industries. A staff of 3 of the Uttaranchal State govt. is employed for which the establishment expenditure is borne through this scheme. From 2001-02 the expenditure is to be borne by the State govt. for which an outlay of Rs. 2.76 lakhs has been proposed for 2001-02, of which Rs. 0.46 lakh has been sanctioned and Rs. 0.26 lakh expended. The scheme is essential for collection of various data relating to industries.

## **K. Establishment of Directorate of Industries**

Earlier the Development Commissioner, Village and Small Industries Office was established in Uttaranchal in the Plan Sector. This office has now been merged with the Directorate of Industries office. Establishment expenditure of staff was proposed and an outlay of Rs. 20 lakhs projected for 2000-01, of which Rs. 10.92 lakhs were spent. For 2001-02 an outlay of Rs. 28.02 lakhs has been proposed, with Rs. 6.67 lakhs sanctioned, of which Rs. 2.07 lakhs have been spent thus far. After implementation of the new structure, the scheme is expected to be transferred to the non-Plan sector beyond 2001-02.

### **(a) Industrial Seminar, Campaign and Publicity**

Under this scheme seminars and campaigns are organised from time to time to promote industrial environment. Rs. 5 lakhs were proposed and sanctioned in 2000-01, and an expenditure of Rs. 4.78 lakhs incurred in organising the 12 seminars targeted. Rs. 10 lakhs have been proposed for 13 seminars in 2001-02. The scheme is essential for promotion of industrial activities.

## **L. Establishment of New Industrial Estate**

This new scheme was proposed in the Uttaranchal budget of 2001-02 under which wasteland and vacant properties such as the jail at Sitarganj shall be occupied for industrial estates. An outlay of Rs. 5 lakhs has been proposed in the 2001-02 budget.

## **M. Centrally-sponsored scheme**

### **(a) Pradhanmantri Rojgar Yojana Scheme (PMRY)**

This 100% Centrally-sponsored scheme was set up by the Central govt. in the national pattern. It is to be included in the Uttaranchal budget from 2001-02. An outlay of Rs. 45 lakhs has been proposed as per the funding pattern of the Central Govt. which the GOI will reimburse. A target of 5000 beneficiaries has been intimated by the Central Govt. for the year 2001-02. Last year (2000-01) against a target of 5040, 7988 applications were sent to various banks, 4981 loan applications sanctioned and loans disbursed to 4095 unemployed youth.

### **(b) Nicnet in DICs**

The Central Govt. has proposed 100% funding of this scheme for establishment of nicnet in major industrial districts. It has been placed in the Uttaranchal budget for 2001-02 with an outlay of Rs. 16.67 lakhs, of which no amount has been spent to date. The scheme may prove useful for quick collection of information beneficial to entrepreneurs.

### **(c) Transport Subsidy**

This is a 100% ongoing Centrally-sponsored scheme. Under this scheme 75% of the total transport charges from approved govt. rates for carrying raw materials from the nearest railway station to the workshop and finished goods back to the railway station is reimbursed to industrial units. The amount expended last year was nil. An outlay of Rs. 1 lakh is proposed for 2001-02 and expenditures upon submission of claims will be reimbursed by the Central Govt.

#### **(d) Integrated Infrastructure Development**

This is a Central Govt. sponsored scheme under which the cost of each centre up to Rs. 5 crores shall be shared between the Central Govt. and the small industries development bank of India (SIDBI) in the ratio of 2:3. The share of the Central Govt. shall be in the form of a grant and the SIDBI share in the form of a loan guaranteed by the State govt. Cost in excess of Rs. 5 crores will be met by the State. Rs. 1 lakh has been proposed in the 2001-02 budget as token money for various misc. expenditure.

### **N. Handloom**

#### **District sector**

##### **(a) Workshop Attached to Residence**

This scheme shall be funded 50:50 by the Central and State Governments. Under this scheme a weaver shall be provided up to Rs. 4000 for a workshop attached to his residence. A minimum of Rs. 1000 is to be borne by the weaver. An outlay of Rs. 5.22 lakhs was approved in 2000-01, Rs. 5 lakhs sanctioned by the Govt. and Rs. 3.08 lakhs spent. Against a target of 130, 77 weavers were benefited. The outlay proposed for 2001-02 is Rs. 8 lakhs and about 200 weavers are expected to benefit.

##### **(b) Modernisation of Looms**

Under this scheme a subsidy for modernisation of weaver looms was provided in 2000-01 with an outlay of Rs. 0.83 lakh for the target of 17 weavers, of which Rs. 0.27 lakh was spent and 9 weavers benefited. An outlay of Rs. 2 lakhs has been proposed for 2001-02 and 30 weavers are expected to benefit.

#### **State sector**

##### **(c) Handloom Award**

Under this scheme three awards of Rs. 5000, 3000, and 2000 are to be given to weavers of every district and five awards given in Udham Singh Nagar to weavers and printers. A State award is also to be given to weavers. An outlay of Rs. 2

lakhs was proposed in 2000-01 for the benefit of 38 weavers, of which Rs. 1.48 lakhs were spent and 26 weavers benefited. The proposed outlay in 2001-02 is Rs. 2 lakhs and 38 weavers are expected to benefit. The scheme is essential for encouraging quality products.

## **NEW HANDLOOM SCHEMES**

### **(d) Modernisation and Computerisation of Kashipur Design Centre**

This scheme proposes to provide new machinery, equipment, furniture, etc. for modernisation of Kashipur Design Centre whose functioning will otherwise be impaired. Rs. 15 lakhs have been sanctioned by the Govt. for 2001-02.

### **(e) Strengthening of Carding and Weaving**

Carding plants have been established in various places in the State, in particular in border districts, to assist wool growers; many of the older ones are in need of repairs. An outlay of Rs. 2 lakhs is proposed for 2001-02 to repair about 4 plants.

## **O. Assistance through National Co-operative Development Corporation**

Under this scheme loans are provided by the Co-operative Development Corporation of 75% to weavers of co-operative societies, with 5% borne by the society and the balance 20% a grant sanctioned by the State govt. Cases were sanctioned by the Corporation last year and a liability of Rs. 13.50 lakhs is due. Including new cases, about Rs. 21 lakhs are expected to benefit 10 societies in 2001-02 for which an outlay has been proposed.

## **P. Establishment of Institute of Handloom Technology**

Establishment of a new Institute of Handloom Technology in Uttaranchal has been proposed and Rs. 50 lakhs sanctioned by the Govt. in the first year, viz. 2001-02. The institute will benefit such various fields as diploma and training in handloom technology.

## **Q. Deendayal Hathkargha Protsahan Yojana**

This scheme has been introduced by the Central Govt. with a funding pattern of 50:50. Facilities will be provided to the Handloom Organisation to benefit weavers through working capital, basic inputs, infrastructure support, design input, publicity and

marketing incentives, transport subsidy, etc. Rs. 30 lakhs have been sanctioned for 2001-02 and 300 weavers are expected to benefit.

## **R. Marketing Development Assistance**

This too is a 50% Centrally-sponsored scheme under which facilities are provided to Apex Societies/Corporation with about 8% average sales turnover. A balance payment is due to both Janjati Nigams of Uttaranchal and hence a provision of Rs. 20 lakhs sanctioned as well as an outlay of Rs. 20 lakhs proposed for 2001-02. The scheme will continue up to full payment of balance liabilities.

## **S. Khadi and village industries**

### **District sector**

#### **(a) Exhibition Award and Entrepreneur Development Programme**

Exhibitions are organised at block and tehsil levels. Khadi gramodyog is publicised through pamphlets, awareness campaigns and exhibitions. An outlay of Rs. 3.78 lakhs was approved in 2000-01 and a budget of Rs. 1.43 lakhs sanctioned and utilised. Against the target of 62 exhibitions, 41 were organised. For 2001-02 an outlay of Rs. 6.5 lakhs has been proposed for a target of 96 exhibitions.

#### **(b) Interest Subsidy of Entrepreneurs**

Khadi gramodyog units are provided interest subsidy above the interest rate of 4%. The subsidised amount is reimbursed to the financial institution. In 2000-01, against the approved outlay of Rs. 22.90 lakhs, Rs. 5 lakhs were sanctioned and utilised. Against a target of 233 entrepreneurs, 210 were benefited. An outlay of Rs. 19.50 lakhs has been proposed for 2001-02 and 260 Khadi units are expected to benefit.

#### **(c) Training Programme for Entrepreneurs**

Under this scheme practical training in Khadi gramodyog is given to entrepreneurs in two divisional training centres, one in Garhwal and the other in Kumaon. In 2000-01, against an outlay of Rs. 7.43 lakhs, Rs. 5.78 lakhs were sanctioned and utilised and 403 persons trained versus the target of 273. An outlay of Rs. 0.55 lakh has been proposed for 2001-02 to train about 35 persons.



#### **(d) Strengthening of KVI Offices**

An outlay of Rs. 1.02 lakhs was proposed in 2000-01 for strengthening KVI offices in various districts, approved and the entire sum utilised. Rs. 1.5 lakhs have been proposed for this scheme in 2001-02.

#### **State sector**

#### **(e) Rebate on Sale of Khadi Clothes**

During the winter season a special rebate on sale of Khadi clothes is provided through Shri Ganghi ashrams. A balance liability of Rs. 200 lakhs is due. In 2000-01, against an outlay of Rs. 80 lakhs, 32.30 lakhs were sanctioned by the Govt. and utilised. For 2001-02 an outlay of Rs. 200 lakhs is proposed to meet the balance requirement of about 200 Shri Ghandi Ashrams and Sale Centres of Khadi. Up to now Rs. 33.33 lakhs have been sanctioned by the Govt. and utilised. The scheme is essential for promotion of Khadi sales.

#### **NEW SCHEMES**

#### **(f) Construction of Approach Road in Srinagar for Carding-Finishing Plant**

There is no proper road to the carding-finishing plant established at Srinagar, Garhwal. A provision of Rs. 5.50 lakhs has been proposed for 2001-02. The scheme is essential for betterment of this carding-fmishing plant.

#### **(g) Strengthening of Carding and Weaving**

The Khadi Gramodyog also has carding plants at various places which were established some years back and now need repairing of machinery and equipment. A provision of Rs. 3 lakhs has been sanctioned for 2001-02 and an outlay of the full sum proposed.

#### **(h) Establishment of Wool Bank**

To benefit wool growers and consumers it is proposed that wool and thread banks be established. In the first stage, banks are proposed for establishment in 3 border districts. A provision of Rs. 10 lakhs has been made and therefore an outlay of this sum is proposed for 2001-02.

## **(i) Industries Based on Waste Raw Materials from Agriculture and Forest**

In the forests of Uttaranchal vast amounts of raw materials such as pine needles go to waste every year. It is imperative that their use be studied by the Forest Research Institute or some other institute. A provision of Rs. 2 lakhs has been sanctioned and therefore an outlay of Rs. 2 lakhs proposed for 2001-02. This scheme is essential for utilisation of waste raw materials.

## **10.2 Sericulture**

The agroclimatic conditions of Uttaranchal are suitable for mulberry and mulberry-based bivoltine cocoon production. The mulberry silk rearing and cocoon production programme was initiated in 1948 at Doiwala, Resham Mazri (district Dehra Dun) in Uttar Pradesh. After studying the results and favourable climatic conditions, the Government decided to establish 76 departmental silkworm rearing centres/farms and extension centres in Uttaranchal.

It is proposed in the Ninth Five-Year Plan to achieve 2.0 lakhs kg mulberry cocoon production every year. Efforts to achieve the targeted mission will continue through the year 2001-2002.

### **A. Present status**

The present status of Uttaranchal sericulture is as follows:

- Mulberry nurseries : 30 No. (Private sector)
- Mulberry Plantation : 1000 access (on private land)
- Mulberry Cocoon
- Production : 1.5 lakh kg. / year
- Mulbeery Silkworm rearers : 4500 Nos.
- Bivoltine Silkyarn : 15Mt/ year (private sector)
- Private Silk reeling :  
Units : 8 units (Private)
- Tasar cocoon production : 10 lakh.

- Tasar rearers : 300

## **B. Facilities available to rearers / farmers**

- Supply of quality silkworm seed to farmer on subsidised rates.
- Supply of variety mulberry saplings to farmers on nominal cost.
- Quality mulberry cuttings supplies to private nursery holders on a no/loss or no profit basis.
- Training and demonstration to farmers.
- Organization of cocoon markets to dispose of farmer products.
- All essential facilities provided to cocoon buyers at one place.

## **C. Objectives :**

The main objectives of the department are as follows :

- Increase quality raw silk production.
- Enrich the area with mulberry plantations and produce quality mulberry cocoons through farmers/ reare.
- Economic upliftment of frmers, landless labourers, women and weaker sections of society.
- Provide self-employment to the poor and un-employed youths through the technologies of sericulture.

## **D. Strategy and thrust**

To attain the achievements sought in the Ninth Plan, the following steps have been taken by the department:

- Re-organisation of the department for better concentration on the intensive extension programme.
- Abandonment of unproductive and uneconomical units.
- Privatisation of most of the functions of sericulture.
- Organisation of Self-Help Groups to encourage farmers/rearers.
- Arranging most of the funds through Centrally and externally-aided programmes.

- Launching Centrally-sponsored or catalytic programmes to achieve the target of 25 Mt raw silk production annually.
- Navigating departmental development programmes towards poverty improvement, women upliftment and betterment of the poorer section of society.

### **E. Proposed programme for 2001-2002**

- Mulberry cocoon production : 250 Mt
- Raw silk production : 25 Mt
- Silkworm rearer families : 5000
- Oak tasar cocoon production : 10 lakhs
- Tasar rearers : 500

## **10.3 Mineral Development**

The main purposes of mineral development in the region are discovery of minerals and their investigation, scientific mining of minerals and their exploitation to check unscientific mining, and study of the problems related to engineering geology.

The total outlay for mineral development in the Ninth Five-Year Plan is Rs. 68 lakhs, against which Rs. 76 lakhs and Rs. 72 lakhs were spent in 1997-98 and 1998-99 respectively. The anticipated expenditure in 1999-2000 is Rs. 56 lakhs. The work done in 1998-99 was trenching of 44 m<sup>3</sup>, mapping of 70 km<sup>2</sup> and 611 engineering geology undertakings. The work expected from 1999-2000 is mapping of 37 km<sup>2</sup> and 728 engineering geology undertakings. The following schemes are proposed for the Annual Plan 2001-2002.

### **A. Mineral exploration**

- Exploration work to be intensified and emphasis given to both metallic and industrial minerals.
- Special efforts to be made for exploring and preparing a mineral inventory of materials suitable for supporting small-scale industries in local regions and villages.
- Greater emphasis to be given to the search for minerals deficient in the country and hence imported; high-value minerals also to be given priority in exploration.
- A library to be established containing technical literature.

- For concealed and blind deposits, efforts to be made to equip suitable geophysical and drilling units of high capacity.

## **B. Mineral development**

Efforts to be made to place mineral development and growth mostly in the private sector. The department's role would be promotional. To encourage private entrepreneurs the department will provide them with basic exploration data and technical guidance.

## **C. Mining administration**

With increase in mining activities and mineral development, technical and non-technical staff to be strengthened for processing of applications, inspections, demarcation, monitoring, etc.

## **D. Engineering geological investigation**

This programme concerns recommendations regarding suitability of land proposed for civil construction and forest land for non-forest purposes, so that developmental activities may gain momentum with minimum maintenance expenditure and with environmental protection. An outlay of Rs. 6 lakhs has been proposed for the year 2001-2002.

## Chapter 11

# 11 TRANSPORT AND COMMUNICATION

## 11.1 Public Works Department

Uttaranchal is a predominantly hilly State with some plains, the hill region comprising the high Himalayas, deep valleys and intermittent level land. Altitude ranges from 100 m to 5000 m. Transportation is possible only by road and hence roads are the life-line of the State. The railway network is minimal and confined to plain areas only. Air links are negligible and too costly for the common man. Thus roads are the only alternative for connecting the State Capital to District headquarters, Tehsil headquarters, Block headquarters and the villages. Uttaranchal is well known for tourist attractions, fruit belts, pilgrimage centres and most such places are well connected by roads. Still there are many tourist destinations and other important places for which roads are needed or existing roads require modernisation according to the standards of IRC. The interiors of hill districts are far removed from the development scenario and villages lack connectivity through good all-weather roads. Road development is thus indispensable to all-round socioeconomic development of the region. Earthquakes and cloudbursts, regular and newly-developed landslides hinder progress towards the desired targets. Most of the hill areas are under dense forest cover, mostly reserve forests, and lengthy clearance procedures under the Forest Conservation Acts and the Environmental Act consume much time prior to actual road construction. Since the State has no oil refinery, bitumen is procured from other States. Further, construction materials such as river boulders, crushed stone ballast, river shingle and crushed grit, road rollers and other machines, and petty T & P are generally not available in hill areas and have to be procured from the plains. Transportation becomes very dear since the trucks carry smaller quantities of material in the hills compared to the plains. All the aforesaid factors cause delay and difficulty and raise the per-kilometre cost of road construction.

S.N.	Road Category	Lengths in Km
1	National Highway	1157
2	State Highway	1137
3	Major District Roads	1436
4	Other District Roads	7092
5	Village Roads	4082
6	Light Vehicle Roads	2063
7	Bridle Roads	3233
8	Border Tracks	520
8	Border Tracks	520
9	Mandir Marg	204
10	No. of Bridges/total length	
	1. Motor Bridge	657/17,343 m
	2. Bridle Bridge	771/30,899 m

As laid down by the Indian Roads Congress 40 km/100 km<sup>2</sup> road length was to be achieved by the end of the Road Development Plan 1982-2001, against which road density of the State to date is 32 km/100 km<sup>2</sup>. Obviously, the rate of road construction is slow and will require much time for development in Uttaranchal unless special allocations and attention are directed towards achieving the desired pace of progress and the norms fixed in the Indian Road Development Plan. The present position of various categories of road length in the State is shown in Table 6.16.

**Table 6.16 Categorywise length of roads in Uttaranchal.**

S.N.	Road Category	Lengths in Km
1	National Highway	1157
2	State Highway	1137
3	Major District Roads	1436
4	Other District Roads	7092
5	Village Roads	4082
6	Light Vehicle Roads	2063
7	Bridle Roads	3233
8	Border Tracks	520
8	Border Tracks	520
9	Mandir Marg	204
10	No. of Bridges/total length	
	1. Motor Bridge	657/17,343 m
	2. Bridle Bridge	771/30,899 m

### A. Ninth plan achievements

An outlay of Rs. 1000 crores was earmarked for the Ninth Plan (1997-2002) against which an expenditure of Rs. 54575 lakh was incurred during the first four years of the Plan. Rs. 19598 lakh have been provided for the current year for works in various sectors and it is anticipated that the full sum will be utilised within this time period. The physical achievements of the first four years of the Ninth Plan and the targets for the year 2001-2002 and achievements as of August 2001 are shown for roads and bridges in Table I (see vol. 2 of this Annual Report). Newly constructed roads comprise motor roads, light vehicle roads, bridle roads and reconstruction and improvement of these roads, and bridges of both motor road and bridle road categories.

The financial expenditures for the first four years of the Ninth Plan and outlay and expenditure for the current financial year of 2001-2002 are presented in Table II.

### B. Programmes for Annual Plan 2001-2002

As mentioned above the total outlay for road, bridges and buildings of Rs. 11030 lakh has been proposed for the Annual Plan 2001-2002 under various sectors. Construction activity is briefly described below.

*(a) District Sector:* An outlay of Rs. 2300 lakh has been provided, of which 50% has been released and almost fully utilised. The balance of works as of 1 April 2001 amounts to Rs. 70 lakh; thus more funds are required to complete the remaining works.



**(b) State Sector:** The total remaining works as of 1 April 2001 will cost Rs. 41400 lakh, of which an allocation of Rs. 8900 lakh was made for this year. More funds will be required to complete the ongoing works and to avoid cost and time overrun. Rs. 3900 lakh have been released thus far and an expenditure of Rs. 1979 lakh incurred as of end of August 2001. The following works are proposed:

- construction of Deoprayag bridge over the River Ganga,
- construction of 400 m span bridge over River Gola at Haldwani,
- construction of 13.2 km Haldwani bypass,
- reconstruction and improvement of the Dehra Dun-Raipur roads.
- improvement of the Chamoli-Gopeshwar motor road.

**(c) Special Component Plan and Tribal Subplan:** Rs. 1500 lakh have been earmarked for roads and bridge construction for the benefit of these sectors. The budget has been released and will be utilised for construction of roads leading to Ambekar villages and Tribal areas.

**(d) Central Road Fund:** Twelve works of Rs. 1250 lakh have been sanctioned by the Central Govt. under this scheme with 100% cost to be borne by GOI. Four works costing Rs. 300 lakh have already been completed. The remaining works are in progress and about Rs. 300 lakh released for the current financial year. An outlay of Rs. 2600 lakh has been provided in the plan and more projects relating to road improvement submitted to GOI for sanctioning.

**(e) Pradhan Mantri Gram Sadak Yojana (PMGSY):** Under this scheme habitations with a population of more than 250 are to be connected by all-weather roads by the end of 2007. For the year 2000-2001 works amounting to Rs. 6000 lakh have been sanctioned by the Rural Development Ministry, GOI, with 100% funding by the GOI. Of the Rs. 6000 lakh received from the GOI, Uttaranchal State has released Rs. 1000 lakh for construction, with the balance to be released as work progresses. The State govt. has to bear the liabilities of land acquisition, compensatory afforestation, contingencies, and construction of bridges.

Under PMGSY an additional package for the year 2000-2001 of Rs. 6000 lakh and package of Rs. 12000 lakh for 2001-2002 have been submitted to GOI for sanction and allocation of funds. The position of connectivity of habitations is presented in Table 6.17

**Table 6.17 Road connectivity of villages (population groupwise)**

Population groups		1000+	500-999	250-499	Less than 250	Total
Total Habitations		895	1667	3609	9769	15,940
Total connected Habitations		803	1150	2117	5233	9,303
Total unconnected Habitations		92	517	1492	4536	6,637
Habitation covered under PMGSY 2000-01	New connectivity upgradation	14	31	14	7	66
		7	5	8	15	35
Habitation proposed to be covered under PMGSY 2001-02	New connectivity upgradation	15	54	30	388	137
		24	7	9	6	46

### **C. Works under special Central assistance:**

Three works of utmost importance in this scheme have been sanctioned with 100% Central share of Rs. 1824 lakh. The works are:

- (i) Ring Road of Dehra Dun, (ii) improvement of Chamoli-Gopeshwar Road and
- (iii) improvement of Pauri-Srinagar Road.

### **D. Treatment of chronic slip zones:**

Rs. 400 lakh have been provided in the Plan for stabilising slip zones to avoid the frequent hindrances to free and uninterrupted traffic flow in the hills. This is the first time such a provision has been made.

### **E. Reconstruction of monsoon-damaged roads/bridges:**

During the monsoon various damages of a serious nature occur on hill roads necessitating their reconstruction. An outlay of Rs. 400 lakh has been made for the year 2001-2002 for reconstruction works of roads, bridges, causeways and scuppers, etc.

## **F. Works on national highways:**

Eight national highways have been declared in the last two years in the State, viz. National Highway 72, 72A, 73, 74, 87, 94, 108 and 109, with a total length of 1157 km, of which the Public Works Department maintains a length of 620 km and the Border Road Organisation 537 km. Reconstruction and improvement of the Riding Quality Programme is carried out by the State PWD as per directions and sanction of MORT & H. In the current financial year (2001-2002), Rs. 2255 lakh have been sanctioned for 11 works, of which Rs. 1718 lakh shall be spent on improvement of the Riding Quality Programme and the remainder utilised for reconstruction of roads, culverts, etc. Almost all these works were started after the rains and an expenditure of Rs. 150 lakh incurred to date. It is anticipated that the sanctioned works shall be completed and the full monies allocated spent within the financial year.

## **G. Tools and plants:**

Road closure is a regular feature in hill areas due to landslides during the monsoon and avalanches in winter. Bulldozers of various size and capacity have long been needed and a provision of Rs. 500 lakh made in the Plan for 2001-2002 for purchasing 10 such bulldozers.

Broad details of bulldozers and other machines available with the Department are given in Table 6.18.

**Table 6.18 Availability of Machinery & Equipments.**

S.N.	Machine	Total No. available(No.)	Machines older a 15 years (No.)
1	Bulldozers	33	14
2	Truck, Tipper	182	128
3	Road Roller	228	200
4	Compressor	158	144
5	Granulator	20	8
6	Stone Crusher	5	5

## H. Works under interstate connectivity:

Under this scheme GOI is funding 100% the improvement of important roads to ensure connectivity with adjoining States. A proposal for these three important roads has been submitted to GOI for sanctioning.

	Cost (laks)
i) Haldwani-Kaladhungi-Bajpur road	902
ii) Satpuli-Kotdwar road	1828
iii) Lipulekh-Bhind road(Pilibhit border to Khatima)	525

## I. Economically important roads:

Under this scheme costs will be borne on a 50:50 basis by State: GOI. A proposal for three works has been submitted to GOI for sanctioning.

	Cost (laks)
i) Improvement and metalling of Rathuadhab-Kandi-Dhikala road	891
ii) Motor bridge near Muni-Ki-Reti at Rishikesh	976
iii) Reconstruction and improvement of Almora-Ghat road	1012.50

## J. Village connectivity:

Of a total of 16,177 villages, a huge number--6118--remain unconnected. The status of village connectivity of different categories of villages is shown earlier. The programme for village connectivity has been taken up in 3 schemes--District sector, State sector and PMGSY. Villages with a population above 1000 are to be connected by all-weather roads by the end of 2004, villages with a population of 500-999 by the end of 2007 and the remaining villages by the end of the year 2010.

## K. New Approach

With all-out efforts for road construction activity in the State under various schemes, viz. District Sector, State Sector, Central Road Fund, PMGSY, Interstate connectivity scheme, Economically important roads and National highways, the overall development of the road sector should be achieved, thereby aiding connectivity of unconnected villages with all-weather roads, leading to safer and more comfortable

vehicular plying and development of remote areas. This will facilitate access by the populace to educational and medical centres, and distribution and transportation of agricultural produce. To effect this new approach to road construction according to the conditions and needs of the State of Uttaranchal, the following policy decisions have been taken:

1. Only all-weather motor roads will be constructed; further construction of light vehicle roads will be shelved.
2. Existing light vehicle roads will be converted in a phased manner into all-weather motor roads.
3. The procedure for land acquisition, forest land clearance and environmental clearance is long drawn-out affair, often of several years, causing delay in actual construction of roadworks and leading to cost and time overrun. To offset this problem, administrative expenditure sanctioning of a project will be accorded in a phased manner:

- i) The first phase shall comprise sanction of survey, land acquisition, clearance of forest and environmental formalities, trace cut and fixing of job pillars.

- ii) The second phase shall comprise sanction of hillside cutting to metalling while the technical sanction and execution of the work will be carried out in the

following systematic manner:

- a) firstly, technical sanction shall be accorded for hillside cutting, construction of cross-drainage works, making of kachha/pucca drains;

- b) secondly, technical sanction shall be accorded for making the requisite minimum retaining walls and breast walls, metalling and painting, parapets and other petty miscellaneous items.

4. Most of the soil strata in Kumaon and Garhwal regions of the State are composed of soft rock and hence landslides are a frequent occurrence. With the passage of time various chronic slip zones have developed which require stabilising treatment. The Uttaranchal State govt. is the first Govt. to provide in its budget funds for effective treatment of these

chronic slip zones through construction of retaining walls, breast walls, wire-crate walls, catch water drains, checkdams and walls, vegetation and forestation, soil conservation work, etc. This will be an ongoing project until stabilisation of slip zones is fully achieved.

5. Due to natural calamities and heavy rainfall, roads, bridges, culverts, scuppers and causeways, walls, and road surface suffer damages that need to be rectified. Reconstruction work is essential and the Plan budget has for the first time made provision for this imperative reconstruction programme.

## 11.2 Civil Aviation

To promote tourism and to provide tourists with a faster mode of transport in the hill areas, three airstrips are under construction. The year-wise expenditure incurred under this programme is given in Table 6.19.

**Table 6.19 Expenditure on Civil Aviation Works.**

Financial year	Expenditure/Outlay(Rs. in lakh)
Up to 1996-97	1708.22
1997-98	214.00
1998-99	190.00
1999-2000	350.00

Construction of 1400-m runway together with approach road, terminal building, ATC tower, culvert, fencing, footpath and pavement work has been completed at Pithoragarh. Land has been acquired for the Gauchar (Chamoli) runway. Chinyali Saur work (Uttarkashi) is in progress.

### A. Programme for the Ninth Five-Year Plan

During the Ninth Five-Year Plan construction of permanent helipads and strengthening/ construction of airstrips have been undertaken. For this purpose an outlay of Rs. 1600 lakhs was allocated by Uttarkhand Vikas Bibhag. For the year 1997-98 an outlay of Rs. 300 lakhs was proposed. For the Annual Plan 1999-2000 an outlay of Rs. 350 lakhs was proposed, of which Rs. 100 lakhs was spent. The anticipated achievement of airstrips at Gauchar (Chamoli) and Chinyali Saur (Uttarkashi) was nil against the target of 75 and 15% respectively.

## 11.3 Road Transport

Road transport has particular importance in Uttarakhand region given the uneven surface topography. Central and State govts. have made efforts to improve the situation in a planned manner but the inhabitants of Uttarakhand, especially those in remote areas, have hardly benefited. In spite of various efforts during the last Five-Year Plan, the facility for registration of vehicles, licences and permits could not be decentralised. Today there are 2.80 lakh vehicles on the road in Uttarakhand. Keeping in view the ever-increasing demand for vehicles, it is essential that the Transport Department be reorganised to expedite registration and fitness of vehicles, licences, permits, etc. and to enhance public awareness of air pollution and road safety measures. This reorganised system would further enable checking of unlawful plying of vehicles while also increasing the State revenue.

As the fleet of buses operating in Uttarakhand was quite old, they had to be either replaced or major repairs undertaken. An outlay of Rs. 20 crores was proposed in the Ninth Plan. During the Annual Plan 1997-1998 a loan of Rs. 300 lakhs was sanctioned for chassis replacement in 100 old buses. In 1999-2000 a loan of Rs. 300 lakhs was sanctioned to the UPSRTC for the same purpose. These efforts have strengthened the bus fleet in the region.

For the convenience of passengers, more shelters and bus stations are being sanctioned. This will also provide facilities for incoming tourists.

### A. Construction of passenger shelters

An outlay of Rs. 400 lakhs was fixed in the Annual Plan 1999-2000, of which Rs. 300 lakhs was allocated for replacement of old buses as a loan to UPSRTC.

An outlay of Rs. 400 lakhs has been proposed for the Annual Plan 2001-2002.

## Chapter 12

# 12 GENERAL ECONOMIC SERVICES

## 12.1 Economics and Statistics

Keeping in view the burning need for statistics at different levels in the new State, it is essential to strengthen the Economics and Statistics Division at different levels, viz State, District, Tehsil and C.D. blocks. The following schemes have been proposed under the Annual Plan 2001-2002.

### A. STATE SECTOR SCHEME

Establishment expenditure of the offices of 3 newly created districts, namely Rudra prayag, Champawat and Bageshwar, is under this scheme of which Rs. 21.12 lakhs have been proposed.

### B. DISTRICT SECTOR

#### **Upgrading the offices of district Economics and Statistics Officers**

Under this scheme a total outlay of Rs. 11.10 lakhs has been proposed, of which Rs. 4 lakhs will go to purchase of computer, laser printers and UPS system in 4 districts, namely: Udham Singh Nagar, Rudra prayag, Champawat and Bageshwar; Rs. 4.50 lakhs for purchase of laser printer and UPS system in the remaining 9 districts of Uttaranchal and Rs. 2.60 lakhs for purchase of computer stationery and computer maintenance in all 13 districts.

### C. Evaluation and monitoring of various developmental works at the district level

It is essential to conduct monitoring, evaluation and spot verification of developmental works at the district level. Hence an outlay of Rs. 6.50 lakhs has been proposed at Rs. 0.50 lakh per district for all the 13 districts of Uttaranchal.



## **D. Maintenance of N.I.C. and computers**

This scheme concerns maintenance of N.I.C. and computers at all district headquarters. Rs. 7 lakhs have been proposed at Rs. 0.50 lakh per N.I.C. and Rs. 0.50 lakh for the headquarters of N.I.C., Dehra Dun.

## **12.2 Tourism Development**

Uttaranchal is richly endowed for potential tourism development. Recognising this fact, the State has formulated a tourism policy that will sustain efforts to make it a major income- generating sector on the one hand, and an employment generator on the other.<sup>1</sup>

### **A. Tourism prospection**

Although various efforts were made by UP State before the State of Uttaranchal was created, better focused goals are required for development. A new tourism policy has therefore been framed along these lines:

- Put Uttaranchal on the world tourism map, i.e., make Uttaranchal synonymous with tourism.
- Develop manifold tourism-related resources of the State in an ecofriendly manner, with active participation of the private sector and local host communities.
- Develop tourism as a major source of employment and income/revenue generation and a pivot for economic and social development in the State.

### **B. CHALLENGES**

The tourism policy focuses on:

- Augmentation of infrastructural facilities
- Winter/year-round tourism
- Target group-oriented tourism development
- Development of new tourism destinations
- Promotion of tourism-oriented handicrafts industry and cuisine
- Publicity and tourism marketing
- Human resource development
- Tourism administration and management
- Private sector participation

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<sup>1</sup>Tourism Policy 2001, Uttaranchal Tourism.

### C. Action plan

Since tourism has the potential of becoming a mainstay in Uttaranchal's economy, it must be developed in a planned and time-bound manner. Towards this end, the following sectors have been identified:

- Strengthening of institutional framework
- Infrastructural development
- Enhanced private sector participation
- Mobilisation of resources
- Human resource development through multilevel training programmes
- Publicity and marketing through various media and other measures

Optimal development will focus on the following:

- Pilgrimage tourism
- Cultural tourism
- Nature and ecotourism
- Amusement and leisure tourism
- Corporate tourism
- Adventure tourism
- Tourism-oriented handicraft and souvenir industry

### D. Tourist arrival

Tourist statistics are presented in Table 6.20 and reveal a significant increase in tourists visiting Uttaranchal. It is hoped that by strengthening tourist infrastructure and other facilities, this source of revenue for the State will be enhanced.

**Table 6.20: Tourist statistics in Uttaranchal (in lakhs)**

S.N.	Year	Indian	Foreign	Total
1.	1992	247.65	0.57	248.22
2.	1993	231.09	0.76	231.85
3.	1994	234.18	0.48	234.66
4.	1995	243.64	0.43	244.07
5.	1996	279.07	0.49	279.56
6.	1997	309.65	0.54	310.19
7.	1998	434.57	0.62	435.19
8.	1999	364.31	0.69	365.00
9.	2000	445.10	0.66	445.76

*Note:* Indian tourists include same-day visitors, pilgrims, holy dippers and tourists taking part in various fairs and festivals.

## ***E. STRATEGY FOR NINTH FIVE-YEAR PLAN (1997-2002)***

To realise the above-mentioned aims and objectives, efforts must be made to provide basic amenities at tourist spots through interdepartmental co-operation. By promoting greater participation of the private sector, better facilities and simultaneously more job opportunities would be created. To ensure timely completion and better inspection and monitoring systems for various schemes under execution at various stages at district and divisional levels, strengthening of tourist centres/offices has been prioritised. Various tourism developmental activities together with ecotourism shall be prioritised over time to minimise cement-concrete structural works in order to conserve sensitive ecological systems of the area. Areas identified as thrust areas will be promoted through integrated development. The following schemes have thus been proposed under this strategy.

**(a) Spillover schemes shall be completed on a priority basis. For generation of more employment opportunities, the following employment-oriented schemes have been proposed:**

- Loan subsidy scheme (under District Sector)
- Paying-guest scheme
- 'Self-Employment-Oriented Tourism Development Scheme' for unemployed youth
- Adventure training programme

**(b) Human resource development activities**

- Establishment/strengthening/upgradation of Hotel Management Institutes
- Establishment of Aero Sports Institute and adventure tourism
- Establishment/strengthening of tourist centres/tourist offices/Tourist Directorate

**(c) Integrated development of tourist spots**

**Mega Projects**

- Dhanolti Special Tourism Development Area project
- Munisyari Special Tourism Development Area project
- Auli Skiing Area project

- Dayara Bugyal (skiing centre)

**(d) Integrated Development of Small and Medium Towns (under District Sector)**

**Integrated developmental works along traditional/diversified yatra circuits**

- Paonta Sahib-Govingdghat-Hemkund Sahib-Valley of Flowers
- yatra circuits
- Rishikesh-Narendra Nagar-Dharasu-Uttarkashi-Gangotri
- traditional yatra route
- Rishikesh-Dharasu-Yamunotri traditional yatra route
- Dehra Dun-Mussoorie-Nainbagh-Barkot-Yamunotri yatra route
- Nainital-Haldwani-Kausani-Baijnath-Gwaldam-Badrinath yatra
- route

**(e) Strengthening of transport facilities**

- Basic essential facilities at airstrips of Pithoragarh, Chiniyali Saur
- and Gauchar
- Expansion in railway services
- Expansion in road transport services

**(f) Ecology-oriented tourism (ecotourism)**

- Disposal of garbage and sanitation system
- Arrangement of toilet facilities
- Smritivan
- Development of lesser known places (under District Sector)

## **Publicity**

### **(g) Promotion of adventure tourism activities**

- Basic training programme (District Sector)
- Advanced training programme (State Sector)
- Improvement of trekking routes (District Sector)
- Arrangement of equipment (State Sector)

### *(h) Development of infrastructural facilities*

### *(i) Package tours*

### *(j) Establishment of land bank*

## **F. DETAILS OF SCHEME-WISE OUTLAY**

### **(a) Spillover continuing schemes**

Rs. 1180.99 lakhs have been earmarked for completion of spillover schemes during the Ninth Five-Year Plan. Tourist bungalows, Munikireti, Binsar, Kausani, Chaukori, Haldwani, Yatri Niwas, Badrinath, FRP huts, wayside amenities, expedition hostels, residential and non-residential buildings of the Directorate of Tourism, Dehra Dun, Hotel Management Institute buildings Almora and Dehra Dun, spa centres, and Sulabh Sauchalayas are all included in this outlay.

### **(b) Tourist (information) centre (organisational strengthening)**

To enlarge tourist activities in Uttaranchal, it is proposed to strengthen the office of the Director of Tourism, Uttaranchal as per recommendation of the Chief Inspector, Govt. Offices, Allahabad, Govt. of UP. Similarly, for the Institute of Hotel Management, Almora, strengthening of teaching and non-teaching staff is extremely necessary. Some regional offices looking after the execution of schemes in remote areas of the State need strengthening and efficient monitoring of various developmental works. It is further necessary to establish tourist information centres at railway stations and airstrips. An outlay of Rs. 462.35 lakhs has been proposed for this purpose and only creation of these posts remains.

### **(c) Land bank**

To develop tourism as an industry in Uttaranchal along the lines of industrial estates, it is proposed to develop tourism estates as well as the infrastructure requisite for such estates and thereby attract the private sector at each district level. A provision of Rs. 200 lakhs has been proposed and Rs. 500 lakhs also provided for land acquisition at Auli.

### **(d) Integrated development of tourist places**

**Mega Project:** Auli in district Chamoli has now come up as a skiing centre and to develop it as an international skiing resort an outlay of Rs. 150 lakhs has been proposed.

**Integrated Development of Small and Medium Towns (under District Sector):** Ten towns have been identified for integrated development under the District Sector, namely Kotdwar (Pauri-Garhwal), Srinagar (Pauri-Garhwal), Joshimath (Chamoli), Rishikesh (Dehra Dun), Uttarkashi, Nainital, Tanakpur (Udham Singh Nagar), Rudrapur (Udham Singh Nagar), Almora and Pithoragarh, for which Rs. 150 lakhs have been proposed.

**Special Tourism Development Areas:** Dhanolti, Munsiyari and Dayara Bugyal were earlier identified in Uttaranchal as special tourism development areas and projects have been prepared for them. An outlay of Rs. 150 lakhs has been earmarked for this programme.

**Development of Traditional and Diversified Yatra Routes/Circuits:** Many shrines of Uttaranchal attract lakhs of tourists every year. To provide mandatory basic infrastructural facilities and to strengthen those existing, an outlay of Rs. 150 lakhs has been proposed for development of roads, parking places, electricity, water supply, bus stations, etc. Proposed routes are Paonta Sahib-Hemkund, Kotdwar-Khirsu-Badrinath, Rishikesh-Yamunotri, Nainital-Badrinath and Tanakpur-Dharchula (Kailash routes). Rs. 125 lakhs have also been proposed for various developmental schemes under yatra arrangements.

**Expansion of Transport Facilities:** To provide tourist information centres at different railways stations in Uttaranchal, an outlay of Rs. 50 lakhs has been earmarked. Road improvement is proposed through the P.W.D. and other concerned departments.

**Ecological Tourism:** All of Uttaranchal lies in the fragile ecological system of the Himalayas. The following schemes have been proposed to preserve the ecological balance in this sensitive area given below.

	Name of scheme	Proposed amount(Rs. in lakhs)
1.	Sanitary system	65.00
2.	Establishment of meditation/yoga centre	40.00
3.	Toilet facilities	150.00
4.	Integrated development of lesser known tourist places	150.00
	Total	405.00

### G. Publicity:

Publicity plays an important role in tourism development. To project Uttaranchal as a winter destination, its vast natural tourism potential, rich cultural heritage, fairs and festivals through conferences/marts/international seminars/ Mahotsavas, hoardings, films, electronic media, advertisements, publicity literature, familiarisation tours, etc., an outlay of Rs. 400 lakhs has been earmarked in the Ninth Five-Year Plan.

(a) **Promotion of Adventure Sports Programmes:** An outlay of Rs. 250 lakhs has been proposed for organising various basic and advanced adventure training programmes for local youths.

(b) **Self-Employment-Oriented Tourist Development Scheme for Unemployed Local Youths:** To ensure greater local people participation in the tourism development process and to generate self-employment opportunities, a scheme is already under active consideration by the State govt. for which an outlay of Rs. 72 lakhs has been proposed.

(c) **Tourism Loan Subsidy Scheme:** This scheme is already under implementation by the State Govt. with a loan subsidy of 20% subject to a maximum of Rs. 50,000 on projects costing Rs. 2.50 lakhs. An outlay of Rs. 200 lakhs has been proposed. But once the above self-employment scheme gets underway, the outlay for the subsidy scheme shall be earmarked for it.

(d) **Grants:** Some grants are presently available for the Boat House Club, Nanital, Golf Course, Ranikhet and matching grant for Kailash Mansarovar Yatra, registered mountaineering and trekking clubs, etc. The proposed outlay is Rs. 159.75 lakhs during the Ninth Five-Year Plan. Rs. 50 lakhs have also been set aside for Auli and Rs. 150 lakhs for Garhwal and Kumaon festivals.

(e) **Computer Networking Programme:** To strengthen information networking it is proposed to link various offices and reception counters situated in remote areas by a suitable computer networking system. An outlay of Rs. 20 lakhs has been proposed.

*(f) Maintenance and Furnishing of Tourist Bungalows and Tourist Centres:* Rs. 150 lakhs have been earmarked for this scheme. For comprehensive, integrated overall development of tourism, emphasis has been given to basic infrastructural facilities so that socioeconomic development of the area takes place concomitantly with tourism development and not in isolation, by ensuring greater people participation. A total outlay of Rs 5000 lakhs has accordingly been proposed in the Ninth Five-Year Plan.

*(g) Schemes under Recommendation of Tenth Finance Commission:* As per these recommendations, an outlay of Rs. 4255 lakhs has been proposed in the Ninth Five-Year Plan to provide better facilities to tourists on yatra routes at Badrinath-Kedarnath and Kailash Mansarovar.

## **H. Annual Plan 1997-98**

A total outlay of Rs. 2000 lakhs was earmarked for 1997-98, of which Rs. 78.75 lakhs were tagged for District Sector schemes, Rs. 1000 lakhs for schemes recommended by the Tenth Finance Commission and Rs. 821.25 lakhs for State Sector schemes. Under the loan subsidy scheme with a target of 80, there were 70 beneficiaries. Against the target of 1640 in the adventure tourism training, 1787 youths benefited. In addition, a 132-bed additional accommodation was created.

Against a target of 150 toilet seats, 160 seats were provided.

## **I. Annual Plan 1998-99**

Rs. 3004.23 lakhs were utilised for implementation of various tourism development schemes and activities in this year.

Under the loan subsidy scheme, subsidy was provided to 122 private entrepreneurs during the year against a target of 117. Against a target of 298-bed additional accommodation facility, 470 beds were provided and against a goal of 285 toilet seats, 295 were constructed. The Dept. of Tourism organised various adventure training programmes for self-employment of 1834 local youths.

The Central Govt. recommended 27 developmental schemes to provide Central financial assistance of Rs. 625.24 lakhs during this year and Rs. 193.35 lakhs were released as the first instalment.



## **J. Annual Plan 1999-2000**

State Govt. earmarked a total outlay of Rs. 2450 lakhs for this year, of which Rs. 411.61 lakhs were for District Sector schemes, Rs. 786 lakhs for schemes recommended by the Tenth Finance Commission and Rs. 1342.46 lakhs for the State Sector schemes. A total of Rs. 1746.82 lakhs were utilised for implementation of various tourism development schemes and activities during this financial year, of which Rs. 198.20 lakhs went to District Sector schemes, Rs. 704.14 lakhs for recommendations of the Tenth Finance Commission and Rs. 848.27 lakhs for State Sector schemes.

## **K. Annual Plan 2000-2001**

State Govt. earmarked a total outlay of Rs. 2400 lakhs for tourism development in Uttaranchal in this financial year, of which a Rs. 2402.75 lakhs budget allocation was provided by the State Govt. In the total budget allocation Rs. 2273.74 lakhs were earmarked for State Sector schemes, Rs. 129.01 lakhs for District Sector schemes and Rs. 50 lakhs for Centrally-sponsored schemes. State gov. released a total sanction of Rs. 1959.65 lakhs, of which Rs. 1241.79 lakhs were identified for the State Sector, Rs. 237.86 lakhs for the District Sector and Rs. 379 lakhs for Centrally-sponsored schemes, against which a total of Rs. 1385 lakhs were utilised for implementation of various tourism developmental schemes.

A 560-bed additional accommodation was created for tourists in this year, surpassing the target of 500 beds. Various types of adventure tourism training were provided to 898 youths.

## **L. Annual Plan 2001-2002**

This is the last year of the Ninth Five-Year Plan and Rs. 886 lakhs have been earmarked for continuing schemes and Rs. 716 lakhs proposed for new schemes. Creation of the Uttaranchal Tourism Development Board as per directions of the New Tourism Policy has been proposed in this Annual Plan.

The following targets have been set for this financial year: a 500-bed additional accommodation, 76 various District Sector tourism development schemes, 200 toilet seats for tourists, subsidy for 300 entrepreneurs under the Uttaranchal Paryatan Vikas Yojana, and 75 youths to receive diplomas in Hotel Management and Catering Technology for purposes of self-employment. In addition, 1950 youths will be given training in various adventure sports.

## **M. SPORTS DEPARTMENT**

The Sports Department of Uttaranchal is making concerted efforts to develop sports in the State. Beside from running important schemes an infrastructure is being created to provide modern sport facilities. Schemes of the Eighth Plan (coaching camps, tournaments, sport hostels and purchase of sport equipment) have been transferred to the non-Plan section of the Ninth Five-Year Plan. For some newly created districts (Udham Singh Nagar, Bageshwar, Champawat and Rudra prayag), construction of a stadium is underway in Udham Singh Nagar and for other districts proposals will be sent when land becomes available. At present there are 9 stadiums, 4 multipurpose halls, 2 swimming pools and 2 stadiums are under construction. Rs. 13.13 lakhs have been earmarked for direction and administration in these districts.

## **N. Creation of infrastructures**

The Sports Department is keen to create and develop infrastructural facilities in the State. Rs. 50 lakhs have been proposed for completion of stadiums under construction and another Rs. 50 lakhs for new construction work. For construction of MP halls in Dehra Dun Rs. 50 lakhs were sanctioned in 2000-01 and the balance amount of Rs. 56.17 lakhs is being proposed in the current year.

The third phase of work on the Sports College is nearing completion and for the fourth phase an outlay of Rs. 50 lakhs is earmarked. Rs. 5 lakhs have been requested for purchase of land to construct a stadium in Bageshwar.

The Sports Dept. has been earnestly seeking financial assistance from the Central Govt. to create an infrastructure in the State. To develop and create a State Training Sports Complex at Dehra Dun, the Central Govt. has agreed in principle to provide financial assistance. An estimate of Rs. 641.65 lakhs has been submitted to the Central Govt. and a maximum grant of Rs. 400 lakhs requested, the balance of Rs. 241.65 to be borne by the State. The State govt. has given a token provision of Rs. 10 lakhs for the current year.

## **O. Coaching**

The Sports Dept. organises coaching camps in different disciplines in all Districts of the State. The motive behind this scheme is to unearth grassroots talent and provide

intensive training to make it a force to be reckoned with in the competitive sports arena. A provision of Rs. 0.50 lakh has been made for this scheme.

## **P. Tournaments**

Tournaments are organised in various disciplines for different age groups to assess the competitive capabilities of the players and to prepare teams for higher competitions. Such tournaments also create sports awareness in the general public.

For the development of outstanding players, Rs. 1.50 lakhs have been proposed and to provide kits to players participating in National Championships, another Rs. 1 lakh. An amount of Rs. 0.01 lakh is earmarked for awards to medal holders in National Championships and another token amount of Rs. 0.01 lakh as a grant to the State Sports Association, sports clubs and other sports associations for organisation of tournaments and purchase of sport equipment.

## Chapter 13

# 13 EDUCATION, ART AND CULTURE

## 13.1 Elementary and Secondary Education

Education is the process by which existing culture is passed on to the forthcoming generation. It must be humane and the educator should work towards the upliftment of the intellect as well as the spirit. Education is instrumental in inculcating knowledge, skills and appropriate attitudes in the citizens of a country. It ensures effective working of the basic institutions on which the economic and social well-being of the country depends.

The basic challenge is how to make the existing facilities available to the user. To achieve any goal some definite directions and guidelines have to be followed for its successful implementation. Monitoring the scheme is also important as it plays a major role in determining the nature of the investment and its justification.

The format of education catered to by the Department has two wings--elementary and secondary. For promotion of both forms the following schemes are proposed for implementation.

### A: Primary education

The State has made remarkable progress in the field of elementary education. Provisional figures in the 2001 census reveal an increase of 14.53% literacy rate in the State compared to the 1991 census, i.e. 57.75% in 1991 versus 72.28% in 2001. Nonetheless the State still ranks 14<sup>th</sup> in the country. Our endeavour must be provision of complete elementary education to all.

Under primary or elementary education a total outlay of Rs. 19,928.03 lakhs was agreed to for the Ninth Five-Year Plan (1997-2002). The approved outlay for 1997-98 was Rs. 2113.43 lakhs, against which the actual expenditure was 1226.33 lakhs. The approved outlay for 1998-99 was Rs. 2245.21 lakhs, against which the actual expenditure was Rs. 596.27 lakhs. The approved outlay for 1999-2000 was Rs. 4492.65 lakhs, against which the actual expenditure was Rs. 3559.46 lakhs. The approved outlay for

2000-2001 was Rs. 8891.77 lakhs, against which the actual expenditure was Rs. 7336.73 lakhs.

## **B. Sectoral policy**

The Supreme Court has declared elementary education the fundamental right of all children in the country. The State has been directed to make elementary education free and compulsory for all children up to the age of 14 years. The State Govt. has made efforts to provide primary schools within reach of children at a distance of 1 km in the hills and 1.5 km in the plains. A sufficient number of upper primary schools and secondary schools for classes VI-VIII have also been provided. Private societies have also been encouraged to establish schools to meet societal needs. Pre-service and in-service training programmes are conducted by DIET for primary and upper primary school teachers to improve their competencies.

Right from its inception the State govt. placed education as one of three top priority areas, the other two being potable water and safeguarding of health. Universalisation of elementary education, quality improvement, achievement of MLLs by students and MTCs (minimum teaching competencies) by all teachers is the thrust area of the education sector. To achieve these objectives the State govt. took the following decisions:

1. All primary schools fulfilling the norms will be provided with two teachers. To ensure this, vacant posts are filled by inviting 2609 para-teachers called 'Shiksha Mitras'. Similarly, 2000 vacant posts of primary teachers are filled by selection from B.Ed., L.T., C.P.Ed., etc. trained candidates for a special B.T.C. course.

2. All B.T.C. trained persons have been appointed as primary teachers.

3. The number of trainees in B.T.C. induction training was doubled w.e.f. the year 2001.

4. An Education Guarantee Scheme is being implemented in some districts and is proposed to cover the entire State.

5. The administrative structure of the Education Dept. is being integrated through uniting the basic and secondary education systems.

6. To improve the supervisory system to ensure quality and greater efficiency, the administrative system is being decentralised up to block and Nyaya-Panchayat levels.

7. Based on the recommendations of the Education Commission, the model supervisory system built on the concept of school complex is under implementation.

8. Having achieved a satisfactory level in literacy rates, the basic challenge of the Education Dept. is to improve quality. For quality assurance, special teacher training programmes are being conducted.

9. Area-specific curriculum and supplementary materials are in the process of development.

10. Environmental education is being introduced at both the primary and upper primary stage with the assistance of Uttarkhand Seva Nidhi, Almora.

### **C. Secondary education**

Secondary education modifies and strengthens the knowledge, skills and attitudinal components acquired at the elementary level. It prepares youths for higher studies as well as for life ahead.

It is necessary to establish direct linkage between primary and secondary levels of education. Therefore the State govt. decided to converge the elementary and secondary sectors into a single stream of school education.

**Sectoral policies:** The govt. has taken the following decisions:

- Convergence of primary and secondary education.
- Availability of teachers in all secondary schools.
- Vocationalisation of education at the secondary level.
- Computer education

### **D. Literacy**

1. **Literacy campaign:** A State literacy mission authority is being constituted for promotion of adult literacy programmes. Necessary resource support will be sought from the State resource centre for literacy.

2. **Literacy:** According to the provisional figures of the 2001 census, overall literacy rate in Uttaranchal is 72.28%, which is higher than the all-India percentage of 65.33%. The male literacy figure is 84.01% and the female figure 60.26%, both of which are again above the national average. However, the State ranks 14<sup>th</sup> among all states and UT of the country.

Literacy						
States	1991			2001		
	Total	Male	Female	Total	Male	Female
Uttaranchal	57.75	72.79	41.63	72.28	84.01	60.26
U.P.	41.40	55.70	25.30	57.36	70.23	42.98
India	52.20	64.10	39.30	65.38	75.85	54.16

### **E. Special component plan**

The following schemes are covered under the special component plan for Scheduled Castes:

- 1) free textbook distribution,
- 2) junior and senior basic school in rural areas.
- 3) Government secondary schools in unserved areas and upgradation of upper primary schools.

### **F. State Council of Educational Research, Management, Administration and Training**

In the newly created State of Uttaranchal, there is no institute or council for work in the fields of pedagogy, curriculum, material development, educational management and training. The process has been initiated for establishment of SCERT in Uttaranchal, with a workshop convened to decide its nature and scope. A State-level empowered committee was constituted and at its first meeting it was decided that the SCERT should consist of the components of a SIEMAT and be established in Uttaranchal. It was further decided that IASE and CTEs be established in Uttaranchal.

### **G. Special initiative in Uttaranchal**

The following are a few of the noteworthy initiatives taken by the State govt. for expansion of quality education in Uttaranchal:

1. Convergence of elementary and secondary education sectors.
2. Decentralisation of administrative functions at the block and Nyaya Panchayat level.
3. Establishment of a school complex for effective supervision.

4. Distribution of free textbooks to all Parishsdiya primary school children.
5. Pilot project to provide a cooked mid-day meal.
6. Computer education.
7. Development of local specific curriculum and supplementary materials.

## H. SECTOR-WISE DETAILS OF SCHEMES

### District Sector Scheme

#### (a) Elementary Education

- **Opening of new primary schools:** A provision of Rs. 9.45 crores has been made for the salaries of teachers in schools opened in the Ninth Five-Year Plan: 1116 junior basic schools were opened in the initial years of the Plan, 130 primary schools in 2000-2001 and a target of 131 junior basic schools has been set for 2001-2002 under the DPEP scheme. This scheme will be continued in the Tenth Plan to provide primary schooling facilities in rural areas. In the last financial year (2000-01) Rs. 864.04 lakhs were sanctioned and utilized for the same.

The Constitution of India under Article 45 directs that elementary education shall be free and compulsory for all children up to the age of 14 years. To achieve the target of universalisation of elementary education, the State govt. has stipulated that primary schools shall be within reach of the children, i.e. at a distance of 1 km in the hills and 1.5 km in the plains. As some areas in the State may still not be served by the conclusion of the Ninth Plan, the scheme is required to be continued until the target is achieved.

- **Opening of new senior basic schools:** Though no new senior basic school has been opened during the Ninth Plan under this scheme, a few schools were opened under the Tenth Finance Commission. To meet the salary expenditure of teachers in them a provision of Rs. 45 lakhs was made under this scheme. It is necessary to provide senior basic school facilities in unserved areas as per norms. Senior basic level education is particularly required for girls upon leaving school after passing class V. Therefore the scheme must be continued until the required objective is attained.



- **Non-formal education:** The scheme of non-formal education was terminated in the State as per decision of the GOI. The State govt. has decided to launch a new scheme under the title 'Alternative and Innovative Education' in 2001-2002. Under this scheme, diverse interventions regarding primary education, e.g. EGS, alternative schooling facilities, Balika Shikshan shivir, back-to-school camps, etc., will be adopted. These activities will be covered under the Sarva Shiksha Abhiyan. A token grant of Rs. 0.01 has been given for this scheme.
- **Maintenance grant to aided senior basic schools:** Rs. 209.67 lakhs have been provided to assist 34 aided senior basic schools and to meet the salary expenditure of teachers under this plan. A provision of Rs. 225.56 lakhs was made under the scheme as committed expenditure. The scheme must be continued as the State wishes to enlist the services of private bodies for the expansion of education in the State.
- **Building grant for senior basic schools:** Rs. 400 lakhs have been provided for the year 2001-2002 for construction of 135 school buildings at Rs. 3 lakhs per unit. The grant under this scheme will be required every year.

A provision of Rs. 200 lakhs has also been made under the SCP scheme for construction of 62 senior basic school buildings because the State govt. is committed to upliftment of the underprivileged class of society.
- **Equipment and furniture grant to senior basic schools in rural and urban areas:**

In the financial year 2000-2001 only Rs. 12.84 lakhs were provided under this scheme. In the current financial year 2001-02 Rs. 75 lakhs have been budgeted. Since most of the senior basic schools presently lack furniture and other educational equipment, it is proposed to equip at least 500 senior basic schools. As the need for furniture and educational equipment is ever ongoing, the scheme will have to be continued.
- **Free textbook grant:** This scheme was launched to encourage enrolment and attendance of children from poor families in school. Last year only SC/ST boys and girls of all categories were covered. Now all students in Uttaranchal in Govt.-

run primary schools are included in this scheme. Rs. 90 lakhs were provided in 2001-2002 for this purpose for 7 non-DPEP districts. Boy of general category in DPEP districts will be covered as well. Thus approx. 6.7 lakhs students will be benefited by the scheme. For the financial year 2000-01 only Rs. 84 lakhs were sanctioned under this scheme for 4 districts--Almora, Chamoli, Dehradun and Rudra Prayag.

The District plan for 2001-02 has passed only Rs. 0.63 lakh for the scheme. Previously only a few girls from poor families were benefited. After creation of the new State it was decided that textbooks should be provided free to all students. Hence the provision in this scheme will be enhanced.

- **Equipment grant for junior basic schools.** This year, 2001-02, Rs. 8.82 lakhs have been provided for equipment, etc. in junior basic schools. Nearly 882 junior basic schools are likely to be covered with provision of Rs. 1000 to each school. Rs. 31.50 lakhs were allocated in 2000-01 under this scheme and benefited 6382 junior basic schools. The provision made in the budget for this year is less as only 1000 schools were considered. The allocation should have taken into consideration all schools, as was done in the previous year. The provision needs therefore to be enhanced.
- **Establishment of BSA offices:** A token grant of just Rs. 0.12 lakh has been provided in the financial year 2001-02 for the establishment of new BSA offices in districts Bageshwar, Rudra Prayag, Champavat and Udham Singh Nagar where such offices have not existed. Rs. 17 lakhs had been provided in 2000-01 for this purpose for Bageshwar district but only Rs. 0.37 lakh spent. Now Bageshwar has come under the DPEP. But as the office of BSA has to be created in the other three districts, the scheme needs to be continued.
- **Honorarium for Siksha Mitra:** To provide an adequate number of teachers in schools, the scheme of para-teachers (Siksha Mitra) was introduced for teacher support in single-teacher primary schools of the State. The village Panchayat invites a local educated youth to serve as a teacher on a contract basis. To ensure quality, such youths are given a one-month rigorous training by the DIET. The Siksha Mitra s selected are paid Rs. 2250 p.m. as honorarium for 10

months. Under UPBEP and DPEP-III, 1609 posts of Siksha Mitra were created. The State govt. additionally sanctioned 1000 Siksha Mitras. Rs. 247.40 lakhs have been provided for 2001-02 under this scheme.

For one or the other reason many schools in remote and rural area are run with a single teacher. This directly affects the quality of education so Siksha Mitras are placed in vacant posts. These para-teachers appointed from the local community in unserved areas are paid a fixed honorarium. They are treated as volunteers, which also confirms the involvement of the concerned society in school management.

- **Audit cell of BSA office:** A provision of Rs. 0.08 lakh has been made for creation of an audit cell in the four BSA offices to be established in districts Bageshwar, Champavat, Rudra Prayag and Udham Singh Nagar.
- **Grant for establishment of BSA office in Hardwar district:** Hardwar, created during the Ninth Plan in UP, was included in Uttaranchal when the new State was created. A provision of Rs. 21.01 lakhs was made last year (2000-01) for the committed expenditure. Only Rs. 2.42 lakhs have been budgeted this year.
- **Secondary Education:** To achieve the objectives of secondary education, the Government has formulated the following schemes in the Secondary Sector.
- **Opening of new girls' high schools:** Due to various socioeconomic reasons, mostly girls in rural areas are unable to continue schooling beyond primary education. Therefore the scheme of opening new girls' high schools was launched and a provision of Rs. 22.70 lakhs budgeted for the year 2001-02. But no provision for the committed expenditure for such schools opened in the Plan period was made and a supplementary demand has yet to be made. Last year (2000-01) a provision of Rs. 953.91 lakhs was made for the committed expenditure in this scheme.
- **Construction of science lab in government secondary schools:** Practical knowledge is an important aspect in the study of science. Thus science

labs are indispensable to science study in schools. So Rs. 40 lakhs have been provided in the current financial year for construction of science labs in 13 secondary schools.

- **Lump sum grant for completion of unfinished buildings:** More than 360 schools and colleges either have unfinished buildings or no buildings whatsoever. Unfinished buildings, addition of necessary rooms and other incomplete works shall be taken up under this scheme. Rs. 100 lakhs have been sanctioned for this purpose, of which Rs. 63.72 lakhs have been disbursed thus far.
- **Grant for construction, extension, electrification, land purchase and repair of buildings:** Rs. 500 lakhs were provided under this scheme, of which Rs. 194 lakhs have been disbursed in heavy construction so far. The amount proposed is to be distributed among building less schools and schools with buildings requiring repairs. Supposedly 150 schools will be covered by this scheme.
- **Grant for construction of District Education offices and residential buildings:** Five districts of the State will be covered under this scheme and a provision of Rs. 50 lakhs made for this purpose in the current financial year.
- **Shiksha Bandhu:** To provide teachers in secondary schools, 2000 posts were created to be filled by trained volunteers on the basis of monthly honorarium and the target has been accomplished. Rs. 700 lakhs were provided for the year 2001-02 and Rs. 449.40 lakhs have been disbursed as honorarium to these Shiksha Bandhus.
- **Computer education:** Information technology is an important area in the present world of science and technology. Computer education has already been introduced in 40 secondary schools. The curriculum has been developed and certain teachers identified for specific training. CPUs are being installed. It is expected that children availing of computer education will be able to use this

equipment in day-to-day life and earn a livelihood by up gradation of skills learned in schools. Rs. 660 lakhs have been provided for the year 2001-02 for expansion of computer education in the State.

There is no denying the significance of computer education in the present age of science and technology. To cope with the current challenges, computer education must be introduced in the curriculum at the primary school level. As mentioned above it has been introduced in 40 secondary schools of the State to date. This scheme proposes extension to another 100 secondary schools keeping in view the aforesaid objectives as well as the limits of budgetary allocations. Given the vocational implications of this scheme, it will be continued in the coming years through consecutive Five-Year Plans until the point of saturation is reached.

- **Recurring salary grant to aided secondary schools:** Except for one in Hardwar, no aided secondary school was provided such a grant in the Ninth Plan period. Now Rs. 22.20 lakhs have been provided to meet the salary expenditure of school staff.
- **Grant for special facilities for girls:** In the rural areas of Uttaranchal many schools are co-educational. Separate toilet facilities and a common room specifically for girls are a must. Rs. 1.2 lakhs have been budgeted this year to provide such facilities in 2 schools. This budgetary provision will have to be enhanced, for which a supplementary demand will be submitted later.
- **Grant for post-creation and recognition of new subjects in aided secondary schools:** A number of aided secondary schools are allowed to introduce new subjects and thereby new posts are created. To date only one school in the Ninth Plan period of the State has been sanctioned for such new posts, namely that in Tehri. Therefore only Rs. 5 lakhs have been provided in the financial year 2001-02 to meet the committed expenditure of this school. A provision of Rs. 3.70 lakhs was made last year (2000-01) also.
- **Incentive grant for outstanding aided schools:** Under this scheme schools excelling in quality education are given an incentive grant as

encouragement. Rs. 5 lakhs have been provided in the current financial year for five schools.

- **Construction and repair of damaged secondary school buildings:**

Those schools, which are damaged but reparable, are considered here and a provision of Rs. 40 lakhs budgeted for this purpose with 150 schools targeted. Given the fact that most secondary schools are operating in old junior and/or high school buildings, continuity of this scheme is essential.

## **(b) State Sector Scheme**

- **Secondary Education**

- **Grant for up gradation of high schools to intermediate level:** As a result of the growing need for further higher education every year, a number of high schools are upgraded to intermediate level. Rs. 819 lakhs have been provided for this purpose in 2001-02 as well as for the committed expenditure in the Ninth Plan.

- **Establishment of new HSS and up gradation of JHS to HSS:** New schools are opened or JHS upgraded every year. Rs. 947.6 were provided in the Ninth Plan period for this purpose and in 2001-01 Rs. 1119.02 lakhs made available for salaries and other committed expenditure. Only Rs. 918 lakhs were utilised for the latter purpose, however.

- **Establishment grant for DIOS offices:** Four new districts were established during the Ninth Plan period and hence 4 offices of District Inspector of Schools opened. Rs. 26.08 lakhs were provided to meet the committed expenditure of these newly opened offices.

- **Opening of additional sections and inclusion of new subjects:** Since new sections and subjects are included for intermediate colleges in Govt. secondary schools every year, Rs. 52.92 lakhs have been provided for this purpose in the current financial year and 44 lecturers appointed in the Ninth Plan

are covered. Rs. 50.02 lakhs were proposed in 2000-01 for inclusion of additional sections in Govt. secondary schools as committed expenditure.

- **Building grant for heavy construction:** In the current financial year (2001-2002) Rs. 543.62 lakhs have been provided in this scheme versus only Rs. 150.05 lakhs last year. This year's provision is actually to serve as second installments on completion of school buildings of Lohaghat, Joshimath, Pantnagar and Kitcha for which only a token grant was released last year as the first installment. In addition, second installments for GIC Barakot and Madhyamik Shiksha Parishad Ramnagar have also been provided with a token grant of Rs. 0.01 lakh for the boundary wall of GIC Gairsain and of GIC Ramnagar has also been made under this scheme.

(in lakhs)

Sr. No.	Name of School	Total estimated cost	Amount released in 2000-2001	Amount released in 2001-2002
1.	GGIC, Lohaghat	245.45	179.73	65.72
2.	GGIC, Joshimath	70.72	35.34	20.00
3.	GGIC, Pant Nagar	357.06	284.65	20.00
4.	GGIC, Kitcha	34.60	33.60	20.00
5.	GGIC, Barakot	220.19	50.00	100.00
6.	Madhyamik Shiksha Parishad Ramnagar	271.89	100.00	100.00
7.	Boundary wall GIC, Gairsain	estimate awaited	-	0.01
8.	Boundary wall GIC, Ramnagar	estimate awaited	5.14	0.01
9.	GIC, Kanalichina playground	estimate awaited	0.01	-

- **Establishment of Madhyamik Shiksha Parishad:** Rs. 15.39 lakhs have been provided in the current financial year to cover committed expenditure of Madhyamik Shiksha Parishad Ramnagar, now named the Uttaranchal Shiksha Parishad. The provision last year was Rs. 14.80 lakhs.

### C. Centrally-sponsored Schemes

- **Operation blackboard:** This fully Centrally-sponsored scheme was initiated in 1987-88 to assure qualitative progress in primary education through additions to the teaching staff. Rs. 3200 lakhs were earmarked to cover the salary of 2640 additional assistant teachers in junior basic schools and 882 teachers in senior basic schools. In 2000-01 Rs. 3095.57 lakhs were disbursed as salary for the aforesaid teachers.

This scheme needs to be continued as it facilitates quality education not only through additional teaching staff in junior and senior basic schools but also covers the minimum educational equipment required.

It is also proposed that this scheme be extended to secondary schools where junior sections are run.

- **Sarva Shiksha Abhiyan:** SSA has been sanctioned for Uttaranchal with the objective of providing quality education to all children up to age 14 years to fulfill the goal of universalisation of elementary education (UEE). It is an attempt at providing quality education throughout the State. In the first phase 7 districts are to be covered with a provision of Rs. 238.54 lakhs for pre-project activities, of which the GOI is to provide 85% and the State 15%. To date of the GOI share amounting to Rs. 202.76 lakhs, only Rs. 134 lakhs have been sanctioned.
- **Education Guarantee Scheme:** To make education accessible to small children in far-flung hamlets, the Education Guarantee Scheme was formulated, under which Vidya Kendras are being opened in 6 districts of the State this year. These Kendras are specifically run for classes I and II using local instructors known as Acharyajis. Acharyajis are provided one month rigorous training in DIETs. Vidya Kendras are set up in areas where at least 20 children aged 6-11 years are available for classes I and II. The scheme is to be extended throughout the State.
- **Basic education project:** To accelerate the pace of UEE, Basic Education Project-I was launched in 1993 covering 3 districts of the State over a period of 7 years. Encouraged by the success of the project, phase II was started in 1997 for a period of 3 years. The total project cost for the 3 districts was Rs. 174 crores. The project was completed in September 2000 but its quality interventions ought to be



continued in the State. Expenditure is currently being booked under the State's non-Plan budget.

- **District primary education programme:** The DPEP is a Centrally-sponsored scheme that was launched in April 2000 with a total project cost of Rs. 83.03 crores. It is to be implemented for a 5-year period in 6 districts of the State where the female literacy rate is lower than the national average of 39.2% (1991 census). Rs. 1161.25 lakhs were allocated for the scheme in 2000-2001 and 130 primary school buildings, 118 additional classrooms, 5 block resource centres and 131 NPRC buildings constructed. In 2001-02 provision has been made for 478 Shiksha Mitras (para-teachers) in formal schools after training by the DIET and 200 EGS centers are in operation. Acharyajis have been trained for the latter and 'in-service training' of 1744 primary school teachers completed.

As noted above the primary education programme is being implemented in 6 districts of the State where female literacy is low. The main objective is to make education accessible to all children up to age 14 years with a target of 100% enrolment and attendance. Rs. 356 lakhs have been budgeted by the State in the current year with the GOI share Rs. 2254 lakhs.

- **DIET (District Institute of Education and Training):** At present only 9 DIETs are functioning in Uttaranchal and catering to the needs of all the 13 districts. Hence 4 new DIETs have to be established so that each district has its own. One DIET was recently sanctioned by MHRD of GOI for Udham Singh Nagar and Rs. 347.22 lakhs sought as Central assistance from the GOI in the current financial year (2001-02), together with an additional Rs. 23.2 lakhs for each of the remaining DIETS. The State liability has been fixed at Rs. 7.10 lakhs per DIET totaling Rs. 63.9 lakhs as the State's share. The remaining cost is to be borne by the GOI. In 2000-2001, Rs. 351.35 lakhs were disbursed for salaries, training and other DIET activities.

The DIET is a Centrally-sponsored scheme that assists the State in improving the quality of school education. It also organises training and refresher courses for school teachers.

- **Mid-day meal programme:** GOI launched this programme to increase enrolment and check the drop-out rate. Under this programme on the basis of regular attendance, children are provided 3 kg food grain per month for 10 months. The programme has had considerable impact on enrolment and drop-out rate. The State govt. intends to further strengthen the programme with provision of a cooked mid-day meal for students in selected schools as a pilot project.
- **Grant for provision of equipment to secondary schools under vocational education:** To provide equipment under this Centrally-sponsored scheme, a provision of R. 10 lakhs has been made in the current financial year and 102 secondary schools will be covered. Rs. 16.36 were provided in the ratio of centre:state of 75:25 for the year 2000-2001.

Vocational education was initiated as a separate scheme to provide training in some specific vocational skills such as shorthand, photography, food preservation, fabric designing and so forth. The scheme thus requires separate budgetary allocations and is funded on a centre:state ratio of 75:25. As it enhances employability of educated youths, it should be continued in subsequent years and Plans.

- **Honorarium to guest faculty under vocational education:** Under this Centrally-sponsored scheme a provision of Rs. 100 lakhs has been made to provide honorariums to guest faculty, of which the Center will bear 75% of the total cost.
- **PMGY**

Pradhan Mantri Gramodaya Yojana is a Centrally-sponsored scheme for development and employment generation. It provides money for five different sectors. In 2000-01 it was decided that each sector would be allocated a 15% share with the remaining 25% distributed by the State govt. according to its priorities. The total amount sanctioned for Uttaranchal in 2000-01 was Rs. 1256 lakhs, of which Rs. 188.40 lakhs were given to the education sector for construction of primary school buildings and 130 such buildings were erected in this year out of the PMGY allocation. The State contributed no funds from its 25% share.

For the year 2001-2002 the total outlay earmarked for this scheme is Rs. 1407 lakhs, of which 10% of the money has been allotted to the education sector. GOI has stipulated that 10% additional funds should be made available for this sector from the balance share. Under the scheme elementary education will receive Rs. 300 lakhs in the current financial year which is to converge towards meeting the requirement of 60% share of school construction costs.

For construction of 226 primary schools, 24 additional classrooms, 2 NPRCs, etc. in this financial year, Rs. 281.40 lakhs will be needed. The 10% share (Rs. 125.6 lakhs) of the last financial year will also be required, bringing the total requirement to Rs. 407 lakhs. The budget provision of Rs. 300 lakhs has been made and the balance budgetary demand will be made in supplementary budget proposals.

## 13.2 Higher Education

The Ninth Five-Year Plan for the field of higher education gives emphasis to the qualitative aspect through strengthening of existing colleges in terms of buildings, teachers, labs, equipment, etc. It also envisages opening new colleges in unserved and backward areas.

To provide higher education to the ever-increasing number of students passing out of intermediate colleges, 10 new colleges were established during the Eighth Five-Year Plan (1992-97). In the current Ninth Five-Year Plan (1997-2002), it was only last year (2000-2001) that the new State of Uttaranchal came into existence. The Govt. has decided to establish 14 new colleges in unserved areas and to provincialise one private college. With the addition of these new colleges the number of Govt. colleges will increase from 34 to 49. In addition to these, there are 14 Govt.-aided private colleges and 6 which are not in the list of Govt. grants. Further, there are 2 conventional universities and one deemed university.

The total outlay for higher education in the Ninth Plan is Rs. 35 crores. Some of the important schemes are highlighted below.

- **Development grant and matching share to universities**

Under this scheme grants are sanctioned on a cent-per-cent basis to universities for their all-round development and qualitative improvement. The amounts sanctioned/approved for 1997-98, 1998-99, 1999-2000 and 2000-01 were

respectively Rs. 10.34 crores, Rs. 5.11 crores, Rs. 5.05 crores and Rs. 7.26 crores. A provision of Rs. 5.50 crores has been made for the year 2001-2002.

- **Opening of new Govt. degree colleges**

In the first four years of the Ninth Plan, no new colleges were established. It is only in the current year (2001-02) that 14 new colleges are to be erected and one private college provincialised. For the 3 new colleges built in the last year of the Eighth Plan, Rs. 64.69 lakhs were provided for 2001-02, while the expenditure incurred in 2000-01 was Rs. 59.86 lakhs. A proposal of Rs. 3.41 crores has been submitted for 12 of the 14 proposed new colleges. The other 2 colleges--one at Chandrabadani-Naikri, the other at Pratap Nagar-Lambgaon (District Tehri), are to be financed by the GOI through the THDC. . . . .

- **Establishment of director's office**

Rs. 47.96 lakhs have been provided in the year 2001-2002 for the establishment of a Directorate.

- **Strengthening of Govt. degree colleges**

Under this scheme new subjects were introduced and some existing colleges upgraded as per needs. Staff was augmented and grants sanctioned for the purchase of books, furniture and equipment. In the years 1997-98, 1998-99, 1999-2000 and 2000-01 an expenditure of Rs. 63.02 lakhs, Rs. 200.94 lakhs, Rs. 127.95 lakhs and Rs. 120.27 was respectively incurred. In the year 2000-01 science subjects were introduced at the degree level in Govt. PG college, Rudrapur and 13 posts created. To support this a provision of Rs. 70.95 lakhs has been made in the year 2001-02. Also in this year, new subjects are likely to be introduced in other colleges and affiliation has been granted for the same.

- **Construction of new Govt. college buildings and completion of unfinished ones.**

Under this scheme the amount sanctioned in 1997-98, 1998-99, 1999-2000 and 2000-01 was respectively Rs. 2.63 crores, Rs. 4.65 crores, Rs. 5.96 crores and Rs. 4.27 crores. Of the 20 construction projects, 8 buildings have been commissioned, 95% of the work completed in 2 and the remainder at various

stages of completion. Rs. 4.40 crores have been earmarked for this scheme in the year 2001-02. Although 2 new projects have been initiated in the current year, emphasis is on completion of the unfinished work.

- **Assistance to non-Govt. colleges and institutions.**

The increasing number of higher education aspirants has made it imperative to open new facilities/subjects in Govt-aided private colleges. Further, the Govt. has a policy for encouraging the establishment of self-financed institutions. Under this scheme Rs. 31.25 lakhs have been provided in the year 2001-02.

- **Other schemes**

In addition to the foregoing, matching grants are also sanctioned under UGC-sponsored schemes. Keeping in mind the importance of computer education, a provision of Rs. 55 lakhs has been made for the purchase of computers and equipment in the year 2001-02. Although provision was made in earlier years also for purchase of computers, no funds were sanctioned.

### **13.3 Technical Education**

The all-round development of a Nation or State depends largely on the effectiveness and efficiency of its technical education system. Institutions providing technical education at degree and diploma level are known as Engineering Colleges and Polytechnics. There are 2 Govt. Engineering Colleges (Kumaon Engineering College, Dwarahat, Almora and G.B. Pant Engineering College, Pauri) and 16 Polytechnics (15 Govt.) and one Govt-aided in Roorkee in the newly formed State of Uttaranchal. The Engineering Colleges offer four-year courses in such disciplines as electrical engg., electronics engg., computer and information tech., and mechanical engg. with a total enrolment of 840 students per year versus 1865 students per year in the Polytechnics, where course duration varies from 2 to 3 years. Three-year diploma courses include civil, mechanical (production and automobiles), electrical, electronics, chemical engg., interior decoration and design, information technology and computer science and engg., etc. while the 2-year diploma courses comprise office management and secretarial practice, pharmacy, computer application, etc. The minimum qualification for engg. courses is 10+ whereas for office management and pharmacy it is 10 + 2, and graduation or diploma in any discipline required for admission to computer application. The minimum

qualification for degree courses is 10 + 2. Admission to all these degree and diploma colleges is based on competitive examinations (JEE or UPSEAT, Joint Entrance Examination or respective State Entrance Admission Test).

During the Ninth Five-Year Plan (1997-2002; see Annexure 1) three years (1997, 98 and 99) were covered under the World Bank-assisted Technical Education Project. During this period various activities were undertaken to modernize and strengthen polytechnics. Considerable funds were utilized for the Polytechnic situated in the State of Uttaranchal. The activities covered during the Plan period under the World Bank are given below.

1. Building construction.
2. Purchase of computers and peripherals and establishment of computer labs.
3. Purchase of equipment through D.G.S. & D.

The financial implications for these physical achievements are given below.

(in lakh)

S. n.	Name of Work	Amount Sanctioned			Actual expenditure incurred		
		97-98	98-99	99-00	97-98	98-99	99-2000
1.	Construction of building for Polytechnics at Gauchar, Thalnadi, Uttarkashi & Nainital.	1115.80		-	-	1111.20	
2.	Purchase of Computers for Polytechnics	-	911.95	-	-	911.45	

Subsequent to the World Bank project in the polytechnic sector there was no Plan scheme and the entire outlay during 2000-01 and 2001-02 covered under the non-Plan scheme funded by the State govt. The financial picture for these two years is given below.

(in lakh)

S.N.	2000-2001		2001-2002	
	Approved Outlay	Expenditure	Approved outlay	Expenditure
	889.41	727.77	2834.59	In process

All the constructions proposed in Table 6.24 as well as the equipment per course requirement targeted during the Ninth Five-Year Plan were achieved. In addition, libraries, which were mostly outdated, were upgraded with modern editions costing about Rs. 20 lakhs for the 16 Polytechnics of Uttaranchal.

Emphasis was given throughout the Ninth Plan to Teacher Training Programmes under the Quality Improvement/Staff Development Scheme.

### **Annual Plan 2000-2001**

The approved outlay for this year was Rs. 986.41 lakhs, of which capital investment comprised Rs. 889.41 lakhs. The expenditure incurred was Rs. 727.77 lakhs under two phases: 1 April 2000 to 8 November 2000 (UP period) and the other from 9 November 2000 to 31 March 2001 (Uttaranchal period).

The hostel building at Govt. Polytechnic Gauchar costing Rs. 95.70 lakhs was completed and the hostel building at Govt. Polytechnic Dwarahat (Almora) costing Rs. 84.41 lakhs about 60% completed. The remaining work at Dwarahat is in progress and completion expected in the financial year 2001-2002. There is no other construction in progress in the polytechnic sector.

### **Annual Plan 2001-2002**

In this year the total outlay sanctioned is Rs. 907.18 lakhs, of which Rs. 818.86 lakhs have been earmarked for capital requirements and the balance for miscellaneous contingencies. The expenditure thus far constitutes about 60% of the total allocation.

It is important to mention here that two new courses were introduced in the polytechnic stream for which staff requirement, equipment and machinery have yet to be procured. The funds needed immediately for these courses are being taken from the budget available for the year 2001-02.

The new courses introduced this year are:

1. Information Technology -- 3 years, Diploma
2. Computer Science & Engg. -- 3 years, Diploma

In toto, 720 students have been admitted to these courses and other course requirements are expected to be completed within the Ninth Five-Year Plan.

The constructions proposed for the financial year 2001-2002 are listed below.

1. Inst. building at Govt. Poly Gauchar -- Rs. 100 lakhs

2. Approach road 1.5 km long at Govt. Poly Gauchar -- Rs. 23.17 lakhs
3. Retaining structures and other finishing work in hostel at Govt. Poly Gauchar -- Rs. 31.17 lakhs
4. 30-seated Girls' Hostel at Govt. Girls' Poly., Almora -- Rs. 66.47 lakhs
5. Finishing of incomplete Pharmacy Block at Govt. Poly, Srinagar -- Rs. 66.47 lakhs
6. Electricity and water supply scheme at Govt. Poly, Sult (Almora) -- Rs. 7.85 lakhs

Allotments totalling Rs. 44.48 lakhs under the District Plan for various polytechnics in Uttaranchal are as follows:

- Govt. Poly Gauchar (Chamoli) (residences) -- Rs. 10 lakhs
- Govt. Poly Uttarkashi (boundary wall) -- Rs. 1 lakh
- Govt. Poly Uttarkashi (water supply) -- Rs. 1.98 lakhs
- Govt. Girls' Poly Dehra Dun (equipment/furniture) -- Rs. 1.50 lakhs
- Govt. Poly Sult (Almora) (electricity/water supply) -- Rs. 17 lakhss
- Govt. Poly Nainital (renovation of residence) -- Rs. 3 lakhs
- Govt. Poly Lohaghat (Pithoragarh) (site development) -- Rs. 2 lakhs
- Establishment of Girls' Poly at Naninital -- Rs. 7 lakhs
- Establishment of Girls Poly at Bageshwar -- Rs. 1 lakh

In addition, a provision of Rs. 40.78 lakhs has been made available under the Plan budget for the purchase of equipment and furniture required for the new courses in information technology and computer science and engg. The proposal for this requirement has already been submitted to the Govt. for sanctioning.

- Govt. Poly Srinagar -- Rs. 2 lakhs
- Govt. Poly Thalnadi -- Rs. 1 lakh
- Govt. Poly Narendranagar -- Rs. 4 lakhs
- Govt. Poly Dehra Dun -- Rs. 6.20 lakhs
- Govt. Poly Uttarkashi -- Rs. 1.80 lakhs
- Govt. Poly Gauchar -- Rs. 2 lakhs
- Govt. Poly Nainital -- Rs. 8.24 lakh
- Govt. Poly Kashipur -- Rs. 3.54 lakhs
- Govt. Poly Shaktifarm -- Rs. 2 lakhs
- Govt. Poly Sult -- Rs. 2 lakhs
- Govt. Poly Dwarahat -- Rs. 2 lakhs



- Govt. Poly Takula -- Rs. 2 lakhs
- Govt. Poly Lohaghat -- Rs. 2 lakhs
- Govt. Girls' Poly Dehra Dun -- Rs. 2 lakhs

As already mentioned, the aims and objectives of technical education in Uttaranchal include promotion of such education for women, the weaker section of society, SCs and TCs in the State. It is also planned to establish several more Polytechnic and Engg. Colleges in order to produce more technically qualified persons from Uttaranchal, as a means of improving the socioeconomic status of society.

- **Degree level education in Uttaranchal**

As already mentioned above, there are 2 Govt.-run Engg. Colleges in Uttaranchal and 3 Engg. Colleges in the private sector, viz.

- Kumaon Engg. College Dwarhat (Almora)
- G.B. Pant Engg. College Pauri (Garhwal)
- College of Engg., Roorkee
- Dehra Dun Institute of Technology, Dehra Dun
- Graphic Era Institute of Engg. and Tech., Dehra Dun.

Information pertaining to degree-level institutes with respect to the Ninth Plan for the years 2000-01 and 2001-02 is given below.

A large number of construction activities were taken out in these two years and the financial and physical achievements with respect to the 2 Govt. Engg. Colleges.

1. Kumaon Engg. College Dwarahat (Almora).
- 2.

G.B. Pant Engg. College Pauri (Garhwal).

With respect to the physical targets, the number of students admitted in different Engg. branches is as follows:

Ninth Plan (1997-2001)	1997-1998		1998-1999		1999-2000		2000-2001	
	Target	Achievement	T	A	T	A	T	A
542	80	73	106	92	90	82	106	90

For the year 2001-02 the Plan and non-Plan outlays made available are as follows:

	Plan	Non-Plan
KEC Dwarahat	550 lakhs	170 lakhs
Pauri Engg. College	525 lakhs	170 lakhs

The financial requirements for construction, purchase of equipment, furniture and other contingencies has been provided in the 2001-02 budget and physical and financial progress is satisfactory.

There are no Centrally-sponsored schemes at present in the Department.

## **Prospection**

For rapid future development of technical education in the State of Uttaranchal, consideration of the following is imperative.

- ***Establishment of Technical University:*** A Technical University is an administrative body for the supervision and proper conduction of admissions, exams, etc. in a state. Like other states, Uttaranchal should also have a technical university and a proposal to this effect is being readied by the Deptt. of Technical Education for the State govt.
- ***Establishment of a Regional Engg. College:*** It is imperative that every state have a Regional Engg. College and the Deptt. of Tech. Educ. has already submitted a proposal to the Uttaranchal Govt. to upgrade Kumaon Engg. College to an R.E.C.
- ***Encouraging degree-level institutions in private sectors:*** Uttaranchal has 2 Govt. engineering colleges but only 3 such colleges in the private sector. To promote engineering education throughout the State, the Dept. of Tech. Educ. is inviting applications from its citizens for setting up more engg. colleges whereby the maximum number of youths may be benefited in Uttaranchal.
- ***To introduce courses concerned with emerging technologies:*** The Tech. Educ. Dept. is planning to introduce courses pertaining to the new technology such as Information Tech., Computer Science & Engg. and M.C.A. in both private and Govt. sectors. In short, the Dept. is trying to give a new dimension to technical education by introducing the latest technology in degree and diploma level institutions.

## 13.4 Art and Culture

The Department of Culture is engaged in the conservation, documentation and development of various cultural aspects in the newly created State of Uttaranchal. Seven technical units are presently working in the following areas.

1. Bhatkhande Hindustani Music Colleges, Almora and Dehra Dun where at present degree courses are available in three streams of Classical Music, viz. Vocal, Sitar and Kathak.

In addition, a small unit is working in Pauri (part of Dehra Dun) where courses in Tabla, Folk Music, Sitar and Vocal Music are conducted.

Two more disciplines are to be included in the syllabus in the financial year 2001-2002.

2. Govt. Museum at Almora: This museum has five galleries and houses some rare antiquities. There are two branch museums--one at Khunt and the other Kausani.

A museum at Pithoragarh has been approved and is being established during this financial year.

3. Regional Archaeology Units, Almora and Pauri: Some of the most famous archaeological sites are located in Uttaranchal. As many as 47 monuments are being protected by the Department of Culture, Uttaranchal. In addition, 24 monuments are in the process of being brought under the Protected Monuments Act since they are significant from the viewpoint of both culture and architecture.

Plans are afoot to strengthen these archaeological units to give Uttaranchal the place it deserves in the Heritage Map.

4. Pt. Govind Ballabh Pant Lok kala Sansthan, Nainital: Lokkala or 'folk art' is an important part of the culture of Uttaranchal. The Garhwal School of Paintings and the folk art of Kumaon are famous not only in the region, but throughout the country. Through strengthening this unit the Dept. hopes to explore the possibility of including more art forms hitherto lesser known.

5. Registration Office, Bahumulya Kalakriti, Nainital: Under the Registration Act of 1972, this unit registers valuable antiquities (more than 100 years old) such as coins, tamrapatra, temples, woodcraft, etc., which are important from the historical, cultural and heritage points of view.

6. Regional Archives Offices, Nainital/Dehra Dun: Historical accounts dating back to 1815/1816 are documented in these units. Apart from written records, these archival units also house audio records of the Freedom Fighters.

It is proposed to upgrade the Regional Archive Office in Dehra Dun to the Uttaranchal State Archive Office during the current year.

7. Directorate of Culture: This directorate has overall responsibility for the administration of the aforesaid units and develops the policies for programmes pertinent to the Department of Culture. Festivals, fairs, exhibitions, etc. are all functions under the purview of the Directorate.

The objective of the Dept. of Culture is to provide protection to the rich cultural heritage of Uttaranchal and to promote its deserved recognition. Aside from implementing its ongoing schemes, the Dept. proposes to develop new policies and programmes in such a way that a cultural infrastructure is set up for the State in the form of Multiple Cultural Complexes, State Museum, State Archives, Art Gallery etc. These would constitute the first steps towards strengthening and giving a fillip to the cultural activities of the newly formed State.

The total outlay earmarked for the year 2001-2002 is Rs. 679.66 lakhs, of which Rs. 550 lakhs are total capital content. The main schemes proposed for implementation in the current year are listed below.

--Construction of cultural complex in Almora: Jakhandevi is the proposed site for this complex, for which 5000 m<sup>2</sup> land is available.

--Construction of unfinished part of the Govt. Museum building in Pithoragarh and establishment of the museum. The building is almost completed and the proposal has been sanctioned in the SND.

--Development of Bhatkhande Music Colleges, Almora and Dehra Dun: Three additional streams have been proposed for inclusion in the syllabus--Folk Music, Tabla and Bharatnatyam.

--Construction of Multiple Cultural Complex in Dehra Dun: This mega project will include an auditorium, art gallery, State archives, State library, etc. and architectural designs are already in the pipeline.

--Celebration of the First Anniversary of Uttaranchal.

--Organisation of various cultural activities on the occasion of Republic Day, etc.

# 14 MEDICAL, HEALTH AND FAMILY WELFARE

The State of Uttaranchal is still in the process of rendering basic services to its people and formulating a new health policy. Priorities identified in the health sector are listed below.

- Provide minimum health services at each Gram Sabha level.
- Strengthen primary health services.
- Strengthen specialised health services at secondary-level health services concomitant with the above.
- Effectively implement all national programmes as per guidelines from GOI.
- Establish an effective IEC division at the State level for generating public awareness of the services available for health needs.
- Establish state-of-the-art medical hospitals with tertiary care with a full-fledged infrastructure and human resources by strengthening existing hospitals (repairs, renovation and new construction as per the need assessment) at Dehra Dun and Haldwani.
- Implement Family Welfare and RCH Programme and a logistical management system.

Given the above priorities and programme requirements, the following proposals have been made under District and State sector Plan 2001-2002 for the Department of Medical, Health and Family Planning, Uttaranchal, with an outlay of Rs. 3152 lakhs computed.

### **A. Establishment of public health laboratory**

At present there is no facility for analysis of food and drug samples in Uttaranchal. All samples are sent to Agra/Lucknow, which is time consuming and liable to error given the time lag in sample testing. Without timely analyses, the whole purpose

of the exercise is vitiated. Hence there is urgent need for establishing a lab at the State level, for which the estimated expenditure would be Rs. 70 lakhs.

### **B. Establishment of blood banks**

There is pressing need for a blood bank in the combined hospital, Roorkee. The city has a dense population and a State highway passes through it. In public interest and as per need assessment, it is imperative to establish a blood bank here. The estimated expenditure for this venture is circa Rs. 25 lakhs.

### **C. Establishment of ENT/Eye/Orthopedic units at district level**

There is need for ENT/EYE/orthopedic units at Udham Singh Nagar, Kotdwar and Ranikhet, for which the estimated expenditure is Rs. 75 lakhs.

### **D. Construction of patient's relations sheds**

It is proposed that sheds be constructed to house relatives attending to patients in district hospitals and other important places, especially those from remote areas. These sheds would include a defined area for cooking, proper lights, potable water facilities and of course offer proper protection from climatic elements. An outlay of Rs. 6 lakhs has been proposed for the current financial year.

### **E. Establishment of post-mortem centers**

There is urgent need for post-mortem centers at Udham Singh Nagar, Srinagar, Kotdwar, Rishikesh and Roorkee for conduction of proper autopsies as per prescribed legal norms. The cost of one full-fledged mortuary with water and other facilities would be circa Rs. 6.5 lakhs and a total expenditure for this activity has been set at Rs. 32.5 lakhs.

### **F. Establishment of IEC cell at the State level**

GOI has agreed to allocate Rs. 10.07 lakhs for IEC activities. To establish the IEC cell the staff requirement is one Joint Director officer, District Health Information officer, one class III and one class IV staff.

## **G. Establishment of universal immunisation programme cell at the State level**

It is proposed to set up a UIP cell at the State level to implement and monitor the UI programme. This Centrally-sponsored programme requires an allocation of Rs. 60.40 lakhs for establishment and infrastructure.

## **H. Iodine deficiency disorder**

To implement the NIIDDCP programme, it is proposed that an IDD cell be set up at the State level for implementation and monitoring of the IDD programme. An allocation of Rs. 4.80 lakhs is necessary for establishment and infrastructure.

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The State Govt. has agreed to allocate Rs. 200.04 lakhs for construction of subcentres under the District plan. It is proposed to construct 40 subcentres under this scheme to strengthen rural health service. The State has 1525 subcentres, of which only 325 have buildings and 36 are under construction.

An allocation of Rs. 300 lakhs is required to complete 28 PHCs. At present there are 257 PHCs (including block level), of which 170 have buildings and 28 are under construction. A proposal for implementing the first phase of 10 PHCs requests allocation of Rs. 250 lakhs.

The State has agreed to allocation of Rs. 250.35 lakhs for completion of 18 CHCs.

An allocation of Rs. 342.21 lakhs has been made for completion of 38 SAD buildings. There are presently 322 SADs, of which 54 have buildings and a proposal for allocation of Rs. 240 lakhs has been made for implementing the first phase of building construction for 12 SADS.

An outlay of Rs. 50 lakhs has been proposed for construction of the second phase of Udham Singh Nagar District hospital under the District plan and Rs. 10 lakhs for the first phase of construction of a women's hospital in Pauri.

It is proposed that Rs. 76 lakhs be allocated for electricity and water supply in PHCs/Subcentres/CHCs under the District plan. It is further proposed that Rs. 54.62 lakhs be allocated for establishment of a hospital under the District plan. The State has

agreed to an allocation of Rs. 301.15 lakhs for the malaria eradication programme under the District plan.

Allocations for the following works have also been proposed: Rs. 14.18 lakhs for establishing CMO and Dy CMO offices in 3 new districts, namely Rudraprayag, Bageswar and Champawat; Rs. 14.18 lakhs for establishment of a hospital in the High Court at Nainital; Rs. 108 lakhs for establishment of TB clinics in Bageswar, Rudraprayag, Champawat, Udham Singh Nagar and Hardwar; Rs. 51 lakhs for strengthening and equipping Govt. hospitals; Rs. 100 lakhs for various minor construction works in Govt. hospitals; Rs. 3.88 lakhs for establishment of ambulance service in Govt. hospitals; Rs. 25 lakhs for medical and sanitation facilities on Yatra Marg for districts Chamoli, Uttarkashi, Tehri, Pauri, Dehra Dun and Pithoragarh; and Rs. 87.30 lakhs for establishment of CHC.

In addition, it has been agreed that Rs. 79.10 lakhs shall be allocated through the Central Govt. for World Bank-supported projects for control of blindness.

## **I. AYURVEDIC AND UNANI DEPARTMENT**

Ayurveda, the Indian system of medicine, is among the oldest medicinal systems in the world. A separate department of Ayurvedic and Unani services has been established in Uttaranchal for promotion of the indigenous Ayurveda system of medicine.

The aims of the department are given below.

- Availability of Ayurvedic chikitsa to the public through OPD and IPD units.
- Upgradation of Ayurvedic hospitals at the Tehsil and District level equipped with such specialised facilities as Akshar Sutra therapy, yoga therapy, Panch Karma therapy and surgical facilities.
- Education, training and research programmes in Ayurveda.
- Provision of quality Ayurvedic medicine to the public.
- Promotion of identification of medicinal plants and their medical uses.
- Promotion of employment through generation of farms for medicinal plants.
- Upgradation of Rishikul State Ayurvedic Pharmacy and Drug Testing Laboratory.

At present there are 487 Ayurvedic hospitals/dispensaries in rural and urban areas of Uttaranchal with the following facilities:

--15-bed Ayurvedic hospital -- 5

--4-bed hospital -- 319



--OPD hospitals/dispensaries -- 68

--Hospitals under plan -- 95

In addition to the above, there are two Ayurvedic college/hospitals: 1) Rishikul and 2) Gurukul. Both colleges are situated in Hardwar and 110 undergraduate scholars are granted admission annually for the B.A.M.S. course.

Post-graduate courses in Rasa shastra are offered in Rishikul Ayurvedic College, Hardwar and 6-7 scholars selected yearly for the degree MD(Ay.).

A 154-bed hospital is attached to Rishikul College and an 80-bed hospital to Gurukul College.

### **State Sector Plan 2001-2002**

- Establishment of Ayurvedic and Unani Directorate and approval for posts in Uttaranchal.
- Expected expenditure will be proposed after posts for the Directorate have been sanctioned.
- Establishment of Kshetriya Ayurvedic offices.

The outlay for the financial year 2001-02 is Rs. 2 crores for construction of buildings for Ayurvedic and Unani offices and posts in four districts: Champawat, Rudra prayag, Bageshwar and Udham Singh Nagar, with expenditure to be incurred placed at Rs. 144.04 lakhs.

It is proposed to establish three new hospitals in each district every year. Accordingly the outlay for 2001-02 has been projected as shown in the following table.

Buildings	1	19.00 lakhs
Medical officers	39	70.20 lakhs
Pharmacists	39	44.40 lakhs
<u>IV class</u>	<u>78</u>	<u>66.60 lakhs</u>

Sanction of posts for 95 hospitals and estimated expenditure are given below.

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Medical officers	95	1.71 lakhs
Pharmacists	95	1.14 lakhs
IV class	190	1.14 lakhs

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An expenditure of Rs. 3 crores has been estimated for the establishment or up gradation of 15-25-bed hospitals at the district level in Gopeshwar, Chamoli, Almora, Dehra Dun, Nainital and Pithoragarh.

An allocation of Rs. 11.02 lakhs is required for sanction of posts of UDC, LDC and Sr. Asst. in Pauri, Uttarkashi and Hardwar.

# 15 WATER SUPPLY AND SANITATION

The topography of the State of Uttaranchal, newly carved out of Uttar Pradesh, has a difficult topography with 13 districts spread over 53,204 km<sup>2</sup> hilly terrain in the middle of the Himalayan range. Of the 13 districts, Hardwar and Udham Singh Nagar lie in the plains and Dehra Dun is situated in a semi-plain area.

Given the difficult topography of the State, most habitations have a small population and are interconnected to main roads by bridle paths. Those villages/habitations more conveniently approachable have already been provided with water supply schemes. Those situated in more difficult terrain and at higher altitudes do not in general have water sources available in the vicinity and hence sources situated far away have to be tapped to provide dependable and adequate water supply to the inhabitants.

Many habitations lack even distant water sources to provide water supply by gravity. Pumping schemes have therefore to be provided. Since many water sources are becoming depleted, pumping schemes have also to be provided for habitations within their vicinity.

Jal Nigam of UP was assigned the responsibility of executing the water supply and sanitation schemes in Uttaranchal. Construction of works in urban areas are being carried out with funds received from the State and Central govts., while rural works are funded 100% by a grant under the District plan, i.e., Minimum Need Programme and the Centrally-sponsored Accelerated Rural Water Supply Programme. At present, some schemes are being executed by SWAJAL under World Bank auspices and other reorganisation schemes have been taken up by Jal Sansthan.

There are 31,008 habitations in Uttaranchal, of which 29,208 had been benefited as of March 2000. Thus there were 357 NC (not covered) and 1443 PC (partially covered) habitations requiring coverage as of 1 April 2000. Of these, 95 NC and 255 PC were provided drinking water facility during the financial year 2000-2001. Thus 262 NC and 1188 PC habitations had yet to be benefited as of 1 April 2001. Of the NC habitations, 197 with an undisputed water source that can be covered by gravity schemes are slated for coverage in the year 2001-2002, in addition to 260 PC habitations. Of the

remaining 65 NC habitations, 16 are displaced and 14 have a disputed water source; the remaining 35 habitations shall have to be covered through pumping schemes.

The aforesaid 35 NC and the balance 928 PC habitations are expected to be covered by the year 2004 as per GOI schedule. During the current financial year 200 additional PC habitations could be planned if the requisite allocation of Rs. 2500 lakhs is made available immediately.

## **A. District Sector**

### **(a) Minimum need programme**

Rs. 5854.98 lakhs were sanctioned and released in 2000-2001 and with an expenditure of Rs. 5079.07 lakhs 140 habitations were benefited and schemes for which coverage had been implemented in the previous year completed: . . . . .

An outlay of Rs. 5000 lakhs under the Minimum Need Programme, Rs. 1500 lakhs under the Special Component Plan, Rs. 500 lakhs under the Tribale Subplan and Rs. 413.15 lakhs for construction of hand pumps was proposed by the State Govt. of Uttaranchal. Thus a total outlay of Rs. 7413.15 lakhs has been proposed for the year 2001-2002, out of which 123 NC/PC habitations will be benefited and 550 hand pumps installed. In addition, outstanding works of the schemes under construction shall also be completed for the most part.

As the natural sources of water supply are drying up in many places, there is a drinking water crisis. Some important rural pumping schemes in districts Tehri, Pauri and Bageshwar have therefore been proposed under the State sector, for which Rs. 500 lakhs have been allocated in the current year.

### **(b) Centrally-sponsored scheme**

Rs. 3231.40 lakhs were released during 2000-01 against a proposed budget of Rs. 4500 lakhs. This was done in line with the previous year's allocation made for Uttaranchal region in the UP Govt. proposals. With the released funds, 210 NC/PC habitations were benefited and the works of schemes for habitations covered in previous years completed.

An outlay of Rs. 5000 lakhs has been proposed for the year 2001-02 to benefit 227 NC/PC habitations.

## **B. State Sector**

### **(a) Urban water supply**

All towns in the 13 districts of Uttaranchal have been provided a water supply system but due to rapid population growth and depletion of discharges from existing sources, it has become necessary to reorganise/rejuvenate these schemes in some towns to provide water at the prescribed norms.

An outlay of Rs. 350 lakhs and a budget of Rs. 350 lakhs were fixed in the year 2000-2001 for urban water supply schemes, against which Rs. 573.80 lakhs were released.

At an expenditure of Rs. 943.55 lakhs 3 reservoirs were established and 30.63 km pipeline laid with 7.87 M.L.D. water realised.

For the year 2001-2002 an outlay of Rs. 1400 lakhs has been proposed for new and ongoing schemes. This includes the budget provision for development of the Dehra Dun water supply (Bijapur Canal).

## **C. Centrally-sponsored accelerated urban water supply**

For towns with a population of less than 20,000 GOI provides a 100% grant for development of water supply projects. Works are presently underway in Kaladhungi, Bajpur, Dineshpur, Lalkunwa, Narendra nagar, Chamba, Uttarkashi, Devprayag, Joshimath, Nandpryag and Srinagar and schemes under consideration for new towns such as Doiwala, Herbetpur, Laksar, Bageshwar, Champawat and Dharchula.

Rs. 160 lakhs were released during 2000-2001 against an outlay of Rs. 660 lakhs and an expenditure of Rs. 347.44 lakhs incurred. The outlay for 2001-2002 of Rs. 727 lakhs has been proposed for new and ongoing schemes, which will be shared on a 50:50 basis by the State Govt. and GOI. The State share of Rs. 363.50 has been included in the Urban Water Supply under the State sector.

## **D. Urban sanitation**

Sewerage schemes are under execution in Dehra Dun, Rishikesh, Badrinath, Nainital, Kashipur, Bhimtal and Ramnagar towns in Uttaranchal.

For the year 2000-01 a loan of Rs. 100 lakhs and a grant of another Rs. 100 lakhs, i.e. a total of Rs. 200 lakhs, were released for sewerage schemes against an outlay of Rs. 200 lakhs. As of March 2001, 11 km sewer lines had been laid.

An outlay of Rs. 400 lakhs has been proposed for the year 2001-2002, with which 20 km sewer line and appurtenances are proposed to be executed in Dehra Dun, Rishikesh, Chamoli, Nainital and Ramnagar. In addition to the State programme, Rs. 1100 lakhs 100% grant has been allocated for the Almora sewer scheme under a Centrally-sponsored programme.

### E. Ganga Action Plan

Rs. 233 lakhs were sanctioned and released during 2000-2001 for maintenance of the Ganga pollution control works under phase-I in Hardwar and Rishikesh and an expenditure of Rs. 290.14 lakhs incurred. For the year 2001-2002, an outlay of Rs. 350 lakhs has been proposed for maintenance of the phase-I schemes executed for control of pollution in the Ganga.

### F. Summary

The proposed outlay for 2001-2002 for the Water Supply and Sanitation Department of Uttaranchal is summarised in Table.

Table Proposed outlay for 2001-2002 (Rs. in lakhs)

Sl. No.	Items	Amount
	<b>State Sector</b>	
1	Urban water supply (State)	1000
2	Rural water supply State sector	400
3	Urban Sewerage (Grant)	150
4	Urban Sewerage (Loan)	150
	<b>Total Sewerage</b>	<b>1700</b>
	<b>Rural water supply (M.N.P)</b>	
5	Basic Minimum Services	3800
6	Special Components Plan	1050
7	Tribal Sub Plan	400
8	Hand Pumps	362
	<b>Total M.N.P</b>	<b>5612</b>
	<b>Centrally Sponsored</b>	
9	Accelerated Rural Water Supply	4000
10	Accelerated Urban Water Supply	263
11	Almora Sewerage	700
	<b>Total Central Share</b>	<b>4963</b>
12	Ganga Action Plan Maintenance	300
	<b>Grand Total</b>	<b>12575</b>

# 16 INFORMATION AND PUBLICITY

In communicating the plans, policies and developmental works of the Government to the people, the Information Department plays a vital role. It disseminates development-related publicity information through various communication media. For this purpose an outlay of Rs. 60 lakhs was fixed for the Ninth Five-Year Plan (1997-2002). In the year 2000-2001 the anticipated expenditure was Rs. 56.45 lakhs. For the year 2001-2002 an outlay of Rs. 40 lakhs has been proposed.

**A. Production of films:** Under this head, films/documentaries are produced and publicity work carried out. Documentaries of such subjects as achievements, developmental works, development-related programmes of the Govt. are made and then flashed through different channels including Door Darshan to give them public viewing. Four documentaries have been targeted for the current financial year.

**B. Photo services:** Under this head, photographs of programmes of VVIPs, various developmental works, etc. are produced and subsequently published in newspapers, magazines and other media. For exhibitions, large-size photographs are developed for publicity. Under the Ninth Five-Year Plan the gross expenditure was fixed at Rs. 5.50 lakhs but the actual expenditure in 2000-2001 was Rs. 6.68 lakhs.

Since there is no lab at present, photo processing is conducted from a private studio in the market, a practice that is proving costly. Establishment of a Departmental lab would ensure efficiency and quality and be economically more viable. Hence an Automatic Colour Lab has been proposed with an estimated expenditure of Rs. 8.2 lakhs.

**C. Farmer fair exhibition:** Under this scheme, publicity is effected by organising exhibitions. The Department is currently organising an exhibition in the International Fair in Delhi. For this Rs. 6 lakhs have been proposed for purchase of the requisite kits, photo paper and multiple other items required.

**D. Song and drama plan:** Selected cultural troupes also carry out publicity and information dissemination through stage programmes. Education, prohibition, drinking

water, cleanliness-based policies of the Govt. are publicised for public awareness. Under this scheme Rs. 4 lakhs and Rs. 2 lakhs have been proposed for the State sector and Scheduled Tribe Subplan respectively.

**E. Publications:** For this, a gross expenditure of Rs. 5.50 lakhs was stipulated under the Ninth Five-Year Plan. The actual expenditure in 2000-2001 was Rs. 6.13 lakhs. An outlay of Rs. 14.30 lakhs has been proposed for the year 2001-2002, with another outlay of Rs. 2 lakhs proposed for free-of-cost distribution of community radio and television sets in Panchayats and schools.



# 17 LABOUR AND EMPLOYMENT

## 17.1 Labour Welfare

The State of Uttaranchal in discharge of its obligation under Articles 23, 38, 41, 42 and 43 of the Constitution, is determined to extend the umbrella of protection to the unprotected workmen employed in the unorganised sector, who are unable to negotiate on terms of equality; to mitigate exploitation by effectively enforcing laws enacted by Parliament; to ensure payment of minimum wages to the working class employed in the unorganised sector; to identify bonded labourers, free them from bondage and rehabilitate them; to prohibit engagement of children in hazardous occupations/employment; to regulate the conditions of children working in non-hazardous occupations; and finally, to sort out industrial disputes through the conciliatory machinery of the Department of Labour headed by the Labour Commissioner.

For effective administration and enforcement of labour laws, it is proposed that offices of assistant labour commissions be established at the District level, thereby ensuring speedier disposal of claims arising out of the Workmen's Compensation Act, Minimum Wages Act and Payment of Wages Act, in addition to amicable settlement of industrial disputes at the source. Given the size and topography of the State of Uttaranchal, only 9 districts have been identified in which the office of an Assistant Labour Commissioner could be set up.

Resolution of industrial disputes is the primary duty of the Labour Department. For expeditious performance of this duty, it is imperative that the Regional and Head Departments be suitably equipped for information technology. Provision has thus been made for purchase of such equipment for the three key centres--the regional offices located in Dehra Dun and Haldwani and the Head Department.

Constitution of an Industrial Tribunal in Uttaranchal is a priority item for the State Govt. and notification has already been issued. Strengthening the two existing Labour Courts is also under active consideration.

It has further been proposed that the piece of land at Vikasnagar donated to the Labour Department be used for establishing a Labour Institute in the near future. Fencing of this land is imperative to protect it against encroachment.

At present the office of the Deputy Labour Commissioner, Dehra Dun and the Labour Court are housed in a private building. Not only is this house in a dilapidated condition, the owner has initiated action to have it vacated by the Labour Department. The matter is subjudiced before the High Court of Judicature at Allahabad. It is therefore proposed that the Industrial Tribunal Uttaranchal at Haldwani, the Labour Court at Dehra Dun and the office of the Deputy Labour Commissioner, Garhwal region, Dehra Dun, all be housed in one housing complex constructed by the Govt. Token money has already been proposed in the budget for such a housing complex.

## **17.2 Employment**

### **A. Training wing departmental activities**

The training wing of the Directorate of Training and Employment conducts two types of training programmes through 63 ITIs at present: Craftsman Training Scheme and Apprentice Training Scheme.

#### **(a) Craftsman training scheme**

The Craftsman training scheme is conducted in 63 Govt. ITIs of Uttaranchal, involving training in vocational trades specified by the National Council of Vocational Training (NCVT) GOI. On completion of training, the NCVT conducts an All-India National examination in July every year. A National trade certificate is awarded to successful candidates, which is recognised both in India and other countries. In the State of Uttaranchal, 28 ITIs are run in Kumaon region and 35 in Garhwal.

In the 63 ITIs listed in Table 6.29, Kumaon has 193 units (classes) with a trainee strength of 3288. Garhwal region has 278 units (classes) and a trainee strength of 4464. In all, the Govt ITIs provide training facilities to 7752 trainees.

All these trained trainees are skilled craftsmen under the norms of NCVT GOI, capable of being absorbed in the public and private industrial sectors or taking up self-employment. Hence the Govt. ITIs play an important role in mitigating the problem of unemployment in the ecologically unfavourable situation of Uttaranchal.

#### **(b) Apprentice training scheme**

Under the Apprenticeship Act 1961 an apprentice survey is conducted in every district in both the public and private sectors and seats for apprentices determined

subsequently. As per the norms laid down in the syllabus of the National Apprentice Council, training is given to apprentices in various establishments; mostly ITI-passed trainees are engaged as apprentices for a period of one or two years.

Upon successful completion of their training, the apprentices are awarded a National apprentice certificate by GOI. The value of this certificate is even greater than that of the NCVT certificate, which is recognised both by the GOI and in other countries.

## **B. Affiliation of Government ITIs:**

In the above context, affiliation of the 63 Govt. ITIs to NCVT is very essential in the State of Uttaranchal. Of these institutes, 13 were functioning before 1976. The remaining institutes came into existence between 1976 and 1989. In these ITIs certain norms for land/buildings/tools/equipment/staff/electrical connection/hostel, etc. must be fulfilled to be awarded NCVT affiliation. Mostly those institutes which opened after 1976 have failed to obtain affiliation nor are the trades they offer recognised by the GOI. GOI NCVT has clearly stipulated that non-affiliated ITIs may not conduct examinations and 46 ITIs of Uttaranchal are likely to be affected. In the presently existing ITIs of Uttaranchal, only 172 units of the 471 available are recognised by NCVT. With shortage of buildings/tools/equipment/staff, permanent affiliation is very difficult for these industrial training institutes.

## **C. Building conditions**

Of the 63 Govt ITIs, only 27 have their own building and of these 7 buildings are presently under construction; the other 36 are operating in rented buildings. GOI NCVT has clearly delineated the norms that must be fulfilled for affiliation. Only after buildings/tools/equipment/staff become available will an inspection be carried out. Thus construction of buildings is deemed imperative.

## **D. STATE PLAN**

### **(a) Establishment of Directorate of training and employment**

The Directorate of training and employment was established at Haldwani concomitant with formation of Uttaranchal State and the Director appointed on 17 April 2001. The Directorate is presently functioning in 6 rooms of the administrative building in the Govt. ITI (Boys') in Haldwani.

### **(b) Strengthening the Joint Director**

It is very essential that an examination cell (Vocational Examination Council) be established under the Directorate of Training and Employment SCVT Uttaranchal as per the norms of NCVT GOI. This examination cell will function under the supervision of a Joint Director level officer, as already specified in the Department's organisation. Rs. 10 lakhs have been proposed under the Vocational Examination Council for establishment of the office of Joint Director.

### **(c) Betterment of subordinate offices**

For betterment of the 63 Govt. ITIs functioning in Uttaranchal Rs. 10 lakhs have been proposed.

To date, a separate ITI for the welfare of SC, ST under the Special Component Plan has not been achieved. It has been proposed that Rs. 385 lakhs be sanctioned for opening two new ITIs under this Plan in the State of Uttaranchal.

## **E. World Bank-aided scheme**

A World Bank-aided programme is involved in setting up new trades in 7 institutes and provision of a basic training centre for hotel industries in Dehra Dun. A proposal of Rs. 150 lakhs has been submitted to meet the balance required for fulfilment of these projects as outlined in the World Bank's scheme.

## **F. DISTRICT PLAN**

### **(a) Construction work**

Construction work on buildings for the following ITIs was initiated in the last and present Five-Year Plans but Rs. 200.00 lakhs are currently required for their completion and the funds requested under the District plan.

- Govt ITI Pokhara
- Govt. ITI Doiwala
- Govt. ITI Rudraprayag

--Govt. ITI Chamba

--Govt. ITI Gopeshwar

Building work was initiated for the Jainti and Musyari Govt. ITIs in the last Five-Year Plan but due to non-availability of funds as per the revised estimated expenditure, could not be completed. Construction work for the new ITIs Sadar Querella (Almora) and Danya is also to be started.

**(b) Fulfilment of shortage of tools and equipment**

For affiliation of Govt. ITIs to NCVT this task must be undertaken immediately as the GOI will not approve permanent affiliation of institutes having insufficient tools, equipment and furniture.

# 18 WELFARE OF SCHEDULED CASTES, SCHEDULED TRIBES, OTHER BACKWARD CLASSES AND MINORITIES

## 18.1 Welfare of Scheduled Castes

The Social Welfare Department was established in 1948 but separate departments set up only in 1995-1996 to tend to the welfare of minorities, handicapped and backward classes.

Welfare schemes pertaining to these classes were then transferred by the Social Welfare Department to their respective departments, with the set-up percolating down to the District level also.

With the creation of Uttaranchal State the various departments established in the erstwhile state of Uttar Pradesh have been merged into the State Department of Social Welfare. Thus the welfare activities of backward classes, minorities, handicapped and Sainik Kalyan will be looked after by this Department.

A Bahuudeshia Vitta Evam Vikas Nigam has also been established in the State to provide self-employment and income generation schemes for persons belonging to Scheduled Castes, Scheduled Tribes, Backward Classes, Minorities, Handicapped, Sanik Kalyan and for women living below the poverty line. The various Finance and Development Corporations of the erstwhile State of UP have been merged into the Uttaranchal Bahuudeshia Vitta Evam vikas nigam. This Nigam will implement the various socioe conomic activities for the benefit of these communities. It will also serve as a channelling agency for all the National Finance and Development Corporations, making these funds available for the aforesaid groups.

GOI and the State Govt. have accorded highest priority to rehabilitation of scavengers. A survey was conducted to assess the number of dry latrines operative in urban areas, number of persons engaged in cleaning them and number of persons

dependent on them. The survey revealed 8704 dry latrines in operation and 1965 cleaners. Govt. orders have been issued to all town areas/municipalities/Nagar Nigams to convert these dry latrines into wet ones through enforcement of various provisions under the Municipalities Act. The Social Welfare Dept. will strive to rehabilitate the cleaners by setting up Sanitary Marts and self-employment activities.

A major concern of Uttaranchal since attaining independence has been the welfare of weaker sections of society, in particular Scheduled Castes and Denotified Tribes. Concerted efforts were made by UP under various Five-Year Plans to raise their socioeconomic status through provision of adequate financial assistance under relevant sectoral heads and mobilisation of all the other developmental departments to allocate resources.

According to the 1991 census, the total Scheduled Caste population in the 13 districts presently constituting Uttaranchal was 12.32 lakhs or about 17.5% of the State's total population. The economic status of Scheduled Caste families is very low. They possess few assets and generally depend on agricultural labour and a few other low-income occupations. Again according to the 1991 census, the literacy of this group is only 46%, with female literacy only 20%, versus a general literacy percentage of 57.8.

### **A. Welfare programmes**

The problems faced by the Scheduled Castes are manifold and complex, pertaining mainly to illiteracy, economic backwardness, poor living conditions and occupational problems and atrocities. Schemes and programmes for the welfare and development of Scheduled Castes and Denotified Tribes can thus be classified as follows:

1. Direction and Administration
2. Educational Activities
3. Economic Development
4. Other Welfare Activities.

The Social Welfare Department is mainly concerned with human resource development through education, training, etc. Bahuudeshia Vitta Evam Vikas Nigam has been set up to implement the various schemes proposed for economic upliftment.

## **B. NINTH PLAN AND ANNUAL PLAN 2001-2002**

### **(a) Educational Activities**

Top priority has been assigned to the educational development of Scheduled Castes, focusing in particular on girl students. Attention will continue to concentrate therefore on grants for pre-matric scholarship, non-recurring grants for post-matric students studying engg./medicine, reimbursement of fees, construction of girl/boy hostels, establishment of ashram-type schools, book banks, coaching centres for classes X and XII, etc.

### **(b) Scholarship**

The present rates of scholarships for pre-matric classes are as follows:

Classes I to V: Rs. 25 per month/per student

Classes VI to VIII: Rs. 40 pm/per student

Classes IX to X: Rs. 60 pm/per student

Under this scheme for students whose parents are engaged in degrading occupations, scholarships are provided at the following rates:

i) <u>Hostel Students</u>	<u>Rate of Scholarship per Student</u>
Classes III to VIII	Rs. 200 pm for 10 months
Classes VI to X	Rs. 250 pm for 10 months
ii) <u>Day Scholars</u>	
Classes I to V	Rs. 25 pm
Classes VI to VIII	Rs. 40 pm
Classes IX to X	Rs. 50 pm

Each day scholar shall also be provided an ad hoc grant of Rs. 500 per annum. To increase the literacy rate among members of this community, 6 schools are run by voluntary agencies but assisted by this Department. Of these schools, 5 are run under the non-Plan budget and one under the State Plan budget.

### **(c) Establishment of Hostels for Girls and Boys**

Keeping in view the fact that 85% of the Scheduled Caste population resides in rural areas where educational facilities are inadequate, the number of hostels for boys and girls needs to be dramatically increased. At present there are only 13 hostels available for Scheduled Caste students.



#### **(d) Establishment of Ashram-type Schools**

As mentioned above the percentage of literacy among Scheduled Castes is low. GOI shares the cost of construction of ATSSs, hostels, etc. for children of Scheduled Tribes but not for boys and girls of the Scheduled Castes. ATSSs are very much needed along the same lines as made available for ST boys and girls.

At present there are 5 ATSSs in Uttaranchal for Scheduled Castes, one for Classes I to VIII, the other four for Classes I and II. All the schools operate in rented buildings. Contrarily, there are 15 ATSSs for Scheduled Tribe boys and girls up through Class X. These schools should be at par. It has been proposed that the 5 ATSSs for SC boys and girls be upgraded to Class X and school buildings constructed for them.

#### **(e) Revival and Modernization of Traditional Cultural Heritage**

At one time the Scheduled Caste community throughout Uttaranchal used to play traditional instruments such as the dhol, damaun, maskbeen, ransingha etc. to earn their livelihood. Initially these instruments were used for worshipping the God or Goddess in temples and for solemnisation of marriages. This tradition was especially popular in the hills. But with the passage of time, cultural exchanges and urbanisation extinguished this culture in the hills, resulting in unemployment among this community. To revive and preserve the cultural heritage of Uttaranchal, Rs. 100 lakhs have been proposed in the Annual Plan 2001-2002 for setting up a training centre in each of the 13 districts in the State.

#### **(f) Revival and Modernisation of Traditional Art (Shilpi)**

Members of the SCs in Uttaranchal engage in traditional occupations of carpentry, blacksmithy, stone-carving, copper-engraving, basket-making, etc. but for want of proper training have not been able to meet the market demand. Rs. 100 lakhs have been proposed in the Annual Plan 2001-2002 for setting up a training centre for these occupations in each of the 13 districts in the State.

#### **(g) Dr. Ambedkar Community Centre and Library**

Scheduled Caste people have no common place for social interaction, cultural exchanges, social functions, etc. Rs 20 lakhs have been proposed in the Annual Plan 2001-2002 for establishing a community centre with library.

### **C. Objectives of the Ninth Plan and Annual Plan 2001-2002**

- To remove social discrimination against Scheduled Castes and to implement programmes for both social and economic mobility.
- To take effective measures for the protection of civil rights of the SC.
- To eliminate manual scavenging and to implement programmes for the liberation and rehabilitation of scavengers on a priority basis with special focus on Safai karmachari working in dry latrines. A Sanitary Mart Scheme has already been launched for their speedy rehabilitation.
- To improve educational, social and economic standards of SC and DT.
- To insure proper selection of beneficiaries of the SCs under the various welfare schemes through an effective monitoring system.
- To ensure timely construction of departmental buildings, viz. ashram-type schools, hostels for boys and girls and coaching centres through Samaj Kalyan Nigam.

### **D. Strategies**

- To provide more educational facilities to students of SCs by establishing more ashram-type schools.
- To provide hostel facilities for SC boys and girls.
- To provide pre-coaching to students of SCs/DTs in preparation for competitive examinations
- To take effective measures for improving/encouraging education of girls of SCs.
- To ensure proper utilisation of funds earmarked under the Special Component Plan.

### **E. Financial Outlay/Physical Targets**

An outlay of Rs. 600 lakhs was allocated in the Ninth Five-Year Plan, against which an expenditure of Rs. 767.24 was incurred during the first four years (1997-1998 to 2000-2001). In the Annual Plan 2001-02 an outlay of Rs. 270.00 lakhs has been proposed. Details of the physical targets during the Ninth Plan and Annual Plan 2001-02 are given in Table.

**Table Physical targets during the Ninth Plan and Annual Plan 2001-2002**

Sl. No	Programmes		Target	Proposed
			IXth Plan	Annual Plan
			1997-2002	2001-2002
1	Prematric Scholarships			
a.	Class I to V	Students	3,59,112	5,000
b.	Class VI to VIII	Students	9,436	2,041
c.	Class IX to X	Students	3,091	1,097
2	Non-recurring assistance to students reading in post matric classes of Engg/Medical/ Technical courses for purchase of books and appliances and Book Banks	Students	2,093	600
3	Estt. of Ashram-Type School	Schools.	2	
4	Hostels for Girls	Hostels.	1	
5	Hostels for Boys	Hostels.	1	
6	Grant of marriage of daughters/treatment of severe diseases	Persons	613	234
7	Reimbursement of fees	Students	1,292	586
8	Prematric scholarship to students whose parents are engaged in demeaning Occupations.	Students	411	221
9	Pre coaching centre for State SC/ST	Centres		1
10	Antodaya University for SC/ST			1

## 18.2 Welfare of Scheduled Tribes

The GOI has declared 5 tribes--Tharu, Buxas, Bhotia, Jaunsari and Raji--Scheduled Tribes. They are mostly concentrated in the hill region and terai belt of the State. According to the 1991 census, their total population in the state was 2,11,864 of which 63% reside in the hill area. Many of these Tribes live in strategically important border areas which makes their position sensitive. Various schemes for the educational, economic and social development of these Tribes are being implemented under the Tribal Development Sector.

Top priority has been given to establishment of educational programmes and construction of hostels for ST boys and girls, grants to tribal students for pre-matric scholarship, establishment/construction/expansion and maintenance of ATSS. The latter were upgraded to the high school standard and rates for feeding in them also increased from Rs. 200 to Rs. 550 during the year 1998-99.

Upgradation of merit, book banks, coaching and allied schemes, vocational training and grain banks has also been proposed in the Annual Plan 2001-2002.

For the economic development of STs, integrated Tribal Development Projects for primitive and dispersed tribals are being implemented on an IRDP/SGSY pattern in

which various poverty eradication schemes for STs have been launched according to the need of the area and population. Under these projects, programmes relating to agriculture, horticulture, animal husbandry, cottage and village industries and other supporting schemes on minor irrigation, co-operative and infrastructural development are undertaken.

## **A. NINTH PLAN AND ANNUAL PLAN 2001-2002**

Various schemes in the Ninth Five-Year Plan for educational and economic development are continuing and for their implementation the following strategies proposed.

1. Ashram-type schools for primitive groups, in particular primitive tribal girls, are to be accorded top priority.
2. For enhancement of the educational standard of ATSSs, modern subjects are to be introduced and the rates of stationery, food and clothing to be revised in accordance with current market prices.
3. Construction of ATS buildings is to be undertaken commensurate with student capacity.
4. More hostels are to be established at the District and Tehsil levels.
5. Upgradation of merit for STs.
6. Book banks, coaching and allied schemes to be augmented for Tribal students.
7. Exploitation in the areas of land transfer, money lending, bonded labour, debt bondage and liquor vending to be checked on a priority basis.
8. Effective efforts shall be undertaken to narrow the gap between the levels of development of primitive tribal groups and other populations.
9. Infrastructural facilities in tribal areas shall be given top priority.
10. Creation of economic assets that will enable all tribal families to cross the poverty line.
11. Technical and vocational training.
12. Economic assistance against atrocities.

## **B. Education**

Rs. 832 lakhs were proposed for the entire Ninth Five-Year Plan for the establishment/construction of 8 hostels for boys and expansion of 15 ashram-type

schools. Rs. 55 lakhs have been proposed in the Annual Plan 2001-2002 for pre-matric scholarships of ST students.

### **C. Economic Development**

Rs. 27 lakhs were proposed in the Ninth Plan under the sector of economic developmental schemes for tribal development and co-operation.

### **D. Integrated Tribal Development Projects**

Rs. 250 lakhs were proposed in the Ninth Plan for such projects, while Rs. 80 lakhs have been proposed under the Annual Plan 2001-2002.

### **E. CENTRALLY-SPONSORED SCHEME**

For implementation of the various schemes presented above for Tribal Development in Uttaranchal during the Ninth Five-Year Plan, Rs. 1246 lakhs were proposed for construction/establishment of both boy and girl hostels and construction of ashram-type school buildings, setting up of coaching and allied centres, book banks, etc. Financing for these schemes was on a 50:50 GOI: State Govt. basis. Contrarily, the GOI would provide 100% funding for the following schemes:

Vocational training, grant-in-aid to State Tribal development co-operative corporation for MFP, development of primitive Tribal groups, post-matric scholarships, grant-in-aid to voluntary organisations, upgradation of merit, educational complex in low pockets for development of women's education and grain banks.

Due weightage has also been given to the socioeconomic upliftment of the Primitive Tribals in both the Ninth Plan and the Annual Plan 2001-02. For this a cent-per-cent special Central assistance was envisaged for development of the Raji and Buxas primitive groups residing in Uttaranchal region. Rs. 235 lakhs were proposed for the Ninth Plan.

### **F. Financial Outlay**

Rs. 1200 lakhs were proposed for implementation of the various development schemes in the Ninth Five-Year Plan whereas Rs. 2047.98 lakhs have been proposed for the Annual Plan 2001-2002. Sector-wise details for these two Plans are given below.

(Rs. in lakhs)		
	Ninth Plan (1997-2002)	Annual Plan (2001-2002)
Economic development	27	27
Education	832	258
<b>Total</b>	<b>859</b>	<b>285</b>

### 18.3 Welfare of Other Backward Classes

The Constitution of India which ensures a secularistic, socialistic and democratic system in the country, has included special provisions for the social, educational and economic upliftment of the backward classes.

A major concern of the GOI and of State governments has therefore been securement of justice through ensurance of social/economic/political equality for all citizens of this country by implementation of the special Constitutional provisions for Scheduled Castes, Scheduled Tribes, Backward Classes and other weaker sections of society.

In view of the aforesaid, the GOI and State Govts have striven for upliftment of socially and educationally backward classes through several schemes undertaken in various Five-Year Plans. Unfortunately no census scheme has included the population, percentage of literacy or economic status of 'other backward classes' (OBCs). Data recently gathered through a survey conducted by the Panchayati Raj Department are taken as the basic data for determination of population density of OBCs in the State. According to this survey, the OBC population in Uttaranchal is estimated to be 12% of the State's total population. The Dept. of Social Welfare is looking after the various schemes proposed for the welfare of OBCs in addition to other developmental activities.

#### A. Financial outlay/physical targets

Distribution of scholarships to students of backward classes has been the main concern of the Department. Under the scheme 'Prematric Scholarships' Rs. 300 for classes I-V, Rs. 480 for classes VI-VIII and Rs. 720 for classes IX-X are provided

annually to each student. Only 11 students per school up to class VIII have benefited, the number varying according to availability of funds for classes IX and X.

An allocation of Rs. 150 lakhs was proposed for the Ninth Five-Year Plan and Rs. 20 lakh for Annual Plan 2001-2002. The financial and physical targets for both Plans are given in below.

S. No.	Scheme	Financial Outlay (Rs. in lakhs)		Physical Targets (numbers)	
		Ninth 5-Yr	Ann. Plan	Ninth 5-Yr	Ann.
		Plan (1997-02)	(2001-02)	(1997-02)	(2001-02)
1	Scholarships for students Backward classes (I-V)	60	6	27,778	3333
2	Scholarships for students Backward classes (VI-VIII)	52	6	14,583	2083
3	Scholarships for students Backward classes (IX-X)	38	7	6944	1388
4	Post-matric scholarships		7		307
	Total	150	20	49,305	7111

## B. Finance and Development Corporation

The Govt. of Uttaranchal has set up a Bahuudeshia Vitta Evam Vikas Nigam for the purpose of providing self-employment opportunities to persons of the Backward Classes living below the poverty line with a share capital of Rs. 250 lakhs. An amount of Rs. 10 lakhs has been proposed in the Annual Plan 2001-02 for share capital. This Corporation will serve as a channelling agency for NBFDC in the State, an organisation that obtains loans from the Corporation at concessional rates to operate its schemes.

1. *Term loan scheme:* Under this scheme the NBFDC provides loans up to 85% of project cost subject to a maximum loan of Rs. 5 lakhs per beneficiary. The balance 10% is borne by the State govt. and 5% by the beneficiary.

2. *Margin money loan scheme*: Under this scheme the NBFDC provides 40% of project cost subject to a maximum of Rs. 2 lakhs per beneficiary. The balance amount is shared by the beneficiary, SCA and bank/financial institution, with the SCA and beneficiary bearing 5% and the remaining 50% arranged through the bank/financial institution.

3. The State govt. provides share capital to the Corporation for implementing its schemes. An outlay of Rs. 10 lakhs has been proposed for 2001-02.

## 18.4 Welfare of Minorities

Five religious groups--Muslims, Christians, Sikhs, Budhists and Parsis--come under the category of religious minorities, constituting nearly 12% of the total state population. These minority communities are mainly concentrated in four districts in Uttaranchal, viz. Hardwar, Udham Singh Nagar, Nainital and Dehra Dun. Minority welfare schemes were previously looked after by various departments but have now been brought under the purview of the Social Welfare Department.

With a view to safeguarding the constitutional rights of religious minorities in the state and in order to link their traditional, educational, social, cultural and economic aspects with the welfare schemes of the State and effectively develop them, various schemes are implemented through the following departments/agencies:

- 1) Directorate of Social Welfare,
- 2) Uttaranchal Bahuudeshia Vitta Evam Vikas Nigam, and
- 3) UP Minorities Commission.

The Haj Committee has been constituted in the State and the constitution of the Uttaranchal Welfare Board is being written.

The Bahuudeshia Vitta Evam Vikas Nigam will run various schemes to provide training and finance to unemployed members of minority communities to establish them for self-employment. The Corporation will serve as the disbursing agency for the NBFDC. Margin money will be given to beneficiaries who apply for loans from banks for service, industry, business or agricultural purposes. The extent of such loans is 15% of the project cost or 75% of the total margin money demanded by the banks or Rs. 45,000, whichever is less. The rate of interest on the margin money loan is 7.5% per annum.



## **A. Strategy for Ninth Plan**

The strategy for the Ninth Five-Year Plan in Uttaranchal is to encourage children of minority communities to join school by giving them scholarships as well as financial assistance. This ought certainly to result in an increase in enrolment and a decrease in drop-outs. In this manner the scheme will play a vital role in expanding the education of minority communities and aiding them in all-round development by bringing them into the national mainstream.

## **B. Coaching scheme**

The multipurpose Finance and Development Corporation will arrange pre-examination coaching for meritorious students of minority communities who have to sit for entrance exams into professional courses such as medicine and engineering as well as for competitive exams for selection to various governmental services.

In addition, the following schemes which are fully financed by GOI under area intensive development programmes for minority concentration areas are also being implemented by the Dept.

**Scheme for modernisation of madarsas:** Madarsas are primarily institutions that impart religious education to Muslims. To link them to modern-day needs, they are being provided with facilities for teaching other subjects, viz. Science, Maths, English, etc. GOI gives a salary grant for one teacher of Rs. 3000pm and concomitantly provides funds for purchase of a science kit and establishment of a book bank per madarsa.

**Construction of hostel and school building for girls' school.** This is another GOI grant intended for multistream girls' higher secondary school operated in a minority concentration area.

## **C. Schemes proposed for Annual Plan 2001-2002**

The following schemes have been proposed for the Annual Plan period 2001-2002 with an outlay of Rs. 25 lakh.

- 1) Prematric scholarships -- Rs. 5 lakh
- 2) Modernisation of Arabic Madarsas -- Rs. 5 lakh
- 3) Grant for salary and compensation/Remoradom of Arabic/Farsi Madarsa -- Rs. 5 lakh
- 4) Share capital for Development Corporation -- Rs. 10 lakh

## Chapter 19

# 19 SOCIAL WELFARE AND NUTRITION

## 19.1 Social Welfare

This sector covers the welfare, development and rehabilitation needs of persons with disabilities and disadvantaged groups such as the aged, destitute, infirmed and poor who need special care and protection. Social Welfare programmes seek to provide the minimum essential financial assistance and moral support these socially handicapped persons require.

Several programmes, viz. Old Age Pension, Kisan Pension, institutional and non-institutional facilities have been provided for the socioeconomic development of these neglected sections of society. These programmes include expansion of institutional services to cater to the needs of the destitute, infants and the aged.

### Ninth Five-Year Plan (1997-2002)

An outlay of Rs. 1050 lakhs has been proposed and the break-up is given in below.

S. No.	Scheme	Approved outlay Ninth Plan (Rs. in lakhs)	Physical targets proposed (nos.)
1.	A - District sector schemes: Old Age Pension/Kisan Pension	935	56,866 persons
2.	Grant for burial/cremation of paupers	15	
3.	B - State sector schemes: grant to destitute widows for marriage of their daughters	100	2000 women at Rs. 10,000 per beneficiary as lump sum
Total		1050	

### **Special component plan**

An outlay of Rs. 473 lakhs (45.05%) has been quantified to benefit 27,892 persons belonging to Scheduled Castes.

## **19.2 Women Welfare**

An outlay of Rs. 426.70 lakhs (40.64%) has been proposed to benefit 22,742 women under the various welfare schemes of the Dept. The annual plans for 1997-1998 to 2000-2001 are reviewed below.

- 1997-98: Against an outlay of Rs. 200 lakhs, Rs. 287 lakhs were spent in benefiting 18,653 persons under the Old Age/Kisan Pension scheme.
- 1998-99: Against an outlay of Rs. 473 lakhs, Rs. 105 lakhs were spent in benefiting 7230 persons under the Old Age/Kisan Pension scheme.
- 1999-00: Rs. 43.14 lakhs were spent on two schemes: Old Age Pension, under which 4924 persons were benefited, and cremation of paupers.
- 2000-01: Rs. 15 lakhs were spent on providing Old Age Pension to 952 persons and Rs. 0.10 lakh spent for cremation of paupers.

### **A. Annual Plan 2001-2002**

The objectives set for the Ninth Five-Year Plan (1997-2002) and the Annual Plan 2001-2002 are very briefly described below.

### **B. Objectives**

1. To provide social security to the aged, infirmed and destitute.
2. To provide Old Age/Kisan Pension to deserving targets.
3. To improve the qualitative aspects of the social security and welfare programmes by ensuring efficient implementation.
4. To provide financial assistance to destitute widows for marriage of their daughters.
5. To strengthen the administrative infrastructure for implementation of Old Age/Kisan Pension scheme.
6. To take up new social security and welfare schemes.

7. To ensure more coverage under social security and welfare programmes depending on resources.
8. To associate NGOs in various social security and welfare programmes as per the policy formulated by the Govt. from time to time.

### C. Financial/physical targets proposed

The proposed outlay and physical targets for the Annual Plan 2001-2002 are summarised in below.

S. No.	Scheme	Financial Outlay (Rs. in lakhs)	Physical targets
1.	OldAge/Kisan Pension (District)	30.90	3321 persons
2.	Grant for burial/cremation of paupers (District sector)	0.10	20 paupers
3.	Grant to destitute widows for marriage of their daughters (State sector)		
Total		40.00	3341

### D. Tribal subplan

An outlay of Rs. 20.00 lakh (24%) has been proposed under the Old Age/Kisan Pension to benefit 800 persons belonging to Scheduled Tribes.

### E. Special component plan

(see under 'Tribal subplan' above)

In addition, an outlay of Rs. 20.000 lakh (30%) has been proposed to benefit 996 women under the various welfare schemes of the Dept.

### F. Employment generation programme

There is no programme to construct buildings for departmental institutions running in Uttaranchal (thereby generating employment) due to lack of funds in the year 2001-2002.

## 19.3 Welfare of Youth

The main strategy of the Annual Plan 2001-2002 is to develop maximum programmes/schemes for Youth Welfare and PRD/PVD, whereby unorganised and scattered youth power can be converted into an organised and efficient force to play a constructive role in the great task of nation-building. This is the only way to involve our youths in various developmental works and to keep them in the national mainstream. For them to become agents of socio-, political and economic reconstruction of our society and to ensure the safety and enrichment of our age-old cultural heritage, it is essential that time-bound and well-defined national programmes be adopted and concomitantly executed with dedication.

### A. Ninth Five-Year Plan: Overview

A total outlay of Rs. 216 lakhs was provided in this plan, of which only Rs. 89.40 lakhs had been released as of March 2001. Yet the total outlay was to cover rural sports (Rs. 91 lakhs), construction of rural stadiums and vyayamshalas (Rs. 87 lakhs) and miscellaneous expenditures (Rs. 38 lakhs). In 1997-98, Rs. 67.40 lakhs were spent on the various schemes; in 1998-99, Rs. 22 lakhs on stadium and vyayamshala construction. No funds were sanctioned in the year 1999-2000.

In the financial year 2000-01, only Rs. 1 lakh was allocated to the Dept., against which no financial sanction was given.

For the financial year 2001-02, Rs. 2.00 lakh have been allocated under the Plan expenditures.

With this meager amount, the Dept. is compelled to organise the schemes it has developed as detailed below.

### B. Construction of rural stadium

For promotion of sports activities in rural areas and to attract rural youths the Dept. has established stadiums in various rural areas. Towards this end Rs. 10 lakhs were spent in the year 1998-99.

### **C. Construction of vyayamshalas**

Vyayamshalas function as centres for the promotion of gymnastics and yoga. Although 29 vyayamshalas have been established thus far in the hill areas, many more are required. For these vyayamshalas Rs. 12 lakhs were spent in 1998-99.

### **D. Strengthening of PVD volunteers**

During the year 2001-2002 it is proposed that 13 arms and ammunition training camps be set up, one such camp in each of the 13 districts, with 1300 departmental volunteers participating in this training.

## **19.4 Welfare of Handicapped**

A handicapped person is not handicapped by his own choice and therefore deserves the sympathy and support of society and the State. Disabled persons expect a positive attitude and behaviour from non-disabled members of society. The Disabilities Act 1995 embodies a national commitment to provide equal opportunities, rights and facilities to such persons, enabling their optimal development and welfare. The Govt. has consistently striven to implement this Act through various schemes in the Ninth Five-Year Plan.

Upon creation of the State of Uttaranchal, the Govt. set up a State Co-ordination Committee and a State Executive Committee to monitor the various schemes proposed for the benefit of persons with disabilities. A Commissioner for Disabilities was also appointed and a Govt. order issued for reservation of 3% seats in educational institutions, Govt., semi-Govt. undertakings and corporations. Developmental authorities and all construction units have been asked to provide a barrier-free approach to all Govt. buildings and places of public utility for convenient passage of such persons.

The State Govt. initiated the following schemes to better the life of handicapped persons.

- a) Grant-in-aid as financial assistance to the destitute handicapped.
- b) Scholarships to handicapped students and children of handicapped persons.
- c) Grant-in aid for purchase of prosthetic devices (artificial limbs, hearing aids, etc.).
- d) Pension to the handicapped.
- e) Vocational training for the handicapped with free boarding/lodging facilities.
- f) Construction of shops for rehabilitation of the handicapped.

g) Construction of schools for the handicapped.

#### **A. Viklang pension scheme**

This is a major continuing scheme under which initially pension at Rs. 100 per month was given to destitute handicapped with a monthly income below Rs. 225 pm. The rate of Viklang pension has been enhanced to Rs. 125 pm. During the years 1998-98 to 2000-01 with a sum of Rs. 691.22 lakhs, 36,183 persons were covered and this year an outlay of Rs. 270.43 lakhs has been proposed to provide pension to 17,170 desstitute.

Scholarships for classes I-VIII. This is a continuing scheme under which scholarhips are given to disabled children and children of disabled parents to encourage their basic education. In the years 1997-98 to 2000-01 with a sum of Rs. 8.22 lakhs, 2047 students were benefited. The scholarship rate for classes I-V was Rs. 25 pm and classes VI-VIII, Rs. 40 pm. A sum of Rs. 3.18 lakhs has been proposed in the Annual Plan 2001-02.

#### **B. Grant for purchase of prosthetic devices**

Under this scheme artificial limbs, hearing aids, etc. are provided to the disabled to reduce their difficulties and assist them in performing the activities of daily life. In the years 1997-98 to 2000-01 with a sum of Rs. 6.55 lakhs, 1104 people were covered under this scheme. A sum of Rs. 1.86 lakhs is proposed in the Annual Plan 2001-02 for 93 disabled destitute.

#### **C. Construction of shops**

This is a major scheme to provide self-employment to the disabled. In the year 2000-01 with a sum of Rs. 3 lakh, 15 persons were benefited and Rs. 15.60 lakh in the Annual Plan 2001-02 proposed to benefit 78 disabled persons.

In summary, to better the lives of handicapped persons of a total outlay of Rs. 35.00 lakh has been proposed for the Annual Plan 2001-02.

### **19.5 Sainik Kalyan**

Ex-servicemen below the rank of junior commissioned officer generally retire after 18-20 years service in the Defence Forces and often need relief and rehabilitation. These men face problems in supporting their families and need to take up some kind of

employment/self-employment venture. Zila Sainik Kalyan Evam Punarvas have offices in 9 districts of Uttaranchal that provide guidance and help to needy ex-servicemen.

The following schemes were continued for the welfare and training of ex-servicemen and their wards in the year 2000-01.

- Construction of rest homes.
- Prerecruitment training for wards of ex-servicemen for recruitment in the Army and Police.
- Sainik Mahila Prashikshan Evam Utpadan Kendra, Pauri.

An outlay of Rs. 180 lakhs was provided for the Ninth Five-Year Plan for running these welfare schemes for ex-servicemen. The outlay for 1999-2000 was Rs. 50.81 lakhs and that for the year 2000-01, Rs. 40 lakhs.

## **19.6 Nutrition**

The objectives of this programme are as follows:

- Improve the nutrition and health status of children under 6 years of age.
- Lay the foundation for the proper psychological, physical and social development of the child.
- Reduce the incidence of mortality, malnutrition and school drop-outs.
- Provide supplementary nutrition to undernourished and malnourished children and pregnant and lactating mothers.
- Enhance the capability of mothers to look after the normal health and nutritional needs of their children through proper nutrition and health education.
- Reduce drop-outs of children between 3-6 years old by providing early childhood education.

The targets for new projects in unserved areas during the Ninth Five-Year Plan are given in below.



**Five Year Plan.**

( in lakh)

Plan Year	1997- 98	1998-99	1999-2000	2000-2001	2001-2002
Hill	50	50	1	1	40

**Beneficiaries in Lakhs**

Plan Year	1997- 98	1998-99	1999-2000	2000-2001	2001-2002
Hill	2.60	2.65	0.04	0.04	3.03

**Financial Requirement (Supplementary nutrition) (in lakh)**

Plan Year	1997- 98	1998-99	1999-2000	2000-2001	2001-2002
Hill	265.49	456.85	12.00	12.00	1150

For the Ninth Five-Year Plan an outlay of Rs. 3600 lakhs was proposed. During the Annual Plan 1998-99 an expenditure of Rs. 266 lakhs and Rs. 547 lakhs was incurred. During the Annual Plan 1999-2000 all the committed expenditure of existing anganbadi centres in 51 blocks of Uttaranchal region was transferred to non-Plan. An outlay of Rs. 1150 lakhs has been proposed for 2001-2002.

# 20 SCIENCE, TECHNOLOGY AND ENVIRONMENT

The Himalaya is the most vast, diverse and youngest mountain system in the world. It occupies 18% of the geographic area of India and regulates the climate of the entire Indian subcontinent. It also feeds the major river systems of the country.

The Himalayan ecosystem is unique and fragile, demanding special attention in view of its varied topography, climatic attributes, vegetational range, microenvironmental characteristics and socioeconomic/cultural variation. The difficult terrain and inhospitable extremes of climate coupled with many other factors, seem to impede the pace of development of the region. These factors not only affect the local ecology, but also have a significant impact on the environment of the subcontinent. The Himalayan region is now at that stage in its cycle of geological development whereby it is tending towards balance. Geological degradation is a very natural phenomenon due to many weaknesses, such as unconsolidated deposits, high altitudes, steep slopes, abundance of soluble rocks, faults, folds and shear zones, etc. The copious and distinctly seasonal rainfall and the substantial temperature gradients together favour weathering and wearing of the mountains.

Environmental degradation is widespread and has reached alarming proportions. The main regulatory mechanisms of nature are effective vegetation cover and healthy humus-rich soils. Due to tremendous biotic pressure and imprudent or unsuitable mode of resource utilisation in hill areas, the natural cover of the healthy soil and vegetation has either been depleted or removed altogether from many areas. Suitable resource utilisation has thus become imperative.

Environmental management seeks to protect the ecosystem and regulate resource exploitation to an acceptable limit in order to support sustainable development. The need for the latter calls for exploitation of natural resources in such a way that the present generation is able to meet its needs without jeopardising the interests of future generations. With this in view, the Directorate of Environment executes various activities for environmental improvement, conservation and development of public

awareness of environmental issues. These activities include: studies relating to environmental degradation and possible conservation measures to be effected; legislation, formulation and promotion of ecodevelopment schemes; conservation of natural living resources; awakening of environmental awareness; training and education in the field of environment; environmental research and development; and co-ordination among all departments handling developmental projects in the region.

Scientific studies are planned for environmental development of critical, sensitive and fragile ecosystems on a priority basis. Such Directorate projects are implemented through the various concerned Govt. depts. and agencies as educational/research institutions and through NGOs concerned with environmental protection.

### **A. Ninth Plan**

The total outlay proposed for environmental research and ecological regeneration programmes in the Ninth Plan period was Rs. 160 lakhs, of which Rs. 11.99 lakhs and Rs. 12.96 lakhs were spent in 1997-98 and 1998-99 respectively. The anticipated expenditure for 1999-2000 is Rs. 3.46 lakhs.

### **B. Achievements in 1999-2000**

To carry out activities related to environmental research, ecological development, environmental awareness, etc., the outlay of Annual Plan 1999-2000 was Rs. 75 lakhs, of which Rs. 51 lakhs were earmarked for externally aided projects and Rs. 24 lakhs for environmental awareness and environmental research and action programmes. The programmes implemented during 1999-2000 are described below.

### **C. Environmental research and action programmes**

#### **Provision of books on the environment in selected Madhyamik Vidhalaya of Uttaranchal region**

It is a fact that books on the environment are essential for developing a general understanding of the environment and the issues and solutions involved. Educational institutions play a vital role in this regard. Hence the Directorate accords priority to provision of books on environment in the libraries of selected Madhyamik Vidhalaya in Uttaranchal. Rs. 2 lakhs were sanctioned and given to the Director, Education (Madhyamik) Lucknow and books on the environment provided to 41 selected Madhyamik Vidhalaya.

#### **D. Environmental education, training and awareness research promotion and information system**

It is essential to create environmental awareness among the various sections of society so that every man, woman and child will take a keen interest in and actively participate in environmental improvement activities and programmes. Although the Govt. made a budget provision of Rs. 0.52 lakh, no amount was sanctioned under this heading.

#### **E. Strengthening and establishment of Regional Office of Directorate in Uttarakhand region**

To create environmental awareness and to effectively implement environmental conservation schemes designed by the Directorate in Uttarakhand region, a regional office of the Directorate was established at Srinagar Pauri-Garhwal district of Uttarakhand. Rs. 1.74 lakhs were sanctioned in the financial year 1999-2000 for payment of salaries and other allowances to staff in this regional office.

An outlay of Rs. 108 lakhs has been proposed for the year 2001-2002.

# 21 PRIME MINISTER'S GRAMODAYA YOJANA

To focus priority on selected basic minimum services, a new initiative in the form of the Prime Minister's Gramodaya Yojana (PMGY) was announced in the year 2000-2001 with the objective of undertaking time-bound programmes to fulfil the critical needs of the rural people. The erstwhile Basic Minimum Services (BMS) was merged with this new scheme. Under the new PMGY scheme, the additional Central assistance to erstwhile BMS is now provided under two components: rural roads for improving rural connectivity and meeting the six basic needs of the rural population, namely primary health, primary education, Gramin Awas, drinking water, nutrition and rural electrification. The outlay for the aforesaid under the Ninth Five-Year Plan is Rs. 1140 crores. The financial progress during the Ninth Plan and the outlays proposed for 2001-2002 are summarised in Table 7.1.

## 21.1 Rural Water Supply

The following water supply programmes are presently being implemented: Accelerated Rural Water Supply Programme (ARWSP), Centrally-assisted water supply for Quality Problem Villages, and World Bank-assisted UP Rural Water Supply and Environmental Sanitation Project (SWAJAL). An outlay of Rs. 1750 lakhs is proposed in the Annual Plan 2001-2002.

## 21.2 Primary Health

This programme emphasises provision of comprehensive and efficient primary health care, the main instrument for achieving the goal of 'Health for All'.

## Allocation and expenditure under BMS/PMGY

(Rs. in lakhs)

Sl. No.	Work component	Ninth Plan Outlay	Annual Plan expenditure			Annual Plan 2000-2001 Outlay	Proposed outlay 2001-2002
			1997-98	1998-99	1999-2000		
1.	Universalisation of Primary education	15,000	3,595	3,905	8,497	1,245	1,000
2.	Connectivity	32,000	7,003	7,934	13,400	17,090	7,500
3.	Primary health care	7,000	733	1,296	437	-	500
4.	Drinking water	55,600	5,966	5,452	5,353	2,680	1,750
5.	Public Housing	1,400	232	262	721	-	500
6.	Nutrition support	3,000	265	452	-	-	750
7.	Rural electrification	-	-	-	-	-	500
	Total	1,14,000	17,794	19,301	28,408	21,015	12,500

The main thrust of the programme is to create the required infrastructure for setting up subcentres of Primary Health Centres and Community Health Centres in the State, whose major responsibility will be provision of health care services in remote areas and for the Tribal population of the State. While setting up these centres, interregional disparities would also be kept in view for fixing priorities. An outlay of Rs. 500 lakhs has been proposed for 2001-2002.

## 21.3 Gramin Awaas

Housing is a basic requirement for human well-being. Not only do all citizens need shelter, their houses require such facilities as potable water and proper sanitation. Towards this end a new initiative was recently announced as part of the PMGY, namely provision of shelter for the rural poor.

A Comprehensive Scheme has been introduced to reduce the housing shortage among families below the poverty line (BPL families) in rural areas and to aid in the healthy development of the habitat in these areas. The Pradhan Mantri Gramodaya Yojana (Gramin Awas) will generally be based on the pattern of the Indira Awas Yojana during implementation of the housing scheme in rural areas.

## **21.4 Rural Roads**

According to the road development policy of the State Govt., all villages with a population of more than 1000 as per the 1991 census are to be connected by all-weather roads by the year 2005 and all other villages by the year 2010. An outlay of Rs. 7500 lakhs has been proposed for 2001-2002.

## **21.5 Nutrition**

The problem of undernutrition has mainly been addressed through the Integrated Child Development Services (ICDS). The ICDS scheme has now been recognised as the strongest and most viable vehicle for improving nutritional status. An outlay of Rs. 750 lakhs has been proposed for 2001-02.

## **21.6 Universalisation of Primary Education**

This programme can be broadly divided into three components, namely universal access, universal retention and universal achievement. The Ninth Five-Year Plan treats education as a priority area of development. An outlay of Rs. 1000 lakhs has been proposed for 2001-02.

## **21.7 Rural Electrification**

To accelerate the pace of development and to improve the quality of life in rural areas, rapid extension of electricity is of paramount importance. The role of rural electrification in the development of rural areas is not confined just to the economical sphere, i.e., increase in agricultural and industrial production, but also gives due impetus to the social environment of villages. This being so, attention has focused on electrification of rural areas. An outlay of Rs. 500 lakhs has been proposed for the year 2001-2002.

# 22 DISASTER MANAGEMENT

## 22.1 MAJOR TYPES OF DISASTERS IN UTTARANCHAL

### 22.1.1 Earthquakes

Recurrent seismic events in the faulted areas of the Himalaya indicate tectonic restlessness. The north-eastern part of the UP Himalaya (Dharchula-Kapkot belt) and adjoining north-western Nepal (Bajang) are frequently rocked by earthquakes registering magnitudes between 5 and 6. The quantitative seismicity map of the Himalaya (Kalia and Narain, 1976) shows that this area in the Himalaya has the highest technical potential, with a value above 6. A severe earthquake occurred in Garhwal region of UP on 29 March 1999. Intense tremors were felt at 12:35 a.m., registering 6.8 on the Richter scale and with the epicentre at Nanadaprayag near Chamoli (mild tremors of 2.2 to 4.2 are a regular feature in that area).

### 22.1.2 Landslides

Landslides are historically well known in the UP Himalaya. Landslides and sinkage at Tawaghat and its environs have been reported in the past with notable loss of life and property. Two major landslides occurred in Okhimath on 11-12 and 18-19 August 1998. In Chamoli district, one-third of the settled villages face the threat of landslides. In Uttarkashi and Pithoragarh district of the UP Himalaya more than one-third of the villages are listed as unsafe.

### 22.1.3 Forest Fires

The Himalayan ecosystem is subject to many socioeconomic pressures that lead to forest fires. The increase in animal population has led to increase in demand for fodder at the rate of 1% per annum in the higher and lower Himalaya and 0.5% in the



middle Himalaya of Uttar Pradesh. Since land is limited and cultivation of fodder in agricultural fields eschewed, fodder is more conveniently obtained by villagers through burning wastelands and forests.

The lessons learned from earthquakes and other calamities led to the preparation of a District Disaster Management Action Plan for every district in UP. Difficult terrain coupled with inaccessibility and wilderness exacerbate the gravity of a disaster. The lurking fear of the aftermath of a catastrophe and the colossal damage wreaked on the people have further ramifications hitherto not envisaged by the Disaster Management Action Plans of the State. True, the State govt. does have a 'Flood and Other Natural Calamities Manual, Uttar Pradesh, 1970' but calamities other than floods are not adequately covered. Moreover, some calamities are not natural but man-made, which require large-scale and sustained Govt. intervention, e.g., forest fires, construction of high-rises in cities, oil depots, etc. Some of the aforesaid are included in the Security Plans of the district but these are not regularly updated. Furthermore, most of the calamities mentioned in these Security plans are not effectively dealt with because not backed up with timely preparation and/or adequate finances. These District Security Plans ought therefore to be thoroughly reviewed and those not adequately handled transferred to District Disaster Mitigation and Management Plans.

The two main disasters impacting on Uttaranchal time and again are earthquakes and major landslides. The two assignable causes are geophysical changes and rapid growth thrust; when calamities strike, however, resources are mobilised for rehabilitation and rescue operations while the causes are left on the back burner.

An earthquake of magnitude 6.6 on the open-ended Richter scale (IMD) struck the northern hills of Uttarkashi in Garhwal Himalaya at 02.53 h on 20 October 1991 causing a loss of 723 human lives, even greater loss of livestock, totally damaging 20,600 houses and partially damaging over 25,000 in about 400 villages in the districts of Uttarkashi, Chamoli and Tehri. Details of these damages, as furnished by the district authorities, are given in below.

### District-wise Damages

S.No	Districts	Uttarkashi	Tehri	Chamoli	Total
1	Deaths	653	64	6	723
2	Injuries	1435	367	15	1817
3	Houses completely damaged	14,644	4,000 (app.)	2,000 (app.)	20,644 (app.)
4.	Houses partially damaged	21,221	3,000	1,000	25,221

Note : The figures quoted appear to have been modified subsequently as Ministry of Information & Broadcasting details 768 killed, 5066 persons injured, 20,184 houses severely damaged and 74,714 partially damages.

The Garhwal Himalaya has a well-known and recorded seismic history where 36 large magnitude earthquakes (+5 M on the Richter scale) have hit the tract between Long. 78-81 and Lat. 29.5-31 in the last 150-years. Most of the events were interpreted as type thrust deformation and were clustered around the surface trace of the main central thrust. The events described here were also located in the environs of this regional structural dislocation.

The Uttarkashi earthquake demonstrated that only a few of the many subsequent landslides that developed immediately or in the following monsoon season posed a serious risk to settlements. They often occurred either above or below the settlement. Most were located far from villages on major road alignments, disrupting road network and communication but with limited impact on settlements. But landslides can become a serious hazard should they dam a major stream.

The Chamoli earthquake measuring 6.6 (USGS, 1999) to 6.8 (IMD, 1999) on the Richter scale struck 29 March 1999 at about 00 h. It was the strongest quake of the century in this seismically sensitive region, lasting about 40 s, with the epicentre located at 30.48 N and 79.29 E north of Chamoli town (USGS, 1999). IMD had initially reported the epicentre at 30.49 N and 79.5 E. Depth of focus was about 30 km below the ground surface and hence was felt over a large area, but caused little damage compared to the shallower focus (closer to ground surface) of similar intensity elsewhere. Twenty-six aftershocks were experienced over the next 24 hours, measuring between 2.0 to 4.9 on the Richter scale.

The effect of the earthquake was most prominent in Chamoli and Rudraprayag districts of Garhwal. The initial death toll was 130, of which 63 deaths occurred in Chamoli district, 52 in Rudraprayag, 5 in Tehri Garhwal and 10 in Garhwal and other districts. Large-scale destruction of houses occurred. Surveys conducted by the Govt.

UP machinery (dated 13 April 1999) revealed total destruction of 7014 houses and partial damage of 14,677, and declared Rudraprayag unsafe for residents. Likewise, in Chamoli district, 12,306 houses were totally damaged and 71,333 partially so. In Chamoli district 3532 villages were affected and in Rudraprayag 643. There was also widespread damage to infrastructure, especially roads, power and telephone lines. Resultant landslides blocked four main roads in the region of Chamoli-Gopeshwar, Gopeshwar-Okhimath, Karnaprayag-Almor and Rudraprayag-Gaurikund. Tehri Dam site was purportedly undisturbed by the earthquake even though spring discharge increased.

Landslides constitute another threat to the Uttarakhand region. A major landslide in Malpa in Pithoragarh district, Kumaon region of Uttarakhand played havoc with the lives of Mansarovar pilgrims. Regular landslides throughout the region here and there, especially during the monsoon season, cause major devastation to such infrastructure as roads, irrigation channels, water supply schemes, etc.

Cognizant of the recurring nature of the aforesaid natural disasters, the proposal for setting up a Disaster Management Centre is under serious consideration by the State Govt. The Centre would co-ordinate with various agencies working on geophysical studies of the region and mitigation measures to be adopted to combat the effects of these natural disasters.

Loss of life due to house collapse during these natural disasters is also a major concern. Suitable technology for building construction and housing facilities is imperative. The Building Materials and Technology Council (BMTPC), Ministry of Urban Affairs and Employment, GOI, Housing and Urban Development Corporation (HUDCO), CBRI, Roorkee and others have already done some work in this field. Their efforts are being co-ordinated at the State level for formulation of suitable building technology in the hill region of Uttarakhand. Locational planning and site selection for residential buildings as well as tourist/commercial complexes in hill towns are also under preparation.

Given the recurrent nature of the disasters in Uttarakhand region, all District Magistrates have been instructed to prepare Disaster Management Plans for their district. Construction of a relief centre in every district for those affected in the case of a natural disaster is also under consideration.

Construction of roads coupled with lack of or improper management of practices for safe disposal of run-off, debris, etc. from construction sites have caused immense destruction of forests and triggered intensive erosion in valuable areas. Mass waste at

these developmental sites has also accelerated deterioration of montane ecology and led to rapid environmental degradation.

The above factors clubbed with incessant and prolonged rain or cloudbursts, uncontrolled water flow on slope surfaces, weak geology and seismic vibrations lead to devastating consequences. Given the rise in incidence of hill slope instabilities along road networks and the growing concern for effective stabilisation, it is steadily being realised that co-ordination of the work done by civil engineers and geological scientists with that from relevant disciplines of soil and water conservation, plant cover and the social sciences is definitely mandatory.

## **22.2 DISASTER MITIGATION AND MANAGEMENT CENTRE (DMMC)**

The disaster management process consists of a number of activities designed to reduce loss of life and destruction of property. The pre-event measures include mitigation of hazards (hazard assessment and vulnerability reduction) and preparedness (prediction, preparedness, education and training). Post-disaster measures include rescue, relief, rehabilitation and reconstruction.

### **22.2.1 Objectives**

The Centre aims to assist the Govt. and community in improving the region's capacity to effectively mitigate the effect of natural disasters by building institutional capacities and enhancing the well-being of its citizens. The basic aims of the Centre are thus twofold: strengthening the capacity of training institutions and enhancing the capacity of the Govt. and community in preparing strategy and plans for disaster mitigation and management. The objectives whereby these aims can be achieved are delineated below.

- Preparation and upgradation of database for all the districts of Uttaranchal. Given the fact that modern information technology such as remote sensing and geographic information system (GIS) have a prominent role to play in terms of data collection, formatting, storage, manipulation, translation updating, analysis, inquiry development and network/communication linkage,

it is proposed that a Disaster Management Information System should become an integral part of the DMCC. Creation of a DMIS is primarily meant for compilation, storage and non-spatial data and generation of hazard maps relevant to the districts of Uttaranchal. The database, to be made available to each district, will enable district officials to better plan for disaster preparedness management, vulnerability, analysis and response. Such a database would be an important instrument in hazard assessment through:

- assessment of a situation through integrated analysis;
- implication of hazards in terms of risks and planning needs;
- spatial modelling, querying and map creation for implementation of an action plan;
- simulation of model and display of different scenarios for hazard visualisation;
- identification of vulnerable areas, microzonation and land-use planning;
- planning of instrumentation for monitoring seismic activity, landslide potential,
- forest fire surveillance, etc.
- hazard mapping on a suitable scale for various hazards: earthquake, accident, forest
- fire, landslide, etc.
- Emergency management to combat the situation, which can be represented as a disaster cycle containing typical phases that need to be considered in planning:
  - hazard analysis;
  - vulnerability;
  - disaster/hazard preparedness;
  - prediction and warning;
  - response;
  - recovery from disaster.

Each of the above phases is interrelated and requires geographic information, spatial analysis and presentation. Given the interdependence of these factors, GIS is valuable as a tool for planning and decision making in emergency management. Not only

does GIS provide assistance in damage assessment, it can also furnish critical information during the response phase.

- Study of building/construction types prevalent in all hill districts and their damage vulnerability under various hazards. The most important issue here is the fact that loss of human life, or injury, is primarily caused by the collapse of houses during the disaster, which has a penchant for occurring at the most unexpected hours and frequently catches its victims sleeping. Damage to houses and consequently to inhabitants could be markedly restricted by incorporation of simple strengthening features during house construction or retrofitting the same after construction.
- Developing disaster resistant designs and construction technology using locally available building materials and development of construction code and manual.
- Risk engineering components including training. It is felt that training and awareness programmes should be held for all sections of society with special emphasis on those segments directly related to the construction process.
- Developing strategies to deal with landslide problems by relocation, slope improvement, etc.
- Enforcement of technolegal and technofinancial regime.
- Establishment of Disaster Management Communication System.

In any disaster situation, the communication network is the backbone for response and relief operations. Failure of the communication network can make relief and rehabilitation all the more arduous and time consuming. The DMMC having perceived the importance of a stable communication network,, embarked on setting up a robust and dedicated one, since it is a most important aspect of the implementation strategy laid down in the Disaster Management Plan.

- Creation of awareness among various stakeholders about the problems and their solutions, everybody's role and participation.
- To develop disaster prevention, mitigation and preparedness plans are essential for various types of disaster.
- Playing a timely (early) advisory role to the State Govt. for policy and financial support, strategic planning and execution, legislative measures, etc.
- Strengthening the capacity of training institutions.

- Enhancing the capacity of the Govt. and community in preparing strategy and plans for disaster management, intervention measures, prioritisation of actions for maximum benefits at minimum cost, etc.
- Developing a District Disaster Management Action Plan (DDMAP) and Disaster Management Action Plan for the state of Uttaranchal (DMAPU).

### **22.2.2 Working**

- Evaluation of the potential threat from a disaster. This is the primary and essential step in predisaster activity. It pictures the types, spatial distribution, regional coverage, magnitude, cause and other dimensions of disasters.
- Risk assessment. A vital component of predisaster activity. Risk assessment leads to formulation of a strategy for mitigation, rescue and relief.
- Disaster prevention. This third component of predisaster activity helps the DMMC to reduce the effects of potential threats of disasters.
- Disaster preparedness. The ultimate output of the above-mentioned activities will be preparedness against disaster.
- Disaster management. The Task Force for rehabilitation of housing stock in the earthquake-affected areas of Chamoli and Rudraprayag regions strongly recommended the development of detailed disaster management plans for Uttaranchal and for each district of the region.
- Public information.
- Analysis of results of simulation and improvement of the Plan. The Centre should also develop a 'Museum' of disaster types, causes, prevention, mitigation, preparedness, damages, rescue, relief and safer construction, which would be open to officials, the public, students and so forth.

## Appendix

### Sector wise outlay and Expenditure (Rs. in Lakhs)

Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual Plan	
		Approved Outlay		Approved Outlay		Actual Expenditure		Approved Outlay	
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
	2	3	4	5	6	7	8	9	10
<b>"A" Economic Services</b>									
<b>Agriculture and Allied Services</b>									
<b>Crop Husbandry</b>									
(1) Agriculture	17000	38	2350	5	135	0	895	4	
(2) Cane Development	250	150	100	80	78	53	85	65	
(3) Small & marginal Farmers Programme	0	0	0	0	0	0	0	0	
(4) Horticulture	2000	587	200	73	314	53	540	90	
<b>Total - 2401. Crop Husbandry</b>	<b>19250</b>	<b>775</b>	<b>2650</b>	<b>158</b>	<b>527</b>	<b>106</b>	<b>1520</b>	<b>159</b>	
<b>Soil and Water Conservation</b>									
(1) Agriculture	1600	0	250	0	500	0	285	0	
(2) Forest Department	4000	0	750	0	1441	0	1187	0	
(3) Watershed Management	15219	0	2247	0	1472	0	12372	0	
<b>Total - 2402. Soil and Water Conservation</b>	<b>20819</b>	<b>0</b>	<b>3247</b>	<b>0</b>	<b>3413</b>	<b>0</b>	<b>13844</b>	<b>0</b>	
<b>Animal Husbandry</b>									
Dairy Development & Mahila Dairy	2000	321	350	57	373	61	558	59	
	3200	0	750	0	727	0	950	5	
<b>Fisheries</b>									
Fisheries	1000	638	70	54	71	49	46	0	
<b>Forestry</b>									
Forestry	37000	525	4799.7	148	2051	147	4929	185	
<b>Food Storage &amp; Warehousing</b>									
(1) Agriculture Marketing	0	0	0	0	0	0	0	0	
(2) Warehousing	110	110	20	20	20	20	20	20	
(3) Food and Civil Supplies	500	500	170	170	51	51	170	170	
<b>Total-2408. Food Storage &amp; Warehousing</b>	<b>610</b>	<b>610</b>	<b>190</b>	<b>190</b>	<b>71</b>	<b>71</b>	<b>190</b>	<b>190</b>	
<b>Agriculture Research &amp; Education</b>									
(1) Agriculture Deptt.	1225	0	250	0	139	0	367	0	
(2) Cane Development	0	0	0	0	0	0	0	0	
(3) Forest	100	0	15	0	0	0	1	0	
<b>Total 2415. Agriculture Research &amp; Education</b>	<b>1325</b>	<b>0</b>	<b>265</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>368</b>	<b>0</b>	
<b>Co-operation</b>									
(1) Co-operation Department	875	59	250	46	229	45	250	15	
(2) Co-operative Audit	10	0	2	0	0	0	0	0	
<b>Total - 2425 Co-operation</b>	<b>885</b>	<b>59</b>	<b>252</b>	<b>46</b>	<b>229</b>	<b>45</b>	<b>250</b>	<b>15</b>	
<b>Other Agriculture Programmes</b>	<b>10</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	
<b>Total - 101. Agriculture &amp; Allied Services</b>	<b>86099</b>	<b>2938</b>	<b>12575.7</b>	<b>655</b>	<b>7601</b>	<b>479</b>	<b>22657</b>	<b>615</b>	



1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
11	12	13	14	15	16	17	18	19	20	21	22
309	4	800	21	165	27	324	6	241	5	2572	946
83	75	100	71	69	61	101	76	71	69	75	70
0	0	0	0	0	0	0	0	0	0	0	0
295	106	550	92	204	7	454	20	173	0	425	60
687	185	1450	184	438	95	879	102	485	74	3072	1076
285	0	285	0	284	0	285	0	285	0	250	0
1151	0	1200	0	1105	0	2000	0	2330	0	2000	0
2013	0	8456	0	2448	0	5897	203	7101	0	5000	150
3449	0	9941	0	3837	0	8182	203	9716	0	7250	150
382	52	595	63	120	0	343	55	264	0	355	80
490	0	950	0	731	0	654	0	654	0	650	0
26	0	55	24	31	24	68	25	8	0	74	0
3092	139	4700	185	4014	101	6435	0	9841	159	7396	62
0	0	0	0	0	0	0	0	0	0	0	0
20	20	20	20	0	0	20	20	0	0	56	0
145	145	200	200	0	0	36	36	0	0	1	0
165	165	220	220	0	0	56	56	0	0	57	0
267	67	370	0	300	50	260	48	260	48	200	40
0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0
267	67	371	0	300	50	260	48	260	48	200	40
193	0	350	2	165	0	275	0	165	0	200	0
0	0	0	0	0	0	0	0	12	0	25	0
193	0	350	2	165	0	275	0	177	0	225	0
0	0	2	2	0	0	0	0	0	0	0	0
8751	608	18634	680	9636	270	17152	489	21405	281	19279	1408

## Appendix

### Sector wise outlay and Expenditure (Rs. in Lakhs)

Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual Plan	
		Approved Outlay		Approved Outlay		Actual Expenditure		Approved	Outlay
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
		3	4	5	6	7	8	9	10
<b>II. Rural Development</b>									
<b>Special Programme for Rural Development</b>									
(1) Swarna Jayanti Swarojgar Yojana		7264	0	950	0	715	0	850	0
(2) Ganga Kalyan Yojana		0	0	0	0	14	0	30	0
(3) Drought Prone Area Programme (DPAP)		2500	0	400	0	272	0	428	0
(4) Integrated Rural Energy Programme (IREP)		300	0	50	0	46	0	121	0
(5) Rural Housing		0	0	0	0	0	0	0	0
<b>Total - 2501 - Special Programme For Rural Development</b>		<b>10064</b>	<b>0</b>	<b>1400</b>	<b>0</b>	<b>1047</b>	<b>0</b>	<b>1429</b>	<b>0</b>
<b>Rural Employment</b>									
(1) Jawahar Gram Samridhi Yojana		32000	0	4500	0	2124	0	2840	0
(2) Other Programme (Visesh Rojgar yojana/Vidhayak Nidhi)		300	0	50	0	0	0	1	0
<b>Total - 2505. Rural Employment</b>		<b>32300</b>	<b>0</b>	<b>4550</b>	<b>0</b>	<b>2124</b>	<b>0</b>	<b>2841</b>	<b>0</b>
Land Reforms - Consolidation		310	300	1	0	2	0	100	100
<b>Other Rural Development Programmes</b>									
<b>(1.) Training and Research</b>									
(i) Rural Development		8	0	5	0	0	0	1	0
(ii) Panchayati Raj		8	0	7	0	0	0	1	0
<b>Subtotal (1) Training</b>		<b>16</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>
(2) Panchayati Raj		4315	4305	916	906	918	917	2031	2028
(3) Community Development		300	300	300	300	292	292	898	898
<b>(4) Other Expenditure</b>									
(i) Grant to Zila Parishad		2500	0	200	0	668	0	518	0
(ii) Grant to Blocks		1000	0	178	0	192	0	189	0
(iii) Rural Group Insurance									
<b>Subtotal (4) Other Expenditure</b>		<b>3500</b>	<b>0</b>	<b>378</b>	<b>0</b>	<b>860</b>	<b>0</b>	<b>707</b>	<b>0</b>
<b>Total - 2515 - Other Rural Development Programmes</b>		<b>8131</b>	<b>4605</b>	<b>1606</b>	<b>1206</b>	<b>2070</b>	<b>1209</b>	<b>3638</b>	<b>2926</b>
<b>Total - 102 - RURAL DEVELOPMENT</b>		<b>50805</b>	<b>4905</b>	<b>7557</b>	<b>1206</b>	<b>5242</b>	<b>1209</b>	<b>8008</b>	<b>3026</b>
<b>2575 - SPECIAL AREA PROGRAMME</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1200</b>	<b>1200</b>
<b>IRRIGATION AND FLOOD CONTROL</b>									
<b>Major and Medium Irrigation</b>									
Minor Irrigation		12	12	0	0	0	0	0	0
(1) Private Minor Irrigation		1600	815	275	158	204	172	510	347
(2) State Minor Irrigation		5500	5500	1800	1800	1614	1614	3250	3250
<b>Total - 2702 - Minor Irrigation</b>		<b>7100</b>	<b>6315</b>	<b>2075</b>	<b>1958</b>	<b>1818</b>	<b>1786</b>	<b>3760</b>	<b>3597</b>
<b>Flood Control</b>		<b>1000</b>	<b>1000</b>	<b>400</b>	<b>400</b>	<b>300</b>	<b>300</b>	<b>200</b>	<b>200</b>
<b>TOTAL - 104 - IRRIGATION &amp; FLOOD CONTROL</b>		<b>8112</b>	<b>7327</b>	<b>2475</b>	<b>2358</b>	<b>2118</b>	<b>2086</b>	<b>3960</b>	<b>3797</b>

1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total expen	Total	Capital content in total Outlay
11	12	13	14	15	16	17	18	19	20	21	22
1090	0	930	0	945	0	528	0	394	394	1130	624
0	0	30	0	0	0	0	0	0	0	0	0
128	0	470	0	231	0	284	0	283	0	334	0
112	0	132	0	0	0	163	0	163	0	50	0
0	0	0	0	0	0	0	0	0.0	0	500	500
1330	0	1562	0	1176	0	975	0	840	394	2014	1124
3308	0	3124	0	3323	0	2610	0	2586	0	2610	0
0	0	1	0	0	0	1	0	0	0	3501	0
3308	0	3125	0	3323	0	2611	0	2586	0	6111	0
1	0	100	100	1	0	1	0	0	0	0	0
0	0	1	0	1	0	1	0	0	0	10	0
3	0	1	0	1	0	1	0	1	0	0	0
3	0	2	0	2	0	2	0	1	0	10	0
1814	1814	1250	1250	1916	1916	171	171	159	159	500	0
444	444	988	988	396	396	805	805	300	0	3166	0
538	0	570	0	0	0	66	0	0	0	0	0
169	0	210	0	178	0	182	0	178	0	250	0
707	0	780	0	178	0	248	0	178	0	5	0
2968	2258	3020	2238	2492	2312	1226	976	638	159	3931	0
7606	2257	7807	2338	6992	2312	4813	976	4064	553	12056	1124
600	600	1200	1200	1450	1450	1300	1300	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
224	178	410	269	399	30	733	600	1040	1040	1254	645
2061	2061	2882	2882	1871	1871	2100	2100	1142	1142	5780	2780
2285	2239	3292	3151	2270	1901	2833	2700	2182	2182	7034	3425
133	133	200	200	276	276	600	600	300	0	150	0
2418	2372	3492	3351	2546	2176	3433	3300	2482	2182	7184	3425

## Appendix

### Sector wise outlay and Expenditure (Rs. in Lakhs)

Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual Pla	
		Aproved Outlay		Aproved Outlay		Actual Expenditure		Aproved	Outlay
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
1	2	3	4	5	6	7	8	9	10
<b>ENERGY</b>									
	Power and Rural Electrification	34000	34000	6519	6519	2632	2632	6379	6379
	U. P. Leghu Jai Vidyut Nigam	4000	4000	750	750	1550	1550	1000	1000
	Nonconventional Sources of Energy	3100	1439	600	265	804	236	894	567
	<b>TOTAL - 105 - ENERGY</b>	<b>41100</b>	<b>39439</b>	<b>7869</b>	<b>7534</b>	<b>4986</b>	<b>4418</b>	<b>8273</b>	<b>7946</b>
<b>INDUSTRY &amp; MINERALS</b>									
<b>Village and Small Industries</b>									
	(1) Industry Deptt.	2000	385	700	118	568	0	670	0
	(2) Khadi Board	400	20	75	0	54	0	110	0
	(3) Handlooms	302	235	50	4	17	0	200	218
	(4) Sericulture	2500	726	250	76	143	50	290	48
	<b>Total - 2851- Village &amp; Small Industries</b>	<b>5202</b>	<b>1366</b>	<b>1075</b>	<b>198</b>	<b>782</b>	<b>50</b>	<b>1270</b>	<b>266</b>
<b>Industries Other than V.S.I.</b>									
	(1) Large & Medium Industries	100	100	100	100	0	0	100	100
	(2) Electronics	600	600	100	100	0	0	250	250
	<b>Total-2852-Industries other than V.S.I.</b>	<b>700</b>	<b>700</b>	<b>200</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>350</b>	<b>350</b>
<b>Geology and Mining</b>									
	(1) Geology & Mining Department	60	0	11	0	76	0	91	0
	(2) Mineral Development Corporation	8	8	0	0	0	0	0	0
	<b>Total 2853 Geology &amp; Mining</b>	<b>68</b>	<b>8</b>	<b>11</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>91</b>	<b>0</b>
	<b>TOTAL - 106-INDUSTRY AND MINERALS</b>	<b>5970</b>	<b>2074</b>	<b>1286</b>	<b>398</b>	<b>856</b>	<b>50</b>	<b>1711</b>	<b>616</b>
<b>TRANSPORT</b>									
	Civilaviation	1600	1595	300	300	224	224	300	300
	Roads and Bridges	100500	100500	11200	11200	11222	11222	18100	18100
	Road Transport	2600	1427	100	4	302	300	400	365
	Other Ropeways and Railways	500	500	0	0	0	0	0	0
	<b>TOTAL - 107 TRANSPORT</b>	<b>105200</b>	<b>104022</b>	<b>11600</b>	<b>11504</b>	<b>11748</b>	<b>11746</b>	<b>18800</b>	<b>18765</b>
<b>SCIENCE, TECHNOLOGY AND ENVIRONMENT</b>									
	Scientific Research	80	0	15	0	0	0	1	0
	Ecology and Environment	80	0	15	0	12	0	25	0
	State observation Nainital	980	400	215	200	116	75	450	366
	<b>TOTAL - 109 - SCIENCE, TECH, AND ENV.</b>	<b>1140</b>	<b>400</b>	<b>245</b>	<b>200</b>	<b>128</b>	<b>75</b>	<b>476</b>	<b>366</b>

n 1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay		
11	12	13	14	15	16	17	18	19	20	21	22
4423	4424	6179	6179	4068	4068	3747	3747	4672	3947	5500	5500
1000	1000	1200	1200	1042	1042	1300	1300	1300	1300	500	500
790	363	3060	517	606	0	588	0	575	360	200	200
6213	5787	10439	7896	5716	5110	5635	5047	6547	5607	6200	6200
50	7	650	0	79	0	135	0	29	0	138	6
68	0	125	0	65	0	85	0	47	0	62	0
24	0	200	0	11	0	101	0	5	0	103	50
113	66	300	171	182	111	165	27	91	55	95	6
255	73	1275	171	337	111	486	27	172	55	398	62
0	0	200	200	200	200	787	787	184	0	550	260
150	0	200	200	25	25	434	434	0	0	200	150
150	0	400	400	225	225	1221	1221	184	0	750	410
72	0	101	0	50	0	6	0	1	0	6	0
0	0	0	0	0	0	0	0	0	0	0	0
72	0	101	0	50	0	6	0	1	0	6	0
478	73	1776	571	612	336	1713	1248	357	55	1154	472
190	190	350	350	100	100	378	377	377	0	200	0
16773	16587	18500	18500	23648	23648	17366	17366	17866	16705	11030	11030
114	104	400	310	305	300	31	15	6	0	400	200
0	0	0	0	0	0	0	0	0	0	31	0
17077	16881	19250	19160	24053	24048	17775	17758	18249	16705	11661	11230
50	0	1	1	0	0	0	0	0	0	60	0
13	0	75	0	3	0	53	0	4	0	48	0
424	366	650	495	59	32	550	482	0	0	0	0
487	366	726	496	62	32	603	482	4	0	108	0

## Appendix

### Sector wise outlay and Expenditure (Rs. in Lakhs)

Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual Plan		
		Approved Outlay		Approved Outlay		Actual Expenditure		Approved	Outlay	
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	
		2	3	4	5	6	7	8	9	10
	<b>General Economic Services</b>									
	<b>Secretariat Economic Services</b>									
	(1) Uttaranchal Vikas	354	0	50	0	72	0	100	0	
	(2) National Savings Organisation									
	Commission & Department	0	0	0	0	0	0	0	0	
	(3) State Planning Institutes Hill Div.	12	0	2	0	0	0	5	0	
	(4) Study & Research	100	0	20	0	0	0	20	0	
	(5) Institutional Finance	10	0	2	2	0	0	10	6	
	(6) Land Use Board	6	0	1	0	0	0	2	0	
	(7) Small Seaving									
	<b>Total - 3451 Secretariat Economic Services</b>	<b>482</b>	<b>0</b>	<b>75</b>	<b>2</b>	<b>72</b>	<b>0</b>	<b>137</b>	<b>6</b>	
	<b>Tourism</b>	<b>5000</b>	<b>3101</b>	<b>2000</b>	<b>1855</b>	<b>2471</b>	<b>2252</b>	<b>2750</b>	<b>2558</b>	
	Survey & Statistics Eco. & Statistics	100	0	5	0	3	0	24	0	
	Consumer Protection Dist. Forum	50	0	1	0	0	0	10	0	
	<b>Other Gen. Eco. Services</b>									
	(1) Weights & Measures	10	0	2	0	0	0	1	0	
	(2) Earthquake Relief/Reconstruction	0	0	0	0	0	0	0	0	
	(3) Untied Fund	4010	0	680	0	200	0	3211	0	
	(4) Externally Aided Projects & Centrally Sponsored Schemes	0	0	0	0	0	0	0	0	
	(5) New EAP & CSS Schemes	0	0	0	0	0	0	0	0	
	(6) Construction of Gas Godowns	0	0	0	0	0	0	0	0	
	(7) Finance Department	0	0	0	0	0	0	0	0	
	(8) Disaster Management	0	0	0	0	0	0	0	0	
	(9) Border Area Development programmes	0	0	0	0	0	0	0	0	
	<b>Total - 3475- Other Gen. Eco. Services</b>	<b>4020</b>	<b>0</b>	<b>682</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>3212</b>	<b>0</b>	
	<b>Total - 11- Gen. Eco. Services</b>	<b>9652</b>	<b>3101</b>	<b>2763</b>	<b>1857</b>	<b>2746</b>	<b>2252</b>	<b>6133</b>	<b>2564</b>	
	<b>Total "A" Eco. Services</b>	<b>307098</b>	<b>163807</b>	<b>46156</b>	<b>25512</b>	<b>35310</b>	<b>22239</b>	<b>70768</b>	<b>38528</b>	
	<b>"B" Social Services</b>									
	<b>Education, Sports, Art &amp; Culture</b>									
	<b>General Education</b>	<b>26800</b>	<b>4637</b>	<b>6600</b>	<b>1016</b>	<b>7211</b>	<b>785</b>	<b>10910</b>	<b>609</b>	
	Tech. Education	3050	1492	850	70	1282	142	975	40	
	<b>Sports and Youth Welfare</b>									
	(1) Sports Deptt.	1135	856	205	200	155	155	182	162	
	(2) Education Deptt.	0	0	0	0	0	0	0	0	
	(3) Pradeshik Vikas Dal (Youth Welfare)	216	0	40	0	31	0	146	0	
	<b>Total-2204- Sports &amp; Youth Welfare</b>	<b>1351</b>	<b>856</b>	<b>245</b>	<b>200</b>	<b>186</b>	<b>155</b>	<b>328</b>	<b>162</b>	
	<b>Art and Culture</b>									
	(1) Culture Affairs	172	50	34	0	44	26	82	61	
	(2) Educational Deptt.	0	0	0	0	0	0	0	0	
	<b>Total - 2205- Art and Culture</b>	<b>172</b>	<b>50</b>	<b>34</b>	<b>0</b>	<b>44</b>	<b>26</b>	<b>82</b>	<b>61</b>	
	<b>Total 221 Education, Sports, Art and Culture</b>	<b>31373</b>	<b>7035</b>	<b>7729</b>	<b>1286</b>	<b>8723</b>	<b>1108</b>	<b>12295</b>	<b>872</b>	

n 1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in Total Outlay	Total	Capital content in Total Outlay	Total	Capital content in Total Outlay	Total	Capital content in Total Outlay	Total	Capital content in Total Outlay	Total	Capital content in total Outlay
11	12	13	14	15	16	17	18	19	20	21	22
63	0	100	0	93	0	60	60	47	0	0	0
0	0	0	0	0	0	0	0	0	0	25	0
0	0	5	0	1	0	5	0	1	0	20	0
0	0	30	0	10	0	10	0	9	0	0	0
0	0	10	2	0	0	7	0	1	0	17	0
0	0	2	0	0	0	1	0	0	0	0	0
63	0	147	2	104	0	83	60	58	0	62	0
3104	2859	2450	2099	1746	704	2400	1999	1316	1272	1602	1306
14	0	25	0	7	0	35	0	2	0	30	0
0	0	10	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	0	15	0	87	0	0	0	0	0
258	0	374	0	240	0	475	0	240	0	0	0
0	0	12500	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	5843	3800
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	442	0	0	0	113	10
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	70	0	0	0	0	0
0	0	0	0	0	0	1200	0	600	600	416	416
258	0	12875	0	255	0	2274	0	840	600	6372	4226
3439	2859	15507	2101	2113	704	4792	2059	2216	1872	8066	5532
46646	31437	78181	37295	53120	36407	56666	32176	55324	27255	65708	29391
6919	1019	11500	477	10121	1180	7321	2169	5151	1415	7159	6233
1331	213	1000	100	1146	0	1130	92	615	0	700	0
67	66	191	166	77	77	360	243	125	50	250	221
0	0	0	0	0	0	0	0	0	0	0	0
22	0	150	0	0	0	46	0	0	0	2	0
89	66	341	166	77	77	406	243	5891	1465	252	221
76	64	91	73	47	31	414	362	334	0	138	138
0	0	0	0	0	0	0	0	0	0	0	0
76	64	91	73	47	31	414	362	334	0	138	138
8415	1363	12932	816	11390	1288	9271	2865	6225	1465	8249	6592

## Appendix

### Sector wise outlay and Expenditure (Rs. in Lakhs)

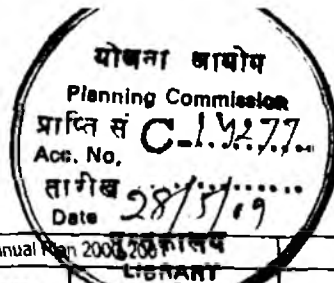
Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual	
		Aproved Outlay		Aproved Outlay		Actual Expenditure		Aproved	Outlay
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
		3	4	5	6	7	8	9	10
	Medical & Health								
	Medical & Public Health	7100	4322	1550	1134	1173	681	2065	1385
	Water Supply Housing & Urban Dev								
	Water Supply & Sanitation								
	A- Urban Water Supply & Sanitation								
	(1) Urban Water Supply	30387	30387	2350	2350	2123	2123	2297	2297
	(2) Urban Sanitation	2281	2281	50	50	0	0	100	100
		32668	32668	2400	2400	2123	2123	2397	2397
	Ganga Action Plan								
	B- Rural Water Supply & Sanitation								
	(1) Rural Water Supply	48100	43603	7115	5523	7007	5838	10200	7543
	(2) Rural Sanitation (Panchayati)	700	0	100	0	100	0	123	0
		48800	43603	7215	5523	7107	5838	10323	7543
	Tenth Finance Commission Central Share								
	<b>Total - 2215- Water Supply &amp; Sanitation</b>	<b>81468</b>	<b>76271</b>	<b>9615</b>	<b>7923</b>	<b>9230</b>	<b>7960</b>	<b>12720</b>	<b>9940</b>
	Housing								
	(1) Govt. Residential Buildings								
	(i) General Pool Accommodation (PWD)	1450	1450	250	250	80	80	387	387
	(ii) Police Housing	110	110	20	20	7	7	10	10
	(iii) Other Housing								
	(a) Judicial	300	300	50	50	68	68	85	85
	(b) Revenue	0	0	0	0	0	0	0	0
	(c) P.W.D.	0	0	0	0	0	0	0	0
	(d) State Deptt.								
	(e) Jail								
	(f) Other Departmental Buildings								
	<b>Total (iii). Other Housing</b>	<b>300</b>	<b>300</b>	<b>50</b>	<b>50</b>	<b>68</b>	<b>68</b>	<b>85</b>	<b>85</b>
		1860	1860	320	320	155	155	482	482
	(2) Urban Housing	700	700	250	250	33	33	248	248
	(3) Rural Housing								
	Nirbal Varg Avas	0	0	0	0	0	0	18	0
	<b>Total - 2216- Housing</b>	<b>2560</b>	<b>2560</b>	<b>570</b>	<b>570</b>	<b>188</b>	<b>188</b>	<b>748</b>	<b>730</b>
	Urban Development	2000	1300	450	330	914	290	950	710
	<b>Total 223 Water Supply Housing &amp; Urban Development</b>	<b>86028</b>	<b>80131</b>	<b>10635</b>	<b>8823</b>	<b>10332</b>	<b>8438</b>	<b>14418</b>	<b>11380</b>



Plan 1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
11	12	13	14	15	16	17	18	19	20	21	22
1843	1388	3210	2674	1076	914	1781	1182	553	473	3152	1350
1776	1776	1973	1973	1773	1773	3017	3017	3861	613	2600	1910
133	133	0	0	0	0	0	0	0	0	0	0
1909	1909	1973	1973	1773	1773	3017	3017	3861	613	2600	1910
8051	4729	13110	10488	8334	7300	11293	10610	12137	3301	11750	5143
86	0	125	0	83	0	119	0	963	0	125	0
8137	4729	13235	10488	8417	7300	11412	10610	13100	3301	11875	5143
10045	6638	15208	12461	10190	9073	14429	13627	16961	3914	14475	7053
284	284	430	430	170	170	352	352	100	100	400	400
0	0	10	10	0	0	0	0	0	0	0	0
52	52	85	85	14	14	281	281	0	0	281	281
0	0	0	0	0	0	0	0	0	0	250	250
0	0	0	0	0	0	6	6	6	0	430	430
52	52	85	85	14	14	287	287	6	0	961	961
336	336	525	525	184	184	639	639	106	100	1361	1361
47	47	250	250	0	0	155	155	0	0	400	0
0	0	0	0	0	0	0	0	0	0	0	0
383	383	795	775	184	184	794	794	0	0	400	0
2031	1067	573	323	364	137	1802	1603	600	0	1577	0
12459	8088	16576	13559	10738	9394	17025	16024	17667	4014	17813	8414

**Appendix**  
**Sector wise outlay and Expenditure (Rs. in Lakhs)**

Code No	Major/Minor head of Development	Ninth Plan (1997-2002)		Annual Plan 1997-98				Annual	
		Approved Outlay		Approved Outlay		Actual Expenditure		Approved	Outlay
		Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
		3	4	5	6	7	8	9	10
	Information and Publicity								
	Information Department	60	0	10	0	3	0	44	0
	Welfare of SC/ST & Other Backward Classes								
	1. Welfare of SC	600	220	100	15	131	0	358	201
	2. Backward Classes	150	0	25	0	15	0	30	0
	3. Welfare of Scheduled Tribes and ITDP								
	4. Welfare of Minorities	1200	229	100	14	106	11	173	17
	150	0	30	0	30	0	34	0	
	<b>Total 225. Welfare of SC/ST, Other Backward Classes and Minorities</b>	<b>2100</b>	<b>449</b>	<b>255</b>	<b>29</b>	<b>282</b>	<b>11</b>	<b>595</b>	<b>218</b>
	1. Labour and Employment								
	1. Labour	55	0	10	0	0	0	1	0
	2. Employment	60	0	10	0	4	0	13	1
	3. Craftsman Training	1200	330	350	125	100	21	425	150
	<b>Total Labour and Employment</b>	<b>1315</b>	<b>330</b>	<b>370</b>	<b>125</b>	<b>104</b>	<b>21</b>	<b>439</b>	<b>151</b>
	Social Security & Welfare								
	Social Security								
	(i) Social Welfare	1050	0	200	0	287	0	473	0
	(ii) Mahila Kalyan	2460	701	100	25	57	35	543	194
	(iii) Sainik Kalyan	180	90	30	14	17	15	22	9
	(iv) Welfare of Handicapped	325	0	50	0	121	0	144	0
	<b>Total Social Security &amp; Welfare</b>	<b>4015</b>	<b>791</b>	<b>380</b>	<b>39</b>	<b>482</b>	<b>50</b>	<b>1182</b>	<b>203</b>
	Nutrition								
	Child Development Services and Nutrition (Mahila Kalyan)	3600	0	550	0	266	0	500	0
	Nutrition (ICDS)								
	<b>Total 2 Nutrition</b>	<b>3600</b>	<b>0</b>	<b>550</b>	<b>0</b>	<b>266</b>	<b>0</b>	<b>500</b>	<b>0</b>
	<b>Total XVII Social Security and Welfare</b>	<b>7615</b>	<b>791</b>	<b>930</b>	<b>39</b>	<b>748</b>	<b>50</b>	<b>1682</b>	<b>203</b>
	<b>Total "B" Social Services</b>	<b>135591</b>	<b>93058</b>	<b>21479</b>	<b>11437</b>	<b>21366</b>	<b>10309</b>	<b>31538</b>	<b>14209</b>
	"C" General Services								
	XVII, Office and other buildings								
	1. Police	0	0	0	0	0	0	0	0
	2. Judicial	0	0	0	0	0	0	0	0
	3. Revenue	0	0	0	0	0	0	120	120
	4. Estate Department	0	0	0	0	0	0	0	0
	5. P.W.D.	283	283	60	60	0	0	173	173
	6. Home/Jail	28	28	5	5	5	5	1	1
		311	311	65	65	5	5	294	294
	<b>Total "C" General Services</b>	<b>311</b>	<b>311</b>	<b>65</b>	<b>65</b>	<b>5</b>	<b>5</b>	<b>294</b>	<b>294</b>
	<b>Grand Total A+B+C</b>	<b>443000</b>	<b>257176</b>	<b>67699.7</b>	<b>37014</b>	<b>56681</b>	<b>32553</b>	<b>102600</b>	<b>53031</b>



Plan 1998-99		Annual Plan 1999-2000				Annual Plan 2000-2001				Annual Plan 2001-2002	
Actual Expenditure		Approved Outlay		Actual Expenditure		Approved Outlay		Anticipated Expenditure		Proposed Outlay	
Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay	Total	Capital content in total Outlay
11	12	13	14	15	16	17	18	19	20	21	22
9	0	50	5	6	3	57	26	9	0	40	0
120	23	395	201	120	72	332	39	31	31	270	270
15	0	40	0	34	0	38	0	33	0	20	10
137	5	180	20	272	46	256	95	168	0	285	0
31	0	40	0	50	0	73	0	50	0	25	10
303	28	655	221	476	118	699	134	282	31	600	290
0	0	1	1	0	0	10	0	0	0	11	0
9	0	30	13	9	0	28	0	15	0	13	0
166	85	450	0	20	0	461	288	42	42	200	200
175	85	481	14	29	0	499	288	57	42	224	200
105	0	520	0	43	0	243	0	46	0	195	0
526	195	550	0	901	0	911	355	907	0	40	0
18	6	30	10	13	0	24	14	21	4	40	40
132	0	160	0	180	0	299	0	149	0	35	0
781	201	1260	10	1137	0	1477	369	1123	4	310	40
452	0	500	0	0	0	100	0	0	0	1150	0
452	0	500	0	0	0	100					
1233	201	1760	10	1137	0	1577					
24437	11153	35664	17299	24852	11717	30909	27				

4	4	0	0	0	0	0					
57	57	0	500	0	0	0					
0	0	132	132	71	71	2105					
0	0	0	0	0	0	0					
0	0	21	21	214	214	319					
0	0	2	2	0	0	1					
61	61	155	655	285	285	2425					
61	61	155	655	285	285	2425					
71144	42651	114000	55249	78257	48409	90000	5				

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