

**RASHTRIYA MADHYAMIK SHIKSHA ABHIYAN
UTTARAKHAND**

**Annual Work Plan & Budget
(AWP&B)
for
Expanded Secondary Education
2010-2011**

(Revised as per suggestion given by Edcil appraisal team)



**Uttarakhand Sabhi Ke Liye Madhyamik
Shiksha Parishad**

Nanoorkhera, Tapovan, Dehradun.

**RMSA Annual Work Plan & Budget Team
Uttarakhand**

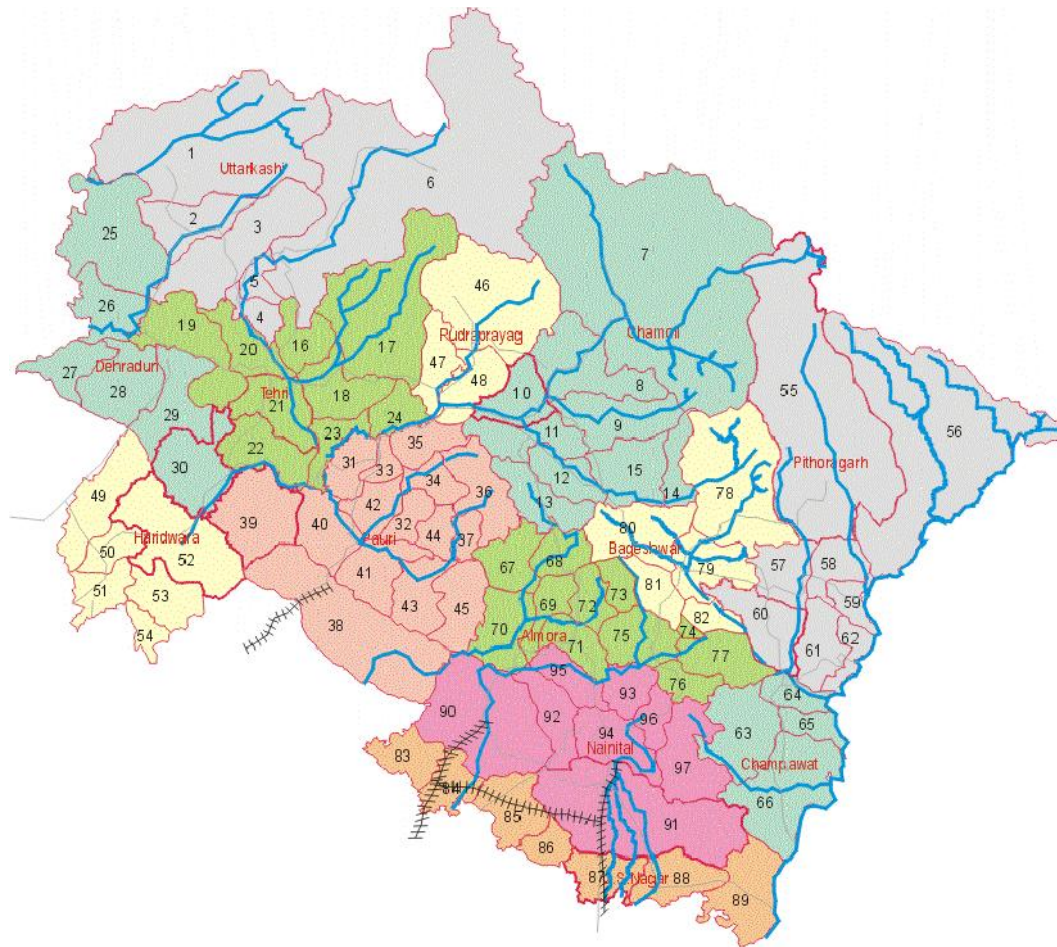
**Pushpa Manas
Director/State Project Director
School Education, Uttarakhand, Dehradun**

RMSA State Team Members

**Uttarakhand Sabhi Ke Liye Madhyamik
Shiksha Parishad**

Nanoorkhera, Tapovan, Dehradun.

UTTRAKHAND – MAP



Districts Of Uttarakhand

GARHWAL MANDAL

1. Chamoli
2. Dehradun
3. Haridwar
4. Pauri Garhwal
5. Rudraprayag
6. Tehri Garhwal
7. Uttarkashi

KUMANU MANDAL

1. Almora
2. Bageshwar
3. Champawat
4. Nainital
5. Pithoragarh
6. Udham Singh Nagar

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The Perspective plan of Uttarakhand for Rashtriya Madhyamik Shiksha Abhiyan prepared after a long series of workshop with District Officials, SCERT, SIEMAT, Board and Educationists. The online SEMIS data entry done at district level and the analysis of SEMIS data done at State level as well as at district level. Each and every secondary school is recorded under SEMIS.

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RMSA Team

Uttarakhand

Contents

S. No.	Particulars	Page No.
1.	Introduction	1-14
2.	Brief Introduction to RMSA	15-36
3.	Status of Secondary Education in Uttarakhand	37-79
4.	Planning Process	80-86
5.	Alternative Development Scenario and Plan Targets for the Expansion of Secondary Education in Uttarakhand	87-103
6.	Strategies and Action Programmes	104-185
7.	Action Programme for Focus Groups	186-206
8.	Estimation of Additional Inputs	207-209
9.	Planning for Implementation	210-216
10.	Budget Estimates	217-229
11	Annexure	

List of Tables

Table No.	Title	Page
Table 1.1.1	: Administrative Units of the State	2
Table 1.1.2	: Population figures at a glance	3
Table 1.1.3	: District-wise population as per census 2001	3
Table 1.1.4	: District-wise population as per census 2001	4
Table 1.1.5	: Literacy Status in Uttarakhand	4
Table 1.1.6	: Percentage of Villages Physically not connected by the Size of the Village in Uttarakhand	5
Table 1.1.7	: District Wise Distribution of Sub-district Units	7
Table 1.1.8	: Literacy Rate	9
Table 2.2.1	: The proposed investments can be captured in tabular form as indicated below	20
Table 2.2.2	: Norms of National and State	32
Table 3.3.1	: Population and Growth Rate	37
Table 3.3.2	: No. of Primary and Upper Primary Schools	38
Table 3.3.3	: Secondary and Hr./Sr. Secondary Schools	38
Table 3.3.4	: District-wise Secondary and Hr./Sr. Secondary Schools	38
Table 3.3.5	: Total Enrolment Status at Elementary Level Year 2009-10	39
Table 3.3.6	: Total Enrolment Status at Elementary Level (Class 1 to 8)	39
Table 3.3.7	: GER, NER, Co hart Drop Out and Overall Repetition at Elementary Level	39
Table 3.3.8	: District-wise GER, NER, Co hart Drop Out and Overall Repetition at Elementary Level, year 2009-2010	40
Table 3.3.9	: Completion Rate, Primary Graduates & Transition Rate from Primary to Upper Primary Year 2009-2010	40
Table 3.3.10	: Total Enrolment Status at Secondary Level (Class IX to X)	41
Table 3.3.11	: Total Enrolment Status at Hr./Sr. Secondary Level (Class XI to XII)	41
Table 3.3.12	: GER at Secondary Level, Year 2006-2007 & 2007-2008	42
Table 3.3.13	: Drop Out and Repetition at Secondary Level, Year 2007-2008	42
Table 3.3.14	: PTR at Secondary Level, Year 2007-2008	42
Table : 3.3.15	: Projected Population of 14-17 age group in Uttarakhand	43
Table 3.3.16	: District-wise (year wise) Total Child Population (Age 14 & 15)	43

Table 3.3.17	:	District-wise (year wise) Total Child Population (Age 16 & 17)	44
Table 3.3.18	:	District-wise Social Group wise 14-15 age group population	46
Table 3.3.19	:	Age Group 16-17 child population	46
Table 3.3.20	:	Age Group 14-17 child population	47
Table 3.3.21	:	Yearwise enrolment in secondary and higher secondary level	48
Table 3.3.22	:	Yearwise growth in enrolment in secondary and higher secondary level	48
Table 3.3.23	:	Enrolment by Class, Gender and Social Category	49
Table 3.3.24	:	Age Specific enrolment in secondary	50
Table 3.3.25	:	Age Specific enrolment in higher secondary level	50
Table 3.3.26	:	Districtwise Age specific enrolment in secondary level	50
Table 3.3.27	:	Districtwise Age specific in higher secondary level	51
Table 3.3.28	:	Yearwise Enrolment, Uttarakhand Class IX and X Enrolment, 2009-10	52
Table 3.3.29	:	Yearwise Enrolment, Uttarakhand Class XI and XII Enrolment, 2009-10	53
Table 3.3.30	:	Percentage of Category wise and Management wise Enrolment (Class IX and X) in Uttarakhand 2008-9	53
Table 3.3.31	:	Percentage of Category wise and Management wise Enrolment (Class XI and XII) in Uttarakhand 2008-2009	54
Table 3.3.32	:	GER, Uttarakhand	55
Table 3.3.33	:	NER, Uttarakhand	55
Table 3.3.34	:	Repeaters & Drop Out % At Secondary Level	56
Table 3.3.35	:	Repeaters & Drop Out % At Hr. Secondary Level	57
Table 3.3.36	:	Repeaters by area and social category wise	58
Table 3.3.37	:	Number of Repeaters of Sept. 2008	59
Table 3.3.38	:	% of Repeaters in 2007-08 in Secondary Level (Class IX & X)	59
Table 3.3.39	:	Class IX, Enrolment Year 2007 – 2008	60
Table 3.3.40	:	Children with special needs Enrolled in Secondary Classes in Uttarakhand, 2009-10	61
Table 3.3.41	:	Distribution of Enrolment in the Secondary Classes (IX and X) in Uttarakhand by Age Group, 2009-10	61
Table 3.3.42	:	Distribution of Enrolment in the Secondary Classes (XI and XII) in Uttarakhand by Age Group, 2009-10	62
Table 3.3.43	:	Schools by Funding Pattern	62
Table 3.3.44	:	% of school by Management wise in Uttarakhand 2009-10	62
Table 3.3.45	:	No. of School per lakh population	63

Table 3.3.46	:	Uttarakhand : Ave. size of secondary school 2009-10	64
Table 3.3.47	:	Uttarakhand : Ave. size of higher secondary school 2009-10	65
Table 3.3.48	:	Districtwise served and unserved habitation in Uttarakhand	65
Table 3.3.48(A)	:	Habitation & Access (Secondary, Class IX & X)	66
Table 3.3.49	:	Percentage of Schools with Secondary Classes and without Selected Facilities by Management in Uttarakhand, 2009-10	67
Table 3.3.50	:	Management wise School buildings	68
Table 3.3.51	:	Teachers Position In Secondary School, 2009 – 2010	69
Table 3.3.52	:	Number of Teachers Available for Teaching in the Secondary Classes in Uttarakhand, 2009-10	70
Table 3.3.53	:	Number of Teachers Available for Teaching in the Higher Secondary Classes in Uttarakhand, 2009-10	70
Table 3.3.54	:	Trained and Qualified Teachers in the existing school with secondary classes by management in Uttarakhand, 2008-09	71
Table 3.3.55	:	Percentage of the existing schools with Secondary Classes without a Core -Subjects Teacher by Management in Uttarakhand 2009-10	71
Table 3.3.56	:	PTR	72
Table 3.3.57	:	Distribution of the total number of students who passed out the Secondary School Board (Class X) Examination by range of Marks Secured in 2008-09 and by Social Group in Uttarakhand	73
Table 3.3.58	:	Distribution of the total number of students who passed out the higher Secondary School Board (Class XII) Examination by range of Marks Secured in 2008-09 and by Social Group in Uttarakhand	73
Table 3.3.59	:	State Budget Expenditure in Uttarakhand	74
Table 3.3.60	:	Trends in Selected Indicators of Budget Expenditure on School Education in Uttarakhand	75
Table 3.3.61	:	Trends in Per Capita Budget Expenditure on School Education in Uttarakhand	76
Table 3.3.62	:	Budget Allocation for Major Schemes in the Secondary School Education Uttarakhand	77
Table 3.3.63	:	Development Challenge and issues	78
Table 3.3.64	:	State PWD Construction Rate	78
Table 3.3.64 (A)	:	Unit cost as per revised state PWD Norms.	78
Table 3.3.64(B)	:	Table 3.3.64 (B) a . Hill Area (Rs. 13813.00 Per Sq. Mtrs.)	79
Table 3.3.64(C)	:	b . Plain Area (Rs. 11629.00 Per sq. Mtrs.)	79
Table 5.5.1	:	Yearwise growth in enrolment in secondary and higher secondary level	87
Table 5.5.2	:	Yearwise Enrolment at elementary level	89
Table 5.5.3	:	Annual Growth Rate of Enrolment in Elementary	89

	Classes	
Table 5.5.4	: District wise Tran. Rate 2007 -2008 Class VIII to Class IX	89
Table 5.5.5	: Repeaters & Drop Out % At Secondary Level, 2008-09 State – Uttrakhand	91
Table 5.5.6	: Projected GER as per past trend secondary level	92
Table 5.5.7	: Target GER	93
Table 5.5.8	: Yearwise Additional Enrolment at secondary level	93
Table 5.5.9	: Projected GER as per previous trend higher secondary level	94
Table 5.5.10	: Target GER	95
Table 5.5.11	: Yearwise Additional Enrolment at higher secondary level	95
Table 5.5.12	: % of categorywise and Management wise enrolment (Class IX and X) in Uttarakhand 2009-10	96
Table 5.5.13	: Projected Enrolment by School Management at Secondary level	96
Table 5.5.14	: % of category wise and Management wise Enrolment (Class XI and XII) in Uttarakhand 2009-10	97
Table 5.5.15	: Projected Enrolment by School Management at Higher Secondary level	97
Table 5.5.16	: Unit Cost Physical requirement and financial provisions in total perspective plan period	101
Table 6.6.1	: Availability of Computers	132
Table 6.6.2	: Status of Trained Teachers	132
Table 6.6.3	: District wise description of Core Subjects Secondary Teachers- (Government, Aided and Social Welfare Department.	177
Table 6.6.4	: No. of principal/Head Teacher etc. For Training	184
Table 6.6.5	: No. of Subject Teachers for Teacher Training	184
Table 6.6.6	: No. of Teacher for Teacher Training	185
Table 7.1.1	: Passed out Girls and SC/ST Students.	187
Table 7.1.2	: No. of Girls and SC/ST Students.	194
Table 7.1.3	: Gross Enrolment Ratio Category wise	195
Table 9.1.1	: Activities proposed under MMER in 2010-11 (State Level Activities)	215
Table 9.1.2	: Activities proposed under MMER in 2010-11 (District Level Activities)	216
Table 10.1.1	: District – Wise Plan Summary	220
Table 10.1.2	: RMSA, Summary of AWP&B 2010-10 all District Uttarakhand	221

LIST OF ABBREVEATIONS

AAGR	Annual Average Growth Rate
ACR	Additional Class Rooms
ADEO	Additional District Education Officer
AEP	Adolescent Education Programme
AIE	Alternative schooling
AGR	Annual Growth Rate
AWPB	Annual Work Plan and Budget
BPT	Block Project Team
BRC	Block Resource Center
BEO	Block Education Officer
BSEP	Block Secondary Education Plan
CABE	Central Advisory Board of Education
CBRI	Central Building of Regional Institute
CBSE	Central Board of Secondary Education
CCE	Continuous and Comprehensive Evaluation
CRC	Cluster Resource Center
CTE	College of Teachers Education
CWSN	Children with Special Needs
DCF	Data Capture Format
DEO	District Education Officer
DIET	District Institute of Education and Training
DISE	District Information system of Education
DPO	District Project Office/Officer
DPT	District Project Team
DRC	District Resource Centre
DRG	District Resource Group
DSEP	District Secondary Education Plan
EBB	Educationally Backward Block
EBM	Educationally Backward Minorities
EC	Executive Committee

EGS	Education Guarantee Scheme
FC	Finance Controller/Finance Committee
GAR	Gross Access Ratio
G&C	Guidance and Counseling
GER	Gross Enrollment Ratio
GIC	Government Inter College
GGIC	Government Girls Inter College
GHSS	Government High Schools
GIS	Geophysical Information System
GO	Government Organisation
GOI	Government of India
GSDP	Gross Domestic Product
IASE	Institute for Advanced Studies in Education
ICT	Information and Communication Technology
IEP	Individualized Education Plan
IEDC	Integrated Education for Disabled Children
INSET	IN-service Educational Training for Teachers
KGBV	Kasturba Gandhi Balika Vidyalaya
LB	Local Body
LRC	Learning Resource Centre
MHRD	Ministry of Human Resource Development
MTA	Mid Term Appraisal
NCERT	National Council of Educational Research and Training
NCF	National Curriculum Framework
NCTE	National Council of Teachers Education
NER	Net Enrollment Ratio
NGO	Non Government Organization
NIOS	National Institute of Open School
NIVH	National Institute for Visually Handicapped
NIOH	National Institute for Orthopedically Handicapped
NIMH	National Institute for Mentally Handicapped
NIHH	National Institute for Hearing Handicapped

NMMSE	National Means cum Merit Scholarship Examination
NPE	National Policy on Education
NRBC	Non Residential Bridge Course
NTSE	National Talent Search Examination
NUPEA	National University of Planning and Educational Administration
MT	Master Trainers
OBC	Other Backward Classes
PCE	Per Capita Expenditure
PPP	Public private Partnership
PR	Promotion Rate
PRI	Panchayati Raj Institutions
PS	Primary School
PTA	Parent Teacher Ratio
PTR	Pupil Teacher Ratio
RIE	Regional Institute of Education
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RGI	Registrar General of India
RBC	Residential Bridge Course
RGV	Rajeev Gandhi Navodaya Vidyalaya
SC	Schedule Caste
SE	School Education/Secondary Education
SSE	Senior Secondary Education
SES	Selected Education Statistics/Socio Economic Status
SPT	State Project Team
ST	Schedule Tribe
SCERT	State Council of Educational Research and Training
SEMIS	Secondary Education Management Information System
SIEMAT	State Institute for Management, Administration and Training
SIP	School Improvement Plan
SPD	State Project Director
SPO	State Project Office
SEITA	State Education Information and technology Academy

SMC	School Management Committee
SMDC	School Management Development Committee
SRG	State Resource Group
SSA	Sarva Shiksha Abhiyan
SSEP	State Secondary Education Plan
SUCCES S	Scheme of Universalization of Secondary and Higher Secondary Education
TE	Total Expenditure
TLM	Teaching Learning Material
TLE	Teaching Learning Equipment
TLA	Teaching Learning Aid
TR	Transition rate
UPS	Upper Primary School
USE	Universalization of Secondary Education
USKLMSP	Uttarakhand Sabhi Key Liye Madhyamik Shiksha Parishad
VEC	Village Education Committee

Chapter I

Introduction

1.1 Introduction

Education is an indicator of sustain growth and development of a nation. It has important role to play in the full development of one's personality. According to Census 2001, the total literacy rate in India is 65.38% the female literacy rate is 54.16%. The gap between rural and urban literacy rate is also very significant in India. This is evident from the fact that only 59.4% of the rural population are literate against 80.3% urban population. The Government of India has put forward initiatives for achieving the goal of cent percent literacy by launching various schemes and by making constitutional amendments. The Government of India has also introduced Right to Education Bill 2005 for the protection of rights and better educational access to all children.

The elementary education in India is the foundation on which the development of every citizen and nation as a whole hinges. The 86th constitutional amendment has made elementary education of fundamental rights to the children between the age group of 6-14. Since, universalization of elementary education has become a constitutional mandate it is absolutely essential to push this vision forward to move towards universalization of secondary education which has already being achieved in large number of develop countries and several developing countries, in India education beyond elementary level is lagging behind. Therefore, education beyond elementary is instrumental.

Secondary education is a crucial stage in the education hierarchy as its prepare the students for higher education and also for the world of work. It is absolutely essential to strengthen this stage by providing greater access and also by improving quality in a significant way.

The Government of India while taking note of the development in economy and educational scenario all over the world and in its own country has proposed for expansion and strengthening of the secondary and higher secondary education. It has launched Rashtriya Madhyamik Shiksha Abhiyan in 2007 for promoting universalization of secondary education. The normal age group of the children in secondary classes is 14-16 whereas it is 16-18 for higher secondary classes. The population of the age group 14-18 was 8.55 crore in 2001 as per census data. The estimated population of age group as on 1.3.2005 was 9.48 crore which is likely to increase 9.69 crore as on 1.3.2007 i.e. at the beginning of 11th Five Year Plan. This likely to established at around 9.70 crore for 2011. On viewing this established population of this age group it is necessary and desirable that access to secondary education should be universalized leading to enhanced participation and quality improvement. Moreover beside the general education upto secondary level opportunity for improvement of vocational knowledge and skill should be provided at the higher secondary level to enable students to be employable.

Background of Uttarakhand

The State of Uttarakhand came to existence on November 09, 2000. The state was previously known as “Uttaranchal” but was renamed “Uttarakhand” on January 01, 2007. It is bound by Uttar Pradesh on the south, Nepal on the east, Himanchal Pradesh on the west and China on north-east. Geographical area of the state is 53483sq. km. forming 1.69% of area of the country as a whole.

Geographically, Uttarakhand is situated in the central Himalayan zone. It extends between 77° 34’ to 81° 02’ E longitude and 28° 43’ to 31° 27’ N latitude. The topography of Uttarakhand is characterized by hilly terrain, rugged and rocky mountains, deep valleys, high peaks, sharp streams and rivulets, rapid soil erosion, frequent landslides and widely scattered habitations. The natural vegetation is mixed broad-leaved forest with oak and pine predominating. Climate varies from subtropical in the valleys to temperate on the higher slopes with a summer monsoon. The temperature range from 16°C to 40°C but drops below freezing point in many parts of high mountain areas of the region during winter.

Administratively, the state has following constitution:

Table 1.1.1

Administrative Units of the State

▪ 02 Administrative divisions	▪ 670 Nyaya panchayats
▪ 13 Districts	▪ 7590 Gram panchayats*
▪ 78 Tehsils	▪ 16826 revenue villages
▪ 95 Development Blocks	▪ 15761 inhabited villages and
▪ 34 Cities	▪ 1065 unhabitated villages.
▪ 84 Towns	

Source: Department of Panchayat, Government of Uttarakhand and district annual work plan

The Population of the state is 84,79,562 according to census of 2001 and an average density of 159 person/sq.km. in year 2001. The overall sex ratio in Uttarakhand is 964 female per 1000 male. The highest sex ratio is in District Almora i.e. 1147 and lowest is in Haridwar i.e. 868. Population density in the 13 districts of the State varies from a high of 612 per sq. km. in Haridwar to a low of 37 per sq. km. in Uttarkashi. Different districts also recorded diverse population growth rates during the decade 1991-2001, from a strong 32.88% in Nainital to practical stagnation at 3.87% in Almora. The over all sex ratio in Uttarakhand is 964 females per 1000 males. The highest sex ratio is in district Almora i.e. 1147 and lowest is in Haridwar i.e. 868. As per census 2001 the SC comprises of 18.01% and ST of 2.09% in the whole population. The main tribes of Uttarakhand are Bhotia, Jaunsari,

Bouksa and Tharu. They are mainly resite in Pithoragarh, Dehradun, Nainital and Udham Singh nager.

Table 1.1.2
Population figures at a glance

S.No	Description	1991	2001	
1	Population	Male	36.41 Lakhs	43.26 Lakhs
		Female	34.10 Lakhs	41.63 Lakhs
		Total	70.51 Lakhs	84.89 Lakhs
2	Population Density	132 Per sq.km	159 Per sq.km	
3	Sex Ratio	937	964	
4	Decadal Population Growth	13.67 Lakhs (absolute)/ 19.20%		

Source: Census 2001.

Table 1.1.3
DISTRICT-WISE POPULATION AS PER CENSUS 2001

Sl. No.	District	Area	Population according to Census 2001								
			All Communities			Scheduled Castes			Scheduled Tribes		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11	12
1	Almora	Rural	263,128	312,934	576,062	63,190	68,940	132,130	255	233	488
		Urban	30,720	23,785	54,505	4,354	3,946	8,300	206	184	390
		Total	293,848	336,719	630,567	67,544	72,886	140,430	461	417	878
2	Bageshwar	Rural	114,199	127,460	241,659	30,984	31,941	62,925	746	873	1,619
		Urban	4,311	3,492	7,803	825	774	1,599	153	171	324
		Total	118,510	130,952	249,462	31,809	32,715	64,524	899	1,044	1,943
3	Chamoli	Rural	154,197	165,459	319,656	29,338	29,677	59,015	3,688	4,042	7,730
		Urban	29,548	21,155	50,703	4,653	3,871	8,524	1,395	1,359	2,754
		Total	183,745	186,614	370,359	33,991	33,548	67,539	5,083	5,401	10,484
4	Champawat	Rural	92,816	97,948	190,764	16,882	16,687	33,569	296	277	573
		Urban	18,268	15,510	33,778	2,409	2,120	4,529	89	78	167
		Total	111,084	113,458	224,542	19,291	18,807	38,098	385	355	740
5	Dehradun	Rural	315,305	288,096	603,401	48,843	43,190	92,033	49,435	45,475	94,910
		Urban	364,278	314,464	678,742	43,082	38,333	81,415	2,487	1,932	4,419
		Total	679,583	602,560	1,282,143	91,925	81,523	173,448	51,922	47,407	99,329
6	Garhwal	Rural	281,706	325,497	607,203	47,201	49,516	96,717	744	604	1,348
		Urban	49,355	40,520	89,875	5,327	4,609	9,936	144	102	246
		Total	331,061	366,017	697,078	52,528	54,125	106,653	888	706	1,594
7	Hardwar	Rural	534,038	466,874	1,000,912	139,337	121,125	260,462	1,628	1,330	2,958
		Urban	241,983	204,292	446,275	28,365	25,149	53,514	100	81	181
		Total	776,021	671,166	1,447,187	167,702	146,274	313,976	1,728	1,411	3,139
8	Nainital	Rural	256,956	236,903	493,859	61,064	54,867	115,931	2,054	1,908	3,962
		Urban	143,298	125,752	269,050	16,874	15,379	32,253	514	485	999
		Total	400,254	362,655	762,909	77,938	70,246	148,184	2,568	2,393	4,961
9	Pithoragarh	Rural	194,810	207,646	402,456	49,118	48,949	98,067	7,341	7,593	14,934
		Urban	32,805	27,028	59,833	4,383	3,999	8,382	2,081	2,264	4,345
		Total	227,615	234,674	462,289	53,501	52,948	106,449	9,422	9,857	19,279
10	Rudraprayag	Rural	105,643	119,064	224,707	19,778	20,237	40,015	87	70	157
		Urban	1,892	840	2,732	189	107	296	19	10	29
		Total	107,535	119,904	227,439	19,967	20,344	40,311	106	80	186

11	Tehri Garhwal	Rural	258,401	286,500	544,901	40,698	41,346	82,044	169	104	273
		Urban	36,767	23,079	59,846	2,970	2,311	5,281	348	70	418
		Total	295,168	309,579	604,747	43,668	43,657	87,325	517	174	691
12	Udham Singh Nagar	Rural	434,654	397,946	832,600	63,118	55,948	119,066	55,081	53,727	108,808
		Urban	214,830	188,184	403,014	23,499	20,217	43,716	860	552	1,412
		Total	649,484	586,130	1,235,614	86,617	76,165	162,782	55,941	54,279	110,220
13	Uttarkashi	Rural	138,737	133,358	272,095	32,536	31,612	64,148	1,284	1,165	2,449
		Urban	13,279	9,639	22,918	1,755	1,564	3,319	130	106	236
		Total	152,016	142,997	295,013	34,291	33,176	67,467	1,414	1,271	2,685
UTTARAKHAND		Rural	3,144,590	3,165,685	6,310,275	642,087	614,035	1,256,122	122,808	117,401	240,209
		Urban	1,181,334	997,740	2,179,074	138,685	122,379	261,064	8,526	7,394	15,920
		Total	4,325,924	4,163,425	8,489,349	780,772	736,414	1,517,186	131,334	124,795	256,129

Source: Census 2001

Table 1.1.4
DISTRICT-WISE POPULATION AS PER CENSUS 2001

SN	District	Total Population	G. Rate	Scheduled Caste		Scheduled Tribes		Sex Ratio (/Thou. Male)
				Popu.	%	Popu.	%	
1	Almora	630567	3.14	140430	22.27	878	0.14	1146
2	Bageswar	249462	17.56	64524	25.87	1943	0.78	1105
3	Chamoli	370359	13.51	67539	18.24	10484	2.83	1016
4	Champawat	224542	9.21	38098	16.97	740	0.33	1021
5	Dehradun	1282143	24.71	173448	13.53	99329	7.75	887
6	Haridwar	1447187	26.30	313976	21.70	3139	0.22	865
7	Nainital	762909	32.88	148184	19.42	4961	0.65	906
8	Pauri Garhwal	697078	3.87	106653	15.30	1594	0.23	1106
9	Pithauragarh	462289	10.92	106449	23.03	19279	4.17	1031
10	Rudrprayag	227439	13.44	40311	17.72	186	0.08	1115
11	Tehri Garhwal	604747	16.15	87325	14.44	691	0.11	1049
12	US Nagar	1235614	27.79	162782	13.17	110220	8.92	902
13	Uttarkashi	295013	22.72	67467	22.87	2685	0.91	941
	STATE	8489349	19.20	1517186	18.81	256129	2.09	964

Source: Census 2001

Table 1.1.5 : Literacy Status in Uttarakhand		
Categories	India	Uttarakhand
Person - All	64.80%	72.28%
Male	75.85%	84.01%
Female	54.16%	60.26%
Urban Area	80.30%	
Rural Area	59.40%	
SC - All	54.69%	63.40%
SC Male	66.64%	77.30%
SC Female	41.90%	48.70%
ST - All	47.10%	63.20%
ST Male	59.17%	76.40%
ST Female	34.76%	49.40%
Source: census 2001.		

Table 1.1.6 Percentage of Villages Physically not Connected by the Size of the Village in Uttarakhand

Habitations by size	No of Villages	% in Total
1000 & Above	1184	7.51%
500-499	1878	11.92%
201-499	4902	31.10%
Below 200	7797	49.47%
All	15761	-

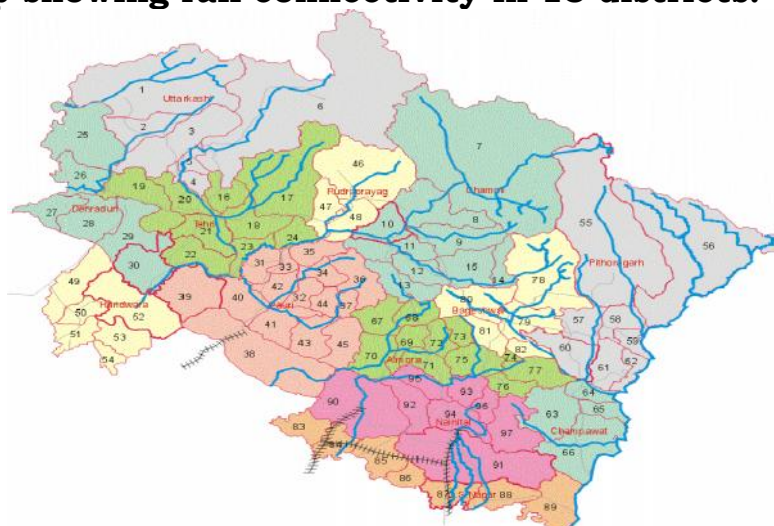
Note: Of the total villages 15761 are inhabited ones.

Source: E&S Department, Uttarakhand

Land utilization data show that forest covered area in the State is very extensive. It is the largest land utilization covering almost 63% of the area of the State. The next important category is net shown area, which covers about 14% of the State's area. In individual district forest area varies from a low of 23% (Haridwar) to a high of 89% (Uttarkashi), while net shown area varies from a low of 4 to 5 per cent of the total area (Uttarkashi and Chamoli) to 63 per cent (Hardwar).

Since inception, the area covered by the new State has seen a great change. The Terai and Bhabar areas of Kumaon stand transformed from malaria-infested and swampy wildernesses into modern advanced agricultural and trading regions. With the spread of the road network, most, but not all, of the interior areas are now linked to the main arteries of flow of trade and traffic, which is placed at the top of the present volume. As a result, their social and economic life stands transformed. However, access to the railway network is very limited, as only 24 block headquarters out of 95 in the State are within a distance of 0-49 km of a railhead. Awareness and literacy levels are uniformly high across the districts.

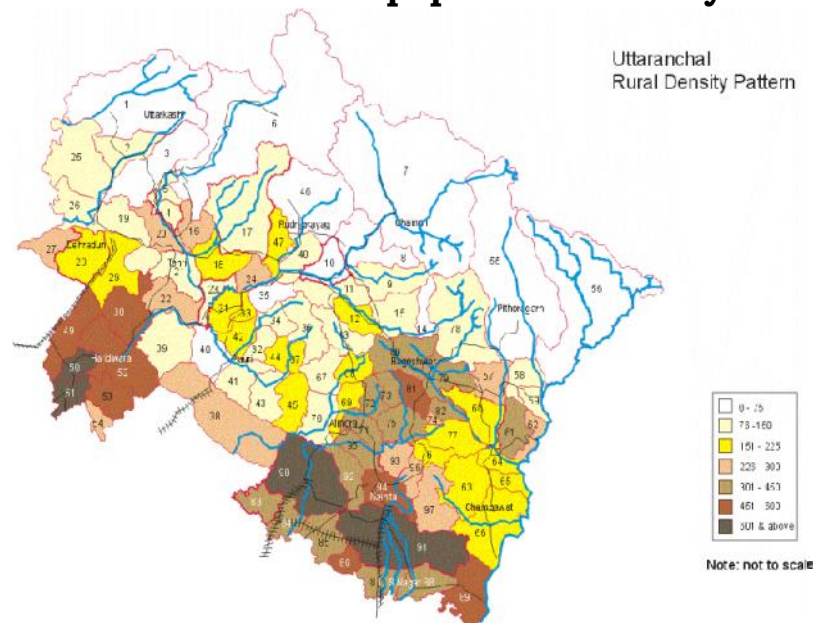
Map showing rail connectivity in 13 districts.



Population distribution

Distribution of rural population in Uttarakhand is rather uneven. This is vividly brought out in the Map, which depicts the rural density pattern. The highest density of rural population is concentrated in the southern half of the State, encompassing the districts of Dehradun (Doon valley), Haridwar, Udham Singh Nagar and parts of Nainital, where the population density is 451 persons per sq. km. and more. The reason for high population density in these districts is quite obviously their location in the fertile plains areas of the Upper Doab, Terai-Bhabar, and the Doon Valley. In the inner Himalayas, there are many Blocks of average population density (between 151 and 300 persons per sq. km.) in Nainital, Almora, Pithoragarh, Champawat and Bageshwar districts and a few isolated pockets in Pauri Garhwal, Tehri Garhwal, Chamoli and Rudraprayag districts located in the Lesser Himalayas. Many of these places are situated in fertile mountain valleys, of which the larger number is in Kumaon region than in Garhwal. In the rest of the State, population density is low (less than 150 persons per sq. km.).

District wise distribution of population density of the State



For understandable reasons, population is especially sparsely distributed in the Greater Himalayas spanning Uttarkashi, Rudraprayag, Chamoli and Pithoragarh districts, large parts of which are snow-bound, barren and inhospitable. When the population density map is read in conjunction with the map giving the location of Municipality and Block headquarters an interesting pattern emerges. Most of the towns housing municipalities are located either in the densely populated areas of the State located in the Upper Doab, Terai-Bhabar, and Doon Valley regions, or along major rivers, especially in Garhwal. The latter also happens to be important tourist centres, and halting places along the pilgrimage route to the Himalayan shrines. As a result, large parts of the State lying in the Lesser Himalayas are not served by municipalities, and the only

form of development centres that they have are the Kshetra Panchayat (Development Block) headquarters. Of the 95 Kshetra Panchayats in Uttarakhand, the headquarters of only 29 have a municipal body. The KP headquarters, on the other hand, are fairly evenly spread out over the populated parts of the State. Rural density pattern is shown in the map. The importance of the geographical factors in Uttarakhand may be interpreted with the help of the relative distribution of the urban and rural population as well as Municipalities and Panchayats across the districts given in table below.

Table 1.1.7

District Wise Distribution of Sub-district Units

District	% Rural population (2001 census)	No. of Kshetra Panchayats		% Urban Population (2001 census)	No. of Municipalities	
		Total	Within 0-49 Km of Rail head		Total	Within 0-49 Km of Rail head
Uttarkashi	92.21	6	None	7.79	3	None
Chamoli	86.57	9	None	13.43	6	None
Rudraprayag	98.80	3	None	1.2	2	None
Tehri	90.33	9	1	9.67	6	2
Dehradun	47.06	6	4	52.94	6	6
Pauri Garhwal	87.05	15	3	12.95	4	2
Pithoragarh	87.86	8	None	12.14	3	1
Champawat	85.42	4	None	14.58	3	None
Almora	91.44	11	None	8.56	2	None
Bageshwar	96.87	3	None	3.13	1	None
Nainital	64.64	8	6	35.36	7	7
U.S.Nagar	67.35	7	7	32.65	14	14
Haridwar	69.14	6	6	30.86	6	6
Total	74.41	95	27	25.59	63	38

It is important to recognize and take into account the demographic, natural and geographic features which characterize the State since they practically dominate the influence daily life, economy, culture and tradition of the people, and provide a clue to the underlying reality of the wide range and variety of settlement patterns, and greatly influence the nature of and prospects for social and economic development.

Economic Condition

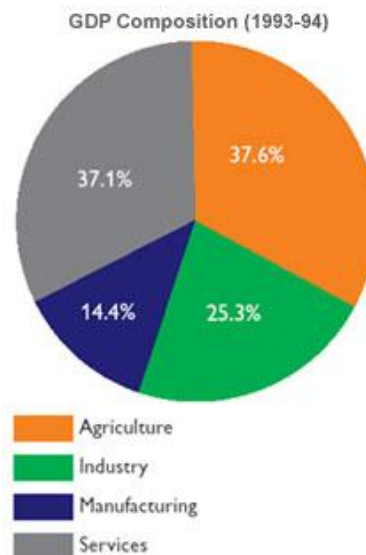
Uttarakhand is pre-dominantly rural with population usually concentrated in the valleys and mountain slopes, with a typical village/habitation consisting of 30-40 families who share common resources. In the rural areas, the socio-economic condition is primarily based on horticulture, sheep rearing and tourism. Agriculture has been adopted as means of livelihood. Paddy is the major crops in irrigated areas and white Maize is grown in higher un-irrigated slopes. Other locally grown cereals and millets are *Bhatt*, *Gahat* and *Mandua*. Villages are heavily dependent on the surrounding forests for compost and water. Individual landholdings are small and scattered. Animal draught power is utilized to plough the land wherever possible. Other alternative is human

labour which is used for the purpose; mechanized farming is out of question in hill regions.

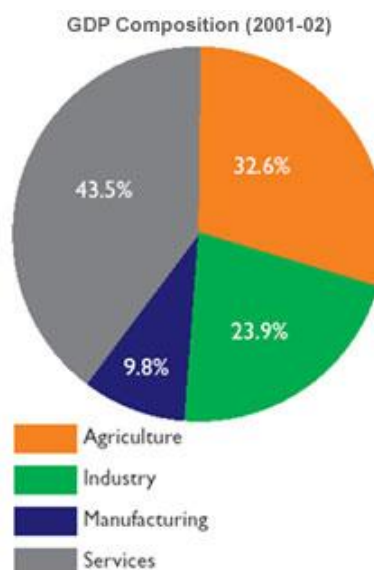
Inadequate production in the agricultural fields, increase in population, increasing demand on natural resources and lack of alternative employment opportunities within Uttarakhand together are responsible for out-migration of the men-folk from the villages to cities within State and outside. In the absence of men, customarily entire burden of managing household comes on women.

State Economic Profile: Tapping the Vast Potential

Uttarakhand with its vast natural resource base, large forest cover and enormous power potential holds the potential of being one of the most prosperous states in the country. The state domestic product during 2001-02 was around USD 1647 millions with a per annum growth rate of 4.4 per cent during 1993-94 to 2001-02.



Source: CSO



Source: *Economic Survey 2003-04*

Infrastructure

Infrastructure is in terms of power and road connectivity, health and drinking water facility is developing in fast pace since the formation of State. 94% of State has drinking water facility. Villages are being connected with the help of massive rural roads programme and other schemes, while power situation is being addressed through combination of power solutions. However since these tasks are time consuming and become so more in the hills, infrastructural blocks still is an issue. Providing facilities in far-flung areas is still a challenging job. As a result clogged urban areas and sparsely populated rural hill areas pose good amount of challenge when it comes to project/programme management.

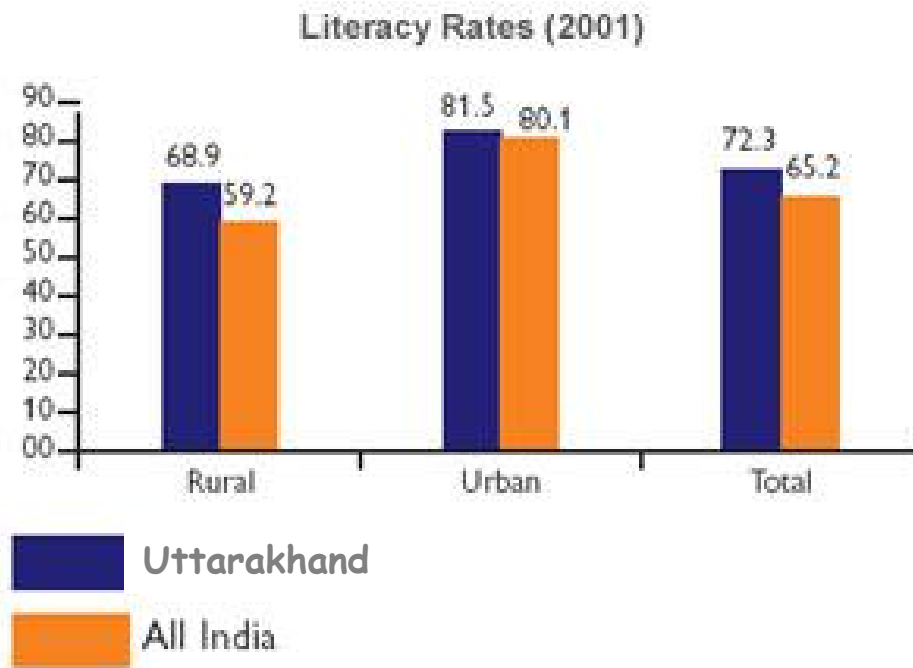
Literacy Status:

In terms of literacy levels Uttarakhand has 14th position in the country. With the help of various government interventions there has been significant progress in the field of education in the State. Literacy percentage of the state is 72.28 against all India average of 65.38. Census data of 2001 shows that the gender gap is still an issue to be addressed in Uttarakhand with male and female literacy rates being 83.30 and 59.60 percent respectively.

Table 1.1.8
LITERACY RATE

S. No	District	Literacy Rate									Rural Female Literacy Rate
		All Communities			SC			ST			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
1	2	3	4	5	6	7	8	9	10	11	15
1	Almora	90.15	61.43	75.79	78.32	48.69	63.51	82.71	61.94	72.33	61.96
2	Bageshwar	88.56	57.45	73.01	81.53	48.78	64.76	92.01	70.32	80.31	57.00
3	Chamoli	89.66	61.63	75.65	84.35	52.95	68.72	92.43	67.22	79.29	59.11
4	Champawat	87.49	51.22	69.36	80.56	44.34	62.57	76.27	50.57	64.59	51.22
5	Dehradun	76.50	61.02	68.76	75.13	55.67	66.06	69.91	42.79	57.04	60.55
6	Haridwar	73.83	52.10	62.97	70.69	41.87	57.25	59.22	29.71	46.33	42.76
7	Nainital	72.74	59.17	65.96	73.49	59.17	66.33	80.23	76.22	78.23	55.35
8	Pauri	90.91	65.70	78.31	64.51	42.19	53.35	96.00	64.70	80.35	57.32
9	Pithoragarh	90.57	63.14	76.86	73.20	43.56	58.38	74.71	47.59	61.15	63.14
10	Rudrapayag	90.73	59.98	75.36	60.70	35.12	47.91	91.60	78.30	84.95	59.42
11	Tehri	76.85	44.98	60.92	50.58	30.89	40.74	81.63	68.57	75.10	51.59
12	U.S. Nagar	75.22	53.35	64.29	68.53	40.72	55.62	78.52	48.97	63.95	62.20
13	Uttarkashi	83.60	46.69	65.15	36.35	25.26	30.81	65.70	55.04	60.37	43.49
Total		84.01	60.26	72.28	77.30	48.70	63.40	76.40	49.40	63.20	55.78

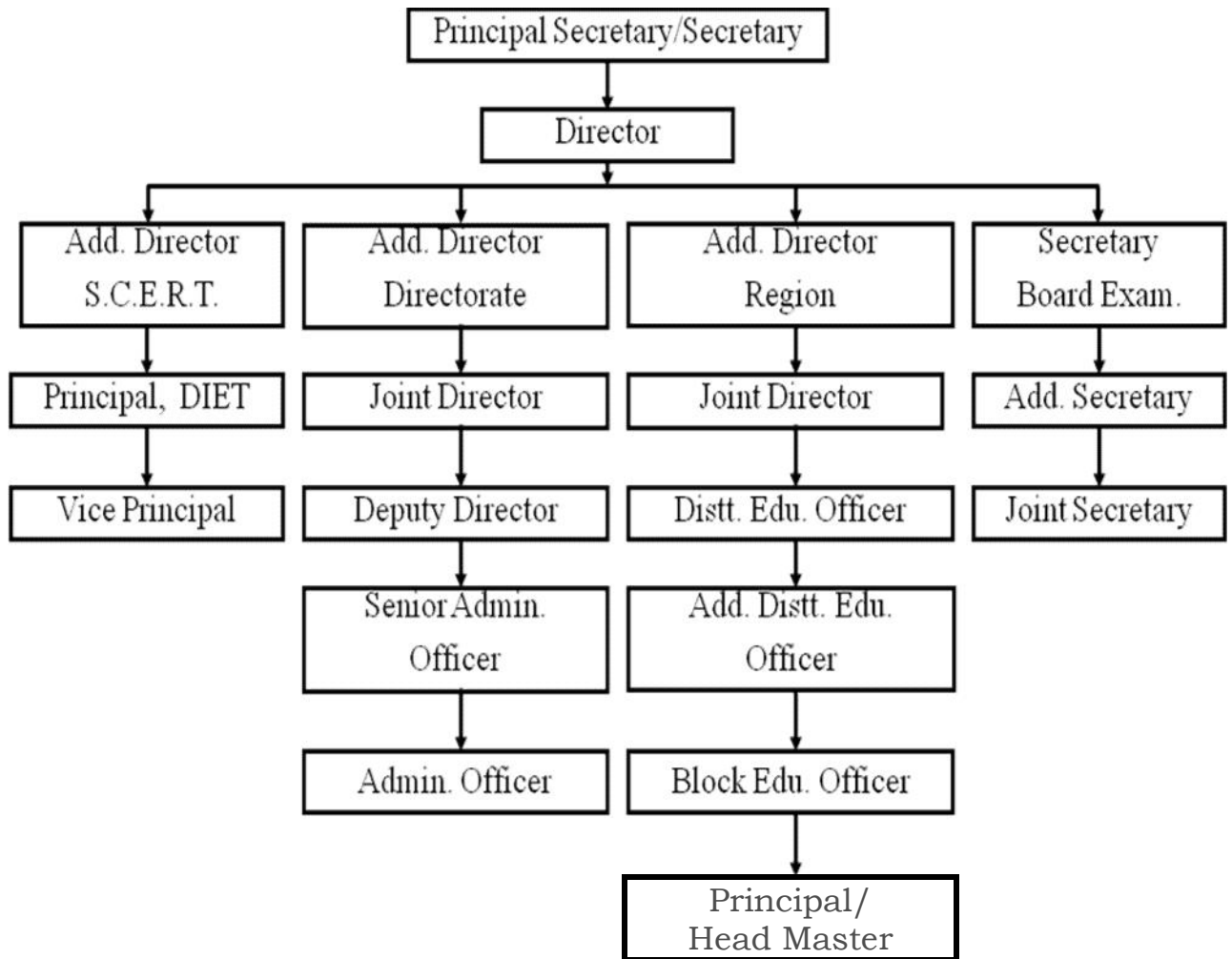
Source : Census 2001



Source: *Census 2001*

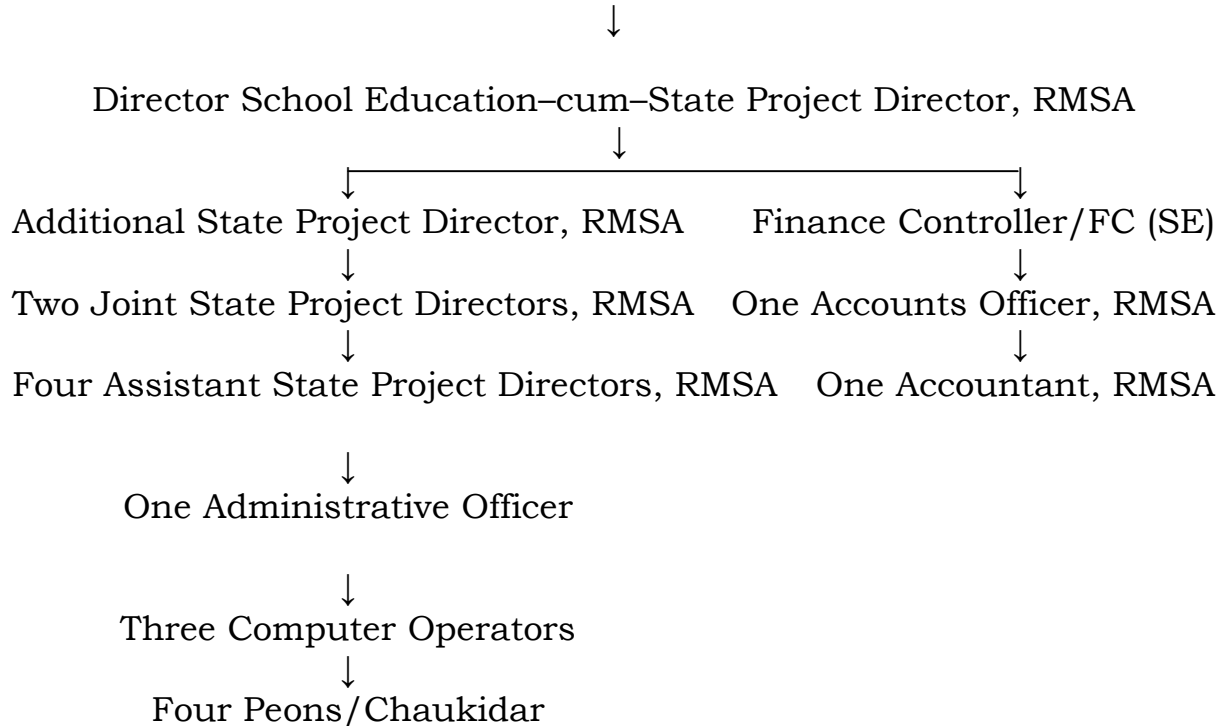
A key factor going in Uttarakhand's favour in attracting services and industrial investments is its significantly high level of literacy. The overall rate of literacy in the state jumped up to 72.28 per cent in 2001 from 57.7 per cent in 1991. This endows it with large pool of educated labour that industry can draw from. Importantly, the spread of high level of literacy is even across the rural and urban sectors with the respective literacy rate of 68.5 and 81.5 per cent. The total school enrolment ratio for Uttarakhand for the age group of 6-17 was at 87 per cent, significantly higher than the all India ratio of 72 per cent. The high level of literacy and existence of large number of good quality educational institutions, research and training institutes and institutes of excellence indicate the abundant availability of quality human resource base. This can be supported by the facts charted hereby. During 2002-03, state of Uttarakhand was amongst the few states with 100 per cent trained teachers in all the levels of education.

**Organisational Structure of Department of School Education,
Uttarakahnd**

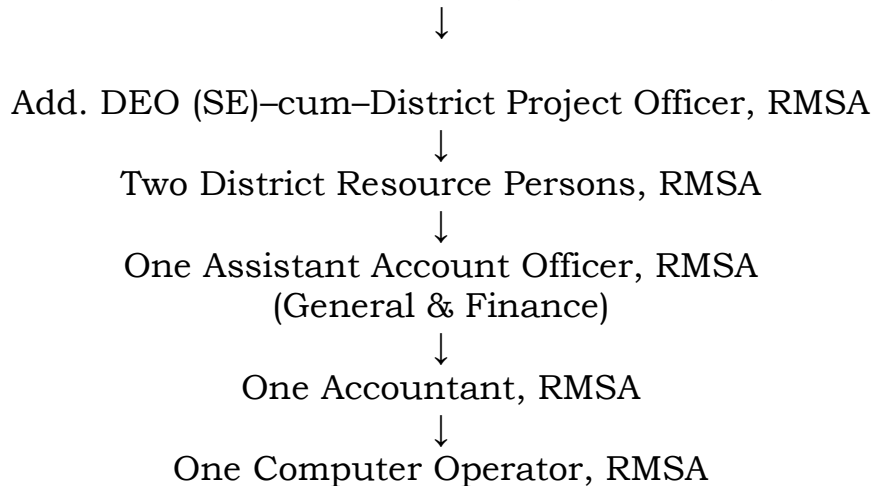


**Organizational Structure for Rashtriya Madhyamik Shiksha
Abhiyan, Uttarakhand**

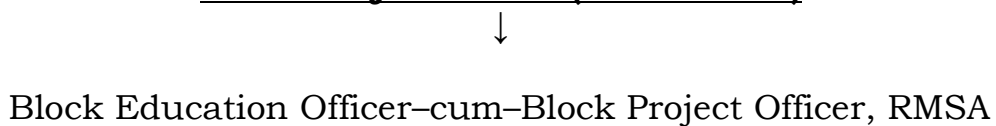
State Project Office (State Level)



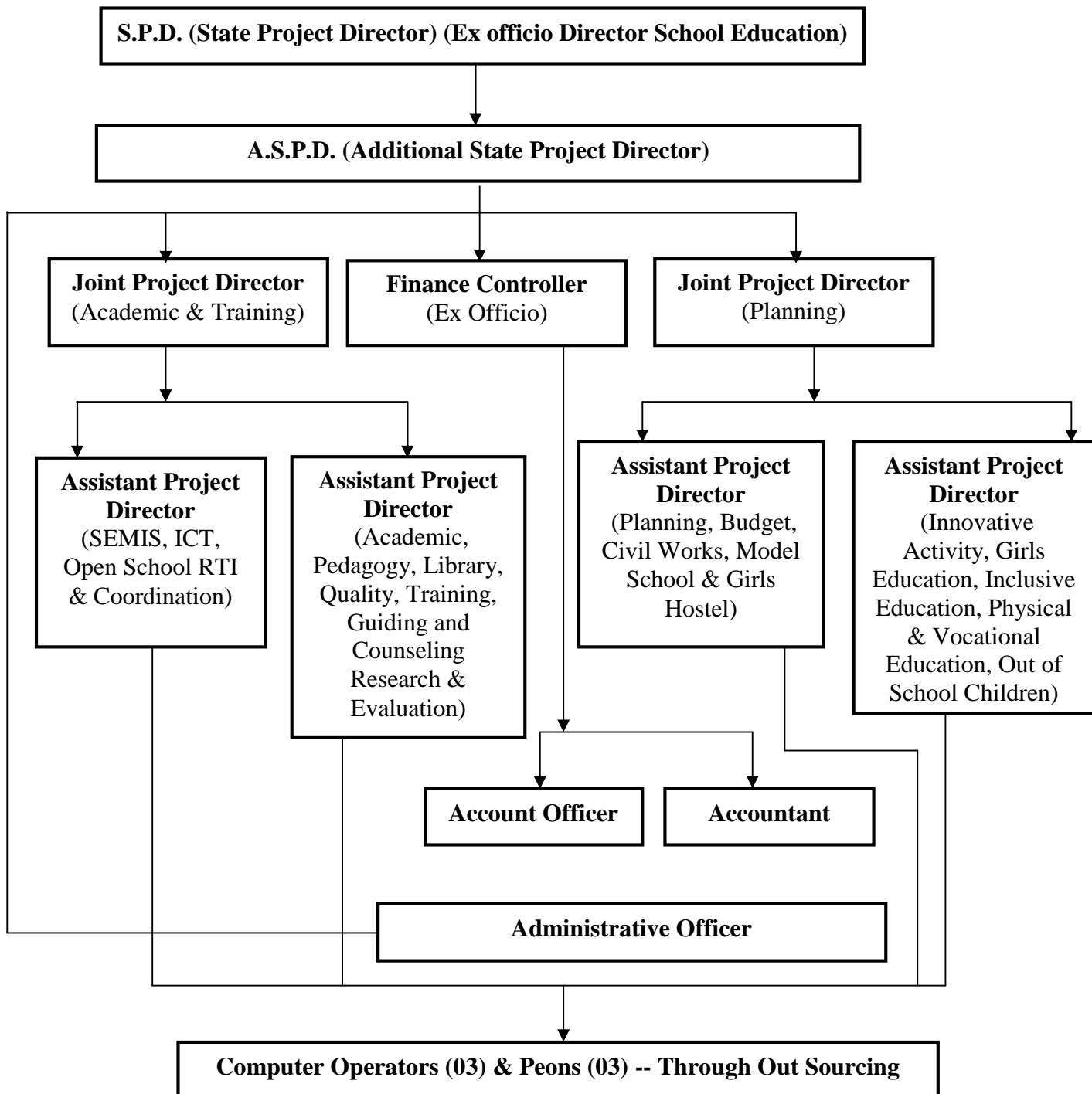
District Project Office (District Level)



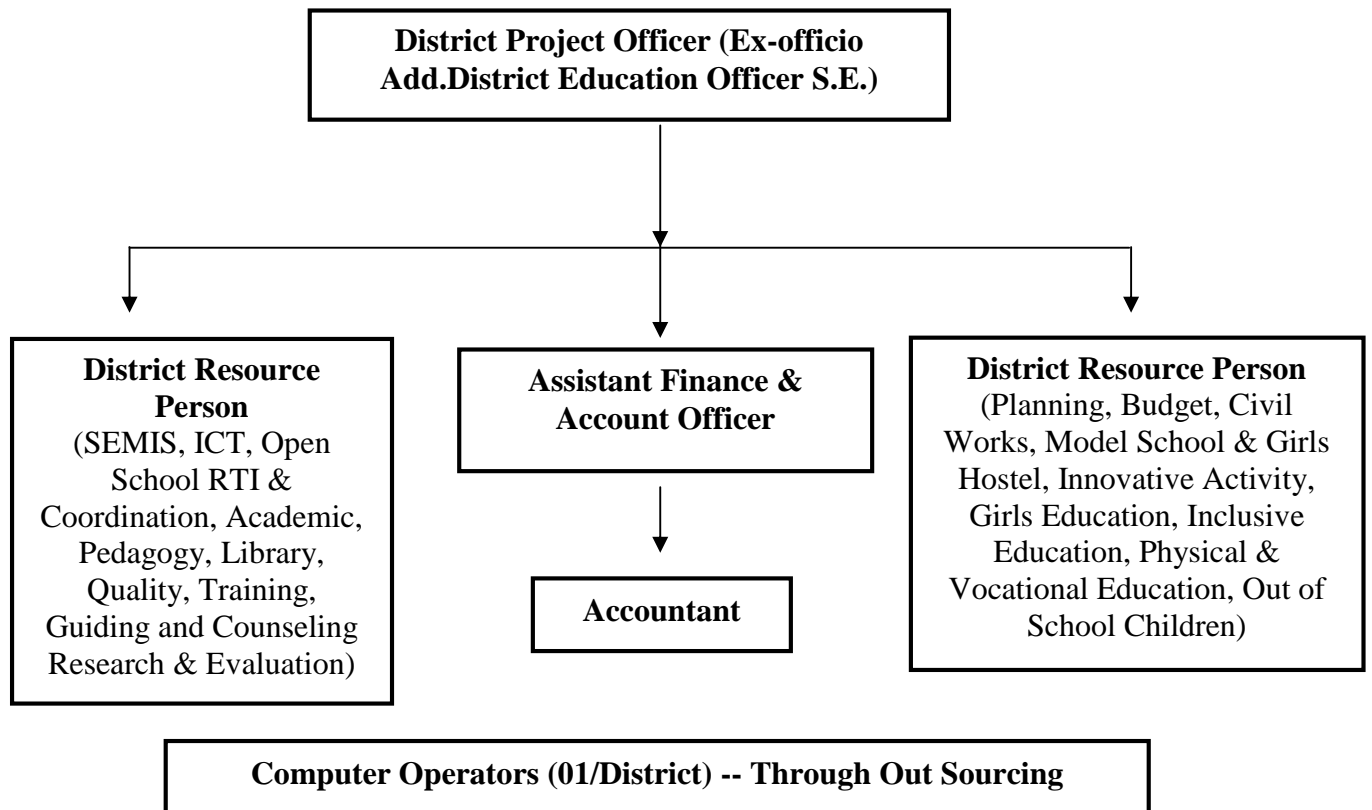
Block Project Office (Block Level)



RASTRIYA MADHYAMIK SHIKSHA ABHIYAN. UTTARAKHAND
(Structural Organization)
S.P.O. (State Project Office)



RASTRIYA MADHYAMIK SHIKSHA ABHIYAN. UTTARAKHAND
(Structural Organization)
D.P.O. (District Project Office)



Chapter II

Brief introduction to RMSA

Vision, Aims and Objectives of RMSA at National Level

Government of India has committed to the goal universalisation of secondary and higher secondary education. The 11th Five Year Plan document particularly emphasised on the universalisation of secondary and higher secondary education in the same line and committed for. The Hon'ble Prime Minister of India speech on Independence Day in 2007 has proposed to launch the Scheme for Universalisation of Access for Secondary Education (SUCCESS). A precursor to these initiatives was the National Policy on Education (NPE), 1986 which stated that access to secondary education should be widened. Then, the Tenth Plan Mid-Term Appraisal (MTA) document of the Planning Commission of India recommended for setting up of a new Mission for Secondary Education on the lines of SSA. Finally, it is the recommendation of the Central Advisory Board of Education (CABE) which is the highest deliberative and advisory forum on Education in the country, committee report 2005. In accordance with the goal of universalisation of secondary and higher secondary education, initiatives are made for the plan of action in this direction.

The Centrally Sponsored Scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is a modified version of SUCCESS. The RMSA scheme is for universalisation of access to and improvement of quality at the secondary and higher secondary stage. Since education is a state subject by Constitution in the Indian federal system and thereby the state governments are the policy/decision makers on this subject, the RMSA is to motivate the state government and prepare them to take up the goal of Universalisation of Secondary and Higher Secondary Education in their respective states. Unlike the Universalisation of Elementary Education which is by Constitution a mandate, the Universalisation of Secondary and Higher Secondary Education is not mandatory by Constitution but by morale and by need.

Under the RMSA the central government through the Ministry of Human Resource Development (MHRD) helps the states in mapping the secondary education system at present, approach and strategy for universalising the secondary and higher secondary education, setting the goal and targets, plan of action, programmes design and implementation and mobilising resources for all these activities. In this context, this document is to present the status and perspective framework plan for the secondary education in Uttarakhand.

Vision

The vision for secondary education is to make good quality education available, accessible and affordable to all young persons in the age group of 14-18years. With this vision in mind, the following is to be achieved:

- To provide a secondary school within a reasonable distance of any habitation, which should be 5 Kms for secondary schools and 7-10 Kms for higher secondary schools;
- Ensure universal access of secondary education by 2017 (GER of 100%), and Universal retention by 2020; and
- Providing access to secondary education with special references to economically weaker sections of the society, the educationally backward, the girls and the disabled children residing in rural areas and other marginalized categories like SC, ST, OBC and Educationally Backward Minorities (EBM).

Goals and Objectives

The prime goal is universalisation of secondary education. In order to meet the challenge of universalisation of secondary education (USE), there is a need for a paradigm shift in the conceptual design of secondary education. The guiding principles in this regard are: universal access, equality and social justice, relevance and development and structural and curricular aspects. Universalisation of secondary education gives opportunity, to move towards equity. The concept of 'common school' will be encouraged. If these values are to be established in the system, all types of schools including unaided private schools will also contribute towards universalisation of secondary education by ensuring adequate enrolments for the children from under privileged society and the children of below poverty line (BPL) families. The goals translate into the following main objectives.

- i) To ensure that all secondary schools have physical facilities, staff and supplies at least according to the prescribed standards through financial support in case of Government/ Local Body and Government aided schools, and appropriate regulatory mechanism in the case of other schools;
- ii) To improve access to secondary schooling to all young persons according to norms – through proximate location (say, Secondary Schools within 5 kms, and Higher Secondary Schools within 7-10 kms), efficient and safe transport arrangements/residential facilities, depending on local circumstances including open schooling. However, in hilly and difficult areas, these norms can be relaxed. Preferably residential schools may be set up in such areas;
- iii) To ensure that no child is deprived of secondary education of satisfactory quality due to gender, socio-economic, disability and other barriers;
- iv) To improve quality of secondary education resulting in enhanced intellectual, social and cultural learning;
- v) To ensure that all students pursuing secondary education receive education of good quality; and
- vi) Achievement of the above objectives would also, inter-alia, signify substantial progress in the direction of the Common School System.

Approach and Strategy for Secondary Stage

In the context of Universalisation of Secondary Education (USE), large-scale inputs in terms of additional schools, additional classrooms, teachers and other facilities need to be provided to meet the challenge of numbers, credibility and

quality. It inter-alia requires assessment/ provision of educational needs, physical infrastructure, human resource, academic inputs and effective monitoring of implementation of the programmes. The scheme will initially cover up to class X. Subsequently, the higher secondary stage will also be taken up, preferably within two years of the implementation. The strategy for universalizing access to secondary education and improving its quality are as under:

Access

For providing universal access to quality secondary education it is imperative that especially designed broad norms are developed at the national level and provision may be made for each State/UT keeping in mind the geographical, socio-cultural, linguistic and demographic condition of not just the State/UT but also, wherever necessary, of the locality. Increased access will be achieved by:

- Expansion of existing Secondary Schools & Higher Secondary Schools;
- Upgradation of Upper Primary Schools based on micro planning exercise with all necessary infrastructure facilities and teachers. Ashram Schools will be given preference while upgrading upper primary schools;
- Upgradation of Secondary Schools in Higher Secondary Schools based upon the requirements;
- Opening of new Secondary Schools/ Higher Secondary Schools in so far unserved areas based on the school mapping exercise. All these buildings will have mandatory water harvesting system and will be disabled friendly;
- Rain harvesting systems will be installed in existing school buildings;
- Existing school buildings will also be made disabled friendly; and
- New schools will also be set up in PPP mode.

Quality

This will be achieved by:

- Providing required infrastructure like, Black Board, furniture, Libraries, Science & Mathematics laboratories, computer labs, toilet cluster;
- Appointment of additional teachers and in-service training of teachers;
- Bridge courses for enhancing learning ability for students passing out of class VIII;
- Reviewing curriculum to meet the NCF, 2005 norms;
- Residential accommodation for teachers in rural and difficult hilly areas; and
- Preference will be given to accommodation for female teachers.

Equity

This will be improved by:

- Free lodging/ boarding facilities for students belonging to SC,ST,OBC and minority communities;
- Hostels/ residential schools, cash incentive, uniform, books, separate toilets for girls.

- Providing scholarships to meritorious/ needy students at secondary level;
- Inclusive education will be the hallmark of all the activities. Efforts will be made to provide all necessary facilities for the differently abled children in all the schools; and
- Expansion of Open and Distance Learning needs to be undertaken, especially for those who cannot pursue full time secondary education, and for supplementation / enrichment of face-to-face instruction. This system will also play a crucial role for education of out of school children.

Institutional Reforms and Strengthening of Resource Institutions

Necessary administrative reforms in each State will be a precondition for Central assistance. These Institutional reforms include:

- Reforms in school governance- Improve schools' performance by decentralizing their management and accountability;
- Adopting a rational policy of teacher recruitment, deployment, training, remuneration and career advancement;
- Undertaking reforms in educational administration including modernization / e-governance and delegation / de-centralization;
- Provision of necessary professional and academic inputs in the secondary education system at all levels, i.e., from the school level upwards; and streamlining financial procedures for speedy flow of funds and their optimal utilization.
- Necessary strengthening of resource institutions at various levels, e.g., NCERT (including RIEs), NIEPA and NIOS, at the national level; SCERTs, State Open Schools, SIEMATs, etc., at the State level; and University Departments of Education, Reputed Institutions of Science / Social Science / Humanities Education, and Colleges of Teacher Education (CTEs) / Institutions of Advanced Study in Education (IASEs) funded under the Centrally-sponsored Scheme of Teacher Education.

Involvement of Panchayati Raj and Municipal Bodies, Community, Teachers, Parents and other stakeholders in the management of Secondary Education, through bodies like School Management Committees and Parent – Teacher Associations will be ensured in planning process, implementation, monitoring and evaluation.

Central Government operates four Centrally Sponsored Schemes i.e. (i) ICT@ schools for providing assistance to State Governments for computer education and computer aided education in secondary and higher secondary schools; (ii) Integrated Education for Disabled Children (IEDC) for assisting State Governments and NGOs in mainstreaming the disabled children in school education; (iii) Strengthening of Boarding and Hostel facilities for Girl Students of Secondary and Higher Secondary Schools (Access and Equity) for providing assistance to NGOs to run Girls' Hostels in the rural areas; and (iv) Quality improvement in schools which included provision of assistance to State Governments for introduction of Yoga, for improvement of Science education in schools, for environment education and for population education in addition to supporting International Science Olympiads.

All these schemes, in the present or modified forms, will be subsumed in a new scheme and will include provision for earning while learning for financially weaker children by preparing them for self employment or part-time employment.

Specific Targets at National Level

Under the RMSA scheme to universalise the secondary and higher secondary education by 2020, the government of India set specific targets for different components of the secondary and higher secondary education system. The short terms target year is 2012 and the long term is 2017. With respect to enrolment, it is targeted that the GER in the secondary and higher secondary in the short term should be 75 per cent by 2012 and reach 100 per cent in the long term by 2017.

Table 2.2.1 The proposed investments can be captured in tabular form as indicated below.

Goal	Indicators	Source of Information
<p>To make secondary education of good quality available, accessible and affordable to all Indian adolescent girls and boys up to the age of 16 by 2020.</p>	<ul style="list-style-type: none"> • Increase in the enrolment in secondary education of young people aged 14 to 16 years from 24 million in 2005 to 40 million by 2012; to 50 million by 2015; and to 56 million by 2020; • GER at Secondary level increases from 52% to 70% by 2011/12; to over 100% by 2017; • GER Higher secondary reaches over 70% by 2015 • Enrolment shares of girls, SCs, STs and minorities in secondary education will increase in proportion to their share in the population at the national and State levels; • Drop out rate at secondary level will decrease to less than 3% by 2015 • Transition rate from Class IX to X will increase from 85% in 2005 to over 90% in 2012; • Promotion rate to Class XI will increase to 75% by 2015 • Learning levels at Classes IX and X will be improved and are adequately and regularly monitored; • Improvement in learning levels at Classes IX and X will be ensured. 	<p>Household surveys.</p> <p>All India School Education Survey</p> <p>SEMIS (to be developed)</p> <p>Selected Education Statistics</p> <p>NCERT quality monitoring and assessment data</p> <p>Class X Examination data</p>
<p>Objectives</p>	<p>Indicators</p>	<p>Source of Information</p>

Objectives	Indicators	Source of Information
1 All secondary schools conform to prescribed norms.	<ul style="list-style-type: none"> • All schools will have space and facilities according to prescribed norms of minimum quality standards, including one classroom for every 40 students; a laboratory and library; disabled access; separate toilets for girls and boys. • Computer and other ICT facilities will be available in all secondary schools according to prescribed norms. 	
2 Availability and access of secondary schooling to all Indian adolescent girls and boys up to the age of 16 by 2020.	<ul style="list-style-type: none"> • All habitations will have access to a secondary school within a radius of 5km except those in special circumstances • 6,000 new model schools, including 2,500 KV template and 2,500 Public Private Partnership schools will be established by 2012; • 11,000 upper primary schools (with 44,000 additional secondary classrooms) in EBBs will be upgraded to secondary schools by 2012; • Expanded capacity for 44,000 existing secondary schools in EBBs – 44000 x 2 = 88000 additional class rooms (ACR) by 2012; • 3,500 girls’ secondary school hostels for EBBs, including up-grading of 2,000 KGBVs in EBBs for secondary education. • Transition rate between upper primary and secondary will improve from 85% to 92% by 2012 and to 95% by 2015. • Dropout rate at secondary will reduce to less than 3% by 2015. • Number of out of school children of secondary school age (14-16) will reduce to less than 5% of the age group by 2015. 	SEMIS (to be developed) State reports and State Norms Specially commissioned studies All India School Education Survey Selected Education Statistics NCERT Quality Monitoring SEMIS
3 Equity through the removal of regional, gender, socio-economic and disability gaps.	<ul style="list-style-type: none"> • Disaggregated data for the enrolment of girls, SC, ST, Muslims and disabled at national and state levels will be available. • Shares of girls, SCs, STs, Muslims and disabled in enrolment at secondary level will be increased in proportion to their share in the population at the national and state level. • Means cum merit scholarships (100,000 a year of approx 6,000Rs) for specific disadvantaged groups will be taken up according to schedule. • Incentives for girls (especially from disadvantaged groups, SC, ST) to promote their participation in secondary education will be implemented according to schedule. 	

Objectives	Indicators	Source of Information
4 Education of good quality for all students	<ul style="list-style-type: none"> • 180,000 additional secondary school teachers will be recruited for existing secondary schools and for upgraded upper primary schools by 2012. • Pupil-Teacher ratio at secondary level will improve from 33:1 to 30:1 by 2012, and to 25:1 by 2015. • % trained teachers in secondary schools will increase from 89% to 100% by 2012. • There will be improved availability of textbooks for secondary classes. • Availability of teaching learning materials will be improved. • NCF 2005 will be implemented. • Percentage of teachers receiving in-service training against annual targets will be improved. • Model schools will serve as pace setting institutions of excellence and also as resource centres for the professional development of secondary school teachers within each block. • DIETs and BRCs will be strengthened to support secondary school teacher professional development through the model schools/resource centres. • Change in classroom practices as measured by time spent on task. • Student attendance rates will be improved. • Teacher attendance rates will be improved. • Percentage of schools with functional management committees and village education committees with reporting role in school supervision will be increased to 100% by 2015. • Learning levels of Class IX and X will be improved on national monitoring tests by 5% a year. 	

The Government of India has launched, in 2007, a centrally sponsored scheme, Rashtriya Madhyamik Shiksha Abhiyan (RMSA), for universalisation of access to and improvement of quality at the secondary and higher secondary stage. Since education is a state subject by the constitution in the Indian federal system and state governments are policy and decision makers on this subject, RMSA is a crucial step to prepare the state governments to take up the goal of Universalisation of Secondary Education in each state and union territory of the country. Unlike Universalisation of Elementary Education, which is a constitutional mandate, Universalisation of Secondary Education (USE) is not mandatory by Constitution but by morale and by need. This means that well-thought out and practically possible goals and strategies for implementation must emerge from the states and union territories. While at the national level, the vision, aims, goals and objectives of RMSA and the approach and strategy to achieve the goal of USE were already developed. This Chapter presents the state specific vision, goals and

objectives of Uttarakhand in the context of the national level vision, goals and objectives of RMSA, and presents the approach and strategy that would be taken up in Uttarakhand.

Vision, Aims and Objectives of RMSA at National Level and State level

At the national level, the vision for secondary education is to make good quality education available, accessible and affordable to all young persons in the age group of 14-18 years. With this vision in mind, the following is to be achieved:

- To provide a secondary school within a reasonable distance of any habitation, which should be 5 Kms for secondary schools (High School) and 7-10 Kms for higher secondary schools (Intermediate);
- Ensure universal access of secondary education by 2017 (GER of 100%), and universal retention by 2020; and
- Providing access to secondary education with special reference to economically weaker sections of the society, the educationally backward, the girls and the disabled children residing in rural areas and other marginalized categories like SC, ST, OBC and Educationally Backward Minorities (EBM).

The State vision is on the same lines as the national vision. However, Uttarakhand has drawn up its vision statement in the following words:

“To ensure quality education that is available, accessible and affordable to every young person in the age group of 14-18 and prepare them to become global citizens with intellectual, scientific, social, cultural and humane outlook.”

The specific aims set thereby to make this vision a reality are:

- To make all secondary schools conform to the prescribed norms regarding physical facilities, qualified staff and academic matters through financial support in case of government and local body schools, and appropriate regulatory mechanism in the case of other schools;
- To make secondary schools fulfilling prescribed norms available to every person in the proximate location, with satisfactory infrastructure and transportation/residential facilities depending on local needs;
- To provide for access with equity in terms of gender, socio-economic status, CWSN and other marginalized groups, and good quality for all the secondary school aged population.

Goals and Objectives at National Level and State level

The national policy document of RMSA has drawn up the following specific goals and objectives

- vii) To ensure that all secondary schools have physical facilities, staff and supplies at least according to the prescribed standards through financial support in case of Government/ Local Body and Government aided schools, and appropriate regulatory mechanism in the case of other schools;
- viii) To improve access to secondary schooling to all young persons according to norms – through proximate location (say, Secondary Schools within 5 kms, and Higher Secondary Schools within 7-10 kms), efficient and safe transport arrangements/residential facilities, depending on local circumstances including open schooling. However, in hilly and difficult areas, these norms can be relaxed. Preferably residential schools may be set up in such areas;
- ix) To ensure that no child is deprived of secondary education of satisfactory quality due to gender, socio-economic, disability and other barriers;
- x) To improve quality of secondary education resulting in enhanced intellectual, social and cultural learning;
- xi) To ensure that all students pursuing secondary education receive education of good quality; and
- xii) Achievement of the above objectives would also, inter-alia, signify substantial progress in the direction of the Common School System.

The state abides by these broad national goals and objectives, and specifically adds on certain key qualitative objectives that would guide its progress towards meeting its vision and goal. They are:

- a. To equip and empower professional competence of the heads and teachers for school effectiveness and classroom processes;
- b. To provide opportunity to secondary level students to compare, collaborate, compete and contribute to the world at large; and
- c. To develop life-skills of students, and enhance overall quality of life.

The RMSA goals that the State has envisaged are:

- All secondary school age children in schools by 2013,
- All secondary school age children in secondary classes appropriate to their age by 2017, and
- All higher secondary age children will complete secondary school by 2020.

Approach and Strategy for Secondary Stage at National Level and State level

The national policy document mentions that in the context of USE, large-scale inputs in terms of additional schools, additional classrooms, teachers and other facilities need to be provided to meet the challenge of numbers, credibility and quality. It inter-alia requires assessment and provision of educational needs, physical infrastructure, human resource, academic inputs and effective monitoring of implementation of the programmes. The scheme will initially cover up to class X. Subsequently, the higher secondary stage will also be taken up, preferably within two years of the implementation. The strategy for universalizing access to secondary education and improving its quality are as under:

Access

For providing universal access to quality secondary education it is imperative that especially designed broad norms are developed at the national level and provision may be made for each State/UT keeping in mind the geographical, socio-cultural, linguistic and demographic condition of not just the State/UT but also, wherever necessary, of the locality. Increased access will be achieved by:

- Expansion of existing Secondary Schools & Higher Secondary Schools;
- Upgradation of Upper Primary Schools based on micro planning exercise with all necessary infrastructure facilities and teachers. Ashram Schools will be given preference while upgrading upper primary schools;
- Upgradation of Secondary Schools and Higher Secondary Schools based upon the requirements;
- Opening of new Secondary Schools/ Higher Secondary Schools in so far unserved areas based on the school mapping exercise. All these buildings will have mandatory water harvesting system and will be disabled friendly;
- Rain harvesting systems will be installed in existing school buildings;
- Existing school buildings will also be made disabled friendly; and
- New schools will also be set up in PPP mode.

While Uttarakhand has already ensured 100% GAR in primary and upper primary levels to all habitations as per Norms, school mapping exercise has indicated that a number of districts have not yet provided adequate secondary schools within the 5km Norm. While residential schools should also be an option, up-gradation wherever relevant is to be preferred. Each Secondary and Higher Secondary School will develop an

institutional plan, and each block a micro-mapping exercise. Due regard should be given where needed to open schools in hilly terrain and with natural barriers.

Quality

The national policy document states that quality will be achieved by:

- Providing required infrastructure like, Black Board, furniture, Libraries, Science and Mathematics laboratories, computer labs, toilet cluster;
- Appointment of additional teachers and in-service training of teachers;
- Bridge courses for enhancing learning ability for students passing out of class VIII;
- Reviewing curriculum to meet the NCF, 2005 norms;
- Residential accommodation for teachers in rural and difficult hilly areas; and
- Preference will be given to accommodation for female teachers.

In furthering these, the state aims to include availability of ICT infrastructure and intensive use of ICT in secondary education, provision of more number of days of in-service training to teachers, and overall improvement of performance of all schools by decentralizing their management and improving accountability. Uttarakhand aims to establish child-friendly schools with prescribed benchmarks of quality.

Providing infra-structure includes not only blackboards in usable well-polished conditions with chalks and dusters all round the year, but also SMART boards in schools, furniture that is both student-friendly and classroom friendly facilitating movement and group-work, libraries with books to kindle the interest of reading among children along with registers to maintain student-use and follow-up like book-reviews, and science, math and multi-media language laboratories with adequate equipments for active use by every student. Besides, adequate and appropriate provision of drinking water and toilets cannot be neglected.

Uttarakhand is keen to focus not just on the above quantitative inputs to quality but on qualitative teaching-learning processes in place. It follows the lines of the Secondary Education Commission, 1952 which defined curriculum as not just the academic subjects traditionally taught in the school but the totality of experiences of students in school, classrooms, library, laboratory, playgrounds and in the numerous informal contacts between teachers and pupils. Education is meaningful for children when adequate variety and elasticity in the curriculum allows for individual differences and adaptation to individual needs and interests. The state is also keen to turn a number of ideas provided in the

National Curriculum Framework into reality.

Equity

The national level document mentions that equity will be improved by:

- Free lodging/ boarding facilities for students belonging to SC,ST,OBC and minority communities;
- Hostels/ residential schools, cash incentive, uniform, books, separate toilets for girls.
- Providing scholarships to meritorious/ needy students at secondary level;
- Inclusive education will be the hallmark of all the activities. Efforts will be made to provide all necessary facilities for the differently abled children in all the schools; and
- Expansion of Open and Distance Learning needs to be undertaken, especially for those who cannot pursue full time secondary education, and for supplementation /enrichment of face-to-face instruction. This system will also play a crucial role for education of out-of-school children.

In Uttarakhand, which has been a forerunner in terms of socio-political movements for equity through education, equity will be an in-built priority within every strategy of access and quality. Besides, special care will also be taken for socially disadvantaged pockets. Despite the state's positive discrimination to disprivileged communities over time, some difficult-to-reach areas are inaccessible and isolated small habitations particularly in hilly and forest areas with lack of adequate qualified women teachers and adequate accommodations for students and teachers. There are also some pockets with frequent migration and with persisting high gender and social gaps. It is in this regard that the State's proactive policies for equity in secondary education will gain special consideration. First generation learners need special care in a number of areas.

Institutional Reforms and Strengthening of Resource Institutions

Necessary administrative reforms in State will be a precondition for Central assistance. These Institutional reforms include:

- Reforms in school governance- Improve schools' performance by decentralizing their management and accountability;
- Adopting a rational policy of teacher recruitment, deployment, training, remuneration and career advancement;
- Undertaking reforms in educational administration including

modernization/e-governance and delegation/de-centralization;

- Provision of necessary professional and academic inputs in the secondary education system at all levels, i.e., from the school level upwards; and streamlining financial procedures for speedy flow of funds and their optimal utilization.
- Necessary strengthening of resource institutions at various levels, e.g., NCERT (including RIEs), NUEPA and NIOS, at the national level; SCERTs, State Open Schools, SIEMATs, etc., at the State level; and University Departments of Education, Reputed Institutions of Science/Social Science/Humanities Education, and Colleges of Teacher Education (CTEs)/ Institutions of Advanced Study in Education (IASEs) funded under the Centrally-sponsored Scheme of Teacher Education.
- Involvement of Panchayati Raj and Municipal Bodies, Community, Teachers, Parents and other stakeholders in the management of Secondary Education, through bodies like School Management Committees and Parent – Teacher Associations will be ensured in planning process, implementation, monitoring and evaluation.

In this regard, Uttarakhand has specific strategies in place. In terms of decentralising, the state government will appoint District Project Officer in 13 districts to supervise and monitor RMSA indicators of progress and record needs and improvements in quality components. SMDC will monitor attendance of staff and students as well, besides involvement in civil and financial matters. The state will enhance the capacity of SCERT/DIET academic faculty in order that they can in turn enhance the training capacity of teacher educators at Block Centre in cascade mode. The linkage between School Education and SIEMAT will be strengthened. DIETs will be enhanced for the training of secondary education teachers and it will be the nodal agency for training at the district level.

Central Government operates four Centrally Sponsored Schemes i.e. (i) ICT@ schools for providing assistance to State Governments for computer education and computer aided education in secondary and higher secondary schools; (ii) Integrated Education for Disabled Children (IEDC) for assisting State Governments and NGOs in mainstreaming the disabled children in school education; (iii) Strengthening of Boarding and Hostel facilities for Girl Students of Secondary and Higher Secondary Schools (Access and Equity) for providing assistance to NGOs to run Girls' Hostels in the rural areas; and (iv) Quality improvement in schools which included provision of assistance to State Governments for introduction of Yoga, for improvement of Science education in schools, for environment education and for population education in addition to supporting International Science Olympiads.

All these schemes, in the present or modified forms, will be subsumed in a new scheme and will include provision for earning while learning for financially weaker children by preparing them for self-employment or part-time employment.

Educational Indicators

Goal	Indicators	Data Source
To make secondary education of good quality available, accessible and affordable to all adolescent girls and boys up to the age of 16 in Uttarakhand by 2020.	<p>1) Increase in the Enrolment</p> <ul style="list-style-type: none"> Increase in the enrolment in secondary education of young people aged 14 to 15 years from 3.26 lakhs in 2008 to 4.32 lakhs by 2012 after the intervention of 5% growth in GER. It will reach 5.59 lakhs by 2017. <p>2) GER at Secondary Level</p> <ul style="list-style-type: none"> GER at secondary will increase from 69.5% in 2009 to 84.98 % by 2012 after the intervention of 5% growth in GER. 100% by 2017. <p>3) Enrolment share of Girls</p> <ul style="list-style-type: none"> Enrolment shares of girls, SCs, STs and minorities in secondary classes increase in proportion to their share in the population in the state. <p>4) Dropout rate at secondary level</p> <ul style="list-style-type: none"> Dropout 8.34% Class IX – X for the year 2008-09. <p>5) Transition rate</p> <ul style="list-style-type: none"> Transition rate from Class VIII to IX 82.33% in 2007. <p>6) Promotion rate to Class X</p> <ul style="list-style-type: none"> Promotion rate from Class IX to X 77.17% in 2008-09. <p>7) Learning levels</p> <ul style="list-style-type: none"> Learning levels at Classes IX and X will be improved adequately and will be monitored regularly; 	All India School Education Survey; SEMIS; assessment data; Class X Examination data

Objectives	Indicators	Data Source
1. All secondary schools in the state conform to prescribed norms.	<p>(1) Facilities -</p> <ul style="list-style-type: none"> All schools will have space and facilities according to prescribed norms of minimum quality standards, including one classroom for every 30 students; a laboratory and library; differently abled access; separate toilets for girls. 	SEMIS

	<ul style="list-style-type: none"> • Computer and other ICT facilities will be available in all secondary schools according to prescribed norms. 	
2. Availability and access of secondary schooling to all adolescent girls and boys up to the age of 16 in Uttarakhand by 2020.	<p>(2) Access -</p> <ul style="list-style-type: none"> • All habitations will have access to a secondary school within a radius of 5 km except those in special circumstances. <p>(i) Middle School Up gradation -</p> <ul style="list-style-type: none"> • Up-gradation of 220 upper primary school by 2012 with 340 middle schools by 2017 secondary classes. <p>(ii) Expanded capacity -</p> <ul style="list-style-type: none"> • Expanded capacity for existing secondary schools with 1086 additional class rooms by 2011-12. 2994 additional class rooms by 2016-17. <p>(iii) Transition rate from VIII to IX -</p> <ul style="list-style-type: none"> • Transition rate improves from 82.33% in 2007 to 95% by 2012 and 100% by 2017.. <p>(iv) Dropout rate -</p> <ul style="list-style-type: none"> • Dropout rate at secondary level reduces from 8.34% in 2008-09 to less than 1% by 2017. <p>(v) Out of School Children -</p> <ul style="list-style-type: none"> • Number of out of school children of secondary school age (14-16) reduces to less than 5% of the age group by 2017. 	SEMIS & DISE
3. Equity through the removal of regional, gender, socio-economic and disability gaps.	<p>(3) Equity -</p> <ul style="list-style-type: none"> • Disaggregated enrolment data for girls, SC, ST, Muslims and differently abled at the state and district level will be available. <p>(i) Share of Disadvantaged groups in Enrolment-</p> <ul style="list-style-type: none"> • Share of girls 46%, SCs, STs, Muslims and differently abled in enrolment at secondary level will be increased in proportion to their share in the population at the state and district level. <p>(ii) Means-cum-Merit Scholarships -</p> <ul style="list-style-type: none"> • Provision of means-cum-merit scholarships for specific disadvantaged groups according to schedule.- 	SEMIS & DISE

	<p>(iii) Incentives for Girls -</p> <ul style="list-style-type: none"> • Provision of incentives for 100% girls (especially from disadvantaged groups, SC, ST) to promote their participation in secondary education according to schedule. 	
<p>4. Education of good quality for all students</p>	<p>4) Quality -</p> <ul style="list-style-type: none"> • About 176 additional teachers for upgraded upper primary schools by 2009-10 and about 2720 teachers will be recruited in secondary level and 2761 teachers will be recruited in higher secondary school to fill the shortage in the existing schools. <p>(i) Trained Teachers -</p> <ul style="list-style-type: none"> • 100% of teachers receiving in-service training will be improved against annual targets of 2010-11 and continued in every year till project period. • DIETs, SIEMAT, SCERT will be strengthened to support secondary school teachers' professional development through the model schools/resource centres. <p>(ii) Text Books -</p> <ul style="list-style-type: none"> • Availability of textbooks for all the enrolled children of secondary classes will be ensured. <p>(iii) Teaching Learning Materials -</p> <ul style="list-style-type: none"> • Availability of teaching learning materials will be improved. • NCF 2005 will be implemented. <p>(v) Others -</p> <ul style="list-style-type: none"> • Change in classroom practices as measured by time spent on task. • Student attendance rates will be improved. • Teacher attendance rates will be improved. <p>(vi) Supervision -</p> <ul style="list-style-type: none"> • Percentage of schools having functional management committees and village education committees with reporting role in school supervision will be improved. <p>(vii) Learning levels -</p> <ul style="list-style-type: none"> • Learning levels of Class IX and X will be improved. 	<p>SEMIS & DISE</p>

State Norms and RMSA Norms

The state norms with respect to universalisation of secondary education in Uttarakhand may be mostly in line with the national level RMSA norms. In some cases there are state specific norms which are different from that of the national level RMSA norms.

Table 2.2.2 Norms of National and State

	NATIONAL NORMS	STATE NORMS																																																																																																										
1 PHYSICAL INFRA STRUCTURE-NON-RECURRING	<p>Classroom-pupil ratio:1:40 Minimum ratio:1:25 Classroom size as per state norm</p> <ol style="list-style-type: none"> Atleast two additional classroom should be built in one higher secondary school. Atleast four additional class rooms, two sections each for class ix and x. Should involve elements of community contribution. Grants will be available only for those schools which have existing buildings of their own. Cost of construction will include furniture, fixtures, fittings, circulation area (verandah) etc <p>Class room size :57 sq.metre/ 613.56297sq.feet</p> <p>Laboratory/library size:104sq.mt./1119.4833sq.ft.s</p>	<p>A .Every secondary school should have class room pupil ratio 1:40 and minimum 1:30 B. Every secondary school should have the following:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Particulars</th> <th>No of units</th> <th>Unit size in sq mts.</th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td>Classrooms</td> <td>4</td> <td>66 sq</td> </tr> <tr> <td>2.2</td> <td>Laboratory (integrated)</td> <td>1</td> <td>104</td> </tr> <tr> <td>2.3</td> <td>Principal room (attached toilet)</td> <td>1</td> <td>66</td> </tr> <tr> <td>2.4</td> <td>Office and staff room</td> <td>1</td> <td>66</td> </tr> <tr> <td>2.5</td> <td>Teaching staff room (attached toilet)</td> <td>2</td> <td>104</td> </tr> <tr> <td>2.6</td> <td>Computer lab</td> <td>1</td> <td>104</td> </tr> <tr> <td>2.7</td> <td>Library</td> <td>1</td> <td>104</td> </tr> <tr> <td>2.8</td> <td>Art/craft room</td> <td>1</td> <td>66</td> </tr> <tr> <td>2.9</td> <td>Girls activity room</td> <td>1</td> <td>66</td> </tr> <tr> <td>2.10</td> <td>Toilet -Boys(Friendly to CWSN)</td> <td>1</td> <td>28</td> </tr> <tr> <td>2.11</td> <td>Toilets-Girls(Friendly to CWSN)</td> <td>1</td> <td>28</td> </tr> <tr> <td>2.12</td> <td>Drinking water facility</td> <td></td> <td>*</td> </tr> <tr> <td>2.13</td> <td>Ramp for physically challenged</td> <td></td> <td>*</td> </tr> </tbody> </table> <p>Revised Scheduled Rate as on 03 July 2010 as per PWD norms As per state PWD the cost of construction rates are below: 1. Plain Area - Rs. 11629 Per Sq. Mtrs. 2. Hill Area - Rs. 13813 Per Sq. Mtrs</p> <table border="1"> <thead> <tr> <th rowspan="2">Item</th> <th colspan="2">Rates Per Squire meters</th> </tr> <tr> <th>Hilly Area</th> <th>Plain Area</th> </tr> </thead> <tbody> <tr> <td>Basic rate</td> <td>7230</td> <td>7230</td> </tr> <tr> <td>Extra hight</td> <td>210</td> <td>210</td> </tr> <tr> <td>Extra depth</td> <td>300</td> <td>-</td> </tr> <tr> <td>Termetide treatment</td> <td>180</td> <td>180</td> </tr> <tr> <td>Fire fitting</td> <td>470</td> <td>470</td> </tr> <tr> <td>Frame Structure</td> <td>870</td> <td>870</td> </tr> <tr> <td>Total</td> <td>9260</td> <td>8960</td> </tr> <tr> <td>Rain water harvesting 1%</td> <td>93</td> <td>90</td> </tr> <tr> <td>Side development 20% in Hilly Area & 10% in Plain area</td> <td>1852</td> <td>896</td> </tr> <tr> <td>Electrification 11%</td> <td>1019</td> <td>986</td> </tr> <tr> <td>Celling fans 4%</td> <td>-</td> <td>358</td> </tr> <tr> <td>Grand Total</td> <td>12224</td> <td>11290</td> </tr> <tr> <td>Contegency 4%</td> <td>367</td> <td>339</td> </tr> <tr> <td>Height &Distance10%</td> <td>1222</td> <td>-</td> </tr> <tr> <td>Gross Total</td> <td>13813</td> <td>11629</td> </tr> </tbody> </table>	Code	Particulars	No of units	Unit size in sq mts.	2.1	Classrooms	4	66 sq	2.2	Laboratory (integrated)	1	104	2.3	Principal room (attached toilet)	1	66	2.4	Office and staff room	1	66	2.5	Teaching staff room (attached toilet)	2	104	2.6	Computer lab	1	104	2.7	Library	1	104	2.8	Art/craft room	1	66	2.9	Girls activity room	1	66	2.10	Toilet -Boys(Friendly to CWSN)	1	28	2.11	Toilets-Girls(Friendly to CWSN)	1	28	2.12	Drinking water facility		*	2.13	Ramp for physically challenged		*	Item	Rates Per Squire meters		Hilly Area	Plain Area	Basic rate	7230	7230	Extra hight	210	210	Extra depth	300	-	Termetide treatment	180	180	Fire fitting	470	470	Frame Structure	870	870	Total	9260	8960	Rain water harvesting 1%	93	90	Side development 20% in Hilly Area & 10% in Plain area	1852	896	Electrification 11%	1019	986	Celling fans 4%	-	358	Grand Total	12224	11290	Contegency 4%	367	339	Height &Distance10%	1222	-	Gross Total	13813	11629
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Height &Distance10%	1222	-																																																																																																										
Gross Total	13813	11629																																																																																																										

		S.NO	Item	Plinth Area	Unit Cost(Hill) In Rs	Unit Cost(Plain) In Rs
		1	Class room	66sq mt	911658	767514
		2	Laboratory (integrated)	66sq mt	911658	767514
		3	Principal room (attached toilet)	66sq mt	911658	767514
		4	Office and staff room	66sq mt	911658	767514
		5	Teaching staff room (attached toilet)	66sq mt	911658	767514
		6	Computer lab	66sq mt	911658	767514
		7	Library	100 sq mt	1381300	1162900
		8	Art/craft room	66sq mt	911658	767514
		9	Girls activity room	66sq mt	911658	767514
		10	Toilet Block – Boys(Friendly to CWSN)	28sq mt	386764	325612
		11	Toilets Block- Girls(Friendly to CWSN) 7x3	28sq mt	386764	325612
1.2 ADDITIONAL CLASSROOMS FOR EXISTING SCHOOLS	1. Additional class rooms should be built in existing secondary school to maintain the classroom –pupil ratio 1:40	Additional class rooms should be built in existing secondary school to maintain the classroom –pupil ratio 1:40				
	2. Construction of additional classrooms should involve the elements of community contribution if possible	2. Construction of additional classrooms should involve the elements of community contribution.				
	3. At least two additional class rooms should be built at a time	3. At least two additional class rooms should be built at a time.				
	4. Grants for additional classrooms will be available only for those schools which have existing buildings of their own	4. Grants for additional classrooms will be available only for those schools which have existing buildings of their own.				
1.3 SCIENCE LABORATORY	3.1 Every secondary school should have Integrated science lab (for Physics, Chemistry, Biology, Mathematics)	3.1 Every secondary school should have Integrated science lab (for Physics, Chemistry, Biology, Mathematics)				
1.4 LAB EQUIPMENTS	4.1 Science lab for secondary schools should have a necessary equipments (for Physics, Chemistry, Biology, Mathematics) to facilitate academic activities	Necessary equipment.				
1.5 PRINCIPAL ROOM	1. Every secondary school should have one room for principal. 2. Room will also be used for staff meeting. 3. Principal room size should be 57 sq.mt 4. Grants for Principal room will be available only for those schools which have existing building of their own. 5. Grants for principal room will also be available for New schools with their building budget	1. Every secondary school should have one room for principal. 2. Room will also be used for staff meeting. 3. Principal room size should be 57 sq.mt 4. Grants for Principal room will be available only for those schools which have existing building of their own. 5. Grants for principal room will also be available for New schools with their building budget				
1.6 Office room	1. Every secondary school should have one separate room for office and office staff 2. Office room size should be 57 sq.mt 3. Grants for Office room will be available only for those schools which have existing building of their own. 4. Grants for Office room will also be available for New schools with their building budget	1. Every secondary school should have one separate room for office and office staff 2. Office room size should be 66 sq.mt 3. Grants for Office room will be available only for those schools which have existing building of their own. 4. Grants for Office room will also be available for New schools with their building budget				

1.7 GIRLS ACTIVITY ROOM	<p>1. Every secondary school should have one separate Girls activity room</p> <p>2. Girls activity room sizes should be 57 sq.mt</p> <p>3. Grants for girls activity room will be available only for those schools which have existing building of their own.</p> <p>4. Grants for girls activity room will also be available for New schools with their building budget</p>	<p>1. Every secondary school should have one separate Girls activity room</p> <p>2. Girls activity room sizes should be 66 sq.mt</p> <p>3. Grants for girls activity room will be available only for those schools which have existing building of their own.</p> <p>4. Grants for girls activity room will also be available for New schools with their building budget.</p>						
1.8 COMPUTER ROOM/ LABORATORY	<p>1. Every secondary school should have one room for Computer laboratory.</p> <p>2. Room will be used exclusively for learning purposes</p> <p>3. Computer lab room size should be 104 sq.mt</p> <p>4. Grants for computer lab will be available only for those schools which have existing building of their own.</p> <p>5. Grants for computer lab will also be available for New schools with their building budget .</p>	<p>1. Every secondary school should have one room for Computer laboratory.</p> <p>2. Room will be used exclusively for learning purposes</p> <p>3. Computer lab room size should be 104 sq.mt</p> <p>4. Grants for computer lab will be available only for those schools which have existing building of their own.</p> <p>5. Grants for computer lab will also be available for New schools with their building budget.</p>						
1.9 ART/ CRAFT/ CULTURAL ROOM	<p>1. Every secondary school should have one room for Art/craft.</p> <p>2. Room will be used for art/craft activities</p> <p>3. Art/craft room size should be 57 sq.mt</p> <p>4. Grants for art/craft room will be available only for those schools which have existing building of their own.</p> <p>5. Grants for art/craft will also be available for New schools with their building budget</p>	<p>1. Every secondary school should have one room for Art/craft.</p> <p>2. Room will be used for art/craft activities</p> <p>3. Art/craft room size should be 66 sq.mt</p> <p>4. Grants for art/craft room will be available only for those schools which have existing building of their own.</p> <p>5. Grants for art/craft will also be available for New schools with their building budget</p>						
1.10. LIBRARY	<p>1. Every secondary school should have one room for library.</p> <p>2. Room should be used for reading and library purpose.</p> <p>3. Library room size should be 104 sq.mt</p> <p>4. Grants for Library will be available only for those schools which have existing building of their own.</p> <p>5. Grants for library will also be available for New schools with their building budget</p>	<p>1. Every secondary school should have one room for library.</p> <p>2. Room should be used for reading and library purpose.</p> <p>3. Library room size should be 104 sq.mt</p> <p>4. Grants for Library will be available only for those schools which have existing building of their own.</p> <p>5. Grants for library will also be available for New schools with their building budget</p>						
1.11 TOILET BLOCK	<p>1. Every secondary school should have toilet blocks for Boys and Girls separately. They should be suitable for the physically challenged.</p> <p>2. Separate toilet block available for male and female teachers</p>	<p>1. One toilet cluster for every 200 children .The unit cost of toilet cluster as per PWD norms are detailed below:</p> <table border="1"> <thead> <tr> <th>Component</th> <th>Plain (Lakhs)</th> <th>Hilly (Lakhs)</th> </tr> </thead> <tbody> <tr> <td>Toilet cluster</td> <td>2.78</td> <td>3.28</td> </tr> </tbody> </table>	Component	Plain (Lakhs)	Hilly (Lakhs)	Toilet cluster	2.78	3.28
Component	Plain (Lakhs)	Hilly (Lakhs)						
Toilet cluster	2.78	3.28						
1.12 DRINKING WATER FACILITY	<p>1. Every school should have drinking water facility adequately.</p> <p>2. Proper drainage system should be there in every secondary school</p>	<p>1. One Sintex tank with water tap for every 200 children .The unit cost of the water tank with one OHT as per PWD norms are detailed below:</p> <table border="1"> <thead> <tr> <th>Component</th> <th>Plain (Lakhs)</th> <th>Hilly (Lakhs)</th> </tr> </thead> <tbody> <tr> <td>Drinking Water</td> <td>1.38</td> <td>1.38</td> </tr> </tbody> </table>	Component	Plain (Lakhs)	Hilly (Lakhs)	Drinking Water	1.38	1.38
Component	Plain (Lakhs)	Hilly (Lakhs)						
Drinking Water	1.38	1.38						
1.13 FURNITURE AND FIXTURES	<p>1. Furniture for class room</p> <p>2. Existing furniture to be repaired</p> <p>3. In case of condemnation, or due to deficiency, purchase of furniture for the following</p>	<p>1. Furniture for class room</p> <p>2. Existing furniture to be repaired</p> <p>3. In case of condemnation, or due to deficiency, purchase of furniture for the following ,subject to the ceiling of Rs.1.00 lakh per school</p> <p>4. Furniture for Principal room, office room and teacher staff room.</p>						

	,subject to the ceiling of Rs.1.00 lakh per school 4. Furniture for Principal room, office room and teacher staff room. 5. Luxury items should not be purchased. 6. Purchases if any will be done through state owned small scale industries.	5. Luxury items should not be purchased. 6. Purchases if any will be done through state owned small scale industries.						
1.14 DEVELOPMENT OF PLAY GROUND	1. Cost for development of play ground will not exceed Rs.20,000/- per school 2. Schools not having playground will use play ground in neighborhood schools or the community play ground 3. Community PRIs, MP, MLA development fund can also be mobilized for the development and maintenance. Ministry of youth affairs and sports will also be approached.	1. Cost for development of play ground will not exceed Rs.20,000/- per school 2. Schools not having playground will use play ground in neighborhood schools or the community play ground 3. Community PRIs, MP, MLA development fund can also be mobilized for the development and maintenance. Ministry of youth affairs and sports will also be approached.						
1.15 BOUNDARY WALL	1. Boundary wall will be constructed, if not already constructed. 2. Community, PRI's, MP's, MLA's development funds can be utilized for maintenance and construction of boundary wall 3. Department of Environment and forests will be approached to develop social forestry in the schools.	1. Boundary wall will be constructed, if not already constructed. 2. Community, PRI's, MP's, MLA's development funds can be utilized for maintenance and construction of boundary wall. 3. Department of Environment and forests will be approached to develop social forestry in the schools. PWD norms for conventional compound wall / running meter. <table border="1"> <thead> <tr> <th>Component</th> <th>Plain (Lakhs)</th> <th>Hilly (Lakhs)</th> </tr> </thead> <tbody> <tr> <td>Compound wall</td> <td>0.025</td> <td>0.040</td> </tr> </tbody> </table>	Component	Plain (Lakhs)	Hilly (Lakhs)	Compound wall	0.025	0.040
Component	Plain (Lakhs)	Hilly (Lakhs)						
Compound wall	0.025	0.040						
1.16 Repairing and Renovations-Major and Minor	1. Repairing and renovations will primarily be undertaken through community participation. 2. On the basis of approved estimate by the department following grants may be considered under special circumstances: 3. Major repairing: One time total amount of expenditure should not exceed Rs.2.00 lakh per school in case of two sections in school and Rs.4.00lakh per school in case of four sections in school Minor repairing:-Total amount of expenditure should not exceed Rs.50,000 in a year. Following repair works can be undertaken school building, toilets, tanks, play ground, campus, conservancy services, electrical fittings, Sanitary and other fittings furniture and fixtures 4. Expenditure on repair and maintenance of building would not be included for calculating civil works. 5. Grants will be available for schools which have existing buildings of their own	1. Repairing and renovations will primarily be undertaken through community participation. 2. On the basis of approved estimate by the department following grants may be considered under special circumstances: 3. Major repairing: One time total amount of expenditure should not exceed Rs.2.00 lakh per school in case of two sections in school and Rs.4.00lakh per school in case of four sections in school Minor repairing :-Total amount of expenditure should not exceed Rs.50,000 in a year. Following repair works can be undertaken school building, toilets, tanks, play ground, campus, conservancy services, electrical fittings, Sanitary and other fittings furniture and fixtures 4. Expenditure on repair and maintenance of building would not be included for calculating civil works. 5. Grants will be available for schools which have existing buildings of their own						
1.17 Repair/ replacement of laboratory Equipments, purchase of lab consumable article	1. Fund will be available for science lab 2. Replacement and repairing of laboratory equipments. 3. Purchase of consumables, chemicals. 4. Upkeep of laboratories 5. Any other lab activity relating to science and mathematics Annual grant of Rs. 25,000/- per school per annum or as per	1. Fund will be available for science lab 2. Replacement and repairing of laboratory equipments. 3. Purchase of consumables, chemicals. 4. Upkeep of laboratories 5. Any other lab activity relating to science and mathematics Annual grant of Rs. 25,000/- per school per annum or as per actual requirements.						

	actual requirements.	
1.18 Purchase of books, periodicals, news papers etc.	1.Purchase of books with due reference to the lists of books recommended by the Department and SCERT 2.Rs.10,000 per annum or the actual expenditure whichever is less 3. Text books and reference books for teachers should also be included. 4. One time grant for purchase of books is Rs. 1.00 lakh in case of newly upgraded school or those school which do not have library.	1.Purchase of books with due reference to the lists of books recommended by the Department 2.Rs.10,000 per annum or the actual expenditure whichever is less 3. Text books and reference books for teachers should also be included. 4. One time grant for purchase of books is Rs. 1.00 lakh in case of newly upgraded school or those schools which do not have library.
1.19 STUDY TOURS/ EXCURSION TRIPS	1.State govt/ community/ parents/ private sector may sponsor or contribute 2. Study tours will be organized by the schools every year. 3.All the willing students will be allowed to participate 4. Adequate measures for safety and security of the students, especially girls will be made. 5. An amount of Rs.5000/- may be allocated for the purpose.	1.State govt/ community/ parents/ private sector may sponsor or contribute 2. Study tours will be organized by the schools every year. 3.All the willing students will be allowed to participate 4. Adequate measures for safety and security of the students, especially girls will be made. 5. An amount of Rs.5000/- may be allocated for the purpose.
1.20 SCHOOL ANNUAL GRANTS RECURRING COST	1.1 SPORTS: 1. Sports equipments, uniforms etc., 2.Music/dance/cultural activity 3. Painting. Grants of Rs.5000/- will be allocated for the purpose. 1.2. TEACHING AIDS:- 1. Equipments for teaching geography, elective subjects Drawing equipments and painting materials. 2.Maps, charts, Grants of Rs.2000/- per teacher per annum 3.To meet petty and contingent expenditure for organizing meetings, conveyance, stationeries grants of Rs.5000/- per annum 4.Water, electricity charges, internet charges/ other grant and taxes 5. Grant of Rs.20,000/- per annum or actual expenditure, whichever is less to meet water and electricity charges. 6.petty repairs and maintenance –Grant for Rs.5000/- per annum 7.Other expenditure-Grant of Rs. 5000/- should be given to each school 8.community/PRIs/Private sector may also to contribute	1.2 SPORTS: 1. Sports equipments, uniforms etc., 2.Music/ dance/ cultural activity 3. Painting. Grants of Rs.5000/- will be allocated for the purpose. 1.2.TEACHING AIDS:- 1. Equipments for teaching geography, elective subjects Drawing equipments and painting materials. 2.Maps, charts, Grants of Rs.2000/- per teacher per annum 3.To meet petty and contingent expenditure for organizing meetings, conveyance, stationeries grants of Rs.5000/- per annum 4.Water, electricity charges, telephone charges, internet charges/ other grant and taxes 5. Grant of Rs.15,000/- per annum or actual expenditure, whichever is less to meet water and electricity charges. 6.petty repairs and maintenance –Grant for Rs.5000/- per annum 7.Other expenditure-Grant of Rs. 5000/- should be given to each school 8.community/PRIs/Private sector may also to contribute
1.21 TEACHERS, STAFFS AND LAB ATTENDANTS	TEACHER 1.Every school should have atleast one subject teacher for each subject, two language teacher, one each for mathematics, physical science, biological science, social studies, computer science. 2.Every school should have one physical education and music and craft teacher 3.Every secondary school should have a minimum of 7 subject teachers and two special teachers	TEACHER 1.Every school should have atleast one subject teacher for each subject, two language teacher, one each for mathematics, physical science, biological science, social studies, 2. Every school should have one physical education and one teacher music/Drawing/craft/computer teacher. 3. Every secondary school should have a minimum of 7 subject teachers. 4. Every teacher appointed should possess minimum graduation

	<p>4. Every teacher appointed should possess minimum graduation and a B.Ed for teaching</p> <p>5. Every school should maintain PTR of 30:1 or less</p> <p>Teacher will be employed by the society implementing RMSA</p> <p>LAB ATTENDANT:</p> <p>1. One lab attendant should be employed by the society implementing RMSA.</p> <p>OFFICE ASSISTANT:</p> <p>1. Every secondary school should have one clerk (ASSISTANT GRADE III) and one peon for office works.</p> <p>WATCHMAN:</p> <p>Every secondary school should have one night watchman may be appointed by community/PRI/parent teacher Association.</p>	<p>and a B.Ed for teaching.</p> <p>5. Every school should maintain PTR of 40:1 or less</p> <p>Teacher will be employed by the society implementing RMSA.</p> <p>LAB ATTENDANT:</p> <p>1. One lab attendant should be employed by the society implementing RMSA.</p> <p>OFFICE ASSISTANT:</p> <p>1. Every secondary school should have one clerk (ASSISTANT GRADE III) and one peon for office works.</p> <p>WATCHMAN:</p> <p>Every secondary school should have one night watchman may be appointed by community/PRI/parent teacher Association.</p>
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Chapter III

Status of Secondary Education in Uttarakhand

This chapter presents the analysis of the status of secondary education in Uttarakhand to assess the starting points for RMSA in the state and identify the main issues for policy and practice.

Data sources and limitations

The status report on secondary education in the state of Uttarakhand used the data source from the Census of India, Statistical Abstract of Uttarakhand, Selected Educational Statistics (SES) of Uttarakhand, and data collected through the data capture formats of Secondary Education Management Information System (SEMIS) and DISE.

In 2007, when MHRD was fine tuning RMSA, the National University of Educational Planning and Administration (NUEPA) was roped in to create a Sarva Shiksha Abhiyan (SSA) like monitoring system wherein the District Information on School Education (DISE) is instrumental. The NUEPA first developed a software viz., Secondary Education Management Information System (SEMIS) to prepare a baseline status report so that the planning for secondary education could be made at district level onwards. The SEMIS database while mapping secondary schools, it is having profile of schools, enrolment figures, teachers profile and infrastructure related information.

Population

According to the Census 2001, the size of the state population was about 84.89 lakhs. The projections of Registrar General of India (RGI) indicate that the state population would increase to 93.05 lakhs in 2006 and to 99.41 lakhs in 2011. The population of the state is projected to grow at 1.8 percent per annum during 2001-11 and it will grow at 1.4 percent during 2011-21 where the size of population will increase to 113.79 lakhs in 2016.

Table 3.3.1 Population and Growth Rate

(Figures in lakhs)

Year	Population	Growth	Growth Rate
1	2	3	4
1981	57.72		
1991	71.27	13.55	23.48
2001	84.88	13.61	19.20
2006	93.05	8.17	
2011	99.41	6.36	
2016	113.79	14.38	

Table 1.1.2 indicates the population figure at a glance this shows that there are 964 females per 1000 male according to Census 2001. The female share in the total population of the state is about 49.04 percent. Table 1.1.2 shows that density of population is 159 percent sq.km according to Census 2001. Population density in the 13 district of the State varies from a high of 612 sq.km in Haridwar to a low of 37 per sq.km. in district Uttarkashi. The population is sparsely populated in hilly area and densely populated in plain areas. In terms of urbanization, about 21.79 lakhs consisting of 25.67 percent of the total population in the state are located in urban localities. Projections indicate a further increase in the urban population. The decadal population growth rate of population is 19.20% between 1991 and 2001. The geographical area of the state is about 53,483 sq.km.

Status of Educational Institutions in Uttarakhand

Table 3.3.2

No. of Primary and Upper Primary Schools

S. No.	Type Of School	No. of Schools		
		Primary School/Sections	Upper Primary School/Sections	Primary with Upper Primary
1	Governments	12695	3004	29
2	Govt. Aided	56	180	39
3	Recognized(Unaided Private)	2549	515	752
	Total	15300	3699	820

Source: SSA, DISE Data 2009-10

Table 3.3.3

Secondary and Hr./Sr. Secondary Schools

S. No.	Type Of School	No. of Schools	
		Secondary School/Hr. Second. With Secondary Sections	Hr. Secondary School
1	Governments	1855	1035
2	Govt. Aided	302	269
3	Other Recognized	584	322
	Total	2741	1626

Source: SEMIS 2009-10.

Table 3.3.4

District-wise Secondary and Hr./Sr. Secondary Schools

S. No.	District	No. Of School For Class IX & X				No. Of School For Class XI & XII			
		Govt.	Govt. Aided	Other	Total	Govt.	Govt. Aided	Other	Total
1	Almora	221	29	23	273	127	29	09	165
2	Bageshwar	71	17	09	97	37	13	04	54
3	Chamoli	163	18	21	202	89	12	03	104
4	Chsmpawat	75	8	10	93	39	05	03	47

5	Dehradun	147	60	148	355	78	54	94	226
6	Haridwar	63	23	89	175	25	31	55	111
7	Nainital	162	23	63	248	85	20	42	147
8	Pauri	276	74	24	374	154	59	12	225
9	Pithoragarh	159	09	26	194	89	07	12	108
10	Rudraprayag	99	10	11	120	67	06	06	79
11	Tehri	221	12	24	257	137	10	13	160
12	US Nagar	97	19	121	337	48	23	63	134
13	Uttarkashi	101	0	15	116	60	0	06	66
	State	1855	302	584	2741	1035	269	322	1626

Source: SEMIS 2009-10

Table 3.3.5

Total Enrollment Status at Elementary Level Year 2009-10

Age	Total Population			School Going			Out of School		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
6-11 Age	602559	549862	1152421	600508	547837	1148345	2051	2025	4076
11-14 Age	341584	311803	653387	339769	309561	649330	1815	2242	4057
Total	944143	861665	1805808	940277	857398	1797675	3866	4267	8133

Source: SSA, Basic Education Data 2009-10.

Table 3.3.6

**Total Enrollment Status at Elementary Level (Class 1 to 8)
Year 2008-2009**

SN	Level	Enrollment		
		Boys	Girls	Total
1	Primary (Class 1 to 5)	558170	525966	1084136
2	Upper Primary (Class 6 to 8)	282383	268508	550891
	Total (Class 1 to 8)	840553	794474	1635027

Source: SSA, Basic Education Data 2009-10.

Table 3.3.7

GER, NER, Co hart Drop Out and Overall Repetition at Elementary Level

S.N.	Indicators	Primary (Jan. 2009)	Upper Primary (Jan. 2009)
1	Gross Enrollment Ratio (GER)	101.76	102.15
2	Net Enrollment Ratio (NER)	99.01	98.94
3	Dropout Rate	0.31	0.50
4	Repetition Rate	4.47	3.41
5	Completion Rate	91.98	
6	Transition Rate (Primary to Upper Primary)	97.82	
7	Pupil Teacher Ratio (PTR)	1:26	1:16

Source: SSA, Basic Education Data 2009-10.

Table 3.3.8**District-wise GER, NER, Cohort Drop Out and Overall Repetition at Elementary Level, year 2009-2010**

S. N.	District	Children of 6-11 age group				Children of 11-14 age group			
		GER	NER	Cohort Dropout	Repetition Rate	GER	NER	Cohort Dropout	Repetition Rate
1	Almora	101.42	98.67	0.06	3.23	104.15	97.92	0.31	4.07
2	Bageshwar	101.00	99.50	0.03	1.41	101.40	99.65	0.11	1.45
3	Chamoli	102.55	99.62	0.31	5.84	110.98	99.42	0.42	2.04
4	Champawat	106.12	99.82	0.45	5.75	105.98	98.94	2.14	5.69
5	Dehradun	100.62	98.17	0.23	8.88	99.39	96.87	0.32	4.65
6	Haridwar	99.37	96.77	0.30	3.87	99.11	97.79	0.20	3.06
7	Nainital	102.03	96.66	0.05	3.07	100.56	98.36	0.52	5.24
8	Pauri	100.41	99.45	0.11	5.71	100.87	99.43	0.26	5.29
9	Pithoragarh	101.20	99.99	0.04	2.09	100.34	99.93	0.17	2.94
10	Rudrapayag	101.24	99.98	0.01	5.70	100.41	99.97	0.03	4.70
11	Tehri	103.29	99.96	0.03	8.46	101.20	99.94	0.12	1.83
12	U.S. Nagar	101.72	99.10	1.87	1.91	102.27	98.23	1.79	1.70
13	Uttarkashi	101.84	99.42	0.55	2.15	101.27	99.82	0.17	1.66
Total		101.76	99.01	0.31	4.47	102.15	98.94	0.50	3.41

*Source: SSA, 2009-10***Table 3.3.9 Completion Rate, Primary Graduates & Transition Rate from Primary to Upper Primary Year 2009-2010**

S. N.	District	Completion Rate	No. of Primary Graduates	Transition Rate from Primary to Upper Primary
1	Almora	97.01	12058	99.06
2	Bageshwar	93.98	4583	99.96
3	Chamoli	92.80	9029	97.54
4	Champawat	95.22	6198	99.68
5	Dehradun	93.60	11718	98.76
6	Haridwar	98.50	29231	85.08
7	Nainital	90.69	8679	98.77
8	Pauri	90.79	12212	100.00
9	Pithoragarh	92.79	9888	99.72
10	Rudrapayag	93.16	4090	100.00
11	Tehri	90.80	11690	94.35
12	U.S. Nagar	73.38	20018	98.90
13	Uttarkashi	93.00	6405	99.81
Total		91.98	145799	97.82

Source: SSA, 2009-10

Table 3.3.10
Total Enrollment Status at Secondary Level (Class IX to X)
Year 2008-2009 & 2009-2010

S N	Name of the Distric	Enrolment in Classes IX-X in 2008-09			Enrolment in Classes IX-X in 2009-10		
		Boys	Girls	Total	Boys	Girls	Total
1	Almora	15527	13052	28579	15087	13599	28686
2	Bageshwar	6145	4844	10989	6034	5114	11148
3	Chamoli	9560	7869	17429	9350	8090	17440
4	Champawat	5582	4026	9608	5448	4270	9718
5	Dehradun	22498	19839	42337	23809	20854	44663
6	Haridwar	23428	17794	41222	24180	18552	42732
7	Nainital	17298	14421	31719	18357	15258	33615
8	Pauri	14738	13215	27953	14294	13258	27552
9	Pithoragarh	11858	9235	21093	11726	9503	21229
10	Rudraprayag	5783	4914	10697	5714	4972	10686
11	Tehri Garhwal	13143	11617	24760	13063	12094	25157
12	US Nagar	25106	21504	46610	27310	22445	49755
13	Uttarkashi	7269	6227	13496	7314	6673	13987
	STATE	177935	148557	326492	181686	154682	336368
	Govt. School Only	103732	99330	203062	102705	101629	204334

Source: Data collected through Data Capture Format 2009-10.

Table 3.3.11
Total Enrollment Status at Hr./Sr. Secondary Level (Class XI to XII)
Year 2008-2009 & 2009-2010

SN	Name of the Distric	Enrolment in Classes XI-XII in 2008-09			Enrolment in Classes XI-XII in 2009-10		
		Boys	Girls	Total	Boys	Girls	Total
1	Almora	8515	7324	15839	10118	8436	18554
2	Bageshwar	3181	2703	5884	4237	3283	7520
3	Chamoli	5930	5053	10983	6768	5942	12710
4	Champawat	2946	2399	5345	3224	2547	5771
5	Dehradun	14645	15218	29863	17296	16516	33812
6	Haridwar	13303	9587	22890	12912	8911	21823
7	Nainital	11364	10413	21777	12383	10934	23317
8	Pauri	8911	8193	17104	10289	9295	19584
9	Pithoragarh	6766	5855	12621	7903	6669	14572
10	Rudraprayag	3474	3120	6594	4122	3683	7805
11	Tehri Garhwal	6893	6390	13283	8121	7752	15873
12	US Nagar	14442	14273	28715	17136	15089	32225
13	Uttarkashi	3647	2814	6461	4230	3345	7575
	STATE	104017	93342	197359	118739	102402	221141
	Govt. School Only	60204	60420	120624	70177	68522	138699

Source: Data collected through Data Capture Format 2009-10.

Table 3.3.12
GER at Secondary Level, Year 2006-2007 & 2007-2008

Particulars		Year	
		2006-2007	2007-2008
Projected Child Population 14-15 Age	Boys	234436	238938
	Girls	219559	223774
	Total	453995	462712
Enrolment IX & X	Boys	136229	140364
	Girls	109009	116731
	Total	245238	257095
GER (14-15 Age)	Boys	58.11	58.75
	Girls	49.65	52.16
	Total	54.02	55.56
Projected Child Population 16-17 Age	Boys	205302	209483
	Girls	191599	195387
	Total	396901	404870
Enrolment XI & XII	Boys	77667	76116
	Girls	65129	67671
	Total	142796	143787
GER (16-17 Age)	B	37.83	36.34
	G	33.99	34.63
	Total	35.98	35.51

Source: Data collected through Data Capture Format 2007-08.

Table 3.3.13
Drop Out and Repetition at Secondary Level, Year 2007-2008

SN	Particulars	No.
1	Total Enrolled In Class IX & X In 2006-07	245229
2	Total Promoted in Next Class	135256
	% Promoted in Next Class	55.15
3	Repeaters in Class-IX & X in 2007-08	60154
	% Repeaters in Class-IX & X in 2007-08	24.53
4	Total Drop-out in Class-IX & X in 2006-07	49819
	% Drop-out in Class-IX & X in 2006-07	20.32
5	Tr. Rate Class VIII to Class IX 2007-08	82.33

Source: Data collected through Data Capture Format 2007-08.

Table 3.3.14
PTR at Secondary Level, Year 2007-2008

S N	Type Of School	Enrollment in 2007-2008			% Share	Teacher	PTR		
		B	G	T		Sanction	Working	Sanction	Working
1	All School	140364	116731	257095	100.00	23116	19446	11.12	13.22
2	Govt School	90753	83136	173889	67.64	17068	13979	10.19	12.44
3	Other School	49611	33595	83206	32.36	6048	5467	13.76	15.22

Source: Data collected through Data Capture Format 2007-08.

Size of the Secondary School-Age Population

In Uttarakhand the size of the secondary school (including higher secondary) age population particularly that of 14 to 17 year age, is about 7.72 lakhs consisting of 9.19 percent of the total population in the state in 2001 (Census 2001). The RGI projections indicate that the size of the 14-17 age group population would increase to 8.51 lakhs in 2006, 9.05 lakhs in 2009 and to 9.62 lakhs in 2012. Thereafter, by 2016, the sizes of the 14-17 age group population will 10.45 lakhs. For the secondary school age group (14-15) and higher secondary school age group (16-17), the population size was 4.13 lakhs and 3.60 lakhs respectively in 2001. The projected size would be 4.54 and 3.97 lakhs in 2006 and will increase to 5.14 and 4.48 lakhs for the respective age groups in 2012 with annual average growth rate of 1.92% for both groups.

Table : 3.3.15 Projected Population of 14-17 age group in Uttarakhand

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
B	399024	406821	414787	422926	431242	439739	448421	458978	468406	478067	487967	498112	508510	519166	530088	541282	552757
G	373602	380797	388146	395654	403323	411158	419162	428388	436996	445814	454849	464106	473592	483311	493270	503477	513936
Total	772626	787618	802934	818580	834565	850897	867582	887366	905402	923881	942816	962219	982101	1002477	1023358	1044759	1066692

Table 3.3.16 DISTRICT-WISE (YEAR-WISE) TOTAL CHILD POPULATION (Age 14 & 15)

S N	District	A.G. Rate		Year-wise																
				2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	Almora	0.314	B	16800	16857	16915	16972	17030	17088	17147	17205	17264	17323	17382	17441	17500	17560	17620	17680	17740
			G	17221	17280	17339	17398	17457	17517	17576	17636	17696	17757	17817	17878	17939	18000	18062	18123	18185
			Total	34021	34137	34253	34370	34487	34605	34723	34841	34960	35079	35199	35319	35440	35560	35682	35803	35925
2	Bageshwar	1.756	B	5983	6088	6195	6304	6414	6527	6642	6758	6877	6998	7121	7246	7373	7502	7634	7768	7905
			G	5939	6043	6149	6257	6367	6479	6593	6709	6826	6946	7068	7192	7319	7447	7578	7711	7846
			Total	11922	12131	12344	12561	12782	13006	13235	13467	13703	13944	14189	14438	14692	14950	15212	15479	15751
3	Chamoli	1.351	B	9586	9716	9847	9980	10115	10251	10390	10530	10672	10817	10963	11111	11261	11413	11567	11724	11882
			G	9212	9336	9463	9590	9720	9851	9984	10119	10256	10395	10535	10677	10822	10968	11116	11266	11418
			Total	18798	19052	19309	19570	19835	20103	20374	20649	20928	21211	21498	21788	22082	22381	22683	22990	23300
4	Champawat	0.921	B	5604	5656	5708	5760	5813	5867	5921	5975	6030	6086	6142	6199	6256	6313	6371	6430	6489
			G	5110	5157	5205	5252	5301	5350	5399	5449	5499	5550	5601	5652	5704	5757	5810	5863	5917
			Total	10714	10813	10912	11013	11114	11217	11320	11424	11529	11636	11743	11851	11960	12070	12181	12293	12407
5	Dehradun	2.471	B	31438	32215	33011	33827	34662	35519	36397	37296	38218	39162	40130	41121	42137	43179	44245	45339	46459
			G	28244	28942	29657	30390	31141	31910	32699	33507	34335	35183	36053	36943	37856	38792	39750	40732	41739
			Total	59682	61157	62668	64216	65803	67429	69095	70803	72552	74345	76182	78065	79994	81970	83996	86071	88198
6	Haridwar	2.63	B	35636	36573	37535	38522	39535	40575	41642	42738	43862	45015	46199	47414	48661	49941	51254	52602	53986
			G	32277	33126	33997	34891	35809	36751	37717	38709	39727	40772	41844	42945	44074	45233	46423	47644	48897
			Total	67913	69699	71532	73413	75344	77326	79359	81447	83589	85787	88043	90359	92735	95174	97677	100246	102883
7	Nainital	3.288	B	19290	19924	20579	21256	21955	22677	23422	24193	24988	25810	26658	27535	28440	29375	30341	31339	32369
			G	17631	18211	18809	19428	20067	20727	21408	22112	22839	23590	24366	25167	25994	26849	27732	28643	29585

7	Nainital	3.288	B	17073	17634	18214	18813	19432	20071	20730	21412	22116	22843	23594	24370	25171	25999	26854	27737	28649
			G	15155	15653	16168	16700	17249	17816	18402	19007	19632	20277	20944	21632	22344	23078	23837	24621	25430
			Total	32228	33288	34382	35513	36680	37886	39132	40419	41748	43120	44538	46003	47515	49077	50691	52358	54079
8	Pauri	0.387	B	16757	16822	16887	16952	17018	17084	17150	17216	17283	17350	17417	17484	17552	17620	17688	17757	17825
			G	16535	16599	16663	16728	16792	16857	16923	16988	17054	17120	17186	17253	17319	17386	17454	17521	17589
			Total	33292	33421	33550	33680	33810	33941	34073	34204	34337	34470	34603	34737	34871	35006	35142	35278	35414
9	Pithoragarh	1.092	B	9884	9992	10101	10211	10323	10436	10550	10665	10781	10899	11018	11138	11260	11383	11507	11633	11760
			G	9063	9162	9262	9363	9465	9569	9673	9779	9886	9994	10103	10213	10325	10437	10551	10667	10783
			Total	18947	19154	19363	19575	19788	20004	20223	20444	20667	20893	21121	21351	21584	21820	22058	22299	22543
10	Rudraprayag	1.344	B	5294	5365	5437	5510	5584	5659	5736	5813	5891	5970	6050	6131	6214	6297	6382	6468	6555
			G	5414	5487	5561	5635	5711	5788	5866	5944	6024	6105	6187	6270	6355	6440	6527	6614	6703
			Total	10708	10852	10998	11146	11295	11447	11601	11757	11915	12075	12237	12402	12569	12737	12909	13082	13258
11	Tehri	1.615	B	12969	13178	13391	13608	13827	14051	14278	14508	14742	14981	15222	15468	15718	15972	16230	16492	16758
			G	13458	13675	13896	14121	14349	14580	14816	15055	15298	15545	15796	16052	16311	16574	16842	17114	17390
			Total	26427	26854	27287	27728	28176	28631	29093	29563	30041	30526	31019	31520	32029	32546	33072	33606	34149
12	US Nagar	2.779	B	26787	27531	28297	29083	29891	30722	31576	32453	33355	34282	35234	36214	37220	38254	39317	40410	41533
			G	23409	24060	24728	25415	26122	26848	27594	28360	29149	29959	30791	31647	32526	33430	34359	35314	36296
			Total	50196	51591	53025	54498	56013	57569	59169	60813	62503	64240	66026	67861	69746	71685	73677	75724	77829
13	Uttarkashi	2.272	B	6194	6335	6479	6626	6776	6930	7088	7249	7414	7582	7754	7930	8111	8295	8483	8676	8873
			G	5699	5828	5961	6096	6235	6377	6521	6670	6821	6976	7135	7297	7462	7632	7805	7983	8164
			Total	11893	12163	12440	12722	13011	13307	13609	13918	14235	14558	14889	15227	15573	15927	16289	16659	17037
TOTAL STATE		1.92	B	185853	189557	193352	197239	201222	205302	209483	213767	218156	222654	227263	231987	236827	241789	246874	252086	257428
			G	173959	177321	180763	184289	187900	191599	195387	199268	203242	207314	211486	215760	220138	224625	229221	233932	238758
			Total	359812	366878	374115	381529	389122	396901	404870	413034	421398	429968	438749	447746	456966	466413	476095	486017	496186

Source : RGI

Note : Projection are as on 1st March 2010 on Annual Growth Rate
The above table depicts that in district U.S. Nagar the annual average growth rate is high i.e. 2.78 and in district Almora the annual average growth rate is lowest i.e. 0.31 between 1991 to 2001. In 2001 the population of 16-17 age group children is 0.57 lakhs in district Haridwar and 0.55 lakhs in Dehradun, which is highest between all the 13 districts and 0.09 lakhs in district Champawat which is lowest between all the 13 districts of Uttarakhand. The proposition of girls population is 48.35% in 2001, 48.26% in 2006 and 48.19% in 2012 which indicate that the share of girls population is slightly declining year by year in Uttarakhand.

Population of Social Groups

The total population of Uttarakhand, according to Census 2001 is 84.89 lakhs, out of which 4.86% children are from 14-15 age group. The percentage of the children of social group (SC/ST) is 21.39% out of the total population of children belonging the age group of 14-15.

Table 3.3.18 District-wise Social Group wise 14-15 age group population

S N	District	Dacard G.Rate	Total Population			Population 14 & 15 Age Group (Location Wise) 2001									Population 14 & 15 Age Group (Cast Wise) 2001					
						Rural			Urban			Total			SC			ST		
			Male	Female	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	Almora	3.14	293848	336719	630567	15494	16096	31590	1306	1125	2431	16800	17221	34021	3947	3957	7904	31	29	60
2	Bageshwar	17.56	118510	130952	249462	5802	5774	11576	181	165	346	5983	5939	11922	1672	1559	3231	39	47	86
3	Chamoli	13.51	183745	186614	370359	8210	8134	16344	1376	1078	2454	9586	9212	18798	1877	1751	3628	249	237	486
4	Champawat	9.21	111084	113458	224542	4694	4364	9058	910	746	1656	5604	5110	10714	917	847	1764	17	13	30
5	Dehradun	24.71	679583	602560	1282143	15230	13832	29062	16208	14412	30620	31438	28244	59682	4451	3955	8406	2438	2337	4775
6	Haridwar	26.30	776021	671166	1447187	24647	22448	47095	10989	9829	20818	35636	32277	67913	7723	6939	14662	77	52	129
7	Nainital	32.88	400254	362655	762909	12010	11360	23370	7280	6271	13551	19290	17631	36921	3721	3575	7296	127	112	239
8	Pauri	3.87	331061	366017	697078	15344	15523	30867	2228	1876	4104	17572	17399	34971	2821	2815	5636	31	32	63
9	Pithoragarh	10.92	227615	234674	462289	9870	9361	19231	1583	1272	2855	11453	10633	22086	2796	2464	5260	447	427	874
10	Rudraprayag	13.44	107535	119904	227439	5580	5657	11237	66	30	96	5646	5687	11333	1053	983	2036	1	1	2
11	Tehri	16.15	295168	309579	604747	13862	13771	27633	1409	1056	2465	15271	14827	30098	2245	2179	4424	8	6	14
12	US Nagar	27.79	649484	586130	1235614	21011	19420	40431	10715	9637	20352	31726	29057	60783	4162	3806	7968	3115	3000	6115
13	Uttarkashi	22.72	152016	142997	295013	6501	5937	12438	665	469	1134	7166	6406	13572	1620	1450	3070	70	58	128
	STATE		4325924	4163425	8489349	158255	151677	309932	54916	47966	102882	213171	199643	412814	39005	36280	75285	6650	6351	13001

Source : Census 2001

The above table indicates that 67.72% 14 to 15 age group children are from rural areas and only 32.28 % children belongs to urban areas in the State in 2001. The preposition of SC community children among the State is 18.24% and ST children is 3.15% out of the total population of 14 to 15 age group children.

Table 3.3.19 Age Group 16-17 child population

S N	District	Dacard G.Rate	Total Population			Population 16 & 17 Age Group (Location Wise) 2001									Population 16 & 17 Age Group (Cast Wise) 2001					
						Rural			Urban			Total			SC			ST		
			Male	Female	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	Almora	3.14	293848	336719	630567	12195	13916	26111	1395	973	2368	13590	14889	28479	2920	3098	6018	22	16	38
2	Bageshwar	17.56	118510	130952	249462	4939	4955	9894	172	162	334	5111	5117	10228	1282	1209	2491	29	45	74
3	Chamoli	13.51	183745	186614	370359	7179	7670	14849	1346	1032	2378	8525	8702	17227	1588	1513	3101	257	273	530
4	Champawat	9.21	111084	113458	224542	3600	3664	7264	823	620	1443	4423	4284	8707	698	604	1302	14	13	27
5	Dehradun	24.71	679583	602560	1282143	13519	12282	25801	15316	13519	28835	28835	25801	54636	3988	3656	7644	1989	1916	3905
6	Haridwar	26.30	776021	671166	1447187	20153	17748	37901	10258	8685	18943	30411	26433	56844	6416	5514	11930	60	46	106
7	Nainital	32.88	400254	362655	762909	10688	9605	20293	6385	5550	11935	17073	15155	32228	3302	2801	6103	128	129	257
8	Pauri	3.87	331061	366017	697078	14451	14678	29129	2306	1857	4163	16757	16535	33292	2509	2335	4844	24	19	43
9	Pithoragarh	10.92	227615	234674	462289	8317	7911	16228	1567	1152	2719	9884	9063	18947	2352	1928	4280	393	417	810
10	Rudraprayag	13.44	107535	119904	227439	5231	5379	10610	63	35	98	5294	5414	10708	931	860	1791	3	2	5
11	Tehri	16.15	295168	309579	604747	11642	12512	24154	1327	946	2273	12969	13458	26427	1743	1703	3446	11	10	21
12	US Nagar	27.79	649484	586130	1235614	17684	15592	33276	9103	7817	16920	26787	23409	50196	3553	2783	6336	2537	2710	5247
13	Uttarkashi	22.72	152016	142997	295013	5538	5261	10799	656	438	1094	6194	5699	11893	1360	1214	2574	79	62	141
	STATE		4325924	4163425	8489349	135136	131173	266309	50717	42786	93503	185853	173959	359812	32642	29218	61860	5546	5658	11204

Source : Census 2001

The above table indicate that 74.01% 16 to 17 age group children are from rural areas and only 25.99% children belongs to urban areas in the State in 2001. The proposition of SC community children among the State is 16.94% and proposition of ST children is 3.06% out of the total population of 16 to 17 age group children.

Table 3.3.20 Age Group 14-17 child population

S N	District	Dacad G.Rat e	Total Population			Population 14 & 17 Age Group (Location Wise) 2001									Population 14 & 17 Age Group (Cast Wise) 2001					
						Rural			Urban			Total			SC			ST		
			Male	Female	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	Almora	3.14	293848	336719	630567	27689	30012	57701	2701	2098	4799	30390	32110	62500	6867	7055	13922	53	45	98
2	Bageshwar	17.56	118510	130952	249462	10741	10729	21470	353	327	680	11094	11056	22150	2954	2768	5722	68	92	160
3	Chamoli	13.51	183745	186614	370359	15389	15804	31193	2722	2110	4832	18111	17914	36025	3465	3264	6729	506	510	1016
4	Champawat	9.21	111084	113458	224542	8294	8028	16322	1733	1366	3099	10027	9394	19421	1615	1451	3066	31	26	57
5	Dehradun	24.71	679583	602560	1282143	28749	26114	54863	31524	27931	59455	60273	54045	114318	8439	7611	16050	4427	4253	8680
6	Haridwar	26.30	776021	671166	1447187	44800	40196	84996	21247	18514	39761	66047	58710	124757	14139	12453	26592	137	98	235
7	Nainital	32.88	400254	362655	762909	22698	20965	43663	13665	11821	25486	36363	32786	69149	7023	6376	13399	255	241	496
8	Pauri	3.87	331061	366017	697078	29795	30201	59996	4534	3733	8267	34329	33934	68263	5330	5150	10480	55	51	106
9	Pithoragarh	10.92	227615	234674	462289	18187	17272	35459	3150	2424	5574	21337	19696	41033	5148	4392	9540	840	844	1684
10	Rudraprayag	13.44	107535	119904	227439	10811	11036	21847	129	65	194	10940	11101	22041	1984	1843	3827	4	3	7
11	Tehri	16.15	295168	309579	604747	25504	26283	51787	2736	2002	4738	28240	28285	56525	3988	3882	7870	19	16	35
12	US Nagar	27.79	649484	586130	1235614	38695	35012	73707	19818	17454	37272	58513	52466	110979	7715	6589	14304	5652	5710	11362
13	Uttarkashi	22.72	152016	142997	295013	12039	11198	23237	1321	907	2228	13360	12105	25465	2980	2664	5644	149	120	269
	STATE		4325924	4163425	8489349	293391	282850	576241	105633	90752	196385	399024	373602	772626	71647	65498	137145	12196	12009	24205

Source : Census 2001

The above table shows that 74.61% of 14 to 17 age group children are from rural areas and only 25.39 % children belongs to urban areas in the State in 2001. The proposition of SC community children among the State is 17.75% and ST children are 3.11% out of the total population of 14 to 17 age group children. In district Haridwar the percentage of SC children is highest and in Champawat it is lowest. The percentage of ST children is highest in U.S. Nagar and lowest in district Rudraprayag of Uttarakhand.

Participation and Enrolments in Uttarakhand

The participation of concerned age group (14/15 and 16/17) children in the secondary and higher secondary education is indicated by their enrolment and attendance. The table given below presents the rate of enrolment in the secondary and higher secondary classes of boys and girls in Uttarakhand. Herein, it is to be noted that the enrolment figures includes both over-aged and under-aged to the concerned age groups.

Table 3.3.21 Yearwise enrolment in secondary and higher secondary level

Class	2006-07			2007-08			2008-09			2009-10		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
IX	71679	56094	127773	72261	58679	130940	89517	74137	163654	91061	75632	166693
X	64541	52915	117456	68053	58055	126108	88418	74420	162838	90625	79050	169675
Total	136220	109009	245229	140314	116734	257048	177935	148557	326492	181686	154682	336368
XI	42159	34943	77102	36890	33394	70284	58018	51633	109651	62171	51030	113201
XII	35508	30186	65694	39226	34277	73503	45999	41709	87708	56582	51358	107940
Total	77667	65129	142796	76116	67671	143787	104017	93342	197359	118753	102388	221141

Source: SEMIS, 2009-10

The table 3.1.21 reveals that the total enrolment at secondary level is 245229 in 2006-07 and it increased 336368 in 2009-10. The percentage of girls is 44.45% in year 2006-07 and it increased 45.99% in 2009-10, which shows slight incensement in girls enrolment at secondary level. The total enrolment at higher secondary level was 142796 with 45.61% of girls share in 2006-07. This has increased to 221141 with 46.30% of girls share in 2009-10.

Table 3.3.22 Year wise growth in enrolment in secondary and higher secondary level

Annual Growth Rate in Enrolment and Projected Enrolment																					
Class	2006-07			2007-08			2008-09			2009-10			2010-11			2012-13			2016-17		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
IX	71679	56094	127773	72261	58679	130940	89517	74137	163654	91061	75632	166693	92204	78048	170227	93361	80542	173836	98137	91339	189052
X	64541	52915	117456	68053	58055	126108	88418	74420	162838	90625	79050	169675	94069	84864	178914	97643	91106	188656	113353	121014	233224
Total	136220	109009	245229	140314	116734	257048	177935	148557	326492	181686	154682	336368	186210	162865	349049	190847	171480	362208	210577	210748	419996
Growth Rate	2006-07 to 2007-08			2007-08 to 2008-09			2008-09 to 2009-10			AAGR 2006-07 & 2009-10											
GR IX	0.81	4.41	2.42	19.28	20.85	19.99	1.70	1.98	1.82	1.26	3.20	2.12									
GR X	5.16	8.85	6.86	23.03	21.99	22.56	2.44	5.86	4.03	3.80	7.36	5.45									
Total	2.92	6.62	4.60	21.14	21.42	21.27	2.06	3.96	2.94	2.49	5.29	3.77									
XI	42159	34943	77102	36890	33394	70284	58018	51633	109651	62171	51030	113201	63590	56592	120182	69697.8	62027.4	131725	83728.8	74514.3	158243
XII	35508	30186	65694	39226	34277	73503	45999	41709	87708	56582	51358	107940	50417	45715	96132	55259.2	50105.6	105365	66383.6	60192.4	126576
Total	77667	65129	142796	76116	67671	143787	104017	93342	197359	118753	102388	221141	114007	102307	216314	124957	112133	237090	150112	134707	284819
Growth Rate	2006-07 to 2007-08			2007-08 to 2008-09			2008-09 to 2009-10			AAGR 2006 to 2009											
Growth Rate XI	-14.3	-4.64	-9.7	36.42	35.32	35.9	6.68	-1.18	3.14	9.6	9.83	9.78									
Growth Rate XII	9.48	11.9	10.6	14.7	17.8	16.2	18.7	18.8	18.7	14.3	16.2	15.2									
Total	-2.04	3.76	0.69	26.8	27.5	27.1	12.4	8.84	10.8	12.4	13.4	12.9									

Source: SEMIS 2009-10

Note: AAGR- Annual Average Growth Rate calculated by Annually Growth and average of all three years growth rate.

The AAGR for projection is 2.49% for Boys, 5.29% for girls and 3.77% for total is 4.60 in year 2006-07 to 2007-08, 21.27% in 2007-08 to 2008-09 and 2.94% is 2008-09 to 2009-10. The growth between 2007-08 to 2008-09 is straightly increased due to data inconsistency which is not accepted. So for projection of enrolment we calculated average annual growth rate between growth of year 2006-07 to 2007-08 and 2008-09 to 2009-10.

According to SEMIS data the overall annual growth rate in enrolment. The projection with this AAGR the enrolment in 2012-13 is 362208 and in year 2016-17 is 419986 with 47.42% of girls in year 2012-13 and 50.78% girls in year 2016-17.

Enrolment by Class, Gender and Social Category

Table 3.3.23 Enrolment by Class, Gender and Social Category

Category	Class IX			Class X			Class XI			Class XII		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	5	6	7	8	9	10	11	12	13	14	15	16
As on 30th Sept 2008												
SC	19679	14773	34452	17884	13714	31598	9663	8045	17708	7070	5512	12582
ST	3083	2740	5823	2834	2685	5519	2069	2074	4143	1699	1557	3256
OBC	12708	10633	23341	11922	9958	21880	7250	6143	13393	5989	5481	11470
Others	54047	45991	100038	55778	48063	103841	39036	35371	74407	31241	29159	60400
Total	89517	74137	163654	88418	74420	162838	58018	51633	109651	45999	41709	87708
As on 30th Sept 2009												
SC	20679	15822	36501	19321	15519	34840	10986	7935	18921	9061	7643	16704
ST	3336	2841	6177	3046	2954	6000	2262	1940	4202	2007	2064	4071
OBC	13072	10988	24060	12902	10910	23812	8277	6597	14874	7133	6167	13300
Others	53974	45981	99955	55356	49667	105023	40646	34558	75204	38381	35484	73865
Total	91061	75632	166693	90625	79050	169675	62171	51030	113201	56582	51358	107940
Growth between 2008 and 2009												
SC	5.08	7.10	5.95	8.04	13.16	10.26	13.69	-1.37	6.85	28.16	38.66	32.76
ST	8.21	3.69	6.08	7.48	10.02	8.72	9.33	-6.46	1.42	18.13	32.56	25.03
OBC	2.86	3.34	3.08	8.22	9.56	8.83	14.17	7.39	11.06	19.10	12.52	15.95
Others	-0.14	-0.02	-0.08	-0.76	3.34	1.14	4.12	-2.30	1.07	22.85	21.69	22.29
Total	1.72	2.02	1.86	2.50	6.22	4.20	7.16	-1.17	3.24	23.01	23.13	23.07

Note: Rural and urban combined

Source: SEMIS, 2009-10

The enrolment of SC children in 2008-09 is 25.59%, ST children 3.80% and OBC is 16% in the secondary level. This is increased by 26.76% of SC, 3.91% of ST and 16.50% of OBC in year 2009-10.

The enrolment of SC children in 2008-09 is 19.62%, ST children 3.89% and OBC is 13.87% in the higher secondary level. This is increased by 21.51% of SC, 3.76% of ST and 18.15% of OBC in year 2009-10.

Age Specific enrolment in secondary and higher secondary level

Table 3.3.24 Age Specific enrolment in secondary

Age (In Years)	Enrolment in Class IX			Enrolment in Class X			Total Enrolment Class IX and X		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
14	31275	26278	57553	22826	20309	43135	54101	46587	100688
15	18091	15296	33387	28947	25506	54453	47038	40802	87840
Total	49366	41574	90940	51773	45815	97588	101139	87389	188528

Source : SEMIS, 2009-10

The share of 14 and 15 year age children in total enrolment at secondary level is 56.05%. The population of girls enrolment in 14 and 15 age group children out of the total enrolment is 45.99%.

Table 3.3.25 Age Specific enrolment in higher secondary level

Age (In Years)	Enrolment in Class XI			Enrolment in Class XII			Total Enrolment Class XI and XII		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
16	20544	17403	37947	15998	14592	30590	36542	31995	68537
17	13341	11159	24500	20337	18798	39135	33678	29957	63635
Total	33885	28562	62447	36335	33390	69725	70220	61952	132172

Source : SEMIS, 2009-10

The share of 16 and 17 year age children in total enrolment at higher secondary level is 59.77%. The share of girls enrolment in total 16 and 17 age group children out of the total enrolment is 46.30%.

Districtwise Age specific enrolment in secondary level

Table 3.3.26 Districtwise Age specific enrolment in secondary level

District	Age (In Years)	Total Enrolment in Class IX-X			% in total Enrolment		
		Boys	Girls	Total	Boys	Girls	Total
Almora	14	4036	3588	7624	7.46	7.70	7.57
	15	3815	3450	7265	8.11	8.46	8.27
Bageshwar	14	1839	1438	3277	3.40	3.09	3.25
	15	1488	1298	2786	3.16	3.18	3.17
Chamoli	14	2543	2051	4594	4.70	4.40	4.56
	15	2520	2218	4738	5.36	5.44	5.39
Champawat	14	1682	1317	2999	3.11	2.83	2.98
	15	1371	1089	2460	2.91	2.67	2.80
Dehradun	14	6956	6113	13069	12.86	13.12	12.98
	15	5922	5419	11341	12.59	13.28	12.91
Haridwar	14	7066	6108	13174	13.06	13.11	13.08
	15	6212	4816	11028	13.21	11.80	12.55
Nainital	14	5587	4776	10363	10.33	10.25	10.29
	15	5146	4061	9207	10.94	9.95	10.48
Pauri	14	4180	3854	8034	7.73	8.27	7.98

	15	3812	3602	7414	8.10	8.83	8.44
Pithoragarh	14	3502	2912	6414	6.47	6.25	6.37
	15	2723	2308	5031	5.79	5.66	5.73
Rudraprayag	14	1528	1316	2844	2.82	2.82	2.82
	15	1369	1249	2618	2.91	3.06	2.98
Tehri	14	3658	3617	7275	6.76	7.76	7.23
	15	3613	3588	7201	7.68	8.79	8.20
U.S. Nagar	14	9369	7497	16866	17.32	16.09	16.75
	15	7229	5942	13171	15.37	14.56	14.99
Uttarkahshi	14	2155	2000	4155	3.98	4.29	4.13
	15	1818	1762	3580	3.86	4.32	4.08
Total	14	54101	46587	100688	100.00	100.00	100.00
	15	47038	40802	87840	100.00	100.00	100.00

Source : SEMIS, 2009-10

The above data indicates that the highest percentage of 14 to 15 age group children are enrolled in district U.S. Nagar at secondary level while lowest in district Champawat. This is also reveals that the preposition of girls is highest in U.S. Nagar and lowest in district Rudraprayag at secondary level.

Table 3.3.27 Districtwise Age specific in higher secondary level

District	Age (In Years)	Enrolment in Class XI-XII			% in total Enrolment		
		Boys	Girls	Total	Boys	Girls	Total
Almora	16	2906	2571	5477	7.95	8.04	7.99
	17	2614	2375	4989	7.76	7.93	7.84
Bageshwar	16	1211	955	2166	3.31	2.98	3.16
	17	1160	855	2015	3.44	2.85	3.17
Chamoli	16	1815	1641	3456	4.97	5.13	5.04
	17	1792	1651	3443	5.32	5.51	5.41
Champawat	16	890	819	1709	2.44	2.56	2.49
	17	737	695	1432	2.19	2.32	2.25
Dehradun	16	5009	4838	9847	13.71	15.12	14.37
	17	4921	5095	10016	14.61	17.01	15.74
Haridwar	16	3793	3249	7042	10.38	10.15	10.27
	17	4141	3073	7214	12.30	10.26	11.34
Nainital	16	4089	3477	7566	11.19	10.87	11.04
	17	3879	3392	7271	11.52	11.32	11.43
Pauri	16	3496	3057	6553	9.57	9.55	9.56
	17	3372	2923	6295	10.01	9.76	9.89
Pithoragarh	16	2285	1991	4276	6.25	6.22	6.24
	17	2047	1700	3747	6.08	5.67	5.89
Rudraprayag	16	1040	1063	2103	2.85	3.32	3.07
	17	985	885	1870	2.92	2.95	2.94

Tehri	16	2088	2073	4161	5.71	6.48	6.07
	17	2343	2257	4600	6.96	7.53	7.23
U.S. Nagar	16	6356	4883	11239	17.39	15.26	16.40
	17	4405	3883	8288	13.08	12.96	13.02
Uttarkahshi	16	1564	1378	2942	4.28	4.31	4.29
	17	1282	1173	2455	3.81	3.92	3.86
Total	16	36542	31995	68537	100.00	100.00	100.00
	17	33678	29957	63635	100.00	100.00	100.00

Source : SEMIS, 2009-10

The above data indicates that the highest percentage of 16 to 17 age group children are enrolled in district U.S. Nagar at secondary level while lowest in district Champawat. This also reveals that the proportion of girls is highest in U.S. Nagar and lowest in district Rudrapur at secondary level.

School Management wise Enrolment

The table No. 3.3.28 shows that at the secondary level government school enrolment is 60.75% and government aided school is 14.53% and of others is 24.72% in year 2009-10. It also indicates that decrease in enrolment in government and government aided school from 2006-07 to 2009-10 by yearly, while enrolment in other has increased consequently year by year from 14.78% to 24.72% from year 2006-07 to 2009-10.

**Table 3.3.28 YEAR-WISE ENROLMENT, UTTARAKHAND
Class IX & X Enrolment, 2009 - 2010**

S N	Year	Govt.				G.Aided				Other			
		Boys	Girls	Total	As % of Total Enrolment	Boys	Girls	Total	As % of Total Enrolment	Boys	Girls	Total	As % of Total Enrolment
1	2006-07	87687	76117	163804	66.79	26089	19088	45177	18.42	22453	13804	36257	14.78
2	2007-08	90753	83136	173889	67.64	24857	18253	43110	16.77	24754	15342	40096	15.60
3	2008-09	103732	99330	203062	62.20	28801	20690	49491	15.16	45402	28537	73939	22.65
4	2009-10	102705	101629	204334	60.75	28061	20830	48891	14.53	50920	32223	83143	24.72

Source : SEMIS, 2009-10

The table no. 3.3.29 depicts that at the higher secondary level the percentage of government schools enrolled is 62.72% and government aided school is 18.85% in 2009-10. It also shows that decrease in enrolment in government and government aided school from 2006-07 to 2009-10 by yearly while enrolment in others has increased consequently year by year from 10.16% to 18.43% from year 2006-07 to 2009-10.

**Table 3.3.29 YEAR-WISE ENROLMENT, UTTARAKHAND
Class XI & XII Enrolment, 2009 - 2010**

SN	Year	Govt.				G.Aided				Other			
		Boys	Girls	Total	As % of Total Enrolment	Boys	Girls	Total	As % of Total Enrolment	Boys	Girls	Total	As % of Total Enrolment
1	2006-07	51854	45501	97355	68.18	17194	13744	30938	21.67	8619	5884	14503	10.16
2	2007-08	49419	46914	96333	67.00	17246	14235	31481	21.89	9451	6522	15973	11.11
3	2008-09	60204	60420	120624	61.12	22232	17738	39970	20.25	21581	15184	36765	18.63
4	2009-10	70177	68522	138699	62.72	24022	17653	41675	18.85	24540	16227	40767	18.43

Source : SEMIS, 2009-10

It can also be observed that there is a gender divide in the enrolment of secondary and higher secondary schools differentiated by the management. Though the sex ratio of enrolment in both the secondary and higher secondary classes is against the female children across the schools distinguished by management, the sex ratio is relatively better in government/public schools i.e. 49.40% in government schools and 42.35% in aided schools when compared to private ones i.e. 39.80%. It indirectly indicates that the parents' choice/preference between the government/public and private schools is different for son and daughter's schooling. In other words, government/public schools are preferred for the daughter's schooling and private schools are preferred for son's schooling. This phenomenon clearly requires a policy response in the form of expansion and strengthening of government/public schools for the development of girl's education.

**Table 3.3.30 Percentage of Category wise and Management wise
Enrollment (Class IX and X) in Uttarakhand 2008-9**

S. No.	Category	Government			Private		Total
		State	LB	Central	Aided	Unaided	
1	2	3	4	5	6	7	8
1	SC	63.25	0.88	1.11	19.28	15.46	71341
2	ST	60.57	0.24	1.49	9.04	28.66	12177
3	OBC	47.17	1.43	0.40	24.12	26.88	47872
4	Others	56.82	0.49	1.96	14.89	25.84	204978
	Total	56.95	0.70	1.54	16.92	23.89	336368

Source : SEMIS

Table 3.3.31 Percentage of Category wise and Management wise Enrollment (Class XI and XII) in Uttarakhand 2008-2009

S. No.	Category	Government			Private		Total
		State	LB	Central	Aided	Unaided	
1	2	3	4	5	6	7	8
1	SC	61.58	0.96	1.42	26.46	9.58	35625
2	ST	61.97	0.12	1.56	17.15	19.19	8273
3	OBC	46.15	0.59	0.78	32.83	19.66	28174
4	Others	58.45	0.34	2.42	19.13	19.66	149069
	Total	57.52	0.47	2.02	21.98	18.01	221141

The table 3.3.30 and 3.3.31 reveals that the most of the SC & ST students are in the Government Sector Schools i.e. 63.25% of SC, 60.57% of ST in secondary school and 61.58% SC & 61.97% ST students in the higher secondary schools.

Gross and Net Enrolment Ratio (GER and NER) of Secondary Classes in Uttarakhand

Table 3.3.32 shows that the Gross enrolment ratio (GER) of secondary classes is the percentage of students enrolled (all ages) in the secondary classes to the secondary school age population (14/15 years age) in a year. According to SEMIS data, there are about 3.36 lakhs children enrolled during 2009-10 for the secondary (IX and X) classes in Uttarakhand. By gender break-up, there are 181686 and 154682 respectively of male and female children enrolled for the secondary classes in the state during 2009-10. The RGI projections for the secondary school age population are as on 1st March. Taking the projections of secondary school age population for years 2006 and 2011.

The gross enrolment ratio (GER) of secondary schooling in the state is about 69.50 percent during 2009-10. The gender-wise gross enrolment ratio (GER) of secondary school age male and female children is 72.61% and 66.17 percent respectively in the state.

The GER of Higher Secondary school of the State is about 52.48%. The Gender-wise GER of male and female at Higher Secondary is 54.43 and 50.38% respectively.

Table 3.3.32 GER, Uttarakhand

Particulars		Year			
		2006-07	2007-08	2008-09	2009-10
Projected Child Population 14-15 Age	Boys	234436	238938	245212	250250
	Girls	219559	223774	229120	233753
	Total	453995	462712	474332	484003
Enrolment IX & X	Boys	136229	140364	177935	181686
	Girls	109009	116731	148557	154682
	Total	245238	257095	326492	336368
GER (14-15 Age)	Boys	58.11	58.75	72.56	72.60
	Girls	49.65	52.16	64.84	66.17
	Total	54.02	55.56	68.83	69.50
Projected Child Population 16-17 Age	Boys	205302	209483	213767	218156
	Girls	191599	195387	199268	203242
	Total	396901	404870	413034	421398
Enrolment XI & XII	Boys	77667	76116	104017	118739
	Girls	65129	67671	93342	102402
	Total	142796	143787	197359	221141
GER (16-17 Age)	B	37.83	36.34	48.66	54.43
	G	33.99	34.63	46.84	50.38
	Total	35.98	35.51	47.78	52.48

Source : SEMIS 2009

The above table shows that the GER at secondary level increased year by year 54.02% to 69.50% from year 2006-07 to 2009-10 respectively. The GER of girls increased approximately 17% from 2006-07 to 2009-10 but the boys GER increased approximately only 14% respectively. The GER at higher secondary level increased 35.98% to 52.48% from year 2006-07 to 2009-10. Increase in girls and boys GER is approximately same at higher secondary level.

Table 3.3.33 NER, Uttarakhand

Particulars		Year		Growth
		2007-2008	2009-2010	
Projected Child Population 14-15 Age	Boys	238938	250250	11312
	Girls	223774	233753	9979
	Total	462712	484003	21291
Enrolment in Class IX & X Age 14 & 15	Boys	82541	101139	18598
	Girls	70988	87389	16401
	Total	153529	188528	34999
NER (14-15 Age)	Boys	34.54	40.42	5.87
	Girls	31.72	37.39	5.66
	Total	33.18	38.95	5.77

Projected Child Population 16-17 Age	Boys	209483	218156	8673
	Girls	195387	203242	7855
	Total	404870	421398	16528
Enrolment in Class XI & XII, Age 16 & 17	Boys	46015	70220	24205
	Girls	43431	87389	43958
	Total	89446	157609	68163
NER (16-17 Age)	B	21.97	32.19	10.22
	G	22.23	43.00	20.77
	Total	22.09	37.40	15.31

Source : SEMIS 2009

The net enrolment ratio at secondary level was 33.18% in year 2007-08 and it increased by 5.77% annual growth rate and become 38.95% in year 2009-10 at secondary level in Uttarakhand. The NER of girls is increasing with 5.66% which is slightly less than boys 5.87%. Which indicate that there is need of improvement in girls enrolment at secondary level.

The net enrolment ratio at higher secondary level was 22.09% in year 2007-08 and it increased by 15.31% and become 37.40% in year 2009-10 at higher secondary level in Uttarakhand. The NER of girls is increasing with 20.77% which is higher than boys growth rate 10.22%. There is need of increase in age specific enrolment at higher secondary level in Uttarakhand. State proposed more targeted strategies for improve in transition from secondary to higher secondary level which accessibility, infrastructure development, upgradation of secondary school in higher secondary schools and quality improvement at secondary level.

Repetition and Dropout rates

The repetition and dropout rates are indicators of grade-to-grade flow rates of the educational system. They indicate the stagnation and wastage in the system where the minimization of which increases the efficiency. Repetition rate is the percentage of repeaters in the current school year in grade to the previous school year's total enrolment in the same grade.

The enrollment at secondary and higher secondary level (Class 9-12) is satisfactory in the State in comparison of overall enrolment at country level but the repetition at secondary and higher secondary level is much more higher. The following table shows the repeaters and dropout in secondary and higher secondary level in Uttarakhand.

**Table 3.3.34 Repeaters & Drop Out %
At Secondary Level**

State - Uttarakhand

SN	Particulars	Boys	Girls	Total
1	Total Enrolled In Class IX In 2008-09	89517	74137	163654
2	Total Appeared in Class-X in 2009-10	73539	65818	139357

	% Appeared in Class-X in 2009-10	82.15	88.78	85.15
3	Repeaters in Class-IX in 2009-10	10666	6339	17005
	% Repeaters in Class-IX in 2009-10	11.92	8.55	10.39
4	Total Drop-out in Class-IX in 2008-09	5312	1980	7292
	% Drop-out in Class-IX in 2008-09	5.93	2.67	4.46

1	Total Enrolled In Class X In 2008-09	88418	74420	162838
2	Total Pass-outs in Class-X in 2008-09	59492	53096	112588
	% Pass-outs in Class-X in 2008-09	67.28	71.35	69.14
3	Repeaters in Class-X in 2009-10	17086	13232	30318
	% Repeaters in Class-X in 2009-10	19.32	17.78	18.62
4	Total Drop-out in Class-X in 2008-09	11840	8092	19932
	% Drop-out in Class-X in 2008-09	13.39	10.87	12.24

1	Total Enrolled In Class IX & X In 2008-09	177935	148557	326492
2	Total Promoted in Next Class	133031	118914	251945
	% Promoted in Next Class	74.76	80.05	77.17
3	Repeaters in Class-IX & X in 2009-10	27752	19571	47323
	% Repeaters in Class-IX & X in 2009-10	15.60	13.17	14.49
4	Total Drop-out in Class-IX & X in 2008-09	17152	10072	27224
	% Drop-out in Class-IX & X in 2008-09	9.64	6.78	8.34

Source: Data collected through SEMIS Data Capture Format.

The above table reveals that in year 2009-10 the total percentage of repeaters in class IX is 10.39 and percentage of repeaters in Class X is 18.62. The total percentage of repeaters at secondary level is 14.49. This indicated that there is need to reduce the repetition at secondary level. The percentage of girls repeaters at secondary level (13.17) is less than boys repeaters (15.60%) at secondary level. The dropout rate in class IX in 2008-09 is 4.46% with high dropout rate 5.96% of boys in comparison of 2.67% of girls.

Table 3.3.35 Repeaters & Drop Out % At Hr. Secondary Level

State - Uttarakhand

SN	Particulars			
		Boys	Girls	Total
1	Total Enrolled In Class XI In 2008-09	58018	51633	109651
2	Total Appeared in Class-XII in 2009-10	48662	47042	95704
	% Appeared in Class- XII in 2009-10	83.87	91.11	87.28
3	Repeaters in Class-XI in 2009-10	5951	2267	8218
	% Repeaters in Class-XI in 2009-10	10.26	4.39	7.49
4	Total Drop-out in Class-XI in 2008-09	3405	2324	5729
	% Drop-out in Class-XI in 2008-09	5.87	4.50	5.22

1	Total Enrolled In Class XII In 2008-09	45999	41799	87798
2	Total Pass-outs in Class-XII in 2008-09	34985	35272	70257
	% Pass-outs in Class-XII in 2008-09	76.06	84.38	80.02
3	Repeatars in Class-XII in 2009-10	7920	4316	12236
	% Repeatars in Class-XII in 2009-10	17.22	10.33	13.94
4	Total Drop-out in Class-XII in 2008-09	3094	2211	5305
	% Drop-out in Class-XII in 2008-09	6.73	5.29	6.04

1	Total Enrolled In Class XI & XII In 2008-09	104017	93432	197449
2	Total Pramoted in Next Class	83647	82314	165961
	% Promoted in Next Class	80.42	88.10	84.05
3	Repeatars in Class-XI & XII in 2009-10	13871	6583	20454
	% Repeatars in Class-XI & XII in 2009-10	13.34	7.05	10.36
4	Total Drop-out in Class-XI & XII in 2008-09	6499	4535	11034
	% Drop-out in Class-XI & XII in 2008-09	6.25	4.85	5.59

Source: Data collected through SEMIS Data Capture Format.

The above table reveals that in year 2009-10 the total percentage of repeaters in class XI is 7.49 and percentage of repeaters in Class XII is 13.94. The total percentage of repeaters at higher secondary level is 10.36. This indicated that there is need to reduce the repetition at higher secondary level. The percentage of girls repeaters at higher secondary level (7.05) is less than boys repeaters (13.34%) at higher secondary level.

The dropout rate in class XI in 2008-09 is 5.22% with high dropout rate 5.87% of boys in comparison of 4.50% of girls. The dropout rate in Class XII is 6.04% with girls dropout 5.29% and boys dropout 6.73%. The total dropout rate at higher secondary level is 5.59% with higher dropout of boys (6.25%) in comparison of girls dropout (4.85%).

Table 3.3.36 Repeaters by area and social category wise

Repeaters Rate In Secondary Level

Area	Class	Number of Students (Enrolment) of Sept. 2007											
		Scheduled Castes			Scheduled Tribes			OBCs			Others (including General)		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Rural	IX	12744	7913	20657	2131	1766	3897	6207	4370	10577	34237	27261	61498
	X	9915	6312	16227	1670	1477	3147	5374	4091	9465	33272	27237	60509
	Total	22659	14225	36884	3801	3243	7044	11581	8461	20042	67509	54498	122007
Urban	IX	3400	3179	6579	451	540	991	2429	2562	4991	10080	8503	18583
	X	2470	2481	4951	405	587	992	2015	2200	4215	9420	8530	17950
	Total	5870	5660	11530	856	1127	1983	4444	4762	9206	19500	17033	36533
Total	IX	16144	11092	27236	2582	2306	4888	8636	6932	15568	44317	35764	80081
	X	12385	8793	21178	2075	2064	4139	7389	6291	13680	42692	35767	78459
	Total	28529	19885	48414	4657	4370	9027	16025	13223	29248	87009	71531	158540

Table 3.3.37 Number of Repeaters of Sept. 2008

Area	Class	Number of Repeaters of Sept. 2008											
		Scheduled Castes			Scheduled Tribes			OBCs			Others (including General)		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Rural	IX	3187	1667	4854	466	340	806	1339	757	2096	6696	3818	10514
	X	3967	2286	6253	606	594	1200	1828	1318	3146	11019	7437	18456
	Total	7154	3953	11107	1072	934	2006	3167	2075	5242	17715	11255	28970
Urban	IX	879	660	1539	114	141	255	549	478	1027	1763	1283	3046
	X	872	747	1619	121	118	239	658	491	1149	2087	1868	3955
	Total	1751	1407	3158	235	259	494	1207	969	2176	3850	3151	7001
Total	IX	4066	2327	6393	580	481	1061	1888	1235	3123	8459	5101	13560
	X	4839	3033	7872	727	712	1439	2486	1809	4295	13106	9305	22411
	Total	8905	5360	14265	1307	1193	2500	4374	3044	7418	21565	14406	35971

Table 3.3.38 % of Repeaters In 2007-08 In Secondary Level (Class IX & X)

Area	Class	% of Repeaters In 2007-08 In Secondary Level (Class IX & X)											
		Scheduled Castes			Scheduled Tribes			OBCs			Others (including General)		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Rural	IX	25.01	21.07	23.50	21.87	19.25	20.68	21.57	17.32	19.82	19.56	14.01	17.10
	X	40.01	36.22	38.53	36.29	40.22	38.13	34.02	32.22	33.24	33.12	27.30	30.50
	Total	31.57	27.79	30.11	28.20	28.80	28.48	27.35	24.52	26.16	26.24	20.65	23.74
Urban	IX	25.85	20.76	23.39	25.28	26.11	25.73	22.60	18.66	20.58	17.49	15.09	16.39
	X	35.30	30.11	32.70	29.88	20.10	24.09	32.66	22.32	27.26	22.15	21.90	22.03
	Total	29.83	24.86	27.39	27.45	22.98	24.91	27.16	20.35	23.64	19.74	18.50	19.16
Total	IX	25.19	20.98	23.47	22.46	20.86	21.71	21.86	17.82	20.06	19.09	14.26	16.93
	X	39.07	34.49	37.17	35.04	34.50	34.77	33.64	28.76	31.40	30.70	26.02	28.56
	Total	31.21	26.95	29.46	28.07	27.30	27.69	27.29	23.02	25.36	24.78	20.14	22.69

Source: Data collected through Data Capture Format.

The repetition rate in SC is 29.46%, ST and OBC communities this is 27.69% and 25.36% respectively. This is higher than other communities. There is need to improved the education quality in SC, ST and OBC.

Transition rates (Class VIII/IX and X/XI)

The transition rate indicates a grade to grade flow or passing through of students within a level or one level to another level over the school years. The promotion rate, repetition and drop-out rate presented above are grade-to-grade transition rates. Also elsewhere in the above analysis we have mentioned about the crude form of transition rate from elementary to the secondary level and the secondary to the

higher secondary level i.e. ratio of enrolment in class VIII to class IX and class X to class XI. Herein we have a more refined version of transition rate while discounting the repeaters. The transition rate from elementary to the secondary is a ratio of the new entrance in class IX (after excluding the repeaters in the class IX) in the year of reference (say 2007) to the enrolment in class VIII in the previous year of the reference year (i.e. 2006).

Table 3.3.39 Class IX, Enrollment Year 2007 - 2008

Distt.	Class VIII Passed Year 2006 -2007			Class IX, Enrollment Year 2007 - 2008									Tr. Rate Class VIII to Class IX		
				Total Enn. 2007 - 2008			Total Repe. 2007 - 2008			New Add. 2007 - 2008					
	B	G	Total	B	G	Total	B	G	Total	B	G	Total	B	G	Total
Uttarkashi	3434	2869	6303	3198	2624	5822	607	538	1145	2591	2086	4677	75.45	72.71	74.20
Chamoli	4474	4192	8666	3903	3023	6926	902	585	1487	3001	2438	5439	67.08	58.16	62.76
Rudraprayag	2109	2188	4297	2647	2302	4949	534	323	857	2113	1979	4092	100.19	90.45	95.23
Tehri	3847	3835	7682	5640	5043	10683	831	457	1288	4809	4586	9395	125.01	119.58	122.30
D.Dun	6598	6397	12995	9063	7611	16674	1588	1081	2669	7475	6530	14005	113.29	102.08	107.77
Pauri Garhwal	5721	5647	11368	6673	5877	12550	1508	976	2484	5165	4901	10066	90.28	86.79	88.55
Pithoragarh	5370	4556	9926	5518	4309	9827	1028	509	1537	4490	3800	8290	83.61	83.41	83.52
Bageshwar	2307	2247	4554	2965	2044	5009	586	222	808	2379	1822	4201	103.12	81.09	92.25
Almora	5995	5922	11917	6667	5666	12333	1986	903	2889	4681	4763	9444	78.08	80.43	79.25
Champawat	2125	1873	3998	2332	1328	3660	555	153	708	1777	1175	2952	83.62	62.73	73.84
Nainital	5973	5478	11451	7144	6124	13268	1673	1058	2731	5471	5066	10537	91.60	92.48	92.02
US Nagar	12018	10161	22179	10544	7740	18284	1767	1401	3168	8777	6339	15116	73.03	62.39	68.15
Haridwar	7833	6563	14396	5967	4988	10955	1428	938	2366	4539	4050	8589	57.95	61.71	59.66
Uttarakhand	67804	61928	129732	72261	58679	130940	14993	9144	24137	57268	49535	106803	84.46	79.99	82.33

According to DISE source, the enrolment in class VIII during 2006-07 was 1.29 lakhs in Uttarakhand and from the SEMIS data we have the total enrolment with repeater in class IX as 1.30 lakhs respectively during 2007-08. With these numbers the new entrants in class IX is derived as 1.06 lakhs after excluding the repeaters. Then the transition rate for the reference year 2007-08 from elementary to secondary level is 82.33%.

Enrolment of Children with special needs in the Secondary Schools

When examined participation of disabled children in the educational development process especially in the secondary and higher secondary school education, there are about 6136 children with special needs enrolled for the secondary and higher secondary classes in Uttarakhand during 2009-10. Of which 3469 are enrolled for the secondary schooling classes (IX and X) and the other 2667 are enrolled for the higher secondary classes (XI and XII). The children with special needs accounts about 1.03 and 1.21 percent of the total enrolled in the secondary and higher secondary classes respectively.

Table 3.3.40 Children with special needs Enrolled in Secondary Classes in Uttarakhand, 2009-10

Class	VIII	IX	X	IX-X	XI	XII	XI-XII	IX-XII
1	2	3	4	5	6	7	8	9
Boys	447	1051	1072	2123	808	715	1523	3646
Girls	311	620	726	1346	567	577	1144	2490
Total	758	1671	1798	3469	1375	1292	2667	6136
Sex Ratio	0.70	0.60	0.68	0.63	0.70	0.81	0.75	0.68

Source: SEMIS, 2009-10

The gender distribution of the physically challenged children enrolled for the secondary and higher secondary classes indicate that the female children account about 38.81 percent of the total of children with special needs for secondary level and 42.90% for higher secondary level. The status of physically challenged for the female children seems to be increasing their disadvantage with respect to education.

Enrolment in Secondary Schools by Age: Under-aged and Over-aged

The distribution of total enrolled children in the secondary classes by age shows that about 56.79 percent are of concerned age group (14/15) and of the rest 23.87 percent are over-aged and 19.34percent are under-aged, together it accounts 43 percent beyond the concerned age group. There are marginal differences across male and female children in terms of under-aged and over-aged enrolled for the secondary classes.

Similarly, the distribution of total enrolled children in the higher secondary classes by age shows that about 56.15 percent are of concerned age group (16/17) and of the rest 23.23 percent are over-aged and 20.56 percent are under-aged, together it accounts 44 percent beyond the concerned age group. Like the case of enrolment in secondary classes, there are marginal differences across male and female children in terms of under-aged and over-aged enrolled for the secondary classes.

Table 3.3.41 Distribution of Enrolment in the Secondary Classes (IX and X) in Uttarakhand by Age Group, 2009-10

Age Group	Enrolment in Class IX			Enrolment in Class X			Enrolment in IX-X			% in total Enrolment in IX-X		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	5	6	7	8	9	10	11	12	13	11	12	13
14-15	49366	41574	90940	51773	45815	97588	101139	87389	188528	30.47	26.32	56.79
Above 15	12102	9720	21822	29919	27515	57434	42021	37235	79256	12.66	11.22	23.87
13 Years and below	28412	23739	52151	6991	5057	12048	35403	28796	64199	10.66	8.67	19.34
All	89880	75033	164913	88683	78387	167070	178563	153420	331983	53.79	46.21	100.00
Note: Rural and urban combined.												
Source: SEMIS, 2008-09												

Table 3.3.42 : Distribution of Enrolment in the Higher Secondary Classes (XI and XII) in Uttarakhand by Age Group, 2009-10

Age	Enrolment in Class XI			Enrolment in Class XII			Enrolment in HS (XI-XII)			% in Total Enrolment in HS (XI-XII)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
15 Years and below	20360	17505	37865	5683	4706	10389	26043	22211	48254	11.06	9.44	20.50
16-17 Age	33885	28562	62447	36335	33390	69725	70220	61952	132172	29.83	26.32	56.15
Above 17	10496	7357	17853	19828	17301	37129	30324	24658	54982	12.88	10.47	23.36
Total	64741	53424	118165	61846	55397	117243	126587	108821	235408	53.77	46.23	100.00

Source: SEMIS, 2009-10.

Secondary Schools by funding pattern

One of the factors that definitely influence the educational development of a region is supply of schooling i.e. provision of schooling facilities. Availability of school in the proximity distance and barrier-free access to school may increase the demand for schooling.

Table 3.3.43 Schools by Funding Pattern

SN	Schools by Status	Secondary	Higher Secondary
1	State Education Department	1770	984
2	Other State Govt. Department	34	09
3	Local Body	10	05
4	Central Govt.	41	37
5	Recog. Aided	302	269
6	Pvt. UnAided	584	322
	Total	2741	1622

Source: SEMIS, 2009

Table 3.3.43 depicts that out of total 2741 secondary and higher secondary school 1804 schools are funded by State Government, 10 schools by local body and 41 by Central Government. 302 schools are private management but government aided. 584 are private unaided school in Uttarakhand.

Distribution of School by Area and Management-wise

Table 3.3.44 % of school by Management wise in Uttarakhand 2009-10

Category	Secondary		Higher Secondary	
	Rural	Urban	Rural	Urban
State	60.94	4.26	55.59	5.47
Local Body	0.25	0.04	0.00	0.31
Central Government	12.6	0.58	1.41	0.86
Aided	8.55	3.28	11.38	5.17
Unaided	12.6	8.66	10.39	9.41
Total	83.18	16.82	78.78	21.22

Source: SEMIS 2009-10

SEMIS Data shows that there are 83.18% secondary school in rural areas and 16.82% school established in urban areas. Out of these

60.94% in rural area and 4.26% in urban area are managed by State Government. 78.78% higher secondary schools are there in rural areas and 21.22% school established in urban areas. Out of these 55.59% in rural area and 5.47% in urban area are managed by State Government. This data also shows that a very less number of secondary level schools are managed by local bodies but large numbers of un-aided schools (12.6% rural and 8.66% in urban areas) at secondary level are running in the State.

Schooling facility as per population

The first strategy to achieve the goal of universalization of secondary education is universalization of access to school with child population. The SEMIS data shows that 33 secondary level schools serve per lakh population while only 22 government secondary schools served per lakh population. At higher secondary level only 19 schools are available for per lakh population but only 12 government higher secondary school available for per lakh population.

Table 3.3.45 No. of School per lakh population

S N	Name of the District	Total No. of Schools		Total Population In 2001 (In Lakh)	No. of School Per Lakh Population		Ave. Population (In Thousand) Served By Per	
		Secondary (Class IX & X)	Hr. Secondary (Class XI & XII)		Secondary (Class IX & X)	Hr. Secondary (Class XI & XII)	Secondary (Class IX & X)	Hr. Secondary (Class XI & XII)
1	Almora	273	165	6.30567	43	26	2	4
2	Bageshwar	97	54	2.49462	39	22	3	5
3	Chamoli	202	104	3.70359	55	27	2	4
4	Champawat	93	47	2.24542	41	21	2	5
5	Dehra Dun	355	226	12.82143	28	18	3	5
6	Haridwar	175	111	14.47187	12	7	8	13
7	Nainital	248	147	7.62909	32	19	3	5
8	Pauri Garhwal	374	225	6.97078	53	31	2	3
9	Pithoragarh	194	108	4.62289	42	23	2	4
10	Rudraprayag	120	79	2.27439	53	33	2	3
11	Tehri Garhwal	257	160	6.04747	42	27	2	4
12	US Nagar	237	134	12.35614	19	11	5	9
13	Uttarkashi	116	66	2.95013	39	22	3	4
Total		2741	1626	84.89349	32	19	3	5
Only Govt. School		1770	987	84.89349	21	12	5	8

Source: SEMIS 2009-10

In District Rudraprayag the highest number of secondary and higher secondary school available for per lakh population while in district Haridwar the lowest number of school available for per lakh

population. This analysis shows that in urban areas there is need of more schools as per population norms.

Average size of secondary schools as per enrolment

Table 3.3.46 UTTARAKHAND : AVE. SIZE OF SECONDARY SCHOOL 2009 – 2010

S N	District	No. Of School For Class IX & X							Per School Average Enrolment in 2009-2010 For Class IX & X							
		Govt.		Govt. Aided		Other		Total	Govt.		Govt. Aided		Other		Total	
		No.	% of Total	No.	% of Total	No.	% of Total		Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment
1	Almora	221	80.95	29	10.62	23	8.42	273	22751	103	3638	125	2297	100	28686	105
2	Bageshwar	71	73.20	17	17.53	9	9.28	97	8091	114	1994	117	1063	118	11148	115
3	Chamoli	163	80.69	18	8.91	21	10.40	202	15276	94	721	40	1443	69	17440	86
4	Champawat	75	80.65	8	8.60	10	10.75	93	7798	104	818	102	1102	110	9718	104
5	Dehra Dun	147	41.41	60	16.90	148	41.69	355	17265	117	9778	163	17620	119	44663	126
6	Haridwar	63	36.00	23	13.14	89	50.86	175	12650	201	10254	446	19828	223	42732	244
7	Nainital	162	65.32	23	9.27	63	25.40	248	19809	122	4892	213	8914	141	33615	136
8	Pauri	276	73.80	74	19.79	24	6.42	374	18658	68	6182	84	2712	113	27552	74
9	Pithoragarh	159	81.96	9	4.64	26	13.40	194	16525	104	1253	139	3451	133	21229	109
10	Rudraprayag	99	82.50	10	8.33	11	9.17	120	9675	98	558	56	453	41	10686	89
11	Tehri	221	85.99	12	4.67	24	9.34	257	21800	99	1746	146	1611	67	25157	98
12	US Nagar	97	40.93	19	8.02	121	51.05	237	21870	225	7057	371	20828	172	49755	210
13	Uttarkashi	101	87.07	0	0.00	15	12.93	116	12166	120	0	0	1821	121	13987	121
	STATE	1855	67.68	302	11.02	584	21.31	2741	204334	110	48891	162	83143	142	336368	123

Source: Data collected through Data Capture Format 2009-10.

The table 3.3.46 reveals that 67.68% of the total school are in government sector having Class IX and X but only 11.02% government aided school having this facility. The average enrolment size in government secondary school is 110 including the highest average enrolment 225 in district U.S. Nagar and lowest 68 in district Pauri. This table also shows that the maximum number of children i.e. 446 are enrolled in district Haridwar and a minimum of 40 students are enrolled in Chamoli district in government aided schools.

Table 3.3.47 UTTARAKHAND : AVE. SIZE OF HR./SR. SECONDARY SCHOOL 2009 -2010

S N	District	No. Of School For Class XI & XII							Per School Average Enrolment in 2009-2010 For Class IX & X							
		Govt.		Govt. Aided		Other		Total	Govt.		Govt. Aided		Other		Total	
		No.	% of Total	No.	% of Total	No.	% of Total		Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment	Total Enrolment	Per School Average Enrolment
1	Almora	127	76.97	29	17.58	9	5.45	165	14495	114	3201	110	858	95	18554	112
2	Bageshwar	37	68.52	13	24.07	4	7.41	54	5319	144	1627	125	574	144	7520	139
3	Chamoli	89	85.58	12	11.54	3	2.88	104	12244	138	380	32	86	29	12710	122
4	Champawat	39	82.98	5	10.64	3	6.38	47	5005	128	610	122	156	52	5771	123
5	Dehra Dun	78	34.51	54	23.89	94	41.59	226	12068	155	9142	169	12602	134	33812	150
6	Haridwar	25	22.52	31	27.93	55	49.55	111	7790	312	6904	223	7129	130	21823	197
7	Nainital	85	57.82	20	13.61	42	28.57	147	13165	155	4870	244	5282	126	23317	159
8	Pauri	154	68.44	59	26.22	12	5.33	225	13681	89	5080	86	823	69	19584	87
9	Pithoragarh	89	82.41	7	6.48	12	11.11	108	11520	129	1196	171	1856	155	14572	135
10	Rudraprayag	67	84.81	6	7.59	6	7.59	79	7412	111	393	66	0	0	7805	99
11	Tehri	137	85.63	10	6.25	13	8.13	160	14005	102	1343	134	525	40	15873	99
12	US Nagar	48	35.82	23	17.16	63	47.01	134	14813	309	6929	301	10483	166	32225	240
13	Uttarkashi	60	90.91	0	0.00	6	9.09	66	7182	120	0	0	393	66	7575	115
	STATE	1035	63.65	269	16.54	322	19.80	1626	138699	134	41675	155	40767	127	221141	136

Source: Data collected through Data Capture Format 2009-10.

he table 3.3.47 reveals that 63.65% government schools are having Class XI and XII but only 16.54% government aided school are having this facility. The average enrolment size in government higher secondary school is 134 including the highest average enrolment 312 in district U.S. Nagar which is near about more than double of average enrolment size and lowest 89 in district Pauri.

Table 3.3.48 Districtwise served and unserved habitation in Uttarakhand

District	No. of Habitations	Served habitation in Secondary school facility Within radius of 5km	No. of total habitations where the facility of secondary schools available beyond norms				Total no. of unserved habitations	GAR
			Within radius of 5 to 8 km	Within radius of 8 to 10 km	Within radius of 10 to 15 km	Within radius of 15 km and above		
Almora	3225	2667	478	69	11	0	558	82.70
Bageshwar	955	798	57	64	36	0	157	83.56
Chamoli	2051	1873	141	29	8	0	178	91.32
Champawat	1246	814	229	135	48	20	432	65.33
Dehradun	1631	1446	115	60	10	0	185	88.66
Haridwar	823	576	140	64	32	11	247	69.99

Nainital	2092	1820	186	49	27	10	272	87.00
Pauri	3640	3353	196	88	3	0	287	92.12
Pithoragarh	3227	2572	465	106	51	33	655	79.70
Rudraprayag	529	473	40	16	0	0	56	89.41
Tehri	2557	2145	212	136	42	22	412	83.89
U.S. Nagar	1214	1078	77	50	9	0	136	88.80
Uttarkashi	1167	760	225	108	48	26	407	65.12
Total	24357	20375	2561	974	325	122	3982	83.65

Source: District Plan 2009-10.

Table 3.3.48 (A) Habitation & Access (Secondary Schools, Class IX & X)

SN	District	Total no. of Habitations	Habitations covered by Secondary Schools in 5 Kms area	Habitations without Secondary Schools	Un-served Habitations Eligible for Secondary Schools as per State norms	No. of habitations having UPS facility in 5 Kms Area for habitations as per column 6		No. of Eligible habitations as per column 6 not having UPS in 5 Kms Area or where not possible to upgrade UPS (New Schools are to be proposed)	No. of Habitations to be covered as per recommendations this year
						Un-served eligible habitations as per Column 6	Upper Primary Schools to be Up-graded		
1	2	3	4	5	6	7	8	9	10
1	Almora	3225	2667	558	NA	NA	34	0	NA
2	Bageswar	955	798	157	NA	NA	25	0	NA
3	Chamoli	2051	1873	178	NA	NA	35	0	NA
4	Champawat	1246	814	432	NA	NA	35	0	NA
5	Dehradun	1631	1446	185	NA	NA	29	0	NA
6	Haridwar	823	576	247	NA	NA	19	0	NA
7	Nainital	2092	1820	272	NA	NA	32	0	NA
8	Pauri Garhwal	3640	3353	287	NA	NA	21	0	NA
9	Pithauragarh	3227	2572	655	NA	NA	36	0	NA
10	Rudraprayag	529	473	56	NA	NA	12	0	NA
11	Tehri Garhwal	2557	2145	412	NA	NA	20	0	NA
12	US Nagar	1214	1078	136	NA	NA	14	0	NA
13	Uttarkashi	1167	760	407	NA	NA	28	0	NA
	Total	24357	20375	3982	0	0	340	0	NA

Source: District Plan 2009-10.

***NA- Not Available**

Table 3.3.48 (A) Shows that out of total 24357 habitations 20375 habitations are covered with secondary education facility within radius of 5 km. and rest 3982 habitations are without secondary school facilities. Total 340 UPS are proposed for upgradation during perspective plan 2009-10. Uttarakhand Sabhi Key Liye Madhyamik Shiksha Parishad (USKLMSP)

decided to conduct HHS and school mapping exercise for upgradation of UPS and opening for new school in the state.

Planning for universalization of Physical Access

The school mapping in Uttarakhand was done by household survey for upgrading the upper primary schools. In RMSA norms GIS mapping is proposed, but it could not done due to lack of proper infrastructure and resources. It has been proposed by the state that a planning exercise using GIS will be under taken by outsourcing agency in the coming year.

Basic Facility

When examined the presence of important facilities in school with secondary and higher secondary classes like availability of drinking water, urinals, lavatories, library, science lab and others in the state. From the SEMIS source it is observed that about 18.78 percent of the schools are without drinking water facility. It may appear as a small percentage but by the norm that each and every school must have the basic minimum facility, it is an unavoidable shortage.

The children enrolled in schools with secondary classes in Uttarakhand are more disadvantaged in case of the other basic minimum facilities. The SEMIS data shows that about 20.90 percent of schools in the state do not have electricity connection. In case of urinals and lavatory for common use, the percentage of schools without the facility is 27.01 and 42.81 percent respectively. It is in case of girls the percentage of separate urinals is 49.40 and of separate laboratories is 68.77%. Even the teachers in a large number of schools are disadvantaged of not having a facility of separate urinals and lavatory.

Many of the schools with secondary classes in the state appear to be not able to provide proper friendly environment for the disabled children. A large number of schools, about 48.71 percent of the total, do not have friendly infrastructure like ramps for the disabled children. Moreover, a majority, above 94.65 and 94.87 percent, do not have a separate urinals and lavatory suitable for the physically challenged children.

Table 3.3.49 Percentage of Schools with Secondary Classes and without Selected Facilities by Management in Uttarakhand, 2009-10

Facility	Government			Private		Total
	State	LB	Central	Aided	Unaided	
1	2	3	4	5	6	7
% without drinking water facility	25.41	0.00	0.00	11.26	3.77	18.78
% without Electricity	24.53	30.00	0.00	19.87	11.47	20.90

% without Urinals	36.19	20.00	9.76	13.91	6.68	27.01
% without Lavatory	51.71	30.00	14.63	34.77	21.58	42.81
% without Separate Urinals for Girls	62.43	50.00	7.32	39.40	15.41	49.04
% without Separate Lavatories for Girls	80.50	50.00	19.51	64.24	38.53	68.77
% without Urinals for Physically Challenged	98.45	70.00	82.93	93.38	84.76	94.65
% without Lavatories for Physically Challenged	98.78	70.00	82.93	93.38	84.76	94.87
% without Urinals for Teachers	98.78	70.00	82.93	93.71	86.82	95.34
% without Lavatories for Teachers	64.53	30.00	12.20	45.03	25.86	53.26
% Without Library	78.95	60.00	19.51	58.94	42.81	68.11
% Without Science Lab	71.60	30.00	0.00	35.76	14.04	54.20
% Without Disability Provision	62.15	40.00	19.51	41.06	13.18	48.71

For the better learning environment a school must have the library facility and a science laboratory particularly in secondary level schools. But in Uttarakhand, a large number of children enrolled for secondary classes have not even seen the library and a science laboratory in their school premises. From the SEMIS source, about 68.11 percent of the schools with secondary classes in Uttarakhand are found to be without library and about 52.40 percent are found to be without a science laboratory.

Table 3.3.50 Management wise School buildings

Facility	Government			Private		Total
	State	LB	Central	Aided	Unaided	
1	2	3	4	5	6	7
without building	9.72	0.00	21.95	0.66	4.97	7.86
Kuccha building	14.09	0.00	0.00	16.89	2.91	11.76
without classroom IX, X	7.73	0.00	2.44	0.99	2.05	5.68
without Playground	58.18	0.00	24.39	20.20	8.22	42.66
without sports material	82.54	40.00	4.88	48.68	19.52	64.11
without indoor game	97.46	70.00	41.46	81.13	56.85	86.09
without computer	20.00	20.00	0.00	18.87	22.43	20.09
without furniture IX, X	36.08	0.00	4.88	21.85	13.18	29.05
without internet connection	93.37	70.00	4.88	85.10	57.71	83.47

It can be depicted from table 3.3.50 that the break-up of schools with secondary classes by the type of management and the status of selected facilities available like buildings, classroom, playground, sports material, computers, furniture etc shows that a large number of both the public/government and private management schools do not have these facilities but the problem of not having a facility in case of public/government schools especially those of state government managed ones is relatively more serious.

Classroom / Pupil Ratio

Given the number of schools with the secondary and higher secondary classes, the adequacy/sufficiency in terms of number of class rooms available in these schools is matter of concern. An analysis of current status is useful for the future planning to improve the secondary and higher secondary while expanding number of classrooms available.

In Uttarakhand, the total number of classrooms available for the teaching activity for secondary classes in those schools with secondary classes is 8054 during 2009-10. In terms of classroom availability for the enrolled children, there are 24 classrooms available for every thousand enrolled children in the secondary classes.

Teachers in Secondary grade Teaching Schools in Uttarakhand

Teachers play important role in education system wherein they are front-runners of service delivery. Adequacy in terms of number of teachers available and the commitment influences the learning process in the schools.

Number of Teachers

According to SEMIS data shown in table 3.3.51 indicates that there are about 15485 full-time regular teachers in government schools in Uttarakhand for the year 2009-10. The total number of teachers available for secondary classes in the state is 23363.

Table 3.3.51 Teachers Position In Secondary School, 2009 - 2010

Particulars	Govt			Aided			Private			Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
No. of Working Teachers	12012	3473	15485	1506	543	2049	2962	2867	5829	16480	6883	23363
% Of F. Teacher	22.43			26.50			49.19			29.46		

Source: Data collected through Data Capture Format.

It can also be seen that 24.48% female teachers are working in government secondary schools, 26.50% in aided schools. Approximately 50% female teachers are working in private secondary schools. This data reveals that there is need of female teachers in government and government aided secondary schools.

Table 3.3.52 Number of Teachers Available for Teaching in the Secondary Classes in Uttarakhand, 2009-10

School Type/Location	Full-time Regular			Other than Full-time Regular			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10
All	11564	3355	14919	448	118	566	12012	3473	15485
Girls' Schools	44	1534	1578	3	49	52	47	1583	1630
Boys' Schools	705	38	743	38	2	40	743	40	783
Co-Education	10815	1783	12598	407	67	474	11222	1850	13072
Rural	10804	2704	13508	409	89	498	11213	2793	14006
Urban	760	651	1411	39	29	68	799	680	1479

Source: SEMIS, 2009-10.

SEMIS data shows that in all kinds of schools 14919 full time regular teachers are working. In rural areas the total full time teachers are 13508 including 20% female teacher and in urban areas 1411 full time teachers are working but the percentage of female teacher is very high i.e. 46.13%. Out of them 23% teachers are female only. 3.65% other than full time regular teacher are working in all kind of schools.

Table 3.3.53 Number of Teachers Available for Teaching in the Higher Secondary Classes in Uttarakhand, 2009-10

School Type/Location	Full-time Regular			Other than Full-time Regular			Combined		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10
All	1230	449	1679	252	167	419	1482	616	2098
Girls' Schools	10	276	286	10	96	106	20	372	392
Boys' Schools	176	11	187	46	11	57	222	22	244
Co-Education	1044	162	1206	196	60	256	1240	222	1462
Rural	912	155	1067	160	56	216	1072	211	1283
Urban	318	294	612	92	111	203	410	405	815

Source : District Plan 2009-10

Table 3.3.53 reveals that the number of teachers available for teaching in the higher secondary classes. It shows that in all kind of schools 2098 full time regular teacher are out of them 29% teachers are female and only 20% other than full time regular teacher are working in all kinds of schools. In rural areas the total full time teachers are 1067 including 15% female teacher and in urban areas 612 full time teachers are working but the percentage of female teacher is very high i.e. 48% as compared to rural areas.

Teachers by Qualifications: With or without B.Ed and other qualifications

Table 3.1.54 show that the distribution of total trained teachers available for teaching in secondary classes by their qualifications. It is observed that about 86.76 percent of the total teachers available for teaching in secondary classes are trained and the percentage of teachers neither trained nor qualified is negligible in government secondary schools. It is also observed that in private un-aided schools only 75.26% teachers are trained and qualified and a large percentage of teachers (23.48%) are neither trained nor qualified in un-aided secondary schools.

Table 3.3.54 Trained and Qualified Teachers in the existing school with secondary classes by management in Uttarakhand, 2008-09

Qualifications	Distribution by Qualification				
	Government			Private	
	State	L.B.	Central	Aided	Un-Aided
1	2	3	4	5	6
% of Trained and Qualified	86.76	80.28	79.93	84.64	75.26
% Neither Trained not Qualified	0.26	0.00	1.24	0.65	0.94
% Qualified but not Trained	12.15	19.72	18.47	13.81	23.48
% Trained but not Qualified	0.82	0	0.36	0.89	0.31
Total	100	100	100	100	100

Source: SEMIS, 2009-10.

Note: Trained means having a qualification of Teachers Training Courses like B.Ed or equivalent.

Secondary classes without core subjects teachers by management

Table 3.3.55 Percentage of the existing schools with Secondary Classes without a Core -Subjects Teacher by Management in Uttarakhand 2009-10

S. No.	Subjects	Government			Private	
		State	LB	Central	Aided	Unaided
1	2	3	4	5	6	7
1	English	8.4	25	10.20	39.92	18.66
2	Hindi	14.12	25	20.51	27.38	28
3	Sanskrit	87.29	62.5	43.59	59.38	59.70
4	Mathematics	8.78	25	12.82	44.62	34.46
5	Social Science	8.74	37.5	15.38	22.77	37.54
6	Science	25.55	25	35.90	46.46	46.15

Source: Data collected through Data Capture Format.

The SEMIS data shows that 87.29% schools don't have Sanskrit Teacher, 25.55% school don't have Science teacher & 14.12% schools don't have Hindi teachers in Government schools. While there are large No. of schools don't have core subject teachers. 59.38% Aided

school don't have Sanskrit teacher, 46.46% Science teachers & 44.62% Mathematics teacher.

The above data shows that there is greater need of Sanskrit and Science teacher in government secondary school and there is large vacancy of core subject teachers in government aided schools.

Pupil Teacher Ratio : According to the SEMIS data, the pupil teacher ratio (PTR) is **1:14.40** as a whole. The pupil teacher ratio seems to be high i.e. 1:23.86 in aided school as compared to government and other schools i.e. 1:13.21 and 1:14.26.

Table 3.3.56 PTR

SN	Type of School	Total Enrolment	No. of Working Teacher	PTR
1	Govt. School	204334	15485	1:13.20
2	Aided School	48891	2049	1:23.86
3	Other School	83143	5829	1:14.26
	Total School	336368	23363	1:14.40

Learning Outcomes of Secondary School Education in Uttarakhand-

In a systematic approach the inputs and outputs have always been a matter of concern. In the education system given the inputs in terms of educational infrastructure, the output in terms of learning outcomes is evaluated.

Enrolled, Appeared and Passed in Class X Exam

When we examine the learning outcomes of secondary education in Uttarakhand in terms of children graduating from the final grade of secondary schooling i.e. Class X, it is observed from the Uttarakhand, Board of Secondary (Board Exam conducting body) source that there are about 1.73 lakhs children appeared in class X board exam in the state during 2008-09 and 1.08 lakhs (62.42%) children were passed out. This data only shows the result of Uttarakhand Education Board Exam.

Table 3.3.57 Distribution of the total number of students who passed out the Secondary School Board (Class X) Examination by range of Marks Secured in 2008-09 and by Social Group in Uttarakhand

Range	Total			SC		ST		OBC		Other	
	Boys	Girls	All	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1	2	3	4	5	6	7	8	9	10	11	12
Below 40	9.77	5.81	7.90	13.76	8.46	13.13	9.65	11.37	8.06	8.70	4.80
40-50	41.71	37.68	39.81	51.89	45.56	40.95	39.30	43.75	40.67	39.99	35.89
50-60	27.99	35.59	31.58	25.71	34.87	29.79	35.61	31.28	36.27	27.67	36.26
60-70	10.78	12.84	11.75	6.10	8.59	9.98	11.81	9.29	11.26	11.91	13.73
70-80	5.45	4.33	4.92	1.85	1.76	4.38	2.51	3.26	2.89	6.22	7.87
80-90	3.36	2.85	3.12	0.58	0.68	1.49	0.94	0.95	0.74	4.30	3.24
90-100	0.93	0.90	0.92	0.10	0.09	0.27	0.18	0.10	0.10	1.22	1.21
Total	100	100	100	100	100	100	100	100	100	100	100

Source: SEMIS 2008-09

The SEMIS data shows that 48.51 % boys and 56.51% girls secured above 50% marks. It can be interpreted that the maximum number of children in totality as well as individually secured marks between 40-50 and 50-60 which indicates that average level of performance of children. There is a need to bring qualitative change in the secondary education for achieving higher goals.

Table 3.3.58 Distribution of the total number of students who passed out the higher Secondary School Board (Class XII) Examination by range of Marks Secured in 2008-09 and by Social Group in Uttarakhand

Range	Total			SC		ST		OBC		Other	
	Boys	Girls	All	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1	2	3	4	5	6	7	8	9	10	11	12
Below 40	12.00	10.50	10.94	17.18	13.20	19.82	16.74	13.72	19.05	10.48	10.57
40-50	40.33	40.12	39.11	48.92	47.14	41.98	45.24	43.68	40.00	39.43	39.74
50-60	30.15	31.69	32.35	26.34	30.00	29.28	29.01	31.54	37.07	29.01	31.04
60-70	10.00	10.02	9.73	5.61	6.84	5.86	6.27	7.73	10.21	11.15	10.40
70-80	5.28	4.32	4.64	1.66	1.77	2.25	2.06	2.88	2.98	5.69	4.58
80-90	2.60	2.48	2.47	0.23	0.47	0.63	0.60	0.39	0.60	2.99	2.75
90-100	0.68	0.88	0.76	0.04	0.58	0.18	0.09	0.05	0.09	0.96	0.92
Total	100	100	100	100	100	100	100	100	100	100	100

Source : SEMIS 2008-09

The SEMIS data shows that 48.71 % boys, and 49.39 % girls secured above 50 % marks in the class XII board examination. In all 45.95 % students secure above 50 % marks. Likewise secondary level, a similar trend is indicated in higher secondary level. It can be interpreted from table no. 3.44 that maximum no. of children in all the categories secured marks between 40-50, 50-60 percent which indicates average

level of students performance for one qualitative improvement of higher secondary education, we need to take strict steps.

Incentives for Teachers: teacher award, housing, and quotas for women

In Uttarakhand, there are many schemes designed in the form of incentives for teachers. State Government started Sailesh Matyani award from year 2009-10 and Pandit Deendayal Upadhaya Award for good performing teachers. The State Government also awarded teachers through State teacher award in every year. There is no housing facility for the teachers. The government of Uttarakhand has designed a policy for the recruitment of teachers where 50 percent of the total teacher posts are reserved for women. However, the male and female ratio in the total teachers available for the secondary classes indicates it is against the female teachers.

Public Expenditure on Secondary Education in Uttarakhand

Allocation of adequate financial resources to education is a crucial factor in the educational development of a country/state/region. This section, therefore, examines the level of financial resources allocated to the primary, secondary and higher secondary education in Uttarakhand.

Expenditure on School Education

Trends

The table 3.46 indicates the budget expenditure in Uttarakhand. It reflects that the expenditure on total education has increased from Rs. 961.18 crores in 2003-04 to Rs. 1703.68 in the last budget allocation during 2008-09. The expenditure on secondary school education has increased from Rs. 443.52 crores to Rs. 940.67 crores during the same period. The rate of increase (i.e. annual average growth) in the expenditure on the secondary education during the period in the state is almost at the same rate by which GSDP and the total expenditure has grown. Moreover, the rate of increase in the expenditure on total education is same as elementary and secondary education.

Table 3.3.59 State Budget Expenditure in Uttarakhand

S.No	Item	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	3	4	5	6	7	8	9
1	GSDP	20438.00	23720.00	26178.00	31380.00	35591.00	40159.00
2	Total Expenditure				9192.00	10486.00	11564.00
3	Total Education	961.18	1071.55	1133.00	1195.78	1508.40	1703.68
4	Elementary Education	517.66	541.56	597.44	540.89	762.19	763.01
5	Secondary School	443.52	529.99	535.56	654.89	746.21	940.67

Note : Figures are in crore

As a result the expenditure on total education in Uttarakhand as a percentage of state gross domestic product (GSDP) and that of total expenditure has increased during 2006-07 – 2008-09 has decreased a little bit i.e. 4.7 to 4.24 percent respectively 13.00 to 14.30 percent between 2006-07 and 2008-09. Similarly, the expenditure on secondary school education as a percentage of expenditure in total or on that of total school education or GSDP has shown an increasing trend.

It needs to be mentioned that most of the expenditure on school education in Uttarakhand is revenue expenditure and there is, an increasing trend in the size of capital expenditure during the last six years period. It indicates that state is affording some establishment costs in terms of constructing new school building, classrooms etc., during the period 2003-04 to 2008-09.

Table 3.3.60 Trends in Selected Indicators of Budget Expenditure on School Education in Uttarakhand

Sno	Indicators	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8
1	% of SE in GSDP	4.7	4.52	4.33	3.81	4.21	4.24
2	% of SE in TE				13.00	14.38	14.73
3	% of SSE in SE	46.11	49.46	47.27	54.77	49.47	55.21
4	% of SSE in GSDP	2.17	2.23	2.05	2.09	2.1	2.34
5	% of SSE in TE				7.12	7.12	8.14
6	% of Plan in SSE	15.83	16.99	21.11	29.94	32.51	33.28
7	% of non-Plan in SSE	84.16	82.43	78.88	70.05	67.48	66.72
8	% of Salaries in SSE	81.06	80.74	86.80	80.49	84.47	86.63

Note: 1. **GSDP** – Gross Domestic Product; **SE** – School Education; **TE** – Total Expenditure; **SSE** – Secondary School Education.

Source: State Budget Document and School Education Department Document.

Table 3.3.60 depicts the trends in selected indicators of budget expenditure on school education in Uttarakhand. The percentage of secondary education in GSDP has shown slight variation from 2003-04 to 2008-09. The percentage of plan secondary education has shown increasing trend i.e. 15.83 in 2003-04 to 33.28 in 2008-09 of the expenditure on secondary school education most of it is non-plan expenditure it has shown a decreasing trend i.e. 84.16 in 2003-04 to 66.27 in 2008-09. There is an increasing trend in the plan expenditure for the secondary education. Slight variation is also being observed in the percentage of salaries in SSE, during last six years.

Per Capita Expenditure

The trends in per capita budget expenditure on school education in Uttarakhand is shown in table 3.48. It indicates that the per capita

expenditure on school education has shown an increasing trend in expenditure i.e. 1088 in 2003-04 to 1743 in 2008-09. The per capita expenditure total has shown increasing trend in expenditure from 2006-07 to 2008-09. The per capita expenditure on elementary education has shown an increasing trend except in 2006-07 i.e. 576. The per capita expenditure on SSE has also shown an increasing trend except in 2005-06 i.e 582.

All the above per capita is with respect total population of the state. When we consider the secondary school age population, the per capita expenditure on Secondary School Education with respect to the secondary school-age population in the state has increased from Rs. 7686/- in 2006-07 to Rs. 10600/- in 2008-09. Herein, it is to be noted that since the expenditure on secondary and higher secondary education separately is not available we have consider the school-age population of both the secondary and higher secondary schooling.

Table 3.3.61 Trends in Per Capita Budget Expenditure on School Education in Uttarakhand

Sno	Indicators	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8
1	Per Capita GSDP	23198	26414	28609	33669	37464	40729
2	Per Capita Expenditure (Total)				9862	11037	11728
3	Per Capita Expenditure on Education	1088	1184	1231	1274	1575	1743
4	Per Capita Expenditure on Elementary Education	586	600	649	576	796	773
5	Per Capita Expenditure on SSE	502	584	582	698	779	954
6	Per Capita Exp. (PCE) on SSE to Secondary School Age (14-17) Population				7686	8601	10600
7	PCE on SSE to Enrolled Children in Secondary and Higher Secondary Classes (IX-XII)				16877	18614	17956

Note: **1.** The per capita is for all age population (for Sno. 1 to 5); **2.** Figures are in Rs 0.0 and in nominal terms i.e. in current prices; **3.** **GSDP** – Gross Domestic Product; **SE** – School Education; **TE** – Total Expenditure; **SSE** – Secondary School Education; **PCE** – Per Capita Expenditure; **4.** ‘-’ Not available.

Source: State Domestic Product of Uttarakhand.

To examine the per capita with respect to the amount of resource allocation and the actual beneficiaries, the per capita expenditure to the enrolled children is derived. The per capita expenditure on secondary school education in the state with respect to the total enrolled children in secondary classes is Rs. 16877/- in 2006-07 and it increased to Rs. 17956/- in 2007-08. It is to be noted that all the enrolled children in secondary classes may not be benefiting from the public/government expenditure on education. Those who are enrolled in private unaided schools pay for their schooling out of their pocket. Mostly the beneficiaries of state budget allocations are those enrolled in government, local body and private aided schools. Children enrolled in central government agencies managed schools are benefiting from the central government budget.

Budget Allocation for Major Schemes

The government of Uttarakhand is making budget allocations for different schemes meant for the improvement of school education particularly during the last three years.

When examined the budget allocations for the major schemes related to secondary and higher secondary education, the upgradation of middle school to high school found to be having larger allocations among all the schemes. About Rs. 11955.78 lakhs were allocated for the scheme in the last budget (2008-09) and it has shown an approximately three times increase during the last three years.

The next highest amount allocated is in the upgradation of high school to higher secondary level followed by ICT and construction of high school.

Table 3.3.62 Budget Allocation for Major Schemes in the Secondary School Education Uttarakhand

Sno	Schemes	2006-07	2007-08	2008-09
1	2	3	4	5
1	Construction of Higher Secondary Schools	2520.91	2990.17	2434.78
2	High Schools upgradation to Higher Secondary	3194.22	4818.55	7574.78
3	ICT@ School		413.35	164.64
4	Construction of High Schools	796.92	823.30	613.12
5	Middle School upgradation to High Schools	4563.55	7469.00	11955.78

Note: Figures are in lakhs

Source: School Education Department Annual Report.

Unit Costs

Given the facts presented above as there are a large number of existing schools having secondary classes in the state but they do not have basic infrastructure like science laboratory, sufficient number of classroom. A large number of children in the state could not avail school with secondary classes in the nearby vicinity. There is a large number of schools do not have own building and many of the school are running in building structures which are neither pucca nor semi-pucca. It needs the construction of additional classrooms wherever insufficient and construction of science laboratory in a school which does not have such facility so far. Construction of new schools in places wherever it is not there but required.

Table 3.3.63 Development Challenge and issues

S.No.	particulars	No of units	Unit size in sq mts.
1	Classrooms	4	66
2	Laboratory (integrated)	1	66
3	Principal room (attached toilet)	1	66
4	Office and staff room	1	66
5	Teaching staff room(attached toilet)	2	66
6	Computer lab	1	66
7	Library	1	100
8	Art/craft room	1	66
9	Girls activity room	1	66
10	Toilet –Boys(Friendly to CWSN)	1	28
11	Toilets-Girls(Friendly to CWSN)	1	28
12	Drinking water facility		As per actual requirement
13	Ramp for physically challenged		As per actual requirement

Revised Scheduled Rate as on 03 July 2010 as per PWD norms

As per state PWD the cost of construction rates are below:

1. Plain Area - Rs. 11629 Per Sq. Mtrs.
2. Hill Area - Rs. 13813 Per Sq. Mtrs

Table 3.3.64 State PWD Construction Rate

Item	Rates Per Squire meters	
	Hilly Area	Plain Area
Basic rate	7230	7230
Extra hight	210	210
Extra depth	300	-
Termetide treatment	180	180
Fire fitting	470	470
Frame Structure	870	870
Total	9260	8960
Rain water harvesting 1%	93	90
Side development 20% in Hilly Area & 10% in Plain area	1852	896
Electrification 11%	1019	986
Celling fans 4%	-	358
Grand Total	12224	11290
Contegency 4%	367	339
Height &Distance 10% (average)	1222	-
Gross Total	13813	11629

Table 3.3.64 (A) Unit cost as per revised state PWD Norms.

S.NO	Item	Plinth Area	Unit Cost(Hill) In Rs	Unit Cost(Plain) In Rs
1	Class room	66 sq mt	911658	767514
2	Laboratory (integrated)	66 sq mt	911658	767514
3	Principal room (attached toilet)	66 sq mt	911658	767514
4	Office and staff room	66 sq mt	911658	767514
5	Teaching staff room (attached toilet)	66 sq mt	911658	767514
6	Computer lab	66 sq mt	911658	767514
7	Library	100 sq mt	1381300	1162900
8	Art/craft room	66 sq mt	911658	767514
9	Girls activity room	66 sq mt	911658	767514
10	Toilet Block –Boys(Friendly to CWSN)	28 sq mt	386764	325612
11	Toilets Block-Girls(Friendly to CWSN)	28 sq mt	386764	325612

In this regard, for construction of additional classroom, a science lab, computer lab, art/craft room and new schools for secondary classes in the state, the unit cost of each item is presented in the above table.

Civil Work - Cost

Table 3.3.64 (B) a . Hill Area (Rs. 13813.00 Per Sq. Mtrs.)

UNIT	Area In (Sq. Metre)	Unit Cost (Hill Area) in Rs. Lakh		
		Civil Work	Furniture	Total
Classroom	66	9.12	1.00	10.12
Science Laboratory	66	9.12	1.50	10.62
Lab Equipments				1.00
Headmaster/Principal Room	66	9.12	0.40	9.52
Office Room	66	9.12	0.40	9.52
Computer Room	66	9.12	0.40	9.52
Art/Craft/Culture Room	66	9.12	0.40	9.52
Library	100	13.81	0.25	14.06
Separate Toilet Blocks & D. Water *		3.86		3.86
Total		72.37	4.35	77.72

Table 3.3.64 (C) b . Plain Area (Rs. 11629.00 Per sq. Mtrs.)

UNIT	Area In (Sq. Metre)	Unit Cost (Plain Area) in Rs. Lakh		
		Civil Work	Furniture	Total
Classroom	66	7.68	1.00	8.68
Science Laboratory	66	7.68	1.50	9.18
Lab Equipments				1.00
Headmaster/Principal Room	66	7.68	0.40	8.08
Office Room	66	7.68	0.40	8.08
Computer Room	66	7.68	0.40	8.08
Art/Craft/Culture Room	66	7.68	0.40	8.08
Library	100	11.63	0.25	11.88
Separate Toilet Blocks & D. Water		3.25		3.25
Total		60.93	4.35	66.28

Summary Statement of Status and Issues of Secondary Education in Uttarakhand

This section is intended to present the summary statement of the status of secondary education in Uttarakhand and issues arising out of the analysis. In year 2009-10 we are proposed the unit cost for civil works as per state Govt. PWD scheduled rates, but GOI sanctioned the unit cost as per RMSA norms Uttarakhand. After discursion with construction agency not a single agency would agreed for construction on the unit cost. In meeting of finance committee and executive committee of USKLMSP, the state govt. agreed to borne the additional unit cost for civil works state in 2009-10 and also directed to USKMSMP that the new AWP&B for 2010-11 will proposed on the revised scheduled rates of state PWD of GOI not sanctioned the unit cost as state PWD scheduled rates then it will be difficult to construction in secondary level. It is also note the unit cost for civil work is as per state PWD scheduled rates in SSA sanctioned by GOI.

Chapter IV

Planning Process

For Effective Planning of RMSA the state decided to adopt four tier planning process.

1. Creation of Planning Core Group at different level.
2. Orientation and Capacity building of planning core groups.
3. Plan preparation exercise.
4. Implementation and Mentoring.

Creation of Planning Core Groups-

A Core Group of Governmental and Non-Governmental officials constituted at different level to adopt the micro planning concept for involvement of local authorities/PRTs/NGO's and other departments in planning process.

(a) School Level – A Core Group including SMDC and PRIs members, constituted at school level. The composition of school level planning team is as follows-

1. President SMDCs and O2 SMDC members.
2. Elected member of PRIs/Urban local bodies (nominated by Gram Pradhan/chairman urban area).
3. O5 -Teachers of school (O1 Science, O1 Language and O1 Social Science, O1 Maths, and O1 Other) nominated by principal.
4. Civil work experts (Local civil work agency members).

The School level planning Team did "Micro planning" exercise at school level with the help of SMDC, School Building Supervision Committee and School Academic Committee. This team also updated the child tracking register and co-ordinated with block level planning team. The school level planning team also prepared the school improvement plan (SIP), after analyzing the physical and academic needs of schools. This team also suggested the possible strategies, organization and use of

local resources for improvement of physical and academic infrastructure of school.

(b) Block level planning team – Block Project Office is first monitoring and supervision agency for RMSA. This is also agency for scrutinizing and appraisal for school improvement plan. Block level planning team is constituted at Block level by following members.

1.	Block Education Officer	Chairman
2.	Deputy Block Education Officer	Member
3.	BRC Coordinator, SSA	Member
4.	Junior Engineer (Block level)	Member
5.	DIET faculty	Member
6.	Two principal GIC/GHSS	Member
7.	Two elected Chhetra Panchyat member (Nominated by Block Pramukh one from SC/ST/OBC communities).	Member
8.	One NGO representative	Member

The Block level planning team analyzed the school improvement plan and approved the requirements/strategies proposed by schools as per actual needs of school. These teams prepared consolidated Block Secondary Education Plan (BSEP) on the basis of school improvement plan and send to district project office.

(c) District Level Planning Team – District Plan is basic documentary plan for RMSA, which indicate the actual progress, requirements, implementation strategies, monitoring and management structure and budgetary provisions.

A Core Group of governmental and non-governmental person constituted at the district level. Composition of District planning team is as follows.

1.	District Education Officer	Chairman.
2.	District Project Officer/ADEO (M)	Member Secretary
3.	ADEO (Basic)	Member
4.	District Resource persons (RMSA)	Member
5.	Assistant Account officer (RMSA)	Member
6.	District Coordination (Planning SSA)	Member
7.	Principal DIET	Member
8.	Two BEO (One Female)	Member
9.	Teachers Association representative	Member
10.	District Health Officer	Member
11.	Two Zila Panzhayat Member (One SC/ST/OBC/minority)	Member
12.	One NGO representative (Working in education field)	Member

District planning team prepared District Secondary Education Plan (DSEP) after analyzing BSEP. This team also discussed the BSEP and prioritized the needs. District planning team disproved all issues of secondary education in respective district and suggestion gave to state authority for improvement and reforms in secondary education. This team prepared activity and monitoring calendar in district for implementation of RMSA.

(d) State Planning Team – There is a state planning team at state level comprised as follows.

1	Secretary, School Education	President
2	State Project Director/Director School Education	Member Secretary
3	State Project Director (SSA)	Member
4	Additional Project Director (RMSA/SSA)	Member
5	Finance Controller, RMSA	Member

6	Additional Director, SIEMAT	Member
7	Additional Director SCERT	Member
8	Secretary, Uttarakhand Education Board	Member
9	JPD (Planning/Quality) (RMSA)	Member
10	All Asst. P. D. RMSA	Member
11	Faculty Member, SIEMAT	Member
12	Faculty Member, SCERT	Member
13	Faculty Member, Education Board	Member
14	Representative of State Social Welfare Dept.	Member
15	Representative of State health department	Member
16	Executive engineer (Civil work agency)	Member
17	Representation of CBRI	Member
18	Two DEO (One Female and one SC/ST/OBC)	Member
19	Representative of NGO	Member

(It is necessary that atleast O3 female members and O1 SC, O1 – ST, O1 Ministry Members should be there in State Planning Team).

State planning team prepared state secondary education plan (SSEP). This team suggests the reforms in curriculum, examination, and policy making to Education department of State Government in secondary education. State planning team also take care of preparation of district level plan, this team analyzed the district plan and suggest necessary improvement in district plan. State planning team is fully responsible for annual setting target, need analysis, implementation strategies and budgetary provision.

2. Process of Plan Preparation – The following activities have been done for plan preparation-

S. No.	Activity	Duration/ Place	Participants Sources	Major Issues
1	Orientation of State of Planning Team.	MHRD/SIEMA T Allahabad	SPT Members.	<ul style="list-style-type: none"> • About RMSA • Plan preparation
2	Orientation of State Planning Team	O1 day, SIEMAT, Uttarakhand	All State Planning Team members and State level Education Officers.	<ul style="list-style-type: none"> • Introduction of RMSA. • Implementation of RMSA at different level.
3	Introduction and format filling of SEMIS (State level)	O1 day, SPO	SPO, SIEMAT representative DPO, Data entry operator	<ul style="list-style-type: none"> • Introduction of SEMIS. • Filling of SEMIS Format.
4	Introduction and data filling of SEMIS (District level)	O1 day, DPO	All BEOs, DPO, DEO, Data Entry operators.	<ul style="list-style-type: none"> • Introduction of SEMIS. • Filling of SEMIS Format.
5	Introduction and data filling of SEMIS (Block level)	O1 day, BPO	All principals of Secondary Schools.	<ul style="list-style-type: none"> • Introduction of SEMIS. • Filling of SEMIS Format.
6	Orientation of District Planning Team.	O3 days, SPO/SEMAT	All DPT members.	<ul style="list-style-type: none"> • Data analysis. • Need analysis. • Strategies for implementation
7	Micro planning exercise (School level) and meeting with SMDC	School level	School planning Team.	<ul style="list-style-type: none"> • Meeting and School level need analysis. • Target setting for school. • Strategies for implementation.

8	School mapping Exercise and meeting with PRIs, SMDCs and Local representations	Block level	- SSA Planning Team. - BEO, DBEO, BRC - SMDC member	<ul style="list-style-type: none"> • Discussion on accessibility of secondary school and enrollment. • Prepare detail plan for schools facilities on distance and ability of children.
9	Data collection an SEMIS format.	School level	- Principal - School Staff	<ul style="list-style-type: none"> • Fill the SEMIS format.
10	Checking of SEMIS data	Block level	- BEO/BPT	<ul style="list-style-type: none"> • Detail checking of SEMIS format.
11	Computerization of SEMIS data and compilation	DPO	- DPO - Data entry Operator - DRPs	<ul style="list-style-type: none"> • Compile the SEMIS data.
12	Compilation of SEMIS data	SPO	- Asst. PDs. - Data Entry Operator	<ul style="list-style-type: none"> • Compilation of district SEMIS data.
13	Collection of secondary data	BPT, DPT, SPT,	- School Record - SSA, DISE data - Board Exam result - SCERT/SIEMAT/Dir ectorate education records - Other records	<ul style="list-style-type: none"> • Different kind of Secondary data collection at different level.
14	Training on Annual and Perspective plan	SPO/SIEMAT O6 days (O2 - region wise) Garhwal/Kumaon)	- BPT - DPT - SPT	<ul style="list-style-type: none"> • Data analysis • Need analysis • Target settings • Strategies proposed • Budget provision
15	Preparation of Perspective Plan	Feb/March DPO	- BPT - DPT	<ul style="list-style-type: none"> • All activity for Plan preparation
16	Analysis of district plan	SPO	- SPO/SIEMAT/SCERT/ Education Board faculty	<ul style="list-style-type: none"> • Plan analysis • Suggestion for improvement
17	Meeting of SPT	O3 days SPO	- SPT member	<ul style="list-style-type: none"> • Discussion on all

	for state Plan			relative issues • Data analysis SEMIS (district wise)
18	Improvement of district plan	DPO	- DPT members	• Include suggestions and correction in district plan.
19	Appraisal of District/State Plan	SIEMAT/SPO	- State Appraisal Team	• Appraisal process.
20	Discursion on plan in Executive committee in plan	EC office	- EC members. - SPT members.	• Discussion on all requirement and strategies proposed.
21	Improvement of State plan	SPO	- SPT member	• Add major suggestions given by EC and appraisal team
22	submission of plan	MHRD/June 2010	- SPT member	• Plan submission to GOI.

Constraints in Plan Formulation – In above plan formulation process there were many constraints which are following:-

- Prejudiced attitude about educational system of stake holders.
- Poor quality of data.
- Low participation of planning, team member rather than educational personals.
- Lack of experience in school based planning.
- Lack of physical infrastructure and man power at DPO and SPO level.
- Lack of Academic support for secondary education at district level or DIET.

Chapter V

Alternative Development Scenario and Plan Targets for the Expansion of Secondary Education in Uttarakhand

Given the status of secondary education in Uttarakhand as on 30th September 2009, an attempt is made to explore the future prospects of secondary education in the state while taking up the national goal of universalisation of secondary education by 2020 at the state level. Herein the target indicator by which the prospects explored is the gross enrolment ratio (GER) in secondary classes in the state over the years in future.

Projection Models

The state of Uttarakhand has three alternative possibilities for the projections of enrolment in secondary classes in the state. One way of exploring future prospects of growth in enrolment is its past growth. Based on which one can project the future enrolment in secondary classes in the state over the years. This exercise applies the rate of growth in the past as it is. It assumes that the enrolment in secondary classes in the state will grow by this rate in future.

**Table 5.5.1 Yearwise growth in enrolment in secondary
and higher secondary level**

Annual Growth Rate in Enrolment and Projected Enrolment																						
Class	2006-07			2007-08			2008-09			2009-10			2010-11			2012-13			2016-17			
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
IX	71679	56094	127773	72261	58679	130940	89517	74137	163654	91061	75632	166693	92204	78048	170227	93361	80542	173836	98137	91339	189052	
X	64541	52915	117456	68053	58055	126108	88418	74420	162838	90625	79050	169675	94069	84864	178914	97643	91106	188656	113353	121014	233224	
Total	136220	109009	245229	140314	116734	257048	177935	148557	326492	181686	154682	336368	186210	162865	349049	190847	171480	362208	210577	210748	419996	
Growth Rate	2006-07 to 2007-08			2007-08 to 2008-09			2008-09 to 2009-10			AAGR 2006-07 & 2009-10												
GR IX	0.81	4.41	2.42	19.28	20.85	19.99	1.70	1.98	1.82	1.26	3.20	2.12										
GR X	5.16	8.85	6.86	23.03	21.99	22.56	2.44	5.86	4.03	3.80	7.36	5.45										
Total	2.92	6.62	4.60	21.14	21.42	21.27	2.06	3.96	2.94	2.49	5.29	3.77										
XI	42159	34943	77102	36890	33394	70284	58018	51633	109651	62171	51030	113201	63590	56592	120182	69697.8	62027.4	131725	83728.8	74514.3	158243	
XII	35508	30186	65694	39226	34277	73503	45999	41709	87708	56582	51358	107940	50417	45715	96132	55259.2	50105.6	105365	66383.6	60192.4	126576	
Total	77667	65129	142796	76116	67671	143787	104017	93342	197359	118753	102388	221141	114007	102307	216314	124957	112133	237090	150112	134707	284819	
Growth Rate	2006-07 to 2007-08			2007-08 to 2008-09			2008-09 to 2009-10			AAGR 2006 to 2009												
Growth Rate XI	-14.3	-4.64	-9.7	36.42	35.32	35.9	6.68	-1.18	3.14	9.6	9.83	9.78										

Annual Growth Rate in Enrolment and Projected Enrolment																					
Class	2006-07			2007-08			2008-09			2009-10			2010-11			2012-13			2016-17		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Growth Rate XII	9.48	11.9	10.6	14.7	17.8	16.2	18.7	18.8	18.7	14.3	16.2	15.2									
Total	-2.04	3.76	0.69	26.8	27.5	27.1	12.4	8.84	10.8	12.4	13.4	12.9									

Source: SEMIS 2009-10

Note: AAGR- Annual Average Growth Rate calculated by Annually Growth and average of all three years growth rate.

Here we have four years SEMIS data for enrolment in secondary classes for Uttarakhand. The enrolment figures of the secondary classes in the state are 2.45 lakhs in 2006-07, 2.57 lakhs in 2007-08 and 3.26 lakhs in 2008-09, 3.36 lakhs in 2009-10. It gives an annual rate of growth for enrolment in secondary classes in the state as 4.60 percent between 2006-07 and 2007-08, 21.27 percent between 2007-08 and 2008-09, and 2.94 percent between 2008-09 and 2009-10. The average annual growth rate between 2006-07 to 2009-10 is 9.60%. It is interesting to note that by gender groups, the rate of growth in enrolment of secondary classes is relatively higher for the girl children when compared to that of boys.

We have four years SEMIS data for enrolment in higher secondary classes for Uttarakhand. The enrolment figures of the higher secondary classes in the state are 1.42 lakhs in 2006-07, 1.44 lakhs in 2007-08 and 1.97 lakhs in 2008-09, 2.21 lakhs in 2009-10. It gives an annual rate of growth for enrolment in higher secondary classes in the state as 0.69 percent between 2006-07 and 2007-08, 27.14 percent between 2007-08 and 2008-09, and 10.75 percent between 2008-09 and 2009-10. The average annual growth rate between 2006-07 to 2009-10 is 12.86%. It is interesting to note that by gender groups, the rate of growth in enrolment of higher secondary classes is relatively higher for the girl children when compared to that of boys.

Given the facts one has to make a subjective judgment out of the four figures (4.60% or 21.27% or 2.94% or 9.60%) while considering past rate of growth for the future projections. Herein we have considered the last four years average annual rate of growth (9.60%) for the projections at secondary level and 12.86% at higher secondary level.

The second alternative is while following the national level norms of achieving the goal of universalisation of secondary education by 2020, the state may have to take-up the national level RMSA targets of reaching GER=75% by 2012 and GER=100% by 2017. GER for secondary level in year 2007-08 is 35.51% in year 2008-09 is 47.78% and in year 2009-10 is 52.48%. To comply with the national RMSA target by the GER indicator, the enrolment of secondary classes in the state has to grow at a rate 9 per cent per annum during the next two years i.e. 2007-12 and 6 per cent per annum during 2012-17.

The third alternative future prospects can be based on its achievement in elementary education. The state of Uttarakhand has made a remarkable achievement in terms of enrolment in the elementary classes. The performance of the state with respect to the enrolment in elementary classes especially those

who are reaching class VIII is crucial input for the secondary level. The following analysis presents the performance of Uttarakhand in terms of enrolment at elementary level.

Table 5.5.2 Yearwise Enrollment at elementary level

S. No.	Year	Class I	Class II	Class III	Class IV	Class V	Class VI	ClassVII	ClassVIII	Total
1	2006-07	235477	203267	196478	183722	166632	155820	140255	131417	1413068
2	2007-08	237979	221030	214486	199090	166203	171237	158615	146524	1515164
3	2008-09	243016	218859	220915	206287	193639	185173	173694	164578	1606161
4	2009-10	239670	209556	207758	205317	194398	184776	177947	174267	1593689

In terms of the number of children enrolled in each class/grade at the elementary level in the State which is given in table 5.2 show an increasing trend in classes V, VII and VIII all over the years. In rest of the classes it has shown an increasing trend i.e. from 2006-07 to 2008-09 and a slight decreasing trend in 2009-10.

It can be observed from table 5.3 that the annual growth rate of enrolment in each class in Uttarakhand shows slight variations. The overall growth pattern from 2006-07 to 2009-10 shows decreasing trend. The growth rate between 2008-09 to 2009-10 in class VIII is very high but it has declined over the year.

Table 5.5.3 Annual Growth Rate of Enrolment in Elementary Classes

S. No.	Year	Class I	Class II	Class III	Class IV	Class V	Class VI	Class VII	Class VIII	Total
1	2006-07 to 2007-08	1.06	8.74	9.17	8.36	-0.26	9.89	13.09	11.50	7.23
2	2007-08 to 2008-09	2.12	-0.98	3.00	3.61	16.51	8.14	9.51	12.32	6.01
3	2008-09 to 2009-10	-1.38	-4.25	-5.96	-0.47	0.39	-0.21	2.45	5.89	-0.78

The following table shows districtwise transition rate from Class VIII to IX.

Table 5.5.4 Completion Rate, Primary Graduates & Transition Rate from Primary to Upper Primary Year 2009-2010

S. N.	District	Completion Rate	No. of Primary Graduates	Transition Rate from Primary to Upper Primary
1	Almora	97.01	12058	99.06
2	Bageshwar	93.98	4583	99.96
3	Chamoli	92.80	9029	97.54
4	Champawat	95.22	6198	99.68
5	Dehradun	93.60	11718	98.76
6	Haridwar	98.50	29231	85.08
7	Nainital	90.69	8679	98.77
8	Pauri	90.79	12212	100.00
9	Pithoragarh	92.79	9888	99.72
10	Rudrapayag	93.16	4090	100.00
11	Tehri	90.80	11690	94.35
12	U.S. Nagar	73.38	20018	98.90
13	Uttarkashi	93.00	6405	99.81
Total		91.98	145799	97.82

Source: SSA, 2009-10

The transition rate of the system is crucial for the expansion of Education. In Uttarakhand for enrolment in elementary classes and transition from elementary to secondary level is remarkable.

In Uttarakhand it is happening because of the interventions and initiatives under the scheme of Sarva Shiksha Abhiyan (SSA). Under the scheme, initiatives like PAHAL, Muskan, EGS Centers, Residential and non-Residential Bridge Courses (RBCs and NRBCs). These initiatives in fact streamline the dropouts and over-aged children enrolled in lower classes. The dropout children in the previous grade are pursued and get enrolled for a bridge course to streamline their enrolment in a class suitable to their age. Similarly, it is the case of over-aged children studying in lower classes below class suitable to their age. These initiatives also pursue the non-enrolled children, firstly to get them enrolled in RBCs/NRBCs and prepare them in the course period to get them enrolled in classes suitable to their age.

Moreover, it is also to be noted that the drop-outs and non-enrolled increases with the age. Under these initiatives the more number of higher age groups children have to be pursued and got them enrolled in higher classes. May be because these initiatives the enrolment in higher classes is higher than normally expected in comparison with the enrolment in lower classes.

Given the facts, when we consider the remarkable performance of the state of Uttarakhand in terms of enrolment in elementary schooling, the future prospects of secondary education in the state is promising. If the state can make out a strategy to catch the as many as children of class VIII graduates and get them enrolled in secondary classes, the state's GER would be more than the national target in the short-run. It may be illustrated in the following paras.

In Uttarakhand, the enrolment in class VIII has shown an annual rate of growth more than 12 percent during the last two years i.e. from 2006-07 to 2008-09. The annual growth rate of population in general in the state is below 2 per cent since 2001, and it is 1.92 per cent for the school age population. The growth rate of children of age 13 years, who are suitable age group for class VIII, is increase over time since 2001.

The projections of enrolment in class VIII based on its past growth generates a large stock of elementary graduates, a potential reserve for the enrolment in class IX. The Government of Uttarakhand exempted the Board Exam for the class VIII children. As it will be continued further, an easy promotion of class VIII children to class IX enrolment will be facilitated. This kind of policy definitely will have its impact in terms of

the decline in the repetition rate and dropout rate in class VIII. The retention rate as per DISE data provided by State Project Office, SSA, Uttarakhand is 96% in 2009-10 and dropout rate at upper primary level 0.17% which is very less.

Given the projections of enrolment in class VIII, we have used the transition rate for the projection of enrolment in class IX. A crude form of transition rate is used i.e. ratio of enrolment in class IX in the current year (2009-10) to the enrolment in class VIII in the previous year (2008-09).

The current transition rate between class VIII and class IX is 82.33 percent in Uttarakhand. The rate it is expected to grow at the rate 10 percent per annum as per growth of enrolment in Class VIII and the rate of growth of transition rate will increase. The expected increase in the rate of growth of transition rate is because of dynamism infused into the system with the interventions/initiatives under the RMSA. This linear increasing trend in transition rate is expected to have a corresponding linear decline in both the repetition and dropout rate in class VIII.

**Table 5.5.5 Repeaters & Drop Out % At Secondary Level, 2008-09
State - Uttarakhand**

SN	Particulars			
		Boys	Girls	Total
1	Total Enrolled In Class IX In 2008-09	89517	74137	163654
2	Total Appeared in Class-X in 2009-10	73539	65818	139357
	% Appeared in Class-X in 2009-10	82.15	88.78	85.15
3	Repeaters in Class-IX in 2009-10	10666	6339	17005
	% Repeaters in Class-IX in 2009-10	11.92	8.55	10.39
4	Total Drop-out in Class-IX in 2008-09	5312	1980	7292
	% Drop-out in Class-IX in 2008-09	5.93	2.67	4.46

1	Total Enrolled In Class X In 2008-09	88418	74420	162838
2	Total Pass-outs in Class-X in 2008-09	59492	53096	112588
	% Pass-outs in Class-X in 2008-09	67.28	71.35	69.14
3	Repeaters in Class-X in 2009-10	17086	13232	30318
	% Repeaters in Class-X in 2009-10	19.32	17.78	18.62
4	Total Drop-out in Class-X in 2008-09	11840	8092	19932
	% Drop-out in Class-X in 2008-09	13.39	10.87	12.24

1	Total Enrolled In Class IX & X In 2008-09	177935	148557	326492
2	Total Promoted in Next Class	133031	118914	251945
	% Promoted in Next Class	74.76	80.05	77.17
3	Repeaters in Class-IX & X in 2009-10	27752	19571	47323
	% Repeaters in Class-IX & X in 2009-10	15.60	13.17	14.49
4	Total Drop-out in Class-IX & X in 2008-09	17152	10072	27224
	% Drop-out in Class-IX & X in 2008-09	9.64	6.78	8.34

Source: Data collected through Data Capture Format of SEMIS 2009-10.

Similarly the promotion rate between secondary classes i.e. between class IX and X is expected to have a linear increasing trend. The current transition rate between class IX and class X i.e ratio of enrolment in class IX to class X is 77.17% in Uttarakhand. Since it is already at a high level the rate it is expected to grow at the rate 2 per cent per annum during year 2009-10 to 2016-17. And the linear increasing trend in promotion rate is expected to have a corresponding linear decline in both repetition and dropout rate in secondary classes. After RMSA intervention the repeaters in Class IX and X will be decreased expected rate of 2% per annum and dropout rate also decreased to 1.5% per annum.

Projections of Enrolment in Secondary Classes

We have three variants of models for the projections of enrolment in secondary classes where one (Variant I) is based on the past performance and the second (Variant II) is based on the RMSA norms. The third (Variant III) is based on the performance of the state in terms of the enrolment in elementary schooling especially that of enrolment in class VIII, transition from elementary to secondary level. Repeaters and dropout children at secondary level.

Enrolment projection as per past trends

Table 5.5.6 Projected GER as per past trend secondary level

Year	Population			Enrolment			GER		
	M	F	T	M	F	T	M	F	T
2006	234436	219559	453995	136220	109009	245229	58.11	49.65	54.02
2007	238938	223774	462712	140314	116734	257048	58.72	52.17	55.55
2008	243525	228071	471596	177935	148557	326492	73.07	65.14	69.23
2009	248201	232450	480651	181686	154682	336368	73.20	66.54	69.98
2010	252966	236913	489879	190852	159341	350193	75.45	67.26	71.49
2011	257823	241462	499285	204706	170908	375614	79.40	70.78	75.23
2012	262774	246098	508871	219566	183315	402881	83.56	74.49	79.17
2013	267819	250823	518642	235505	196622	432127	87.93	78.39	83.32
2014	272961	255639	528600	252601	210895	463496	92.54	82.50	87.68
2015	278202	260547	538749	270938	226205	497143	97.39	86.82	92.28
2016	283543	265549	549093	290606	242626	533232	102.49	91.37	97.11
2017	288987	270648	559635	311702	260238	571940	107.86	96.15	102.20
2018	294536	275844	570380	334329	279130	613459	113.51	101.19	107.55
2019	300191	281141	581332	358599	299392	657992	119.46	106.49	113.19
2020	305955	286538	592493	384631	321126	705757	125.71	112.07	119.12

The enrolment projection based on three variants past growth (Var I) indicates the enrolment in the secondary classes will increase from the base 2.45 lakhs in 2006-07 to 4.02 lakhs in 2012, 5.33 lakhs in 2016 and further to 7.05 lakhs in 2020. There is a large gap between the projected size of enrolment and the school-age population and the gap is

narrowed down by 2015. The State already achieved the GER 79% in 2010 and 102.20% in 2017 as past growth trend. Whereas the projection based on the RMSA norms indicated the State has no need to increase the enrolment for the targeted point of time 2012 and 2017.

Enrolment projection as per targeted GER

By analyzing yearwise growth in enrolment in elementary classes, transition rate from elementary level to secondary level and repetition and dropout rate at secondary level the expected growth in GER is 5% annually after 2009 which is targeted GER for next year.

Year	Population			GER			Enrolment		
	M	F	T	M	F	T	M	F	T
2006	234436	219559	453995	58.11	49.65	54.02	136220	109009	245229
2007	238938	223774	462712	58.72	52.17	55.55	140314	116734	257048
2008	243525	228071	471596	73.07	65.14	69.23	177935	148557	326492
2009	248201	232450	480651	73.20	66.54	69.98	181686	154682	336368
2010	252966	236913	489879	75.45	71.54	74.98	190852	169498	367320
2011	257823	241462	499285	79.40	76.54	79.98	204706	184825	399337
2012	262774	246098	508871	83.56	81.54	84.98	219566	200679	432448
2013	267819	250823	518642	87.93	86.54	89.98	235505	217073	466683
2014	272961	255639	528600	92.54	91.54	94.98	252601	234023	502074
2015	278202	260547	538749	97.39	96.54	99.98	270938	251543	538651
2016	283543	265549	549093	100.00	100.00	100.00	283543	265549	549093
2017	288987	270648	559635	100.00	100.00	100.00	288987	270648	559635
2018	294536	275844	570380	100.00	100.00	100.00	294536	275844	570380
2019	300191	281141	581332	100.00	100.00	100.00	300191	281141	581332
2020	305955	286538	592493	100.00	100.00	100.00	305955	286538	592493

As per targeted GER the projected enrolment in 2010 is 3.67 lakhs and 2012 is 4.32 lakhs and 2017 5.59 lakhs and in 2020 is 5.92 lakhs at secondary level in Uttarakhand. The GER is expected to increase by 5% annually for girls but for boys the GER will increase as per previous trend because there is no significant difference in transition, dropout and repetition of boys in last 3 years at elementary level. When target setting for GER at secondary level it is assumed that by 2016 State will achieved 100% GER and this will be maintained till 2020.

Table 5.5.8 Yearwise Additional Enrolment at secondary level

Year	Targeted Add. Enrolment		
	M	F	T
2009	4676	4379	9055
2010	4765	4463	9228
2011	4857	4549	9406
2012	4951	4636	9586
2013	5045	4725	9771
2014	5142	4816	9958

2015	5241	4908	10149
2016	5341	5002	10344
2017	5444	5099	10542
2018	5549	5196	10745
2019	5655	5297	10952
2020	5764	5397	11161

All the three variant projection models assume a positive growth in the enrolment of secondary classes in Uttarakhand but the rates of growth vary with the model. The annual rates of growth of enrolment in secondary classes based on previous trend projection model vary from year to year all throughout the projection period. And the growth of projected enrolment based on enrolment in elementary level, dropout and retention at secondary level assumed 5% growth per year.

Projections of Enrolment in Higher Secondary Classes

We have three variants of models for the projections of enrolment in higher secondary classes where one is based on the past performance and the second is based on the RMSA norms. The third is based on the performance of the state in terms of the enrolment in elementary schooling especially that of enrolment in class XI, transition from elementary to secondary level. Repeaters and dropout children at higher secondary level.

Enrolment projection as per previous trends

Table 5.5.9 Projected GER as per previous trend higher secondary level

Year	Population			Enrolment			GER		
	M	F	T	M	F	T	M	F	T
2006	205302	191599	396901	77667	65129	142796	37.83	33.99	35.98
2007	209483	195387	404870	76116	67671	143787	36.34	34.63	35.51
2008	213767	199268	413034	104017	93342	197359	48.66	46.84	47.78
2009	218156	203242	421398	118753	102388	221141	54.43	50.38	52.48
2010	222654	207314	429968	130159	112222	242380	58.46	54.13	56.37
2011	227263	211486	438749	142659	123000	265660	62.77	58.16	60.55
2012	231987	215760	447746	156361	134813	291175	67.40	62.48	65.03
2013	236827	220138	456966	171379	147761	319140	72.36	67.12	69.84
2014	241789	224625	466413	187839	161953	349792	77.69	72.10	75.00
2015	246874	229221	476095	205879	177508	383387	83.39	77.44	80.53
2016	252086	233932	486017	225653	194556	420209	89.51	83.17	86.46
2017	257428	238758	496186	247326	213242	460568	96.08	89.31	92.82
2018	262370	243342	505713	271080	233723	504803	103.32	96.05	99.82
2019	267408	248014	515422	297115	256171	553286	111.11	103.29	107.35
2020	272542	252776	525318	325652	280774	606426	119.49	111.08	115.44

The enrolment projection based on three variants past growth indicates that the enrolment in the higher secondary classes will increase from the base 1.42 lakhs in 2006-07 to 2.91 lakhs in 2012, 4.20 lakhs in 2016 and further to 6.06 lakhs in 2020. There is a large gap between the projected size of enrolment and the school-age population and the gap is narrowed down by 2015. The State has already achieved the GER 56% in 2010 and 92.82% in 2017 as past growth trend. Whereas the projection

based on the RMSA norms indicated the State has no need to increase the enrolment for the targeted point of time 2012 and 2017.

Enrolment projection as per targeted GER

By analyzing yearwise growth in enrolment in elementary classes, transition rate from elementary level to secondary level and repetition and dropout rate at higher secondary level the expected growth in GER is 5% annually after 2009 which is targeted GER for next year.

Table 5.5.10 Target GER

Year	Population			GER		
	M	F	T	M	F	T
2006	205302	191599	396901	37.83	33.99	35.98
2007	209483	195387	404870	36.34	34.63	35.51
2008	213767	199268	413034	48.66	46.84	47.78
2009	218156	203242	421398	54.43	50.38	52.48
2010	222654	207314	429968	58.46	54.13	57.48
2011	227263	211486	438749	62.77	59.13	62.48
2012	231987	215760	447746	67.40	64.13	67.48
2013	236827	220138	456966	72.36	69.13	72.48
2014	241789	224625	466413	77.69	74.13	77.48
2015	246874	229221	476095	83.39	79.13	82.48
2016	252086	233932	486017	89.51	84.13	87.48
2017	257428	238758	496186	96.08	89.13	92.48
2018	262370	243342	505713		94.13	97.48
2019	267408	248014	515422		99.13	102.48
2020	272542	252776	525318		104.13	107.48

Table 5.5.11 Yearwise Additional Enrolment at higher secondary level

Year	Targeted Add. Enrolment		
	M	F	T
2009	4389	3975	8364
2010	4498	4072	8570
2011	4609	4172	8781
2012	4724	4274	8997
2013	4841	4379	9219
2014	4961	4486	9448
2015	5085	4597	9682
2016	5212	4710	9922
2017	5342	4827	10169
2018	4943	4584	9527
2019	5038	4672	9710
2020	5134	4762	9896

All the three variant projection models assume a positive growth in the enrolment of secondary classes in Uttarakhand but the rates of growth vary with the model. The annual rate of growth of enrolment in higher secondary classes based on previous trend projection model is varying from year to year all throughout the projection period. And the growth of projected enrolment based on enrolment in elementary level, dropout and retention at higher secondary level assumed 5% growth per year.

Distribution of Projected Enrolment by School Management

When we consider the above projections of enrolment in secondary classes for the projections of required resources we have to differentiate between the schools managed or funded by the state government departments and the other agencies. It is important because of the projections with respect to cost of increasing enrolment will apply only to that of enrolment in schools managed or funded by departments of the state government. All the other schools managed by central government agencies or private bodies have nothing to do with state government financing of secondary school education.

Table 5.5.12 % of categorywise and Management wise Enrolment (Class IX and X) in Uttarakhand 2009-10

S. No	Category	Government			Higher Secondary	
		State	LB	Central	Aided	Unaided
1	SC	63.25	0.88	1.11	19.28	15.46
2	ST	60.57	0.24	1.49	9.04	28.66
3	OBC	47.17	1.43	0.4	24.12	26.88
4	Others	56.82	0.49	1.96	14.89	25.84
	Total	56.95	0.7	1.54	16.92	23.89

Table 5.5.13 Projected Enrolment by School Management at Secondary level

Year	State	LB	Central	Aided	Unaided	Total
2009	191562	2355	5180	56913	80358	336368
2010	209189	2571	5657	62151	87753	367320
2011	227422	2795	6150	67568	95402	399337
2012	246279	3027	6660	73170	103312	432448
2013	265776	3267	7187	78963	111491	466683
2014	285931	3515	7732	84951	119945	502074
2015	306762	3771	8295	91140	128684	538651
2016	312708	3844	8456	92907	131178	549093
2017	318712	3917	8618	94690	133697	559635
2018	324831	3993	8784	96508	136264	570380
2019	331069	4069	8953	98361	138880	581332
2020	337425	4147	9124	100250	141547	592493

Table 5.5.14 % of category wise and Management wise Enrolment (Class XI and XII) in Uttarakhand 2009-10

S. No	Category	Government			Higher Secondary	
		State	LB	Central	Aided	Unaided
1	SC	61.58	0.96	1.42	26.46	9.58
2	ST	61.97	0.12	1.56	17.15	19.19
3	OBC	46.15	0.59	0.78	32.83	19.66
4	Others	58.45	0.34	2.42	19.13	19.66
	Total	57.52	0.47	2.02	21.98	18.01

Table 5.5.15 Projected Enrolment by School Management at Higher Secondary level

Year	State Govt.	LB	Central	Aided	Unaided	Total
2009	125940	1548	3406	37417	52831	221141
2010	138035	1697	3733	41011	57905	242380
2011	151293	1860	4091	44950	63466	265660
2012	165824	2038	4484	49267	69562	291175
2013	181750	2234	4915	53998	76243	319140
2014	199207	2449	5387	59185	83565	349792
2015	218339	2684	5904	64869	91591	383387
2016	239309	2941	6471	71099	100388	420209
2017	262293	3224	7093	77928	110030	460568
2018	287485	3534	7774	85413	120597	504803
2019	315096	3873	8521	93616	132180	553286
2020	345360	4245	9339	102607	144875	606426

Projected components wise demand-

The increasing in the size of enrolment definitely requires the additional resources. Herein we have presented the estimated number of up-gradation of upper primary schools and secondary school, additional teachers, classrooms and other infrastructural facilities required to serve the additional enrolment projected.

- a. **Upgradation of upper primary schools in secondary school-** The demand for up-gradation of upper primary school in secondary school is estimated based on the norms of distance and child enrolment. For this purpose school mapping exercise did at block level and block planning team analyzed the result of school mapping and additional enrolment. The same exercise did for up-gradation of secondary school in higher secondary school and the demand generated. The GIS mapping exercise also proposed for actual demand ratification of school upgradation.
- b. **Demand of Teacher-** The teacher demand is estimated based on the norms of pupil teacher ratio 30:1 and also based on subject-

wise teacher. Every secondary school should have a minimum 07 subject teachers and 01 head teacher.

c. Demand for Classroom- In the case of estimated demand for classrooms is based on the norms pupil classroom ratio 30:1 in existing schools and for upgraded secondary school atleast one classroom for one section.

d. Other infrastructural facilities- For up-gradation of new school the following infrastructural facilities are demanded on the based of child enrolment.

S. No.	Particulars	No of units	Unit size in sq mts.
1	Laboratory (integrated)	1	104
2	Principal room (attached toilet)	1	66
3	Office and staff room	1	66
4	Teaching staff room (attached toilet)	2	104
5	Computer lab	1	104
6	Library	1	104
7	Art/craft room	1	66
8	Girls activity room	1	66
9	Toilet –Boys (Friendly to CWSN)	1	28
10	Toilets-Girls (Friendly to CWSN)	1	28
11	Drinking water facility		*
12	Ramp for physically challenged		*

e. Strengthening of existing school- Infrastructural facilities development of existing schools is major activities undertaken in RMSA. The following facilities are demanded for strengthening of existing schools.

S. No.	Particulars	No of units	Norms
1	Additional Classroom	1	Classroom pupil ratio 1:40
1	Laboratory (integrated)	1	Every secondary school as per required
2	Principal room (attached toilet)	1	Every secondary school as per required
3	Lab equipments	As per required	Every secondary school as per required
4	Office and staff room	1	Every secondary school as per required
5	Computer lab	1	Every secondary school as per required
6	Library	1	Every secondary school as per required
7	Art/craft room	1	Every secondary school as per required
8	Girls activity room	1	Every secondary school

			as per required
9	Toilet –Boys (Friendly to CWSN)	1	Every secondary school as per required
10	Toilets-Girls (Friendly to CWSN)	1	Every secondary school as per required
11	Drinking water facility		Every secondary school as per required
12	Ramp for physically challenged		Every secondary school as per required
13	Development of playground	1	--
14	Repairing and innovation	1	Every secondary school as per required

- f. Demand for Academic Resources:** The planning team focussed on universalization of secondary education as per required quality. To achieved this major goal of RMSA we had focussed on strengthening of academic resources and capacity building of teachers and other academic persons and institutions. Purchase of books, periodical newspaper, study tours, excursion trips, school annual grant, remedial teaching, teacher training, strengthening of DIETs/SCERT/SIEMAT, capacity building for educational institutional and personnel, learning corners, teachers and others staff etc are demanded for improvement of quality of secondary schools.
- g. Demand for bridging social and gender gaps-** For bridging the gender gap the demand generated on the base on dropout rate, additional enrolment, out of school girls and special imitative like school dress, books and stationary, transport facilities, remedial teachings and innovative programmes are proposed. Similarly in the case of bridging social gaps the same activities are proposed in perspective plan.
- h. Demand for out of school children-** The projection of out of school children at secondary level is estimated based on dropout rate of each class and transition rate from upper primary to secondary and secondary to higher secondary level. To streamline these out of school children in school we proposed bridge courses/special coaching, alternative schooling/crash courses, transport facilities and voucher scheme in PPP mode.
- i. Demand for CWSN-** Identification of CWSN is a typical process at school level. To achieve the goal of universalization of secondary education it is necessary to consider the all kind of children for this we proposed health checkup camps, parent counselling, distribution of aids and appliances, scot facility and sensitization programmes for children with special needs.
- j. Demand for community participation-** Community participation play major role in enrolment, retention and quality education of children at secondary level. So community training, ralies, kala-

jathas, nukkar-nataks, community melas, educational tours and other sensitization programmes are proposed in perspective plan.

The Demand for financial resources-

Given the enrolment projections at secondary level over more than a decade for Uttarakhand, it needs the estimation of financial resources required for the schooling of the projected enrolment for the secondary classes in the state.

Financial resources required are two types: one is of development cost which is non-recurring in nature, and the other is recurring costs. The development costs includes the cost of construction of a new school, construction of additional classrooms, rooms for other purposes (Head Master, Staff, Administration), science laboratory, library, toilet blocks, setting up teaching-learning equipment (TLEs) etc.

In terms of the development cost of secondary school education in Uttarakhand, the financial resources required will be for the strengthening of existing schools with secondary classes as many of the schools found to be without basic facilities. The strengthening is with respect to the construction of additional classrooms, science laboratory, library rooms, toilet blocks and the other rooms required.

For the expansion of secondary education in Uttarakhand, upgradation of upper primary school is one of the pathways. There are a large number of upper primary schools which have a nearest high school at the distance 5 Kms and above. All these schools may have to be upgraded but the viability consideration takes into account those middle schools which are having number of class VIII graduates at least 30 and willing to get enrolled in class IX. For this purpose about 340 upper primary schools are planned to be upgraded during perspective plan. These schools are distributed over years within the respective plan periods.

Besides, the state of Uttarakhand is also planning to open Model Schools and the construction of these schools will be completed within the plan period.

Development or Non-Recurring Costs

The estimated cost of the developmental activities with respect to strengthening of the secondary schools, upgradation of schools and opening of models are presented in the table. These estimations are made based on the unit costs, physical requirement and financial provisions are presented in the table.

**Table 5.5.16 Unit Cost Physical requirement and financial provisions
in total perspective plan period**

**RMSA, Summary of AWP&B 2010-11 All District Uttarakhand
District level Format for Costing (Amount in Lakhs)**

District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Spill over		Fresh/New Proposal			Total Plan (Spill Over+Fresh/New)			
				Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
				Physical Infrastructure - Non Recurring								
Upgraded Upper Primary Schools	1.1. Classroom	H	5.63	46.00	258.98	48.00	96.00	10.12	971.52	67.00	142.00	1230.50
		P	5.63	14.00	78.82	15.00	56.00	8.67	485.52	19.00	70.00	564.34
	1.2. Science Laboratory	H	6.10	19.00	115.90	48.00	48.00	10.62	509.76	67.00	67.00	625.66
		P	6.10	4.00	24.40	15.00	15.00	9.12	136.80	19.00	19.00	161.20
	1.3. Lab Equipments		1.00	23.00	23.00	63.00	63.00	1.00	63.00	86.00	86.00	86.00
	1.4 Headmaster/Principal Room	H	5.00	19.00	95.00	48.00	48.00	9.52	456.96	67.00	67.00	551.96
		P	5.00	4.00	20.00	15.00	15.00	8.07	121.05	19.00	19.00	141.05
	1.5. Office Room	H	5.00	19.00	95.00	48.00	48.00	9.52	456.96	67.00	67.00	551.96
		P	5.00	4.00	20.00	15.00	15.00	8.07	121.05	19.00	19.00	141.05
	6. Computer Room	H	5.00	19.00	95.00	48.00	48.00	9.52	456.96	67.00	67.00	551.96
		P	5.00	4.00	20.00	15.00	15.00	8.07	121.05	19.00	19.00	141.05
	1.7. Art/Craft/Culture Room	H	5.00	19.00	95.00	48.00	48.00	9.52	456.96	67.00	67.00	551.96
		P	5.00	4.00	20.00	15.00	15.00	8.07	121.05	19.00	19.00	141.05
	1.8. Library	H	7.00	19.00	133.00	48.00	48.00	14.06	674.88	67.00	67.00	807.88
P		7.00	4.00	28.00	15.00	15.00	11.88	178.20	19.00	19.00	206.20	
1.9. Separate Toilet Blocks & D. Water	H	1.50	19.00	28.50	48.00	48.00	3.86	185.28	67.00	67.00	213.78	
	P	1.50	4.00	6.00	15.00	15.00	3.25	48.75	19.00	19.00	54.75	
Sub Total (1)				244.00	1156.60	63.00	656.00		5565.75	734.00	900.00	6722.35
Existing Secondary Schools	2.1. Classroom	H	5.63	110.00	619.30	128.00	221.00	10.12	2236.52	191.00	331.00	2855.82
		P	5.63	27.00	152.01	60.00	160.00	8.67	1387.20	77.00	187.00	1539.21
	2.2. Science Laboratory	H	6.10	60.00	366.00	193.00	193.00	10.62	2049.66	253.00	253.00	2415.66
		P	6.10	15.00	91.50	50.00	50.00	9.12	456.00	65.00	65.00	547.50
	2.3. Lab Equipments		1.00	808.00	808.00	336.00	336.00	1.00	336.00	1144.00	1144.00	1144.00
	2.4. Headmaster/Principal Room	H	5.00	0.00	0.00	0.00	0.00	9.52	0.00	0.00	0.00	0.00
		P	5.00	0.00	0.00	0.00	0.00	8.07	0.00	0.00	0.00	0.00
	2.5. Office Room	H	5.00	0.00	0.00	0.00	0.00	9.52	0.00	0.00	0.00	0.00
P		5.00	0.00	0.00	0.00	0.00	8.07	0.00	0.00	0.00	0.00	
2.6. Computer Room	H	5.00	46.00	230.00	224.00	224.00	9.52	2132.48	270.00	270.00	2362.48	

		P	5.00	9.00	45.00	49.00	49.00	8.07	395.43	58.00	58.00	440.43
2.7. Art/Craft/Culture Room		H	5.00	33.00	165.00	334.00	334.00	9.52	3179.68	367.00	367.00	3344.68
		P	5.00	8.00	40.00	85.00	85.00	8.07	685.95	93.00	93.00	725.95
2.8. Library		H	7.00	53.00	371.00	322.00	322.00	14.06	4527.32	375.00	375.00	4898.32
		P	7.00	16.00	112.00	80.00	80.00	11.88	950.40	96.00	96.00	1062.40
29. Separate Toilet Blocks & D. Water		H	1.50	172.00	258.00	265.00	265.00	3.86	1022.90	437.00	437.00	1280.90
		P	1.50	30.00	45.00	61.00	61.00	3.25	198.25	91.00	91.00	243.25
Sub Total (2)				#####	3302.81	490.00	2380.00		19557.79	3162.00	3767.00	22860.60
3. Furniture & Fixture			1.00	0.00	0.00	458.00	458.00	1.00	458.00	458.00	458.00	458.00
	4. Development Of Play Ground		0.10	0.00	0.00	276.00	276.00	0.10	27.60	276.00	276.00	27.60
	5. Boundary Wall			0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Sub Total (1 to 5)				#####	4459.41	1287.00	3770.00		25609.14	4630.00	5401.00	30068.55

Physical Infrastructure - Recurring

6. Residential Quarters for Teachers		H	6.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
		P	6.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
Upgraded Schools	7. Salary For Upgraded School											
	7.1. HM/Prin. Salary		0.40	0.00	0.00	86.00	86.00	0.40	412.80	86.00	86.00	412.80
	7.2. New Full Time Teachers Salary		0.28	0.00	0.00	86.00	602.00	0.28	2022.72	86.00	602.00	2022.72
	7.3. New Part Time Teachers Salary		0.15	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
	7.4. Lab. Attendent Salary		0.10	0.00	0.00	86.00	86.00	0.10	103.20	86.00	86.00	103.20
	7.5. Office Assistence Salary		0.15	0.00	0.00	86.00	86.00	0.15	154.80	86.00	86.00	154.80
	7.6. Watchman Salary		0.08	0.00	0.00	86.00	86.00	0.08	82.56	86.00	86.00	82.56
	7.7. Peons		0.08	0.00	0.00	86.00	86.00	0.08	82.56	86.00	86.00	82.56
	7.8. Librarian		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Existing Schools	8. Salary For Existing School											
	8.1 New Full Time Teachers Salary		0.28	0.00	0.00	40.00	284.00	0.28	954.24	40.00	284.00	954.24
	8.2 New Part Time Teachers Salary		0.15	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
	8.3 Lab. Attendent Salary		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
	8.4. Librarian		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
9. Trainings												
9.1. In service Teachers Training (5 Days) Subjective		0.01	0.00	0.00	2116.00	1726.40	0.01	172.64	2116.00	1726.40	172.64	
9.2. Induction Training Of New Teachers (5 Days)		0.01	0.00	0.00	126.00	886.00	0.01	8.86	126.00	886.00	8.86	
9.3. Headmaster/Principal & Edu. & Project Functionaries Trg. Of Leadership		0.05	0.00	0.00	2116.00	2328.00	0.05	116.40	2116.00	2328.00	116.40	
9.4 Other Trg (@Rs. 200/-Per Day)			0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
10. Repairing and Renovations												
10.1 Major Repair under Special Circumstances (upto 4 ections Rs. 4akhs)		1.00	0.00	0.00	222.00	365.00	1.00	365.00	222.00	365.00	365.00	
10.2 Minor Repair		0.25	0.00	0.00	1548.00	1548.00	0.25	387.00	1548.00	1548.00	387.00	

	11. Repair/Replacement of Lab Equipment & Purchase of Lab Consumable Articles		0.25	0.00	0.00	2116.00	2116.00	0.25	529.00	2116.00	2116.00	529.00
	12. Purchase of Books, 2eriodicals, Newspapers etc.		0.10	0.00	0.00	2116.00	2116.00	0.10	211.60	2116.00	2116.00	211.60
	13. School Grant		0.50	0.00	0.00	2116.00	2116.00	0.50	1058.00	2116.00	2116.00	1058.00
	14. Study Tours/Excursion Trips		0.05	0.00	0.00	2116.00	2116.00	0.05	105.80	2116.00	2116.00	105.80
	15. Science Exhibition		0.05	0.00	0.00	2116.00	2116.00	0.05	105.80	2116.00	2116.00	105.80
	16. Provision For Out Of School Children											
	16.1. Bridge Course(Special coaching)		0.15	0.00	0.00	2116.00	6276.00	0.15	941.40	2116.00	6276.00	941.40
	16.2 Alternative Scholing(Crash courses)		0.15	0.00	0.00	0.00	6355.00	0.15	953.25	0.00	6355.00	953.25
	16.3 Transportation Facility		0.15	0.00	0.00	0.00	450.00	0.15	67.50	0.00	450.00	67.50
	16.4 Voucher Scheme		0.15	0.00	0.00	0.00	387.00	0.15	58.05	0.00	387.00	58.05
	17. Incentives For Special group											
	17.1. Girls											
	a. School Dress		0.02	0.00	0.00	2116.00	10411.00	0.02	1561.67	2116.00	126177.00	1561.67
	b. Books & Stationary		0.02	0.00	0.00	0.00	10411.00	0.02	1561.67	0.00	126178.00	1561.67
	c. Transport Facility (KGBV)			0.00	0.00	0.00	60.00	0.00	5.94	0.00	60.00	5.94
	d. Other Inovative/Skill Dvt. Prog.			0.00	0.00	0.00	864.00	0.00	34.56	0.00	864.00	34.56
	17.2. SC/ST/OBC &Ed. B. Mino.											
	a. Books & Stationary		0.02	0.00	0.00	2116.00	48959.00	0.02	734.39	2116.00	48959.00	734.39
	b. Remedial teaching/Coaching		0.06	0.00	0.00	0.00	32351.00	0.06	1941.06	0.00	32351.00	1941.06
	c. Other Inovative/Skill Dvt. Prog.			0.00	0.00	0.00	1960.00	0.00	33.90	0.00	1960.00	33.90
	17.3. CWSN Children		0.03	0.00	0.00	2116.00	2180.00	0.03	65.40	2116.00	2180.00	65.40
	18. Strenthaning Of DIET's											
	18.1. Infrstructure (Hostel, Lib., Staff Room, Trg. Hall & Bading)		61.50	0.00	0.00	13.00	13.00	61.50	799.50	13.00	13.00	799.50
	18.2. Human Resource (5 Expert)		0.35	0.00	0.00	0.00	65.00	0.35	273.00	0.00	65.00	273.00
	18.3. Other Expen.		2.00	0.00	0.00	0.00	13.00	2.00	26.00	0.00	13.00	26.00
	18.4. Books		2.00	0.00	0.00	0.00	13.00	2.00	26.00	0.00	13.00	26.00
	19.Guidence & Counseling		9.00	0.00	0.00	0.00	13.00	9.00	117.00	0.00	13.00	117.00
					0.00			0.00	0.00	0.00	0.00	0.00
	Sub Total (6 to 19)			0.00	0.00	25741.00	342468.00		16073.26	25741.00	342468.00	16073.26
	Total (1 to 19)			1631.00	4459.41	27028.00	346238.00		41682.40	#REF!	347869.00	46141.81
	20. Management Cost (MMER)		0.02	0.00	0.00	0.00	0.00		833.24	0.00	0.00	833.24
	Grand Total (1 to 20)			1631.00	4459.41	27028.00	346238.00		42515.63	#REF!	347869.00	46975.04
	Total Civil Work				3628.41				26009.64	#REF!	0.00	29638.05
	Civil work %				81.37				61.18			63.09

Chapter VI

Strategies and Action Programmes

This section summaries the key mechanisms for implementing policy that are identified and interventions listed, along with the formed steps that need to be taken-

Advocacy and stake holder participation-

In Uttarakhand, the Panchayati Raj, municipal bodies, community, teachers, parents, and other stakeholders have already been involved in all the activities from planning, implementation, monitoring to evaluation process for the qualitative improvement of education. With the emergence of RMSA their role has become prominent. For the effective implementation of RMSA's goals and objectives, various committees have been formed from block, district to state level and each committee has the representatives of panchayati raj/municipal bodies, community, teachers, parents and other stakeholders. All these representatives were trained through various orientation programmes/workshops for making their greater participation in the process of planning. All these representatives have been included in micro planning exercise and in school improvement plan. All the representatives will also be involved in all the activities related to planning, monitoring, evaluation and implementation of RMSA from time to time. They are being involved in all the activities related to data collection of Data Capture format. Their services will be taken into account for the identification and verification of all the out of school children, girls and children of specific focus group. They will make arrangements of the resources like free of cost land, to the school management. The capacity of all the representatives will be build up from time to time for their greater participation in all the activities of RMSA.

Qualitative Expansion – Access and Participation

(i) To Improve Access

- ❖ The first and foremost strategy is to improve physical access to secondary classes in terms of material, resources and infrastructure. Physical access will be improved by creating additional classrooms in the existing secondary schools.
- ❖ The expansion and strengthening of existing schools and higher secondary schools will be done according to the need that has been arisen from the SEMIS data.
- ❖ The state of Uttarakhand has no further proposal for opening any new schools. The reason being that the State has already achieved a Gross Access Ratio of 83.65 and as the rest of the habitation is scattered and sparsely populated.
- ❖ Based on school mapping exercise the state will upgrade upper primary schools in the rest of the habitation. The first priority will be given to those schools who fulfill all the norms and are at the farthest distance i.e. in the radius of 15 km or more, then to the radius of 10-15 km, then 8-10 km, and at last to 5-8 kms. Even though if some habitation remains unserved then in that condition the provision of NIOS will be there.
- ❖ To improve the access, hostel facilities for SC/ST and girl children will be provided and free of cost textbooks, uniforms etc. will be distributed.
- ❖ According to SEMIS data, the additional sections of class in school pupil teacher ratio exceeds will be extended in the circumstance where the enrolment of the students will be 30:1.
- ❖ The State has will propose the upgradation of secondary and higher secondary schools only after GIS mapping.
- ❖ Presently, these are 19 educationally backward blocks in our state. They need special attention in the form of teacher training, remedial teaching, special coaching and counseling for students to improve their performance.

Strengthening of Existing Schooling Provision

- ❖ Access is not only availability of school but also availability of basic minimum facilities in the school. Therefore, all the secondary schools in the state will be provided with basic minimum facilities such as minimum required furniture, drinking water, toilet blocks, electricity and a play ground. All the schools will be provided with the facility of ramps, earthquake resistant buildings, etc. according to the requirement of the school and locality.
- ❖ In our state the teachers are already rationalized. A minimum of seven teachers are available in secondary schools. The teachers are appointed through centralized appointment policy. All the teachers who are appointed at the secondary and higher secondary level are trained and qualified according to the norms of NCTE.

Quality Improvements in Secondary and Higher Secondary Education

In the recent past particularly in last decade or so, concern for quality of education in India has been on increase. An increasing competitive global context, knowledge gaining preeminence in all aspects of life, effects of information communication revolution, increasing role of market in education and massification of education are some of the factors contributing to focus on quality education. If 'QUALITY' is an acronym, each letter may epitomise a step for quality i.e. Quest for excellence; Understanding the concept – strengths and weaknesses; Action orientation; Learner – centred approach; Innovation for change; Training to build competencies and Year – round activity.

Quality is a multi-factored phenomenon. The seven steps to quality improvement can be helpful in the attainment of the objectives of quality education from primary to higher secondary stage. Since universalization

of elementary education has become constitutional mandate, it is absolutely essential to push this vision forward to move towards universalization of secondary education which has already has been achieved in a large number of developed countries and several developing countries. In order to meet the challenge of universalization of secondary education, there is a need for a paradigm shift in the conceptual design of secondary education. The guiding principles in this regard are – Universal Access, Equality and social justice, Relevance and Development and curricular & structural aspects.

In Uttarakhand, the Directorate of School Education, SCERT, SIEMAT, DIETs/DRCs, Board of Secondary Education etc. are working for the quality improvement in secondary education. The Directorate of School Education has been established by MHRD in Dehradun with an objective to provide education from pre-primary to higher secondary level. At present, in our state there are 15300 number of primary, 3699 upper primary, 2741 secondary and 1626 higher secondary schools. There are eight Rajeev Gandhi Navodaya Vidyalaya and five Shyama Prasad Mukharji Abhinav residential schools. At the state level, the Directorate of School Education is the highest apex body that helps in planning, management and administration of school education. It provides academic and administrative support to all agencies like SCERT, SIEMAT, SSA, DIETs/DRCs, etc. and all the schools.

SCERT, Uttarakhand, is established in Narendra Nager, Tehri Garhwal. It provides academic and resource support from primary to higher secondary level and DIETs/DRCs through its twelve departments. Some of its main functions are curriculum and textbook development, research and evaluation, guidance and counseling, develop in-service and pre-service curriculum and training packages. Conduct NTSE, NMMSE, and RGNV entrance examinations, organize Vigyan Mahotsav, publish educational magazines, training modules, and bulletins, supervision and monitoring etc.

The State Educational Institute for Planning, Management and Training (SIEMAT) has been established in Dehradun. Its main objectives are to build up the capacity of the educational, administrators in planning and management, to conduct researches and give feedback for policy making and to strengthen the monitoring and evaluation system. Its main role is educational planning and management, research and evaluation, organize trainings, workshops, seminars and publish training modules, research studies, news bulletins etc.

The Board of Secondary Education has been established in Ramnager. The role of Board of Secondary Education is to conduct various examinations, mainly high school and intermediate board examinations, approve curriculum, give recognition to schools, support in curriculum designing and formulation, paper setting, evaluating answer books, etc.

At the district level, DIETs/DRCs has been established by central government under National Policy on Education – 1986, to provide academic and resource support at the grassroots level for the elementary and adult education. There are 10 DIETs and 3 DRCs that are functioning in our state. Some of its role and functions are to conduct pre-service training programmes, conduct training and orientation programmes for elementary education, organize courses for VECs and SMCs, provide academic and resource support to BRCs and CRCs, develop district specific curriculum and teaching-learning materials, conduct fundamental and action researches in education etc.

Both SCERT and DIETs/DRCs are more oriented towards the elementary education. But, now it is required for paradigm shift from elementary education to secondary education. For this, the strengthening of existing College of Teacher Education and Institute of Advanced Study in Education, for the professional development of secondary and higher secondary teachers is required.

The College of Teacher Education (CTE) are basically upgraded for secondary teachers education. Three CTEs were sanctioned for Uttarakhand by MHRD in 2005-06, but currently only one CTE i.e. CTE Pithoragarh is functional, rest two- CTE-Dehradun and Almora are non-functional. Its main role and functions are to develop training materials, organize training for secondary teachers, planning, monitoring and evaluation of training, provide extension and resource support to secondary education, conduct experimentation and innovation, organize orientation programme for resource persons, organize seminars/workshops and symposia on research, innovations etc.

The Institute of Advanced Study in Education (IASE) is also an upgraded secondary teacher education institution. In Uttarakhand, only one IASE was sanctioned by MHRD in 2005-06 in faculty of HNB Garhwal University, Srinagar, Pauri Garhwal. It has not performed any significant function, since inception. Its role and functions are to develop/select training material, organize training of secondary teachers, plan, monitor and evaluate training, provide academic guidance to DIETs and resource support to CTEs, develop instructional material, conduct B.Ed., M.Ed., M.Phil. and Ph.D. programmes in education to prepare teacher educators, and conduct in-service orientation programmes for headmasters, principals of secondary and higher secondary school etc.

On viewing the educational perspective of our state it is felt that there is a need to strengthen SCERT, SIEMAT, DIETs/DRCs, CTEs, and IASE for the quality improvement of secondary education. The different aspects that are required to be highlighted for quality improvement of education are -infrastructure, management information system, quality interventions to meet the complex needs of curriculum development, learning resources, teacher qualification, competency, subject specific deployment in schools, in-service training of teachers and heads of school, academic support at all levels, classroom based support and supervision issues etc. For quality improvement of the secondary and

higher secondary stage of education and full-filling all the parameters of quality in the state of Uttarakhand we need to workout/plan in the following areas-:

Curriculum Designing and Formulation

Since its existence (2000), the State of Uttarakhand was following the curriculum of Board of Secondary Education, Uttar Pradesh up till 2004-05. In April 2005, the textbooks of NCERT which were based on CBSE pattern were adapted in class IXth. This pattern has totally been implemented in secondary education from April 2008.

Keeping in view the specific needs of the state, the Board of School Education has made necessary revisions in the Hindi Syllabus of class IXth to XIIth. The revised syllabus comprises of 70% Hindi and 30% compulsory Sanskrit. Similarly, at the higher secondary level (XIth and XIIth) SCERT, has developed the syllabus on the subjects prescribed other than CBSE i.e. Education, Agriculture, Military Science, and Geology in the light of NCF – 2005.

Following activities will be conducted regarding the development of syllabus at the secondary and higher secondary level –

1. Revision of Hindi, English and Social Science subjects as prescribed in CBSE curriculum according to the needs of the state.
2. Inclusion of subjects like Agriculture, Tourism and Military Science etc. in the curriculum of secondary stage according to state specific needs and develop syllabus accordingly.

Textbooks -

The NCERT textbooks have been adopted by our State which are based on the subjects prescribed by CBSE pattern. The subjects like Home Science, Music, Drawing and Painting, Military Science, Agriculture, Geology and Education are not prescribed in CBSE pattern. The textbooks of these subjects have been adapted from UP Board and

presently been implemented after the approval of Uttarakhand Board of Secondary Education.

The additional material in Hindi and Social Science will be developed on the basis of revised curriculum according to state specific needs.

The textbooks of the subjects other than CBSE i.e.– Home Science, Music, Drawing and Painting, Agriculture, Military Science, Geology and Education will be developed by SCERT in the light of NCF-2005.

The issues based on equity and inclusive education will be incorporated at the time of textbook development.

Teaching Learning Process

The textbooks developed in the light of NCF – 2005 are based on child centered approach. The NCF – 2005 focuses that we should give the child more and more opportunities to construct knowledge. The guiding principles of NCF 2005 emphasize that the rote method of learning should be replaced by activity based learning.

To make teaching-learning process joyful, the transaction process of the subject matter should be activity based and proactive. Presently, the teachers are following traditional method of teaching that is based on teacher-centered approach. The teacher-centered approach gives the child very less opportunity to explore his/her potentialities, abilities, and apply his/her knowledge & experience for understanding any concept. So, there is an immense need to shift the teacher-centered approach to child-centered approach. Classroom process will be developed on the basis of principles of new curriculum framework. To make teaching-learning process effective, the transaction process will be included with content based in-service teacher's training. The transaction methodology will include activities like group discussions, seminars, projects, observations, paper presentation etc. The Learning Resource Centers need to be used for developing better understanding of different subjects.

Use of library for developing good and effective study habits and use of ICT for better transaction of the subject matter.

1. Learning Resource Centres

The curriculum at the secondary and higher secondary education generally include courses on science, social science, mathematics, languages etc. All these courses require a lot of practical work for better understanding of the subject. For this, laboratories are established in the schools and required equipments are procured for their functioning.

Traditionally, the concept of laboratories is only confined to science laboratory i.e. Physics, Chemistry and Biology. But, in the present context it is visualized in a much broader perspective. Now, it is being observed as a learning resource center where students get an opportunity to experiment, explore, analyse, observe and relate learning to the life outside the boundaries of the school. It is perceived as 'Centre' with potential to provide 'Resource Support' to both teacher and students.

At the state level, in SCERT, the English lab, ICT lab and Library exists in the name of Learning Resource Centres. They are also not well equipped. Due to lack of proper infrastructure, space and human resources, the learning resource centre for other languages, science, mathematics, art and craft, physical health and education, guidance and counseling etc. could not be developed. So, there to a need to developed new learning resource centres and strengthen the existing one for the quality improvement in education. DIETs/DRCs have almost the same condition. The ICT lab, mathematics lab and library exist at the district level in few DIETs. It is required that the existing labs should be strengthened and equipped in the form of learning resource centre and new learning resource centres should be developed.

At present, in our state, in almost all the schools science lab has been established in the name of labs. The essential equipments that are required in these labs are inadequate. There is no proper space in most of the labs for conducting related activities. These laboratories are not

managed properly as there is no person (lab attendant) to look after the equipments in the lab. For an effective transaction, there is a need to give separate space to the subjects like social science, mathematics, languages, and science. To make the transaction of the curriculum qualitative, special attention needs to be given to the art and craft activities and library, labs of different subjects and work education. At the school level, Art and Craft is not given due importance for effective transaction of different subjects. If it is given, it has not been used properly it is considered to be as an extra activity. Therefore, it is important not only to give due importance to the school subjects but also to other subjects like Art and Craft, ICT, Library, Health and Physical education, Work Education and Guidance and Counseling. The objective of these learning resource centre should not be only to collect resources but also to make maximum use of them in teaching-learning process. With the establishment of Language, Mathematics, Science, Social Science and ICT lab, the services of Guidance and Counseling, Library and library services and Arts & Craft and Work Education will also be taken into account. With an objective to provide support services to the schools in the above mentioned areas, learning resource centers/cell/corner will be developed at different levels–state, district, block and school level.

At these levels following resource centers will be established –

1. Science and Mathematics, Language and Social Science Education Resource Center.
2. Art & Craft and Work Education Resource Center.
3. Health and Physical Education Resource Center.
4. Library and Library Services Resource Center.
5. ICT Resource Center.

In order to make teaching-learning process effective and joyful the support of the resource centers that will be established at SCERT, Uttarakhand, DIETs and DRCs, main school of the block and at every school will be taken. All the resource centers developed at the school levels will get proper guidance from SCERT/DIETs/DRCs.

The Learning Resource Centres that will be established in SCERT and DIETs/DRCs will be a part of teachers' education scheme.

Science and Mathematics Learning Resource Center

Science is certainly valued for its impact on almost every sphere of our life and for bringing us to the age of Science and Technology from the historical era of stone age. Science also owes a great deal to mathematics for all its advancement as, mathematical tools are largely applied to solve scientific problems. In fact, mathematics holds a key position in all disciplines and professions. Science and mathematics are considered essential components of general education of an individual besides, languages and other subjects.

Science and Mathematics are not mere disciplines of study but also a way of life. The process of scientific thinking based on scientific reasoning, mathematical logic, scientific method of problem solving, mathematical accuracy and above all the values they inculcate, cut across various disciplines and are applicable in every walk of life.

In our state, science labs has been established in almost all the schools but mathematics labs are negligible. If they have been established, they are by the teachers' own personal effort/interest. At the district level mathematics lab has been established in some DIET's. Therefore, it is necessary to establish science and mathematics labs at all the levels i.e. state, district, block and school in the form of learning resource center/cell. The science and mathematics learning resource centre's at different levels will focus not only on the development of understanding and skills related to these subjects but also on the development of scientific temperament among the learners. SCERT

Uttarakhand, through Vigyan Mahotsav is motivating student and teachers for enhancing their scientific temperament, abilities and creative thinking. For this various activities like vigyan sangoshti, pradarshni, mela and drama are organized from school level to state level.

Steps to be taken for the implementation of Science and Mathematics Learning Resource Centre:-

- ❖ Establishing Science and Mathematics Learning Resource Centers at the state level in SCERT, at the district in all the DIETs and DRCs and all the schools. For this, lab equipments, material and furniture will be procured as per requirement.
- ❖ Developing infrastructure for establishing Science and Mathematics Resource Center at different levels.
- ❖ Formation of state/district resource group.
- ❖ Identification and capacity building of master trainers by SCERT.
- ❖ Development of training module with the help of district and state resource group for preparing master trainers and teachers.
- ❖ Organize in-service teachers training at DIET/DRC level.
- ❖ Organize seminars, workshops, class talks, exhibition, and visits etc.
- ❖ Provide space and material to students and teachers for hands-on-experience with science and mathematics learning material.
- ❖ Providing a place equipped with necessary resources to stimulate thinking for the development of innovative teaching learning material.
- ❖ Providing the teachers and students material and equipments for demonstration, experimentation and other related activities.

Language Learning Resource Centre

Language is a best medium of expression of our thoughts and emotions. Effective understanding and use of languages enables the child to make connections between ideas, people and things to relate to the world around.

School is a place where the four basic skills of language learning i.e. listening, speaking, reading and writing are developed and polished. The foundational role of these skills in children's construction of knowledge right from elementary classes through senior secondary classes needs to be recognised. At the early years of school education mother – tongue plays a very important role in the development of various skills. A renewed effort should be made to implement the three – language formula, emphasizing the recognition of children's home language on mother tongue as the best medium of instruction. Bilingualism/multilingualism should be promoted at the school level for the cognitive growth social tolerance and divergent thinking and better scholastic and co-scholastic development.

In the present context, the language teaching is only confined to the boundaries of the classroom and teaching-learning process is text-book centered, interaction in the class is not given due importance, language teaching emphasizes on the correctness of language rather than expression and participatory functions of language. Languages are being taught merely as a subject.

So, there is an immense need to look language teaching in a broader perspective. It is required that the subject matter should be explored further with the help of small group talks among children's and undertaking activities that nurture the abilities to compare and contrast, to wonder and remember, to guess and challenge, to judge and evaluate. Such kind of environment can be developed by providing a space to children to explore their linguistic abilities. For this, there is a need to create an environment in the school in the form of learning resource centre.

A language learning resource centre, will provide children an opportunity to explore various skills. The co-curricular activities like music, dance, drama, debate, storytelling, poem, folklore, recitation etc. helps in the enrichment of language skills. There is a need to give such

kind of exposure to children for learning different languages so, that it can help in the development of various life skills. Through this centre, children at all levels will get an opportunity to participate in group talks, storytelling and writing, singing songs, drama, etc which will further help them in linking to their cultural heritage and understand own experiences and develop sensitivity. The use of Information and Communication Technology (ICT) will help them in developing language skills through the use of technology. The ICT will help them in exploring their four basic skills of language learning by using computer software's, exploring internet, using C.D's,DVD's and other audio-visual aids for enhancing listening, speaking, reading and writing skills. It will also give children an opportunity to interact with each other and will promote self-learning. The books, journals and language softwares will also develop the skill of guided practice and reading among students. To make Language Learning Resource Centre functional there is a need to take following steps:-

- ❖ Strengthening of Language Resource Centre at the state level in SCERT, at the district level in DIETs/DRCs and at the school level. If there will be no separate space for language resource centre then in that situation, the Arts and Crafts / ICT resource centre will be used for carrying out the activities related to languages.
- ❖ Development of infrastructure and procuring equipments and tools, furniture, language software's, books, magazines, talking books, CD's, films, videos, computer with internet connections, for the resource centre.
- ❖ Formation of state/district resource group.
- ❖ Preparing modules for in-service teacher training in the use of language resource centre.
- ❖ Conducting in-service teachers training through DIETs/DRCs.
- ❖ Capacity building of the personnel's of language resource group through state level and national level institutions.

- ❖ Organizing seminars, conferences, debate, extempore, drama, creative writing sessions etc.
- ❖ Build up the capacity of teachers in the use of ICT and e-library.

Social Science Learning Resource Centre

The aim of teaching social science is to develop a critical understanding of the society among students. In order to build this understanding various subjects like history, geography, political science, economics etc. are being taught at different levels of school education. Social Sciences tend to be considered as non-utility subjects and are given less importance than the natural sciences. It is believed that social sciences merely transmit information and are textbook centered. Therefore, this subject needs to focus on a conceptual understanding rather lining up facts to be memorized for examination.

In the present context, it becomes necessary to recognize that social sciences lend themselves to scientific inquiry just like natural and physical sciences do. So, social sciences teaching should aim at generating in students a critical moral and mental energy, making them alert to the social forces that threaten these values. It is necessary to emphasize that they provide the social, cultural and analytical skills required to adjust, to aim at increasingly interdependent world and to deal with political and economic realities.

At present, in the secondary stage, the social sciences comprises of history, geography, political science and economics, and at the higher secondary stage it offers a choice of subjects to students which includes disciplines like political science, geography, history, economics, education, sociology and psychology. It has been observed that these subjects are being taught at the school level in a passive manner and the traditional method of teaching is being used which is textbook centered.

Social Science, especially at the secondary and higher secondary level needs to be revitalized for helping the learner acquire knowledge and

skill in an interactive environment. It must adopt methods that promote creativity, aesthetics and critical perspective and enable children to draw relationships between past and present to understand changes taking place in society. Problem solving dramatization and role play could be employed. In order to make the process of learning participative, there is a need to shift from mere imparting of information to debate and discussions. This approach to learning will keep both the learner and the teacher alive to social realities. Concepts should be clarified to students through the lived experiences of individuals and communities.

So, for qualitative improvement of social science teaching and making it lively and relevant for the young learners, required infrastructural facilities in terms of physical space and resource materials need to be provided in every school. The spirit of inquiry and creativity among children as well as teachers can be promoted in an interactive environment. Hence, every school should have a social science resource center for performing various group activities/project work, experimenting/demonstrating and displaying their creativity and storing best creations for further use as resource material. The social science resource centre should be developed at different levels-state, district and school. Social science learning resource center can be developed with art and craft resource centre. Social science resource centre should consists of resources like audio-visual materials, including photographs, charts and maps, films and replicas of archaeological and material cultures.

To strengthen social science resource centre in the state following steps should be taken:-

- ❖ Establishing Social Science Resource Centre with Art and Craft resource centre, at the state level in SCERT, at the district level in all the DIETs and DRCs and at every school.
- ❖ Formation of social science resource group at different levels.
- ❖ Capacity building of master trainers by SCERT.

- ❖ Development of training module with the help of state and district resource group for preparing master – trainers and teachers.
- ❖ Organizing In-service training for the teacher through DIETs.
- ❖ Organizing exposure visits.
- ❖ Use of pictures, films, videos, historical CD's, dance, drama and songs for deeper understanding of the subject.
- ❖ Motivate students to do surveys, projects and collect relevant material.
- ❖ Documentation of historical folklore, songs and stories at different levels.
- ❖ Organizing models and charts exhibitions, and conduct historical dramas.
- ❖ Organizing conferences and seminars at the state/district level for teachers.
- ❖ Development of local specific material.

Art and Craft

Art and Craft plays a very important role in the all-round development of the personality of a person. It is not only essential for the development of creative and aesthetic sense, but also for the cognitive, affective and psycho-motor development. The need to integrate art education in the formal schooling now requires urgent attention if we are to retain our unique cultural identity in all its diversity and richness.

The National Curriculum Framework – 2005 emphasizes that children must develop skills and abilities in these areas, and not treat these as a mere entertaining fringe. Through the arts curriculum students must be introduced to the rich and varied artistic traditions of the country. Arts education must become both a tool and a subject in every school as a compulsory subject (up to class X) and facilities for the same may be provided in every school. All four mainstreams covered by the term arts, i.e. music, dance, visual arts and theatre, should be included. Awareness also needs to be build among parents and guardians, school authorities

and administrators regarding the importance of the arts. Emphasis should be given to learning rather than teaching and the approach should be participatory, interactive, and experiential rather than instructive.

On viewing the status of art and craft education in our state, it can be observed that as such no art and craft learning resource centre exists at any level. The art and craft activities that are running in our schools are seen as an extra-curricular activity and reduced to tools for enhancing the prestige of the school on occasions like Independence day, Republic day, Annual day or during inspection of the progress and working. At the secondary stage of our school education, art and craft is a subject of internal assessment and both at the secondary and higher secondary stage the components of art and craft education like drawing and painting, music are being taught as an additional or optional subjects. The art and craft is not being used as a tool of teaching-learning process of different subjects.

So, there is an immense need to initiate art and craft education in our school system and make it an integral part of the transaction process. Resources for the integration of the arts and heritage crafts should be made available in every school. Block periods of about one hour to one and half hours are necessary, especially where theatre, dance, clay work are involved. In the secondary and higher secondary school stages, the art curriculum may allow children to specialize in some areas of their interest. The arts visual and performing need to become an important component of teaching-learning process in the curriculum. To strengthen art and craft education in our school system there is a need to take the following steps:-

- ❖ Establishing Art and Craft resource Centers at the state level in SCERT, at the district level in all the DIETs /DRCs and at every school.

- ❖ **Developing infrastructure** – The Resource centre must be housed in a well designed spacious room with adequate, electricity, water connectivity, and adequate number of tools and equipments, furniture, raw material, reference material/books, periodicals, motivational and exemplary works of Art and Craft, must be available in the center.
 - **Room** - Size 30 feet X 20 feet total 600 sq. feet with platform on one side for demonstration and performances. Shelves for work and display of Art works and models on one side with pin up walls to display the art works in the room. One small room of 10X10 feet size for storage, in-built cupboards in sidewalls.
 - **Furniture** – According to the requirement.
 - Computers, scanner, color printer, video camera, LCD, drawing and painting material, material for printing ,collage making, clay work, puppet making, mask making & applique work and musical instruments etc. Books on visual and performing arts, audio cassettes, color slides, and publications of CIET & CCRT.
- ❖ Formation of art and craft resource group at the state, district, local level and at school level.
- ❖ Capacity building of master trainers by SCERT.
- ❖ Formation of resource group of children for carrying out the cultural activities in the school.
- ❖ Development of training module with the help of district and state resource group for preparing master-trainers and teachers.
- ❖ In-service training for the teacher through DIETs/DRCs.
- ❖ Art and Craft persons at the state, district and local area will be treated as teachers and trainers for art and crafts and can serve in schools on a part-time basis as per need.

- ❖ Organization of art and craft mela to expose children to local crafts and tradition and also for children to display their own creative endeavors.
- ❖ Organization of art and craft Mahotsav for enhancing the talents of the students in arts, theatre, music and dance at the state, district/block/school level.
- ❖ Organizing exposure visits to arts and craft exhibitions, museums, workshops etc.
- ❖ Capacity building of SCERT/DIETs/DRCs/master trainers from national level institutions. like – Centre for Cultural Resource and Training, New Delhi, Lalit Kala Academy, Sangeet Natak Akademi, National School of Drama, India Gandhi National Centre for Arts etc.
- ❖ Prepare local specific art and craft literature.
- ❖ Conducting researches and action researches.
- ❖ Development of local specific material and promotion through exhibitions fairs etc.
- ❖ Collaboration with the institutions and NGO's that are working in the area of art and craft.

Work Education Resource Centre

Work Education is viewed as purposive and meaningful manual work, organized as integral part of the learning process and resulting into goods or services useful to the community, besides the pleasure of self-fulfillment. It provides the basis for building up proper attitudes towards work by developing favourable work values and habits, imparting necessary knowledge related to work, and developing appropriate work skills, which can help the children to become productive and self-reliant in meeting their day-to-day needs and those of their families and communities. Work Education can further enable the children to discover their real interests and aptitudes which would be

helpful to them in selecting suitable courses of study and occupations later on.

It has been observed, that schools are not geared for work as a part of the curriculum in terms of infrastructure or learning material. Work education is a subject of internal assessment at the secondary level. Required facilities for carrying out the activities of work education are not available in the schools. It is not perceived as an integral part of the curriculum. It is considered as an extra activity. The state academic institution i.e. SCERT has no wing of work education but the department of entrepreneurship development. It is required that a wing/cell of work education should be developed with Art and Craft resource centre. At present in every DIET/DRC there is a provision of work education teacher, who is working for elementary education. Few DIETs are doing well in work education. Therefore, there is a need to promote work education at all levels of school education i.e. state, district and school. It must be provided through a well-structured and graded programme. Systematic and intensive efforts are necessary for the promotion of Work Education Programme. The following course of action may be undertaken for this purpose:

- ❖ Professionals and learned members of the community may be involved as guest speaker for explaining the local specific WE activities.
- ❖ The school should establish linkages with Government institutions, artisans, and professionals, business enterprises, work centres, workshops etc. in the community and should take advantage of their expertise in the promotion and implementation of WE Programme.
- ❖ The school should organize awareness and popularisation programmes in the community for the WE activities offered in the school.

- ❖ The in-service training programmes should be organised for the teachers and master trainers.
- ❖ Orientation programme for the heads of the school.
- ❖ Career talk, group guidance and career conference may be organised to facilitate the selection of WE activities by the students.
- ❖ A committee consisting of Head of Institution, enterprising and enthusiastic teachers, representatives of students, parents and enterprises should be constituted for providing necessary input in effective implementation and furtherance of WEP in schools.
- ❖ The teachers and students who significantly contribute for the cause of WE in a particular session should be given due recognition at the time of assembly, and other school functions.
- ❖ Exhibition-cum-sale of Products should be organised during educational fairs, annual functions etc.

Role of State Education Department

- ❖ To strengthen the state, district and school level wing of work education.
- ❖ The state wing through its state and district educational authorities may start awareness programme for sensitizing the general masses, school teachers and students regarding the importance of work education programme as envisaged at the national level from time to time.
- ❖ The state wing should prepare handouts, brochures and posters indicating the salient features of work education. The department of Handicraft, Entrepreneurship development and agencies may also be approached for seeking educational assistance, services and linkage with educational institutions in making work education programme successful.

For carrying out the activities of work education the help of other resource centers should be taken. According to the availability of infrastructure a separate learning resource center may be developed. It can be clubbed with Art & Craft or any other resource centre.

Health and Physical Education Resource Centre

Health and physical education has always been a matter of great concern to all as, it contributes to the physical, emotional, social and mental well being of a person. In an educational institution, it aims at the improvement of human performance and human development through the medium of physical activities which includes the acquisition and refinement of moral skills, the development and maintenance of fitness for optimal health, getting knowledge about physical activities and exercises, development of positive attitude and managing stresses of the life.

Undernourishment and communicable diseases are the major health problems faced by the majority of children in India from pre-primary to the higher secondary school stages. Therefore, the need to address this aspect at all levels of schooling, with special attention to vulnerable social groups and girls has greatly emerged. There is a growing realization that health needs of adolescents, particularly their reproductive and sexual health needs to be addressed. To make them vulnerable to risky situations such as drug/substance abuse and HIV/AIDS transmission, it is needed to provide children opportunities to develop an understanding of various diseases and their prevention and cure, acquire life skills so that they cope with concerns related to the process of growing.

Sports and games, yoga, different types of exercises, healthy food habits, healthy daily routine, awareness about various diseases like AIDS, tobacco and drug abuse etc are some of the essential part of health and physical education. Realizing the importance of the study of health and physical education, it has been recognized as a compulsory area of curriculum at all stages of school education.

In the present context, lots of activities are being conducted in the school for the healthy physical and mental development of the child. These activities include morning prayer sessions comprised of P.T., Yoga and exercises. Sports and games are also conducted at regular intervals. For this under School Games Federation of India a yearly sports panchang is prepared and all the activities related to sports and games are organized from school level to state and successful candidates at the state level are recommended for the national and international level. The sports activities are organized at three levels sub-junior, junior and senior level for both girls and boys. Students are awarded scholarships for motivating them. At the secondary stage, health and physical education is a subject of internal assessment. At the state level there are limited numbers of resources for games. There is a dearth of indoor and outdoor sports equipments and play ground. Yoga is also not being conducted in every school. Previously, Adolescent Education Programs was running in our state for creating AIDS awareness. Regular health checkups/camps for creating awareness about drug abuse are not organized at any level.

So, there is an immense need to strengthen physical and health education in our state. For this, there is a need to take following steps:-

- ❖ Establishing Health and Physical Education Resource Centre at the state level in SCERT, at the district level in all the DIETs/DRCs and at the school level in every school.
- ❖ Proper infrastructure should be developed –
 - 600-700sq feet multi-purpose hall.

- Educational Tools – health models, body charts, posters, booklets, films, audio – visual aids, books, magazines, journals etc.
 - Furniture – Mats/durries for Yoga practices, chairs, tables, almirahs etc.
 - First Aid Kit.
 - Sports equipments both indoor and outdoor.
- ❖ Formation of Health and Physical Education Resource group at the state and district level.
 - ❖ Capacity building of in-service teachers through SCERT/DIETs/DRCs.
 - ❖ Organizing refresher courses for the teachers.
 - ❖ Collaboration with GOs and NGO's.
 - ❖ Organizing health checkup camps, AIDS and drug awareness camps.
 - ❖ Organizing seminars, fairs, conferences, class talks etc. at the state, district and school level.
 - ❖ Adolescent Education Program in the form of life skills should be conducted by this learning resource center.
 - ❖ Health and physical education should be made an integral part of the school assembly.
 - ❖ Support resources from district hospitals and institutions working in the field of children with special needs, socially disadvantaged groups for organizing health camps and awareness program should be taken.
 - ❖ Celebrating health, sports AIDS, etc. day in the school .
 - ❖ Promotion of health and physical education services through NCC, NSS, Scout and guide.

Adolescent Education Program

In Uttarakhand, Adolescent Education Program was (AEP) started from 2003 to 2008. Its main objective was to make adolescents aware about severe disease – ‘AIDS’. It was implemented by the Adolescence Education Cell, in the department of secondary education in SCERT. Under this programme SCERT through its SRG and DRG trained master trainers at the block level who further trained the nodal teachers and peer educators. Peer educators were students of class IXth and XIth. At every school red ribbon club was established for carrying out the activities of AIDS awareness program in school as well as in the community.

Now, it is being realized that AEP should not be limited to AIDS awareness. It is suggested that health related education of adolescent, including awareness about AIDS, should be treated in larger context of life skills education and holistic development which covers the following areas.

- (i) Health and hygiene (habits, diseases, precautions, drug abuse etc.)
- (ii) Physical education with Sports activities and Yoga.
- (iii) Value education (education for peace, national integration and culture)
- (iv) Co-curricular activities related to health (debate, speech, quiz, poetry, folk dance, making charts, posters, models etc.).
- (v) Activities concerning to red-cross.
- (vi) Other Life skills, such as-developing self confidence, positive self concept, communication skills, stress management, time management skills etc.

For implementing of AEP in the form of life skills program the following steps will be taken:-

1. Analysis of the present curriculum and infusion of life skills components as per requirement.
2. Development of need based material.
3. Inclusion of adolescent education in the form of life skills in in-service teachers training.

4. Curricular integration of life skills elements in the courses of study.
5. Advocacy programme for parents and community leaders.
6. Monitoring and evaluation system should be formulation and operationalized.

Library Resource Centre

Library in an educational institution is an indispensable support mechanism that helps in fulfilling the objectives of teaching-learning process. It plays an important role in the creation of environment for teaching-learning and in the development of effective study skills. It is an effective resource for guided reading for students as well as teachers.

The libraries that have been established at the state level in the Directorate of School Education, SCERT, SIEMAT and Board of School Education are utilizing its services during workshops, seminars, in the development of training packages and textbooks etc. At the district level libraries have been established in DIETs and DRCs. It is being used for researches/action researches, during workshops and material development. The guided reading has been included in the two years BTC curriculum, with an objective to develop the skill of utilizing library as a resource. At the block and school level the library services need to be developed and make more functional for an effective and fruitful teaching-learning process. It is suggested that ICT Resource Room and Library of the school may be housed in one big room or these may be housed in two adjacent rooms.

On viewing, the current status of libraries at different levels it is necessary to maintain an environment conducive for the full exploitation of the available resources and maintain the latest and relevant collection and editions of textbooks/reference books and facilitating efficient ICT services.

Step to be taken for the implementation of library services:-

- ❖ Strengthening of the libraries already established at the state/district and school level. Both in terms of ICT as well as human and material resources.

- ❖ Establishment of libraries at the block and school level with ICT facilities and resources. There will be a well furnished separate room as per state norms. It will be fully equipped with textbooks, subject based reference books, news papers, magazines, journals etc. with internet facility.
- ❖ To make libraries functional trained person (librarian cum instructor) will be appointed at different levels, or interested teachers/teachers with less workload will be given the charge of library and will be trained in library services. Student's services will also to taken for maintaining the library.
- ❖ In-service training will be imparted to the library in-charge/full-flashed librarians for maintaining and utilizing the resources of the library.
- ❖ In-service teacher will also be trained in the use of library services for making teaching-learning process more effective.
- ❖ Develop e- library at different levels.
- ❖ Strengthening of interested teachers and other interested persons through distance mode or correspondence course in library services.
- ❖ All library operation from accession to issue of books will be computerized.

Information and Communication Technology (ICT) Resource Centre

In the recent time, with the advancement of information and communication technology (ICT) the educational scenario all over the world has seen revolutionary changes. These changes have not only enhanced the versatility and sophistication of Information and Communication technology tools and techniques but have also made them more-user-friendly.

Information and Communication Technology refers to use of technology that are used to transmit, store, create, display, share or exchange information by electronic means which includes radio, television, video, DVD, telephone, mobile, satellite communication systems, computer network, hardware and software, as well as the equipment and services

associated with these technologies such as video conferencing, e-mail, blogs etc. In an educational system, computer technology deals mainly with the usage of tools and techniques to enhance the effectiveness of teaching-learning processes. ICT is not confined to only computer laboratories, but it includes all the sources that helps in communication, for eg. audio-visual aids, T.V., radio, video, use of internet etc.

Status of Computers and Computer Trained Teachers in the state of Uttarakhand

Table 6.6.1 Availability of Computers

Computers Established by Hiltron in Different Phases	8807
Computers Established by Hiltron in Different DIETs	94
Computers Donated by INTEL in Different Schools	200
Computers (9 desktop and 1 Server in each school) in 25 SMART Schools	250
Total Established Computers	9351

Establishment of 1000 computers and related ICT equipments in 100 Schools under ICT in Schools Programme is under process.

Table 6.6.2 Status of Trained Teachers

S. No.	Teacher Trained by INTEL Till 2006	Trained	Trained By Microsoft	Trained
1	Total MTs trained in High Schools/Inter Colleges	2250	Total Trained Teachers	10425
2	MTs Trained in Junior High Schools	34	Trained Principals	898
3	MTs Trained in Primary Schools	42	Trained Students & Others	1400
4	Total Trained MTPTs	18286		
	Total	20612	Total	12723

Total Trained Teachers/Principals/Students/Others in the Department 33335

ICT in Schools Scheme

Centrally sponsored scheme 'ICT in Schools' is a window opportunity to the learners in Schools of India to bridge the digital divide. Main objectives of the policy are:

- To establish an enabling environment to promote the usage of ICT especially in Higher Secondary and Secondary Government Schools in rural areas. Critical factors of such an enabling environment include widespread availability of access devices, connectivity to the internet and promotion of ICT literacy.
- Enrichment of existing curriculum and pedagogy by employing ICT tools for teaching and learning.
- To enable students to acquire skills needed for the digital world for higher studies and gainful employment.
- To provide an effective learning environment for children with special needs through ICT tools.
- Promote critical thinking and analytical skills by developing self learning. This shall transform the classroom environment from teacher-centric to child-centric learning.
- Promote the use of ICT tools in distance education including the employment of audio visual medium and satellite based devices.

Hardware & Funding:

Under the above stated scheme 90% of financial assistance is provided by the central government and rest 10% is contributed by the state government.

- **Vision:**
 - To prepare youth and community to participate creatively in the establishment.
 - Sustenance and growth of a knowledge society across the state.
 - To meet the challenge of digital divide.
 - To develop knowledge society that would be able to achieve socio-economic development and global competitiveness.
- **Mission**
 - To provide, support and sustain ICT enabled activities and processes in order to improve access, quality and efficiency in schools.

To make our vision and mission a success we are intended to:

- To create an ICT enabled environment in schools.
- To enable teacher community to use ICT tools in classroom teaching.

- To enable the teacher and student community to share, collaborate, teach and learn through ICT Tools.
- To develop networks of teachers, resource persons and schools to catalyze and support resource sharing.
- To promote teachers to adopt the best pedagogical approaches to teach students through ICT tools.
- To provide and share digital content among schools and encourage teachers to create and share attractive and digital content for students.

Establishment of ICT Cell:

- To implement the 'ICT in schools scheme', the state government has established an ICT Cell under the Director of School Education. This cell will facilitate to equip all the schools of the state under 'ICT in schools scheme' in a phased manner. It will direct and control all the activities and functioning of SEITA (State Education Information Technology Academy). ICT Cell will also monitor the implementation of this scheme in schools. ICT Cell will ensure the effective implementation of e-class project in schools.

➤ E-class Project:

Under e-class project curriculum based digital content for the classes IXth to XIIth in physics, chemistry, biology and mathematics subjects has been prepared. At present some schools of the state have been covered under e-class project. Curriculum based digital content has been provided to be used in classroom teaching-learning process by these schools. A help-desk has also been established at Dehradun to seek feedback from teachers and students and to provide appropriate help. We plan to cover all the Higher Secondary and Secondary Schools under e-class project.

- **Establishment of State Education Information Technology Academy (SEITA)**

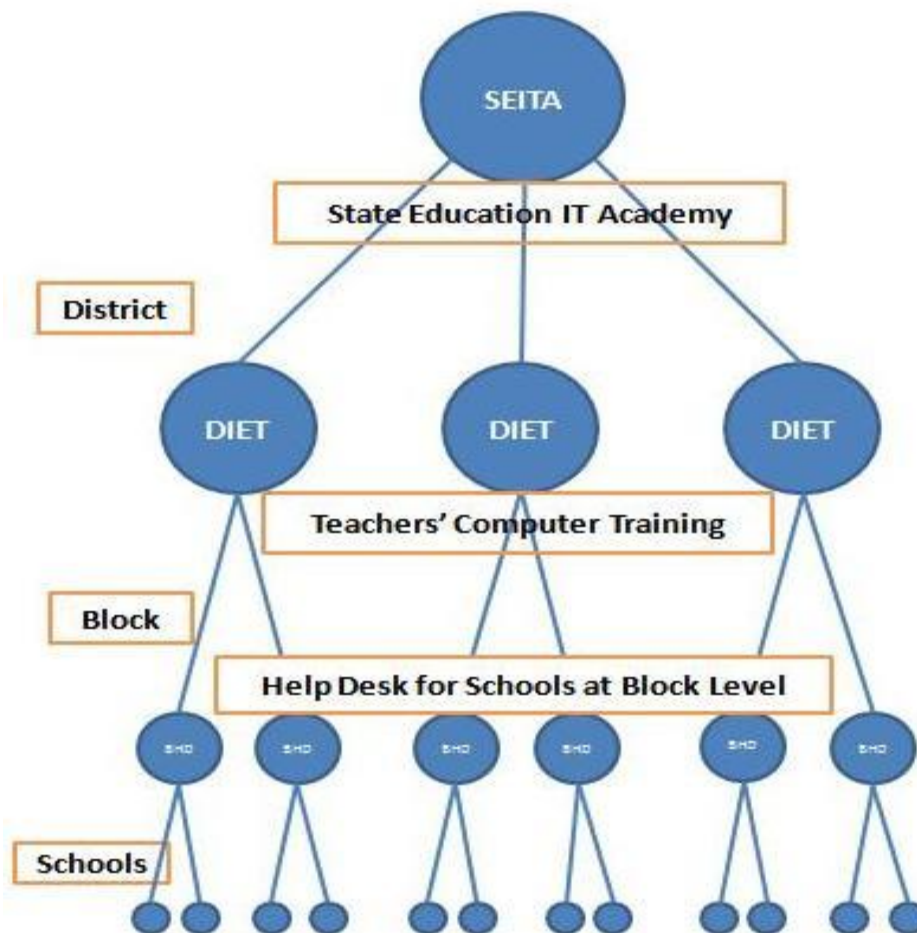
- In 2003 Microsoft Company established IT Academy at Raipur Dehradun and conducted Teachers' Training under an MOU (Memorandum of Understanding) with the Education Department for Five years. In November 2008 after the completion of the Five years the Company handed over the charge to IT Academy along with all the equipments to the department.
- The department has transferred the building and re-established the IT Academy at RGNV Nanoorkhera, Dehradun, with an objective to impart computer training to all teachers of the state. A computer lab for the training of teachers with hostel facility has been established. We are in the process to make it functional soon. Computer Training will be imparted to teachers at SEITA. All the teachers of Secondary and Senior Secondary Schools will be trained in a phased manner at SIETA.

Further Plan:

Under the concept of ICT in schools, we have to achieve three main goals at school level.

- **Learning about ICT:** Under this goal technological literacy is the end goal at school level. We have to make all teachers/students literate to use ICT tools.
- **Learning with ICT:** Along the first goal, we have to adopt technology to facilitate learning across the curriculum.
- **Learning through ICT:** Here, we have to integrate technological skills development with curriculum applications.
- **Capacity Building of Teachers:**
- To make student community capable of using ICT tools, we have necessarily to make teachers capable to use ICT tools in their teaching-learning processes. For this, we have to establish IT training centers for teachers at State and District levels. At State level, a Monitoring Body will be established and all DIETs/DRCs

would be equipped with computer labs and Trainers. At Block level a help desk will be established.



Step 1

Provision of Infrastructure

- Maintain the infrastructure already available at schools.
- Establish well equipped computer labs in schools under 'ICT in schools scheme'.
- Strengthening of already existing computer labs existing at different levels in the form of Learning Resource Centers or to establish learning resource centres at every school.
- Suggested layout for an ICT centre of 25'X20' feet.
- Computer hardware and software with printer and broadband internet connectivity.
- Develop inter connectivity between the state/district and school level ICT centers.



Step 2

IT Literacy

- Teachers' Training to use ICT in teaching-learning process.
- Teachers' Training to use ICT Tools to develop digital content.
- Training for Teachers/Librarians to enable them to use ICT tools to keep records of books available in the library of the school.
- General curriculum and provision of periods in time table for Students to learn the use of ICT.



Step 3

Learn with ICT

- Provide Digital content for the use of teachers and students.
- Develop Local digital content.
- Provide broadband internet connection to schools and facilitate teachers and students to interact with a larger community.
- Provide a Net-based common platform for teachers and students for sharing.
- Well equipped libraries to establish 'Digital Libraries' and facilitate teachers and students to use digital content in their learning process.
- Organizing orientation programmes for the ICT personnel at the state/district/school level.
- Formation of state/district/cluster resource group.
- Organizing video conferencing programmes for the teachers.
- Organizing in-service teachers training programmes for all subject teachers for developing an understanding about the use of ICT as a medium for teaching different subjects.



Step 4

Learn through ICT

- Computer Science, as a subject at higher secondary level.
- OHP, LCD, DVD player, TV.
- Organizing educational broad casts like Gyan Darshan, Gyan Vani.
- EDUSAT – Transmission of live teleconferencing session through EDUSAT, based on inter active two-way audio two-way video is available across the country through more than hundred SIT terminals.
- Popular TV Channel – Some popular TV channels are also useful like Discovery channel, National geographic, History etc.
- Other Resources. e-Gyan kosh, Sakshat–An Education Portal, Wikipedia–the free encyclopedia.
- Using important websites of e-Gyan kosh, NCTE, NCERT, Sakshat,

UGC, IGNOU, NIOS, MHRD, CBSE, Google, Wikipedia, Facebook, MSN etc.

General Curriculum for students:

All students should acquire the general skills to run and use computers and other ICT devices. To make our students literate in the use of ICT tools, we have to develop a general curriculum for students of different classes so as to help teachers as well as students.

Appointment of subject teachers:

To make our students efficient in computer application, we have to appoint permanent teachers for computer science as a subject in schools.

Provide curriculum based digital content to schools:

Planning to purchase curriculum based digital content from different sources and distribute it in schools or make the firm running the scheme in different schools provide digital content. Development and sharing of digital content by trained teachers. State Educational Information Technology Academy (SEITA) will provide trainings to teachers keeping in view their potential to adopt 21st century skills in the classroom teaching, use and make students use ICT tools in teaching and learning process.

State Level Competitions/Awards for Teachers:

We plan State Level Competition of teachers regarding the use of ICT in education keeping in view use of 21st century skills in classroom teaching. Teachers doing the best work for the use of 21st century tools and also adopting 21st century skills in teaching-learning process would be awarded to inspire and motivate the whole teacher community.

Provision of Resource Persons (Teachers) at Block/Cluster Level:

Teachers doing good work would be encouraged. They would also work as resource persons at block/cluster level. They would look after and help different schools regarding the best use of computers in teaching-learning process and also the maintenance of their computer labs.

Computer labs are already established in SCERT and DIETs/DRCs. There is need to strengthen these labs with latest tools and technology. The labs of SCERT and DIETs/DRCs play a role of supporting agency for SIETA.

EDUSAT facilities in schools:

EDUSAT can be used for conventional radio and TV broadcast, Interactive radio and television, exchange of data, video/teleconferencing and web-based education. For this:-

- Strengthening of EDUSAT centres existing at different levels.
- Establishment of a Receive only terminal in a school required equipment including or receiving unit and peripherals.
- The EDUSAT facility will be installed in the computer cum-library room. The facilities can also be outsourced from the private sector of thought a Boot mechanism.

Enrichment and Modernization of Learning Resource Centres

The establishment of a Learning Resource Centre in an educational institution cannot be a onetime affair. It has to continue growing with the passage of time in response to the changing demands of different curricular areas and availability of new equipments and other teaching-learning resources. The periodical addition of resources shall have to be accompanied by the weeding out of the out dated resources, as due to the constraints of the limited space and equipments, no institution can afford to go on adding new resources. The institutions are expected to put in place a clear cut policy for the enrichment and modernization of Learning Resource Centers and also for the disposal of the obsolete resources, both hardware and software.

Linkages among Learning Resource Centers

All the Learning Resource Centers developed at different level will not be perceived as a separate unit i.e. Art & Craft, Science, Social science, Language etc. but they should be seen as interlinked and integrated with each other. All these centers have to function in tandem with each other. It may not be possible for an institution to process multiple sets of hardware and software for different resource centers. For instance, besides the ICT Resource Centre, computer systems, audio-video material, projectors etc. may be needed by the Arts & Craft, Language, Science and Mathematics and by Guidance and Counseling Resource Centre also. Likewise, Resource Centres may need books and journals related to respective areas. The institution has to decide whether it would establish self-contained Resource Centres for Science and Mathematics, Health and Physical Education, Arts & Crafts, Guidance and Counseling, ICT, Language etc. or would like them to utilize the resources available with the ICT centre and the library of the institution. The science educator intending to organize screening of a video film may do so in the Science Centre by borrowing the necessary equipments and software from the ICT Resource Centre or take his students to the ICT Centre for the purpose.

Language education too is not confined to the language classroom. A science, social science or mathematics class is ipso-facto a language class. Learning the subject means learning the terminology, understanding the concepts and being able to discuss and write about them critically. For some topics, students should be encouraged to consult books or talk to people in different languages or gather material from the internet. Co-curricular activities like music, arts, theatre, dance, debates, sports etc. also help in developing the concepts of different subjects and creative skills. Subjects like science, mathematics, social science etc. may need the help of Art & Craft/Library/ICT Resource Centres. No one Learning Resource Centre can work in isolation so, there is a need to make interlinkages between and among different resource

centres and make best use of each other for making teaching learning process joyful and effective.

Student Assessment and Examination Reforms

Evaluation is an indispensable part of the educational process as some form of assessment is necessary to determine the effectiveness of teaching-learning processes and their assimilation by learners. At the school level, assessment of the child is mainly done in two areas scholastic and co-scholastic. The assessment of curricular part is done on the basis of marks and of co-curricular part on grades. This assessment is both formative and summative. In school education we have to make assessment process continuous and comprehensive.

Continuous and Comprehensive Evaluation (CCE) refers to a system of school-based evaluation of students that covers all aspects of students development. One of the main purposes of evaluation at the school stage is to help the learners improve their achievement in scholastic areas and to develop life skills and attitudes with reference to the larger context and canvas of life.

On viewing, the present position of continuous and comprehensive evaluation we come to know that the evaluation of skills and higher mental abilities are neglected to a great extent. The evaluation of non-cognitive aspects like attitudes, appreciation, interests, personal and social qualities of students, are seldom carried out. The evaluation practices that are being carried out are still conventional in nature and purposes. Formative feedback is not provided to students. Competencies are not assessed through planned procedures of evaluation. The in-service programmes planned for the teachers have inadequate inputs in evaluation and do not create avenues for practical exercises during the training.

Keeping in view, the shortcomings of the present status of CCE, there is a need to look at the holistic assessment of a learner. So, it

would be reasonable to regard CCE in the context of school as a continuous updating of teachers judgment about learner. Some important areas to be considered for the implementation of continuous and comprehensive evaluation are:-

- The whole process of Evaluation should be continuous and comprehensive and should focus on the curricular and co-curricular area:-

(i) Evaluation of curricular areas:-

Area	Technique	Tool	Periodicity	Reporting
All the school subjects	<ol style="list-style-type: none"> 1. Oral test 2. Written test 3. Project work 4. Practical activities 5. Group discussions etc. 	<ol style="list-style-type: none"> 1. Oral questions 2. Question Paper 3. Unit test 4. Assignments 5. Project reports etc. 	<ul style="list-style-type: none"> • Every day after completing a competency of group or competencies. • Monthly tests/unit test, terminal tests 	Using grades/marks.

(ii) Evaluation of co-curricular area:-

Area	Technique	Tool	Periodicity	Reporting

<ul style="list-style-type: none"> • Health & Physical Education 	<ul style="list-style-type: none"> • Observation of activities • Medical check-up for physical growth. 	<ul style="list-style-type: none"> • Rating scale. • Norms of fitness 	<ul style="list-style-type: none"> • As per timetable • Quarterly/half yearly/once a year. 	<ul style="list-style-type: none"> • Grading • health Status
<ul style="list-style-type: none"> • Work Experience and Art Education 	<ul style="list-style-type: none"> • Observation at work and activities • Maintenance of portfolios • Maintaining cumulative records 	<ul style="list-style-type: none"> • Rating Scale 	<ul style="list-style-type: none"> • As per timetable 	<ul style="list-style-type: none"> • Grading
<p>Social and personal qualities</p> <ul style="list-style-type: none"> — Cleanliness — Obedience — Co-operation — Regularity — Punctuality — Protecting environment — Truthfulness — Life skills — Positive Attitude — Participation in-school activities — Leadership — Communication — Motivation — Self-confidence — Interest etc. 	<ul style="list-style-type: none"> • Observation • Interview • Self reporting techniques • Student's diary 	<ul style="list-style-type: none"> • Rating scale • Checklist • Anecdotal Records 	<ul style="list-style-type: none"> • Day to day observations by the teachers by determining criteria for each trait 	<ul style="list-style-type: none"> • Grading

The criteria, as listed above, are large in number and varied as many cognitive and non-cognitive capacities that are required to be developed and inculcated among the children for their overall personality development and professional growth, however, this does not mean that all are to be taken into consideration for an assessment. Further, a teacher requires sufficient expertise in conducting assessment at a time. It will eventually be the discretion, judgment and freedom of the teacher

to select and consider particular indicator for assessing the process of a particular work, unit or project. This will depend upon the degree of teacher's own growth and expertise, the nature and type of the work process, the level of maturity of the learners and the learning situation provided to the students. It is hoped that teachers will strive to grow professionally to handle with ease the assessment of the process of the work units or the projects.

- ❖ Formation of State/District resource group of such person who have specialization in assessment and evaluation.
- ❖ Preparation of training modules in assessment and evaluation.
- ❖ Preparation of master trainers.
- ❖ Orientation programmes to make the teachers familiar with changing typology of questions, multiple choice questions and testing of higher order thinking and preparation of such items etc. be organized by the Board of School Education.
- ❖ Inclusion of evaluation and assessment in in-service training package.
- ❖ Conduct research/action research on various aspects of examinations.
- ❖ To make whole process of evaluation/assessment child friendly grading system will be used in place of marking system.
- ❖ Orientation programmes on continuous and comprehensive evaluation for the teacher, master trainers and administrators.
- ❖ Organizing in-service training programmes on paper setting by the Board of School Education.
- ❖ Reconstruct and redesign examination system with attributes like flexibility where a student can achieve learning in a flexible timeframe and accumulate credits, eliminating tests of fixed duration and adopting CCE.

- ❖ Inclusion of wide range of performance parameters on the mark sheet-absolute marks/grades, percentiles rank among all candidates of that subject and percentiles rank among peers.
- ❖ There should be flexibility in examination and assessment process for children with special needs.

Remedial Teaching

Remedial teaching is an indicator of quality improvement in education. It refers to the help offered to pupils who need pedagogical/didactic assistances. This is offered not only to children who function at a lower than average level because of certain learning or behavioral problem/disorder but also to the children who achieve at a higher than average level, they too can do with extra attention and care. It is often associated with solving the academic and behavioral problems of children with special educational and social needs.

In the school setting, remedial teaching is important for enhancing the academic achievement of under achievers. The remedial teaching follows certain steps which include identification of the problem, diagnosis of deficiencies, finding causes, making a therapy plan and implementing a plan. The treatment that ensures is remedial teaching. It is a help that is completely specialized in the problem of pupil, it is custom made. The therapy plan is down up for weeks to 3 months, once or twice a week at school or in the remedial teacher's own practice. Remedial teaching aims at increasing the quality of education, increasing retention and reducing dropouts. Learning takes place from simple to complex. If for some reason the student has not learnt the basics; it is futile to teach him the advanced topics. Remedial teaching is not revising the topics taught repeatedly. Careful analysis of the students' performance in the examination and diagnosing the areas of difficulty are key aspects in remedial teaching. Once the areas are identified the next task is to plan the learning experiences to teach the basics to understand the given topic.

The Process of Remedial Teaching

Curriculum Adaptation

- Remedial teachers should adapt the curriculum to accommodate the learning characteristics and abilities of pupils. They should set some teaching objectives which are easy to achieve to ensure that pupils may acquire the knowledge as desired after the completion of each module.
- Teaching should not be directed by textbooks which should not be taken as the school curriculum. There is no need to cover all the contents in the textbooks as well. Schools can classify the teaching content into core and non-core learning aspects according to the teaching objectives and pupils abilities. Core learning aspects require in-depth studies and application whereas materials in the non-core or advanced learning aspects may be streamlined or appropriately selected for teaching.
- Teachers are encouraged to adopt recommendations on cross-curricular teaching by linking up related teaching areas flexibly so that more time can be spared for effective activities and learning.
- Teachers should make good use of all teaching materials. For example, they may select and use the materials in textbooks to meet the teaching objectives, or compile their own supplementary teaching materials. They may also design materials of different standards.
- Materials from the internet, newspapers, magazines and references provided by the Education Department may help teachers design interesting and enjoyable activities to enhance pupils' effectiveness of learning.

Formulation of Teaching Plans

- When formulating teaching plans, teachers are advised to take the following two aspects into consideration: On the one hand, teachers should formulate practical teaching objectives that meet the

learning characteristics and weaknesses of pupils so as to foster a sense of achievement. On the other hand, teachers should decide whether the learning items should be taught in details or in brief. Moreover, the items should be classified into different levels and taught through small and simplified steps to facilitate comprehension as well as to strengthen pupils' confidence in learning.

- With reference to the common difficulties encountered by pupils, teachers should set down the main points for remedial teaching and make adjustments promptly according to the performance of students.
- Teachers should make a brief record of the learning aspects, teaching objectives/aims, key learning points, activities, use of teaching aids and evaluations for future reference.
- Teachers may deliver the teaching content by means of modules, themes, learning aspects or teaching items and work out the teaching plans accordingly.
- Post-lesson reviews should focus on the teaching process and pupils' performance, with specific and critical evaluations made. Examples of main points for review are as follows:
 - The common difficulties of pupils;
 - The effectiveness of teaching strategies and class activities to help pupils understand the teaching contents, grasp the main points and apply what they have learned; and
 - Issues of concern (e.g. basic knowledge that requires enrichment, the need to break down or re-arrange teaching steps, etc.)

Teaching Activities, Aids and Supporting Materials

- Teachers should design appropriate learning activities in line with the focus of teaching. On the basis of low starting point, small steps, diversified activities and instant feedback, teachers should

encourage pupils to participate actively during the learning process to help master the skills and methods of collaborative learning. Diversified teaching activities such as situational teaching, collation of information, discussion, oral reporting, games, topical research, production of graphs/figures/models, role play, recording, visits and experiments may help pupils enhance their interest in learning, stimulate their thinking and reinforce the effectiveness of teaching.

- Teachers should exercise their discretion in the appropriate use of teaching aids. Appropriate teaching aids not only help to enhance pupils' interest in learning, but will also consolidate the knowledge they learned, thus achieving the objective of teaching. Common teaching aids are concrete objects, figures, models, word cards, number cards and audio-visual equipments such as tape recorder, headset, wire free induction loop system and multimedia teaching aids, etc. When designing and using teaching aids, teachers should first consider their practical use and assess whether the aim of remedial teaching can be attained.
- The design and organization of teaching materials should be pupil-oriented. They should be selected and collated systematically to serve the purpose.

The Setting of Learning Environment

- Well-designed learning environment helps to maintain pupils' attention and interest in learning and facilitates the achievement of teaching aims. In this way, it is easier to achieve the aim of teaching. The teaching environment should be designed to support remedial teaching and group activities. Seat arrangements of pupils should be flexible to meet the specific teaching purposes of each learning activity. For example, teachers and pupils may form of circle when holding discussions; and the two pupils or group

members involved may sit together during peer group or small group learning.

- Teachers should prepare a rich, pleasant and comfortable learning environment for pupils. For example, they may set up a self-learning corner, book corner, toy corner, science corner, prize corner or stationery/learning resources corner, etc. to enkindle pupils' interest in learning.
- Teachers may display the teaching materials of the week or the learning outcomes or products of pupils at prominent places to stimulate their motivation in learning.

Remedial Teaching Strategies

Individualized Educational Programme (IEP)

- Geared to the learning needs of individual pupils, the Individualized Educational Programme aims to reinforce the foundation of learning, help pupils overcome their learning difficulties and develop their potentials. Individualized Educational Programme should include short-term and long-term teaching objectives, learning steps, activities and reviews to ensure that the programme is implemented effectively. Teaching can be done in small groups or for individual. If necessary, remedial teachers, other teachers, student guidance officers/teachers, parents and pupils alike are to participate in designing the programme. Remedial teachers hold meetings regularly to evaluate the effectiveness of work and gather opinions for refinement.
- Remedial teachers may train up pupils who perform better in a certain subject to become 'little teachers' and who will be responsible for helping schoolmates with learning difficulties in group teaching and self-study sessions as well as outside class. Peer support programme helps pupils reinforce their knowledge, and develop their communication and cooperation skills as well as

good interpersonal relationship. To enhance the effectiveness of the programme, remedial teachers must provide training to the pupils concerned beforehand and make regular reviews on its effectiveness. Generally speaking, this programme is more suitable for pupils of higher grades.

Reward Scheme

- The reward scheme has positive effect in enhancing pupils' motivation. It aims at guiding pupils to set their own objectives and plans, and positively reinforcing their good performance. No matter what reward is provided, the most important thing is to help pupils cultivate an interest in learning and gain a sense of satisfaction and achievement during the learning process. When designing the rewards offered, remedial teachers should take note of the following:
 - Set clear and specific targets (for example: requirement on the score of dictation and number of assignments submitted);
 - Set achievable objectives;
 - Give diversified rewards (including verbal commendation) or prizes to accommodate pupils' interest; give rewards instantly;
 - Review and revise the reward scheme regularly; and
 - Invite parents to help children improve their work.
 - Handling pupils' behaviour problems
- Remedial teachers should observe the following when dealing with the behaviour problems of pupils:
 - Always observe the performance of pupils in class and their behaviour in groups
 - Establish close relationship with pupils, develop mutual trust and listen carefully to what they say;
 - Help pupils understand the effect of their behaviour on the other as well as their own selves;

- Keep in close contact with parents to find out the cause of pupils' behaviour problems;
- Help pupils build up self-confidence and a healthy self-image;
- Give positive reinforcement to pupils' good behaviour, and do not pay undue attention to their misbehaviour;
- Do not try to change all the deviant behaviour of pupils at once. Teachers should list out the problems and set the priorities with an aim to improve one or two of them at a time;
- Refer the cases to Student Guidance Officers/Teachers for follow-up action if the behaviour problems of pupils continue or become serious. If necessary, student guidance officers/teachers may refer the case to the block/district/state guidance and counseling resource centre for individual assessment and remedial services.

Development of Generic Skills

- Remedial teachers should help pupils develop learning habits and attitudes, such as complete the assignments tidily, keep their promise and be responsible and disciplined. A constructive attitude is the foundation for life-long self-learning and it helps enhance pupils' learning effectiveness.
- Pupils should be helped to master basic self-learning skills and abilities. For example, teachers may teach them how to set appropriate learning objectives and priorities, time management, note-taking, reading skills and examination taking skills, etc.
- Remedial teachers can also make use of information technology to motivate and teach pupils to learn according to their own pace, help them cultivate the habit of self-learning, so that they will benefit from such training for their whole life.
- Pupils can be taught to solve problems by different methods, tools or by drawing insight from their past experiences. For example, teachers can teach them the use of dictionaries, as well as the skills

of seeking and handling information obtained from the school and public libraries. These are ways to develop students' flexibility, creativity and independent thinking.

- Teachers should train pupils to establish good interpersonal relationship so as to facilitate effective communication and collaboration as well as to enhance the team spirit of students.

Assessment and Record on Learning

- Assessment plays a very important role in teaching and learning. By means of assessment, remedial teachers can know the learning progress as well as strengths and weaknesses of pupils; hence, they may design different teaching activities accordingly to help pupils learn in an effective manner. Besides, it is also a means to measure the discrepancy between Individualized Remedial Teaching Plan pupils and ordinary pupils so that teachers may decide whether it is desirable for the pupil(s) concerned to withdraw from Individualized Remedial Teaching Plan.
- The two most common assessment methods are listed as follows for teachers' reference:

Formative Assessment

- Teachers can understand and assess the learning abilities of pupils from their daily classwork and homework as well as individual or group projects, such as model making.
- Drawing, information collection, measuring activities and the way they relate daily events to the topics they learnt in class, recording of all events, so that they can revise the teaching content accordingly.

Summative Assessment

- With reference to the progress of teaching, teachers may assess the performance of students by means of examinations/tests. The examination/test papers must cover all the main points in teaching where the levels of difficulty meet the pupils' abilities. The weighting

of questions and marks should be balanced. Different types of questions should be included.

- Schools may have different forms and weightings of assessment.
- Remedial teachers should keep a detailed personal record for each pupil under Individualized Remedial Teaching Plan. They should assess the progress of pupils regularly and systemically. A comprehensive record provides information on the learning progress of pupils and serves as a reference.
- Teachers should pay attention to the response of pupils during classroom learning and make a record in the “Evaluation” column of the teaching plan to facilitate follow-up actions or changes in teaching strategies. In addition, teachers should make reference to the teaching objectives in evaluating the effectiveness of teaching, and revise their teaching plans according to the learning needs.

Liaison with Parents

- In order to help pupils with learning difficulties, schools must liaise closely with parents.
- Some parents may have unrealistic expectation of their children’s performance. In such cases, remedial teachers have to explain to the parents about the characteristics and abilities of pupils so that they may help their children to learn in a pleasurable manner. On the contrary, some parents’ expectation may be too low. Teachers must then keep in contact with parents to help them understand their children and to provide appropriate guidance to develop the pupils’ potentials.
- Some parents can also be referred to the block/district/state guidance and counseling resource centre for parental counseling.

Co-ordination with Other Teachers and Professionals

- Remedial teachers must keep in close contact with other teachers. They are encouraged to discuss or share their experiences with others to find out ways to improve pupils’ learning and behaviour.

For example, they may discuss on the teaching plans, learning progress of pupils, test and examination questions, pupils' problem behavior and partial or total withdrawal of pupils from Individualized Remedial Teaching Plan.

- Remedial teachers should also liaise with other related professionals to seek for professional support with a view to helping pupils solve their problems.

Strengthening of Education System

The area of remedial teaching is mostly untouched. Some interested teachers are doing remedial teaching on their own. There is no documentation of the number of remedial teaching done so far at the school level and number of children benefitted from this type of teaching. It has also been observed that because of lack of proper training in this area, teachers fail to do effective remedial teaching so, it is important to strengthen this aspect of our education system. For this, the following steps should be taken:-

- ❖ Formation of state/district resource group for planning, monitoring and evaluating the status of remedial teaching at SCERT and DIETs/DRCs level.
- ❖ Capacity building of the state/district resource group through national level agencies.
- ❖ Capacity building of in-service teachers in remedial teaching through DIETs/DRCs.
- ❖ Preparation of module and master trainers on remedial teaching.
- ❖ Providing academic support at all levels. Start remedial classes for enhancing learning ability for students passing out at class VIIIth.
- ❖ Providing spaces in the school time table for remedial teaching.
- ❖ Documentation of remedial teaching at the school level by the head masters/Principal and monitoring by the head of the school and reporting at the district and state level.

- ❖ Sharing of experiences on remedial teaching by the teachers through teacher portal.
- ❖ Organizing workshops for sharing the problems faced by teachers while conducting remedial teaching and their achievements.
- ❖ Publishing best/creative efforts done by the teachers in area of remedial teaching.
- ❖ Services of retired teachers in Science, Mathematics, English, etc. will be availed for remedial teaching.
- ❖ Implementation of remedial teaching strategies in in-service teaching package.

Initiating Guidance and Counseling services in the State of Uttarakhand

Education in the broadest sense is a process of helping the child in the all-round development of her/his personality. The period when the child is in the school is most crucial for the development of all her/his potentialities and capacities. It is during this period that abilities and skills are developing, habits, interests and attitudes are being formed and emotional and social adjustments are taking place. As the child grows, the environment in which she/he lives becomes very complex and she/he is confronted with variety of problems of personal – social nature which if left unsolved, result in psychological disturbances of various types which hinder her/his normal growth and development. Therefore, the need and importance of guidance and counseling services at the school level is increasingly being felt by students, teachers and parents due to rapid changes in educational and occupational field.

The curricular and co-curricular offerings have tremendously expanded during the past few years. Occupations too have increased manifold. It is becoming extremely difficult for the teachers and parents to prepare the youth for education, for occupation and life in this rapidly changing world. Young children in the school also find themselves in the grip of personal, educational and vocational maladjustment, conflict with

peers and teachers, feeling of loneliness and insecurity, low achievement etc. create emotional tensions and anxieties. They need some mentor and guide, to help them in crisis situation. A need is being felt for strengthening the guidance services in the schools to channelize the energies of the youth in productive ways, to arrest the downward trend of academic standards and in particular to ease emotional tensions and anxieties among the youth and make their journey in life smooth and successful.

Guidance needs to be introduced at all levels of schooling primary, secondary and higher secondary to meet the varied needs of the students, teachers, parents, administrators and the education system. Secondary and higher secondary stage of education is the most crucial stage in the educational hierarchy as it prepares student for higher education and also for the world of work.

The secondary stage of education coincides with adolescence, a period in an individual's life that is marked by personal, social, emotional, educational and vocational (career) crises created due to the demands of adjustment required in family, peer group and school situations. Besides this, at this stage a number of student concerns such as academic stress, board examination, cut throat competition, new and varied career opportunities resulting confusion in making career choice, drop-out etc. are now frequently raised by school as well as media. Guidance and Counseling services can help in promoting student's retention and better scholastic performance in curricular areas, facilitating adjustment and career development of students, developing right attitudes towards studies, self, work and others.

All these concerns require immediate attention by the professionals trained in theory and practice of guidance and counseling, who can guide the students and help them develop the right attitudes and competencies to cope with educational, personal, social and career related problems and issues. The guidance and counseling services in schools particularly

at this stage would help to create the support system required to cope with increasing academic and social pressures.

With an aim to assist the students in securing the knowledge and skills in making adequate choices, plans and interpretation essential to satisfactory adjustments in all areas the guidance and counseling services at secondary level needs to be focused on the following areas-

1. Educational

2. Vocational

3. Personal

1.Educational Guidance:-

- To help the students to make proper choice of the subjects and help in adjustment in relation to subjects of study and co-curricular activities.
- To help the student with specific problems like lack of relationship between ability and achievement, deficiency in one or several school subjects, faulty study habits improper methods of learning and poor self-confidence and motivation.
- To help the student to relate the course chosen to prospected jobs. Every occupation requires a characteristic pattern of abilities, interests and personality traits, and people enter and succeed in occupation for which they have appropriate patterns or traits.
- To help the student to make educational plans consistent with her/his interest, abilities, and goals.
- To help the student succeed in her/his educational program.
- To enable the teacher to understand the students and to know the modifications required in the curriculum and in the administrative arrangements of the school to meet the needs of the students.
- To enable the teacher to understand needs and problems of disabled and socially disadvantaged children.

2. Vocational Guidance:-

- To enable the students to discover information about himself/herself, his/her abilities, interest, needs, ambitions, limitations and their causes.
- Providing the student with information about her/his environment, the advantages and disadvantages of different occupations and educational courses, the qualification necessary for entry into them and the total range of opportunities available to him/her in theory and practice.
- To enable the students in making decisions and choices involved in planning a future and building a career.
- Provide counseling in order to promote self understanding and to develop educational and occupational plans.

3. Personal Guidance:-

- To help students to improve physical and mental health and inculcate right social values.
- To enable the students to overcome stresses, problems of adjustment with parents, family, friends and teachers.
- To help the students in building up positive self concept.
- To build a sprit of teamwork in students.
- To help the students in the development of self-confidence and effective communication skills.
- To provide opportunities for participation in co-curricular activities.
- Assist students in developing hobbies and interests.

The status of Guidance and Counseling services in our country:-

Guidance and counseling services in India is still in its infancy. These services in different states are being planned and implemented by State Bureaus of Educational and Vocational Guidance or Guidance and Counseling wings functioning under SCERT's/State Institutes of Education/Directorate of Education/NGO's etc. These State level

guidance agencies plan and organize, co-ordinate and monitor guidance activities in their states. Organize career teachers training programmes, provide consultancy and field services, collect, produce and disseminate career information and guidance material etc. There is a streamlined procedure of filtration of these services down to the state and district levels to the school level.

In most of the states guidance and counseling services in schools are mainly offered by teacher counselors and career teachers. However, some schools do have trained guidance counselors.

The guidance and counseling services in our state needs to be initiated at different levels – state, district, block, and school. The state guidance agency will be expected to perform the following functions –

- Plan and organize guidance programmes.
- Co-ordinate and monitor guidance activities in the state.
- Organize teacher training programmes.
- Provide consultancy and field services.
- Collect, produce and disseminate career information and guidance material.

There is a pressing need to initiate guidance services at all the levels- state, district, block and school to cater to the educational, personal, social and career related needs of the student in Uttarakhand. The two main areas that need to be strengthened and worked out at different levels are-

- (i) Infrastructural development
- (ii) Academic development

The Structure of Guidance Counseling services at different levels

(I)At the State level:- At the state level the guidance and counseling service centre will be established at SCERT, Uttarakhand. As a part of systematic reform, NCF-2005 emphasizes that "SCERT's take steps to strengthen guidance bureaus/units already existing with them by setting

them up as resource centres at the state level for in-service teacher training in this area, production of psychological tools/tests, career literature etc. and make counseling services available at district/block and school levels by positioning professionally trained guidance personnel.”

The state guidance agency is expected to perform the following functions-

- Plan and organize guidance programmes at different levels - district, block and school.
- Organize guidance and counseling training programs for the teachers, master trainers, head masters, principals and administrators.
- Provide consultancy and field services.
- Start state level helpline throughout the year for overcoming the problems of students, teachers and parents.
- Collect, produce and disseminate career information and guidance material.
- Conducting research and action research.
- Psychological testing.
- Organize workshops, seminars, conferences etc.
- Orientation/Reorientation of teachers through training programmes.
- To collaborate with the state level agencies, government and non-government organizations.
- Co-ordinate and monitor guidance activities in the state.
- Develop resource groups.
- Recommend interested teacher and resource persons for professional development.

In order to carry out the above mentioned functions there is a need to strength infrastructure and academic aspect of the institution.

(i) Space, Equipments and Material Required

- **Space** – SCERT need a Guidance and Counseling resource centre housed in a separate room of at least 25’ x 20’ sq feet. There may be three rows with tables, chairs, stools or may be arranged as per the requirement.
- **Furniture /Equipments** – Following items are required in the Resource centre-

Almirah, Bookshelf, Chairs, Stools, Tables, Computer with internet connections and Printer, LCD Projector and Video Camera.

- **Psychological Apparatus, Charts, Models and Test**

Mirror drawing apparatus, Human maze, Muller lyre illusion, Set of physiological charts, Brain, Eye and Ear models etc. Apart from the above apparatus and models, self reporting and assessment questionnaires and other psychological tests (Intelligence, Personality, Self-esteem, Aptitude, Creativity, Interest and Career etc.) are required.

- **Others -**

Books, journals, employment news papers, educational and career CDs, films etc.

(ii)Human Resource:-

At present there is only one trained person in SCERT in the department of Psychology, Guidance and Counseling. To make the guidance and counseling center functional and fulfill its objectives, the guidance and counseling center at SCERT requires more manpower with following qualification and specialization –

1	One person	Masters in Psychology with specialization in clinical psychology or M.Phil in clinical psychology.
2	One person	Masters in Psychology with specialization in

		Educational and Vocational Guidance and Counseling at the secondary level.
3	One person	Masters in Psychology/Education, and B.Ed./M.Ed. in Special Education.
4	One person	Masters in Education/Sociology/Psychology/ M.Phil. & Ph.D. with specialization in conducting researches and action research.
5	Resource Person/Research Assistant	As per need and AWP&B.

The recruitment procedure will be according to the guidelines of Rashtriya Madhyamik Shiksha Abhiyan.

5	One person (For Board Office)	Masters in Psychology with specialization in Educational and Vocational guidance and with experience to deal with the problems of children at secondary level.
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(iii)Support services from other institutions/agencies:-

1. **SIEMAT:-**It will co-ordinate with the state level agency and will impart training to the administrators, principal and headmasters in the area of G&C.
2. **Board Of School Education, Ramnager:-** There will be a full time counselor at the State Board Office. He/she will also co-ordinate with the state level agency i.c. SCERT, in planning and organizing Guidance and Counseling activities at different levels. Help lines (toll free telephone line) will function especially before board examination, to help the students in overcoming the stress during examination, It will also conduct researches and action researches. It will be also have

a resource centre which will have psychological tests/tools and equipments.

3. **Department of Guidance and Counseling/Psychology at the University or College level** – Its role will be in the planning and organization of G&C services at different levels. It will also help in the development of modules for master trainers and preparing master trainers.
4. **Employment Exchange** – It will help in the establishment of G&C corner at every high school and higher secondary school. It will help in organizing career conferences, career fairs and career talks at the state, district, block and school level.
5. **Government and Non-Government Organizations working for the welfare of disabled and socially disadvantaged group and girls.** – These organizations will help in planning and organizing G&C services for the disabled, socially disadvantaged group and girls.

(II) At the District level:-

At the district level guidance and counseling services will be carried out by DIETs/DRCs. The Guidance and Counseling resource centre will be established in every DIET/DRC. The district level guidance agency i.e. DIET/DRC is expected to perform the following functions:-

- Organize Guidance and Counseling training for teachers.
- Help the state level guidance agency in the development of resource material, career literature etc.
- Form resource group at district level.
- Plan and organize activities at the school level.
- Conduct researches and action researches.
- Provide consultancies and field services.

- Start district level help line throughout the year for overcoming the educational, vocational and personal problems of students, teachers and parents.
- Provide resource material to the teachers.
- Identify teachers who are interested in carrying out these services at the school level.
- Plan and organise career talks, conferences, seminars etc.
- Develop Guidance and Counseling corners in every school of the district.
- Counsel the students, teachers and parents, with specific problems referred by the block resource cell and schools or to recommend it further at the state level or to the specialist.

In order to carry out the above mentioned functions there is a need to strengthen infrastructure and academic aspect of the institution at the district level.

A. (i) Infrastructural Development:-

Likewise State level a similar infrastructure needs to be developed at the district level in every DIET/DRC. The infrastructural requirement of the district level Guidance and Counseling resource centre is same as mentioned in the state level resource centre.

(ii) Human Resource Required:- At present there are 10 DIETs and 3 DRCs in the state of Uttarakhand. There are three persons in DIET and one in DRC, who are from Psychology background. To make the guidance and counseling center functional and fulfill its objectives, the guidance and counseling centre at the district level requires human resources with following qualification and specialization –

- At least one person with masters degree in Psychology with specialization in Educational and Vocational guidance and counseling is required at each DIET and DRC.

(III) At the Block level:- At the block level the Guidance and Counseling cell will be established in the block school. The following functions will be performed by the block level guidance and counseling cell:-

- Provide support services at the school level.
- Co-ordinate with the schools of the block.
- Plan and organize activities like class talks, counseling sessions at the school level.
- Identify areas where student needs guidance and counseling services.
- Interacting with parents, teachers, students and community at large and thereby evaluate the need and area of such service.
- Develop block resource group.

In order to accomplish the above mentioned functions there is a need to strengthen infrastructure and academic aspect of the institution.

(A) Space, Equipments and Material Required:-

At the block level guidance and counseling cell will be established. For this, there are following requirements:-

- **Space, Equipments and Material Required:-**

- **Space-** A separate room should be there for Guidance and Counseling cell.
- **Furniture and Equipments-**Almirah, chairs, stools, tables, computer, with internet, C.D. and printer.
- **Psychological Apparatus, Charts, Models and Tests-** Set of physiological charts, Brain, Eye and Ear models,

few tests of Intelligence, Personality, Aptitude, Creativity, Interest etc. According to the availabilities of trained person in educational and vocational guidance.

➤ **Other-**

- Career literature, C.D's, pamphlets, films,
- Employment news papers.

Human Resources:-

1. At present Guidance and Counseling cell is not in existence at the block level. There is a need to appoint full time school counselor of PGT level at the block level as per the guidelines of RMSA. The qualification of the school Counselor should be M.A. in Psychology with diploma in educational and vocational guidance. Or
2. Part time counselors can be appointed at the block/cluster level, to meet out the immediate needs. Or
3. Identify the teachers who have masters in Psychology or M.Ed. in Guidance and Counseling. And build their capacity in the area of educational and vocational guidance through national and regional institutions.

(IV) At the School level:- At the school level guidance and counseling corner will be established in every school . The main functions of this corner will be-

- Help the students in the choices of courses, and co-curricular activities.
- Provide individual and group counseling to parents, teachers and students or refer special cases to block/district/state level.
- Help the students in identifying their interests and potentials.
- Help students in making career choice.
- Help teachers and parents in dealing with scholastic and behavioral problems of children.
- Organize career talks and class talks.

- Co-ordinate with block level resource cell.

For the proper implementation of the above mentioned functions there is a need to strengthen the infrastructure and academic aspects of the school.

(i)Infrastructure:-

- A guidance and counseling corner should be established in every school.
- A small room, away from all distractions.
- Almirah, Chair, Table, Computer with internet connection.
- Career related books, C.Ds, pamphlets, films.
- Employment news papers.
- Psychological tests and equipments according to the availability of trained person in educational and vocational guidance or psychology background.

Future Action:-

The present status shows that in our state the guidance and counseling services need to be initiated. Following are some of the important points which require immediate action:-

1. Establishment of Guidance and Counseling Resource Centre/Cell/Corners at.

State Level (Resource Centre)	SCERT Uttarakhand
Board level (Resource Centre)	Board of School Education
District level (Resource Centre)	All DIETs and DRCs
Block level (Resource Cell)	Main schools of the block
School level (Resource Corner)	Every school

2. **In-service teachers training:-**

- The component of guidance and counseling should be infused in the pre-service teachers training.
- Development of State/District Resource group.

- Training of administrations, principals, teachers and parents – Sensitization programme of two days will be conducted in guidance and counseling.
- Preparation of Training package for preparing Master trainers.
- Capacity Building of the persons working in the area of Guidance and Counseling.

It should be made mandatory that teachers/master trainers should undergo course in guidance and counseling organized by a government recognized institution.

I. Budget Required For Guidance and Counseling Resource Centre

(1) At the State level –SCERT Uttarakhand

A. Human Resource Required:-

S. No.	Experts Required	No. of posts	Unit Cost	Total Amount
1.	Clinical Psychologist	01	4 X @ 2.5 lakhs per annum (as per the guidelines of RMSA)	Rs. 10.00 lakhs (per annum)
	Expert in Educational and Vocational guidance.	01		
	Expert in Research and action research.	01		
	Expert in special Education.	01		
2.	Resource person/Research Assistant	as per requirement and AWP&B	Rs. 1.0 lakh (salary + TA/DA/contingency) (as per the guidelines of RMSA)	Rs. 1.00 lakh
Total				Rs. 11.00 lakhs

B. Equipments and Material Required:-**Non-Recurring grants-**

S. No.	Items/Heads	No. Required	Unit cost (approx.)	Total Amount (In Rs.)
1	Almirah	02	2 X @10,000	20,000
2	Book shelf	04	4 X @5000	20,000
3	Chairs	10	10 X @2000	20,000
4	Table	10	10 X @3000	30,000
5	Computer with internet connection	01	1 X @25,000	25,000
6	Printer	01	1 X @15,000	15,000
7	Video Camera	01	1 X @10,000	10,000
8	Phone and Fax for toll free helpline.	01	@30,000	30,000
9	Contingency	-	30,000	30,000
Total				2 Lakhs

C. Psychological tests/tools/guidance or career literature:-

S. No.	Material Required	Unit Cost	Total Amount (in Rs.) per year
1.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDS films etc.	According to the RMSA norms (i.e. Rs. 50,000/-) (Non-Recurring)	Rs. 50,000/-
2.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs.30,000/- (Recurring grant)	Rs. 30,000/- per annum
Total			Rs 80,000/-

D. Others:-

S. No.	Heads	Total Amount
1.	Development of training material for teachers and principals	Rs. 1.00 lakh
2.	Workshops for preparing master trainers.	Rs. 50,000
3.	Organize meeting of state resource group (quarterly 3 meeting)	Rs. 20,000 X 3 per annum.= Rs. 60,000/-
4.	Researches and Action researches	Rs. 5 lakh per anum.
5.	Organizing Seminars, Conferences in guidance and counseling.	Rs. 1 lakh per annum.
6.	Organize training programme for teachers and headmasters	Rs. 1 lakh per annum.
Total		9.10 lakhs

(1)At the State level – Board of School Education**A. Human Resource Required:-**

S. No.	Expert Required	No. of posts	Unit Cost	Total Amount
1.	Expert in Educational and Vocational guidance	01	1 X @ 2.5 lakh per annum (as per the guidelines of RMSA)	Rs. 2.5 lakh per annum

B. Equipments and Material Required:- (Non-Recurring)

S. No.	Items/Heads	No. Required	Unit Cost (approx.)	Total Amount (In Rs.)
1.	Almirah	01	1 X 10,000	10,000
2.	Bookshelf	02	2 X 5000	10,000
3.	Chairs	04	4 X @ 2000	8,000
4.	Tables	02	2 X @ 3000	6,000
5.	Computer with internet connection	01	1 X 25,000	25,000
6.	Printer	01	1 X 15,000	15,000
7.	Phone and Fax toll free helpline	01	1 X 30,000	30,000
Total				Rs 1.04 lakhs

C. Psychological tests/tools/guidance or career literature:-

S. No.	Material Required	Unit Cost	Total Amount (In Rs.)
1.	Psychological tests/tools/ career literature, books, journals, employment newspapers, educational and career CDs films etc.	Rs. 50,000/-) (recurring grant)	Rs. 50,000/-
2.	Psychological tests/tools/ career literature books, journals, employment newspapers, educational and career CDs films etc.	Rs.20,000/- (Non-recurring grant)	Rs. 20,000/- per annum
Total			Rs 70,000/-

D. Others:-

S. No.	Heads	Total Amount (In Rs.)
1	Researches and Action researches	Rs 2.0 lakhs per annum

(2)At the district level: For DIETs/DRCs

A. Human Resource Required:-

S. No.	Experts Required	No. of Posts	Descriptions
1.	Expert in Educational and Vocational guidance	10 for DIETs/DRCs	These experts will be appointed through the provision of 5 teachers from secondary education training out of these 5 teachers, one will be the expert in educational and vocational guidance.

B. Equipments and material Required:- (Non-Recurring)

S. No.	Items/Heads	No. Required	Unit cost (approx.)	Total Amount (In Rs.)
1	Almirah	02	2 X 10,000	20,000
2	Book shelf	04	4 X 5000	20,000
3	Chairs	10	10 X @2000	20,000
4	Table	10	10 X @3000	30,000

5	Computer with internet connection	01	1 X 25,000	25,000
6	Printer	01	1 X 15,000	15,000
7	Phone and Fax for toll free helpline.	01	30,000	30,000
8	Contingency	-	30,000	30,000
Total				1.90 akhs

C. Psychological tests tools/guidance or career literature:-

S. No.	Material Required	Unit Cost	Total Amount (In Rs.)
1.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs. 50,000/-) (non-recurring grant)	Rs. 50,000/-
2.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs.30,000/- (recurring grant)	Rs. 30,000/- per annum
Total			Rs 80,000/-

D. Others:-

S. No.	Heads	Total Amount
1.	Organize meeting of district resource group (quarterly 3 meeting)	Rs. 20,000 X 3 per annum. = Rs. 60,000/-
2.	Researches and Action researches	Rs. 5 lakh per anum.
3.	Organizing Seminars, conferences in guidance and counseling.	Rs. 1 lakh per annum.
Total		Rs. 6.6 lakhs

(2)At the block level: For headquarter school

(A) Human Resource Required

S. No.	Experts Required	No. of Posts
1.	Expert in Educational and Vocational guidance	95 (01 per block) (as per the guidelines of RMSA)

(B) Equipments and Material Required

S. No.	Items/Heads	No. Required	Unit cost (approx.)	Total Amount (In Rs.)
1	Almirah	02	2 X 10,000	20,000
2	Book shelf	04	4 X 5000	20,000
3	Chairs	06	6 X @2000	12,000
4	Table	02	2 X @3000	6,000
5	Computer with internet connection	01	1 X 25,000	25,000
6	Printer	01	1 X 15,000	15,000
7	Contingency	-	30,000	30,000
Total				1.28 lakhs

(C) Psychological tests tools/guidance or career literature:-

S. No.	Material Required	Unit Cost	Total Amount (In Rs.)
1.	Psychological tests/tools/ career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs. 30,000/- (Non-recurring grant)	Rs. 30,000/-
2.	Psychological tests/tools/ career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs.10,000/- (recurring grant)	Rs. 10,000/- per annum
Total			Rs 40,000/-

4. At the School level:-**(A) Equipments and Material Required:- (Non-Recurring)**

S. No.	Items/Heads	No. Required	Unit cost (approx.)	Total Amount (In Rs.)
1	Almirah	01	1X 10,000	10,000
2	Book shelf	02	2 X 5000	10,000
3	Chairs	08	8X @2000	16,000
4	Table	01	1 X @3000	3,000

5	Computer with internet connection	01	1 X 25,000	25,000
6	Printer	01	1 X 15,000	15,000
7	Contingency	-	5,000	5,000
Total				84,000

(A) Psychological tests tools/guidance or career literature:-

S. No.	Material Required	Unit Cost	Total Amount (In Rs.)
1.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDS films etc.	Rs. 20,000/- (Non-recurring grant)	Rs. 20,000/-
2.	Psychological tests/tools/career literature books, journals, employment newspapers, educational and career CDs films etc.	Rs.10,000/- (recurring grant)	Rs. 10,000/- per annum
Total			Rs 30,000/-

5. Teacher's Training

The teacher is the most important component in school education. A teacher functions within the broad framework of the school education system. A teachers' training needs to be in consonance with the curriculum framework for school education and a teacher needs to be prepared in relation to demands arising in the school context. As such, it needs to engage with the question of the learners, the learning process, content and pedagogy of educating teachers. The expectations of the school system from a teacher change from time to time, responding to the broader social, economical and political changes taking place in the society. So, it is necessary to continuously upgrade the quality of teachers' through in-service training programmes.

Our state Uttarakhand, has adapted CBSE pattern and textbooks of NCERT at the secondary level. To cope up with the demands of the new pattern, in-service teachers training becomes essential. A new perspective of education requires a teacher to be a facilitator of children's learning in

a manner that the child is helped to construct his/her knowledge. Such role demand that teachers be equipped with a better understanding of curriculum, subject content and pedagogy on the one hand and community and school structure and management on the other.

The areas that are required to be in-corporated in in-service teacher's training, according to new pattern are – curriculum, syllabus, transaction process and evaluation. At the secondary level, regarding in-service teacher's training some efforts have already been done by Uttarakhand Board of School Education and CTE Pithoragarh & Dehradun.

The Uttarakhand Board of School Education has imparted training on evaluation and CTE Pithoragarh & Dehradun on the transaction of different subjects. Due to insufficient teacher's training we are not getting expected results. So, there is a need to plan an effective in-service teachers' training. Areas that need to be focused in in-service teachers' training along with the subject specific training are:-

- School Development
- Child Development
- Curriculum and Syllabus
- Inclusion of local specific components in the subject matter.
- Transaction process and use of latest techniques of transaction.
- Learning Resource Centers.
- Continuous and Comprehensive Evaluation.
- Guidance and Counseling.
- Use of Library and ICT.
- Inclusive Education.
- Research and Action Research.
- Remedial Teaching etc.

The Training material developed by CBSE and NCERT will also be used for in-service teachers' training.

Steps to be taken for the implementation of teachers training are:-

- ❖ Formation of State resource group of subject specialists by SCERT. This resource group will further help in the development of teachers' training modules and preparing master trainers.
- ❖ Dissemination of the training at the district and block level by the state resource group and master trainers.
- ❖ Strengthening of DIETs/DRCs and GIC of district headquarters for the dissemination of trainings.
- ❖ Formation of Resource Center in the GIC of block headquarters for imparting training. The training will be imparted by the subject specialist/master trainers of the same block.

Teacher's Training Plan

The Capacity building of the teacher in subject areas and transaction process is needed for the qualitative development of children. For the effective implementation of teacher's training it will be imperative to identify the training centers according to the state specific needs. The identified training centers will be equipped well and be used for the purpose of training so that the trainees while working in actual situation can make the best use of ICT, library and learning resource centre.

In this regard five specialists will be appointed for the professional development of DIET's/DRC's that are already working for in-service and pre-service training of elementary teachers. The five specialists will be from Science, Mathematics, English, General and Guidance & Counseling background. With this, DIET's and DRC's will be developed as Learning Resource Centers. In order to achieve our goal one government inter college of district headquarter and one of the block head quarter will be developed as training center. One Government Inter College of district head quarter will be developed as Learning Resource Center. At the time of training the Learning Resource Centers developed in DIET, DRC and G.I.C. of district headquarter will help in the development of understanding of the utilization of all the resources in

real life situation. The teachers' training will be organized in different phases. In the first phase the teacher of Secondary schools will be targeted and latter on the training will be imparted to higher secondary teachers. The training plan for the first phase i.e. for secondary level will be as under –

- District wise selection of 5-5 subject specialists in Science, Mathematics, English, and Social Science.
- Capacity Building of subject specialists for the effective transaction of the curriculum.
- Development of training material with help of subject specialists as per requirement.
- Selection of master trainers from the subject specialists according to the need of the districts.
- Active learning methods like projects, group work, seminars, brain storming etc. will be used for the effective transaction of training.

Table 6.6.3 District wise description of Core Subjects Secondary Teachers- (Government, Aided and Social Welfare Department)

S. No.	District	English		Mathematics		Science		S. Science	
		Male	Female	Male	Female	Male	Female	Male	Female
1	Almora	180	70	222	58	122	40	354	103
2	Bageshwar	60	18	79	7	44	8	129	22
3	Chamoli	136	35	250	23	97	32	252	47
4	Champawat	63	24	71	06	50	14	100	25
5	Dehradun	144	108	205	71	116	95	187	92
6	Haridwar	61	23	78	14	45	14	92	17
7	Nainital	136	77	193	45	108	66	258	90
8	Pauri Garhwal	264	96	399	80	200	85	441	94
9	Pithoragarh	155	35	167	21	110	20	273	68
10	Rudrapryag	109	18	150	14	60	14	141	20
11	Tehri Garhwal	189	63	331	42	146	28	323	73
12	U.S. Nager	120	45	165	25	86	29	172	51
13	Uttarkashi	100	15	124	10	69	17	144	30
Total		1717	627	2434	416	1253	462	2866	732

Source: SEMIS 2009-10.

Capacity Building of Supporting Agencies

Quality improvement has always been a major concern of our education system. For achieving this goal not only the teacher's training in the area of content and teaching methodology is of great importance but capacity building of administrators and managers is equally important.

At the state level, for capacity building of educational administrators SIEMAT has been established. Every year SIEMAT imparts training to the Principals, DEO, BEO and Dy. BEO's. Similarly, at the national level capacity building of administrators and managers is done by NCERT and NEUPA. The training programme which will be organized for capacity building of administrators and managers will be focused mainly in these areas:-

1. **Educational Administrators /Mangers-** DEO, BEO, DY BEO and ADEO, Principals and Headmasters.
2. **Academicians of-** Directorate, SCERT, SIEMAT, DIET/DRC, Board of Secondary Education, CTE and IASE.

Exposure visits will be organized for capacity building of educational administrators, academicians and managers.

The training program will include the following:-

- Orientation on RMSA.
- Establishment and functioning of Learning Resource Center.

The Capacity of these personnel will be build by SIEMAT.

Research and Action Research

Research has a very important role to play in the quality improvement of education. It occupies a significant position in the field of school education in terms of continuous refinement of knowledge and improvement of competencies of students as well as teachers and other functionaries. It is such a method which not only helps in realizing the effectiveness of an intervention instantly but also contributes significantly to improve the situation by generating immediate feedback to methodology.

In the educational field, action research has been recognized as an important tool in the hands of teachers and teacher educators for improving the process in one hand and developing innovative practices for improving school effectiveness programmes in other. Action research is diagnostic and remedial in nature. Action research with all its imperatives and strengths has the potential of changing the quality of teacher, the teaching-learning process, evaluation and finally the total environment of the school. Both researches as well as action researches are important for strengthening our education system. Researches are usually conducted to know about the causes, effect, or generate new knowledge in the form of new theory facts and truth or improving, a product, a process or testing theoretical concepts in actual situation etc. whereas action research focuses on the solution of a problem scientifically in order to guide, correct and evaluate his discussion and action. It is very much needed for quality education and remedial teaching. For conducting effective and fruitful researches and action researches, teachers, teacher educators, trainers, master trainers and other functionaries working with in the field of school education must be equipped the knowledge and skill of researches and action researches.

In our state, the researches or action researches that have been done so far mainly covers the problems of elementary education. These researches have been done by DIETs/DRCs, teachers and outsourcing agencies. The status of researches and action researches at the secondary level are negligible. Not much has been done in this area due to lack of proficiency and manpower. So, there is an immediate need to strengthen this aspect of our education system.

The steps that will be taken to initiate researches and action researches are:-

- ❖ Formation of Research Advisory Committee at the state level.
- ❖ Formation of Research Resource Group at SCERT, DIET/DRC and School level.

- ❖ Organizing in-service training programmes.
- ❖ Capacity Building of the members of Research Resource Group from national level institutions.
- ❖ Documentation of Researches and Action researches at the school, district and state level.
- ❖ Organizing workshops, seminars and conferences for sharing of experiences.
- ❖ Plan, organize and implement researches and action researches. Assessment of researches by the resource group at different levels.
- ❖ Yearly publication of researches and action researches.
- ❖ SCERT and DIET/DRC will compulsorily conduct researches and action researches every year. The number of these researches will be decided by Research Advisory Committee.

For research and evaluation the budgeting provisions will be met out by management monitoring, evaluation and Research head, according to the number of researches and action researches approved by the research advisory committee in AWP&B.

Monitoring and Supervision for quality improvement

Monitoring and Supervision are the integral part of our education system which includes three interrelated dimensions, the quality of the human and material resources available (inputs); the quality of the management and teaching-learning process and the quality of the obtained results (out puts). Real quality improvement depends on what is actually happening in the classroom. This is why quality monitoring strategies are paying special attention to the functioning of schools. The monitoring and supervision of the qualitative aspects will be done by the academic committee. It will monitor all the aspects related to curriculum development, Teaching learning process, Learning Resource Centre, Guidance and Counseling Remedial Teaching, Teachers training, education of children with special needs, Action research and evaluations etc.

Education Management Information System

Secondary Education Management and Information System (SEMIS) has a vital role to play in the implementation of Rashtriya Madhyamik Shiksha Abhiyan in Uttarakhand. The whole perspective plan is based on the SEMIS data. In the year 2006-07 a training programme was conducted by NUEPA, New Delhi for the state officials. The state core team imparted training to the district officials and district core team for filling up the Data Capture Format (DCF) of SEMIS. For the first time in the year 2007-08 data entry was done at the state level. After that the data entry for the year 2008-09 was done at the district level. The state core team i.e. a separate wing for SEMIS will be setup at the State Project Office, RMSA Uttarakhand at Dehradun. Every year the information of each secondary school will be captured through DCF and the information provided by the schools will be entered on line in the SEMIS software provided by the National University of Educational Planning and Administration, New Delhi. It will give a clear picture of the educational scenario of Uttarakhand.

Every year, training for filling of SEMIS data will be given to all school administrators and District Official. The data entry for SEMIS will be done at the district level. In future when broadband connectivity will start functioning at school level the SEMIS data entry will be done by school itself. The reports of SEMIS will be used for setting up the targets and planning of RMSA.

Teachers Training

Uttarakhand adopted CBSE Syllabus & Text Book since 2006 in phase manner but the capacity building of Teachers not done by State. So state first need is to conduct capacity building of Teachers in CBSE pattern. Letter on state organized TNA.

Training Contents For Year 2010- 2011

- Sensitization about CBSE pattern.
- Orientation about CCE at secondary level.
- Orientation about science and Mathematics kit developed by NCERT.
- Orientation of teachers about concept and establishment of LRC with integrated uses of LRC at school level.

Teacher Deployment –

- Appointment of new trained teachers through departmental written test.
- 5% teachers promoted from elementary level through direct written test.
- 25% eligible subject teacher promoted from elementary level.
- Subject wise teacher 's post created at school level and only subject teacher deployed / appointed in school.

District Resource Group constituted following member –

- DIET faculty members – Subject Specialist.
- Representative of Higher Education.
- NGO Representative which is working in Secondary Education.
- Educationist.
- Resource Persons Pedagogy & RMSA.
- Subject Teachers (Each Subject) , specialist of Math, Science, English & Social Studies.

State Resource Group constituted following member –

- Representative of SCERT, SEIMAT & Board.
- Representative of Universities (Higher Education).
- Representative of NGO (specially which is working in SE).
- One Representative of DIET (Subject Specialist).
- One Principal/Teacher from each of -

- Govt. Secondary School (State Education Dpt.).
- Govt. Aided Secondary School.
- Kendriya Vidyalaya.
- Jawahar Navodaya Vidyalaya
- Rajiv Gandhi Navodaya/ SPM Navodaya Vidyalaya.
- One District Resource Persons Of RMSA.
- One Representative of Ed. Cil, NCERT, NEUPA.

Selection of Master Trainers –

- NCERT will Trained two teacher from each District about uses of Science & Maths Kits. These trained Teachers will trained Science & Maths teachers at District/Block Level.
- District will identified MT's at District & Block Level. MT will be trained by Key Resource Person at State Level.
- Organization of Training – Training will be organize at DIET level if number of Teacher is Large then training will decentralize at Block Level on the basis of District specific need. The maximum size of training batches will be 40.

Training Schedule –

- In Service Teacher Training. (5 Days) will be organize Oct 2010 to January 2011.

Monitoring of Training –

- Training will monitor by State Resource Group & DIET Mentors .

Quality Intervention

Uttarakhand has 10 DIETs and 3 DRCs which are catered only EE so the priority of State is capacity building of DIETs and DRCs in context of SE. The CTEs in state are not functioning. So State proposed 5 core subject experts in each DIET and DRC. It is also proposed to develop DIETs and DRCs as LRC. In the beginning year of project only teacher training will be conducted at district and block level. Other quality related interventions will planed from next coming years of project.

Annual Work Plan & Budget 2010-11

Table 6.6.4 No. of Principal/Head Teacher etc. For Training

SN	District	No. of New Teacher For Indu. Trg.				No. of Headmaster/Principal & Edu. & Project Functionaries Trg. Of Leadership			
		Teachers	No. of Trg. Batches	Unit Cost	Total Budget (In Lakhs)	No. of Parti.	No. of Trg. Batches	Unit Cost	Total Budget (In Lakhs)
1	Almora	77	2	0.01	0.770	266	7	0.05	13.300
2	Bageshwar	55	2	0.01	0.550	87	2	0.05	4.350
3	Chamoli	56	2	0.01	0.560	200	5	0.05	10.000
4	Champawat	35	1	0.01	0.350	77	2	0.05	3.850
5	Dehradun	71	2	0.01	0.710	195	5	0.05	9.750
6	Haridwar	63	2	0.01	0.630	107	3	0.05	5.350
7	Nanital	185	5	0.01	1.850	199	5	0.05	9.950
8	Pauri Garhwal	28	1	0.01	0.280	352	9	0.05	17.600
9	Pirauragarh	56	2	0.01	0.560	206	5	0.05	10.300
10	Rudrprayag	21	1	0.01	0.210	105	3	0.05	5.250
11	Tehri Garhwal	60	2	0.01	0.600	287	7	0.05	14.350
12	US Nagar	102	3	0.01	1.020	143	4	0.05	7.150
13	Uttarkashi	77	2	0.01	0.770	104	3	0.05	5.200
	Total	886	27	0.01	8.860	2328	60	0.05	116.400

Table 6.6.5 No. of Subject Teachers for Teacher Training

SN	District	No. of Science & Math Teacher				Other Subject			
		Teacher	No. of Trg. Batches	Unit Cost	Total Budget (In Lakhs)	Teachers	No. of Trg. Batches	Unit Cost	Total Budget (In Lakhs)
1	Almora	442	11	0.01	4.420	1014	25	0.01	10.140
2	Bageshwar	138	4	0.01	1.380	394	10	0.01	3.940
3	Chamoli	402	10	0.01	4.020	1032	26	0.01	10.320
4	Champawat	141	4	0.01	1.410	842	21	0.01	8.420
5	Dehradun	487	12	0.01	4.870	1231	31	0.01	12.310
6	Haridwar	151	4	0.01	1.510	680	17	0.01	6.800
7	Nanital	412	10	0.01	4.120	991	25	0.01	9.910
8	Pauri Garhwal	764	19	0.01	7.640	1730	43	0.01	17.300
9	Pirauragarh	318	8	0.01	3.180	1262	32	0.01	12.620
10	Rudrprayag	238	6	0.01	2.380	547	14	0.01	5.470
11	Tehri Garhwal	547	13	0.01	5.470	1157	29	0.01	11.570
12	US Nagar	305	7	0.01	3.050	967	24	0.01	9.670
13	Uttarkashi	220	6	0.01	2.200	852	21	0.01	8.520
	Total	4565	114	0.01	45.650	12699	318	0.01	126.990

Table 6.6.6 No. of Teacher For Teacher Training

SN	District	Total No. Of Teacher for Inservice Teacher Trg.	No. of New Teacher For Indu. Trg.	No. of Headmaster/Principal & Edu. & Project Functionaries Trg. Of Leadership
1	Almora	1456	77	266
2	Bageshwar	532	55	87
3	Chamoli	1434	56	200
4	Champawat	983	35	77
5	Dehradun	1718	71	195
6	Haridwar	831	63	107
7	Nanital	1403	185	199
8	Pauri Garhwal	2494	28	352
9	Pirhauragarh	1580	56	206
10	Rudrprayag	785	21	105
11	Tehri Garhwal	1704	60	287
12	US Nagar	1272	102	143
13	Uttarkashi	1072	77	104
	Total	17264	886	2328

Chapter VII

Action Programme for Focus Groups

The goal of education is to provide equal opportunities and right to all children. The Constitution of India, also emphasizes that all children irrespective of caste, creed, location, ability or gender should have access to equality and education of a good quality. But in reality, we see mainly three kinds of exclusion prevalent in schools because of the inadequate competence and insensitivity of the society in these areas. First, is the exclusion on the basis of gender discrimination i.e. of girl child, second, is the exclusion of the children with disabilities of different kinds and the third, is stronger exclusion of children who come from socially and economically deprived backgrounds SC/ST/OBC and Educationally backward minorities.

There is a dire need to bridge the gap between the different types of exclusions in the school & society and to create an inclusive school & social setting providing equal opportunities to the girl child, children with special needs, varied social background and diverse learning needs. Whether or not this more broadly defined group of children is in need of additional support, depends on the extent to which school need to adapt their curriculum, teaching or provide additional human or material resource/support, so as to stimulate efficient and effective learning for these children. The special focus groups consist of girls, SC/ST/OBC/minorities and children with special needs.

Girl's Education:

The constitution of India in Article 15(1) on right to equality provides the basic policy framework that enshrines the vision of girl's education and the spirit in which their education is to be provided. A new thrust was provided

to girls' education in the National Policy on Education 1986, which provided a holistic vision for the education of women & girls and recognized the cross cutting issues that inhibited the realization of this goal. The various policies and National Curriculum Frameworks have also emphasized on providing better access to education to girl child.

Drawing upon the constitutional and other policy statements, articulated in the years that followed the Government of India in partnership with State Governments has designed different strategies, interventions, schemes and programmes with specific objectives that impinge on girl's education.

Table 7.1.1 Passed out Girls and SC, ST student.

Total No. Of Girls Passed Out Class VIII (2008-09)	Total No. Of Girls in Class IX (2009-10)	Total No. Of SC Student in Class IX (2009-10)		Total No. Of ST Student in Class IX (2009-10)	
		Girls	Boys	Girls	Boys
79613	75632	15822	20679	2841	3336

Some of the measures that have been taken by the state government for promoting girls education and to encourage their greater participation in the secondary and higher secondary stage of education are:-

- ❖ State government has started various incentive schemes like "Tejswanee yojana" and "Gaura Devi Kanya Dhan Yojna" scholarship schemes for BPL girls. Under "Tejswanee yojna", a sum of Rs. 3000/- (Rs 1000/- at the time of enrollment in the class IXth and Rs. 2000/- after passing class IXth) is given to the girls by cheque. Another scheme " Gaura Devi Kanya Dhan Yojana" has been launched by State Welfare Government. According to the scheme, a sum of Rs. 25000/- will be deposited after passing class XIIth .
- ❖ State government has also implemented National Programme for Education of Girls at Elementary level.

- ❖ Absence of lady teachers in the Secondary and Higher Secondary Schools is one of the major reasons for dropout among girls. Their absence also affects the access and participation of girls to the schools. In view of the fact that the girls at this stage are in the adolescent stage, posting and attendance of lady teachers in the schools are must. State government has already passed a bill to ensure 30% reservation for women in Govt. jobs. Lady teachers are also being given placement in co-educational secondary schools.
- ❖ The Government of India, has established Kasturba Gandhi Balika Vidyalayas in the Educationally Backward Blocks. Presently, there are 26 KGBVs in 12 districts of Uttarakhand. To continue the girls education uptill secondary level, our state has upgraded all the existing KGBVs and provided free of cost physical and academic resources.
- ❖ To promote girls education up to secondary and higher secondary level, the state government has established Government Girls Inter Colleges (GGIC) and separate Government Girls High Schools in the block headquarter.
- ❖ There is a provision of scholarships and cash incentives to girls from BPL and SC/ST/OBC and minority category.
- ❖ State government has also launched the centrally sponsored scheme for single girl child of the parents. According to this scheme, free education will be provided to the single girl child, till graduation.
- ❖ The state government has also launched "National Scheme of Incentive to Girls Education". According to the Scheme , a sum of Rs. 3000/- will be deposited in the name of eligible girl as fixed deposit and she would be entitled to withdraw it along with interest there on reaching 18 years of age. The scheme will cover (i) all eligible girls belonging to SC/ST Communities, who pass class VIIIth and (ii) All

girls who pass class VIIIth examination from Kasturba Gandhi Balika Vidyalayas (irrespective of whether they belong to SC/ST) and enroll in class IXth in government, government-aided and local body schools in the academic year 2008-09.

On viewing the present status of girls education in our state it can be observed that the female literacy rate in Uttarakhand is 60.26%. The gap between male and female literacy is 23.75%. The proportion of girls population in the age group of 16-17 years is 48.35% and 14-15 is also approximately the same i.e. 48.36% according to SEMIS 2009. The GER at the secondary level is 66.17% and at the higher secondary level is 50.38 in 2009-10. The dropout rate of girls in secondary education is 6.78 and in higher secondary is 5.59. The promotion rate of the girls is 80.05% in secondary and 88.10% in higher secondary which seems to be good. The NER of girls is increasing with 5.66% which is slightly less than the boys i.e. 5.87, which indicate that there is a need of improvement in girls enrolment at secondary level. The gap between male and female literacy is 23.75%.

The efforts that have been done so far by the state government for promoting girls education and creating greater access to education are insufficient. Therefore, there is a pressing need to take immediate measures to strengthen the physical as well as the academic aspect of girls' education.

- ❖ Community mobilization and campaigns for gender sensitization in collaboration with Mahila Samakhya or other non-government organizations Self-Help-Groups, SMDC and Parent Teacher Association.
- ❖ Extending following interventions and resource support to the girls belonging to SC/ST/OBC/Educationally Backward Minorities, BPL and including differently abled children at secondary and higher secondary stage.

- Providing Free of Cost Textbooks, Workbooks, and Stationeries etc.
 - Providing Free of Cost Uniforms, Footwear etc.
 - Provision of Bicycle/Wheelchair or Transport passes facilities.
 - Provision for Scholarships and Cash incentives.
 - Boarding and lodging facilities in Educationally Backward Blocks.
 - Vocational and adventures programmes for Girls.
 - Aids and appliances to the girls with special needs.
 - Engagement of community organizers from SC/ST, Minority communities with a focus on schooling needs of children from specific households.
- ❖ Residential Scheme for women teachers working in Rural and Hilly areas is essential. So, construction of residential quarters for teachers in remote/hilly area/in area with difficult terrains should be started. Quarters will be built as residential clusters with accommodation for teachers of all schools within a particular area.
- ❖ Rural posting allowance for woman teachers to attract them to rural postings. Rural Allowance in low women literacy districts @ Rs. 300/- per teacher per month is therefore suggested. This Scheme may be operationalized first in the high gender disparity areas. The amount of Rural Allowance will be subject to the availability of resources and based on records of previous attendance of women teachers as reflected in the District Plan proposals.
- ❖ State government already has the provision for Secondary Education of KGBV passout girls. But there is no separate hostel facility for these girls. In Girls' Hostel Scheme, Girls' Hostel with capacity of 100 girls would be set up in each Educationally Backward Blocks in the state.

- ❖ The existing Kasturba Gandhi Balika Vidyalaya Scheme should be extended up to class XIIth.
- ❖ All schools should have basic facilities like drinking water, toilets and common rooms for girls.
- ❖ The existing institution of higher learning exclusively for boys should admit girls wherever possible.
- ❖ In every primary school/anganwadi, at least there should be a child care center as the girl child often has to look after the younger siblings and that is why she has to stay back at home. It should be developed with the help convergence of Department of Women Empowerment and Child Development.
- ❖ A uniform dress code should be implemented in all the districts of the state for all children.

It is felt that, the targets to girl's education should not be spelt out only in terms of enrolment and retention of girl students, but also in terms of their relative achievement and performance at all levels and in all subjects. So, in order to strengthen the academic aspect of girl's education, following steps should be taken:-

- ❖ Organization of gender sensitization program, for the master trainers, through SCERT for administrators and principals through SIEMAT and for in-service teacher's through DIETs/DRCs.
- ❖ Making all options of education such as open schools, regular schools, private schools, non formal and alternative education systems open to girls.
- ❖ Facility to appear in class IXth/XIth as a private student should be provided to girls. Crash courses or weekly/10 days contact program should be organized for these students. There should be a provision of incentive for those teachers who are organizing the contact

- programme. Crash courses/contact programmes can be organized quarterly/half yearly/annually.
- ❖ There should be a provision of vocational education for girls studying in senior secondary classes.
 - ❖ Organizing counseling sessions camps for students, teachers and parents through the state/district/block Guidance and Counseling centres.
 - ❖ Organizing special coaching classes for the girls from SC/ST/OBC/minority/disabled/or BPL children for this the service of the retired teachers can be availed to prepare them for various competitive examinations.
 - ❖ Organizing vocational guidance camps in collaboration with NGO's/state/district level Guidance & Counseling resource centre for preparing the girls for choosing a career.
 - ❖ For promoting access to dropout girls, there should be a provision of bridge course.
 - ❖ Conducting Researches and Actions Researches regarding all aspects of girls education.
 - ❖ Provision of remedial teaching for educationally backward girls.
 - ❖ Girls are often subjected to stereotypical expectations based on notions of their future roles as wives and mothers rather than enabling them to develop their capabilities and claim their rights. They are forced to opt stereotypical career. So, there is a need to sensitise teachers and parents through orientation programmes regarding their roles.
 - ❖ Tracking of out-of-school girls.
 - ❖ To bring, the out-of-school children back to the mainstream of formal education, Bridge courses and alternative educational courses should be designed by the specialist. The SCERT will be the functional body.

- ❖ Provision of Open and Distance learning schooling system for those students who cannot go to formal education system. For this, NIOS should be a potential Resource Organization.
- ❖ The students of the open/distance schooling system should be provided fee concessions, nominal registration charges and nominal examination fee.

Education of children belonging to SC/ST/OBC and Educationally Backward Minorities:-

Article 46 of the constitution states that, "The state shall promote with special care, the education and economic interest of the weaker sections of the people, and in particular of the scheduled castes & scheduled tribes and shall protect them from social injustice and all forms of social exploitation.

The people from socially disadvantaged groups and women are usually placed in situations of disadvantage because of their identities, and are denied equal access to valued resources in society and participation in different institutions. Research on school processes suggests that identities of children continue to influence their treatment within schools. Children belonging to SC & ST groups and other socially discriminated groups are often subjected to demeaning treatment in the classroom, not only by teachers but also by their peers. So, there is an immense need to ensure the participation of all children in all spheres of their life in and outside the school. School has a very important role to play in bringing social changes. So, school need to become centres that prepare children for life and ensure that all children, especially the differently abled children from marginalized sections, and children in difficult circumstances get the maximum benefit of this critical area of education. Equal opportunities to display talents and

share her/his talents with peers are powerful tools in nurturing motivation and involvement among children.

Various efforts have been done by the central and state government for the upliftment of the children of socially disadvantaged groups by launching educational schemes, providing fee concessions, scholarship and reservations etc. For promoting the education of these children the SMDC that has been formed at the school level has a representative of socially disadvantaged group.

In Uttarakhand the literacy rate of SC male is 77.30% and of SC female is 48.70%. The percentage of ST male literacy is 76.40% and ST female is 49.40% according to census 2001. The male literacy rate seems to be better than the female literacy rate.

On viewing the present status of the education of the socially marginalized group it can be said that so far the efforts that have been done by the central or state government for the educational access, retention and better achievements of children of socially disadvantaged group are not up to the mark. In recent years, Muslim minority children have been identified as having unusually low levels of access. Therefore, there is an immense need to take immediate steps both to strengthen the physical as well as the academic aspect of the education of socially disadvantaged group.

Table 7.1.2 No. of Girls and SC/ST Students.

Total No. Of Girls Passed Out Class IX (2008-09)	Total No. Of Girls in Class X (2009-10)	Total No. Of SC Student in Class X (2009-10)		Total No. Of ST Student in Class X (2009-10)	
		Girls	Boys	Girls	Boys
	79050	15519	19321	2954	3046

Table 7.1.3 Gross Enrolment Ratio Category wise

Category	Boys	Girls	Total
All	72.60	66.17	69.50
SC	82.38	67.28	75.11
ST	73.15	70.51	71.86

Source : SEMIS 2009-10

Steps to be taken for promoting the physical/human resource aspect of the education of socially disadvantaged group are:-

- ❖ Community mobilization and campaigns for sensitization of the education of socially disadvantaged group with the help of Social Welfare Department, Parent Teachers Association, SMDC and Self Help Groups etc.
- ❖ Upgradation of upper primary schools uptill higher secondary schools. Preference will be given to Ashram schools and schools of minority concentration areas.
- ❖ Providing hostel facilities to the children from socially disadvantaged groups in collaboration with the Department of Social Welfare and Justice.
- ❖ There is a need for extending following interventions and resource support to the children belonging to SC/ST/OBC and Educationally Backward minorities, including differently abled children at secondary and higher secondary stage:-
 - Providing free of cost textbooks, workbooks and stationeries etc.
 - Providing free of cost uniform, footwear etc.
 - Provision of Bicycle/wheelchairs and aids and appliances to children with special needs of socially disadvantaged groups.
 - Boarding and lodging for each child.
 - Stipend for day scholars.

- Provision of different scholarships.
- ❖ Deployment of urdu teachers.
- ❖ Exclusive Secondary and Higher secondary schools for girls should be set up for increasing the participation of girls from minority community.
- ❖ Providing formal secondary schooling facilities in centres of religious instruction viz. maktabas and madarsas.

Without focusing on the academic aspect of education of these children the physical/material resources provided to them will not be effective. Efforts should also be made to increase their relative achievement and performance at all levels and in both curricular & co-curricular areas. Therefore, there is a need to strengthen the academic aspect also. For this following steps should be taken:-

- ❖ Organization of sensitization program for the master trainers, through SCERT, for administrators and principals through SIEMAT and in-service teachers training through DIETs/DRCs.
- ❖ Making all options of education such as open schools, regular schools, private schools, non-formal and alternative education system open for the children of socially disadvantaged group.
- ❖ Facility to appear in class IXth/XIth as a private student should be provided to these children. Crash courses or weekly/10 days contact program should be organized for these students. There should be a provision of incentive for those teachers who participate in these contact programme.
- ❖ Providing vocational education.
- ❖ Organizing special coaching classes for appearing in competitive examination.
- ❖ Encourage their participation in sports and co-curricular activities.

- ❖ Organizing special counseling sessions for developing positive self-concept, motivation, self confidence etc. of these children.
- ❖ Conduct special camps for educational & vocational guidance and bridge courses for them.
- ❖ Organizing remedial classes, especially for educationally backward children who are not doing academically well.
- ❖ Organization of orientation program for the in-service teachers on teaching the children of first generation learners and creation of a congenial learning environment in the classroom where they are given the opportunity to learn.
- ❖ Initiating community participation in mobilizing parents and community for regular attendance of these children.
- ❖ Publicly facilitation of children with good academic/attendance records.
- ❖ Conducting Researches and Action researches.
- ❖ To bring the out-of-school children back to the mainstream of formal education, Bridge courses and alternative educational courses should be designed by the specialist. The SCERT will be the functioning body.
- ❖ Provision of open and distance learning schooling system for these students who cannot join formal education system. For this, NIOS should be a potential resource organization.
- ❖ The students of the open/distance schooling system should be provided fee concession, nominal registration charges and nominal examination fee.

Education for children with special needs:-

Education of children with special needs has always been an area of major concern to all. The Government of India has passed three legislative Acts for the welfare of children with special needs. These are-The Rehabilitation Council of India (RCI) Act 1992, The Persons With Disabilities Act (PWD)- 1995, and National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act 1999. Besides this, the government has established separate workshops, model schools, national institutes for children with various disabilities and helped in facilitating access to education for all learners by introducing various schemes, reservations, scholarship, allowances, concessions and facilities etc.

To initiate the education of such children, special schools have been set up in the past and provisions have been made for integrated education. Overtime, however, there has been growing awareness that special education in special schools provide segregation and isolation to these children, thus creating separate world for them in adult life. So, to increase the access to education for the learners with special educational needs, the concept of inclusive education needs to be initiated. Societal requirement is that learners with special needs should be educated along with other learners in inclusive schools, which are cost-effective and have sound pedagogical practices. Inclusive education refers to all learners, young people with or without disabilities being able to learn together in ordinary preschool provisions, schools and community educational settings with appropriate network of support services. In order to initiate inclusive education in the state it is necessary that teachers, educators and administrators should be sensitized and made aware of the philosophy of inclusive education and oriented to the different adjustments that schools

have to make in terms of infrastructure, curriculum, teaching methods and other school practices to relate teaching to the special needs of all learners.

The present status of children with special needs in secondary and higher secondary schools in our state reveals that the percentage of children with special needs who are enrolled in the secondary schools is 1.03% and at the higher secondary stage is 1.20%. So, which indicates that there is a need to increase the access and retention of CWSN in the school.

The status of these children indicates that the efforts done so far by the government to bring the children with special needs to school, their rate of enrolment in school is still very low. This implies that there is a need to focus on the different types of disabled children and out of reach children.

The steps needs to be taken for implementing inclusive education are:-

- ❖ All the schools will be made disabled friendly including hostels, libraries, laboratories, toilets and buildings. The school environment will have barrier free access for the disabled. Special attention will be given for the availability of study materials like talking textbooks, reading machines, computers with speech software, Braille books and aids and appliances. An adequate number of sign language interpreters, transcription services be introduced for the hearing impaired students. Transport facilities, wheel chairs, etc. should be provided to these children.
- ❖ To support the entire process of inclusive education, the issues of curriculum and pedagogy should be introduced in in-service training of teachers. Sensitizing teachers according to the requirement of these children should also be ensured.
- ❖ Suitable trades and training institutions should be identified for vocational education of these children.

- ❖ Collaboration with National Institute for the Visually Handicapped, National Institute for the Orthopedically Handicapped, NGOs and special schools, for providing different services to them.
- ❖ Appropriate resource, services to these children and support through professionals, should be provided.
- ❖ A resource centre at the cluster/block level should be developed in the cluster/blocks school having maximum number of disabled children.
- ❖ Conduct survey of the school and community for the identification of various disabilities.
- ❖ Home based education should be introduced for out-of-reach Children with special needs.
- ❖ Put in place an effective communication and delivery system for specific delivery of teaching/learning materials, aids and appliances, hardware/software etc.
- ❖ Promote participation in sports and co-curricular activities for all round development.
- ❖ Provision of free textbooks, stationeries, uniform and aids and appliances for these children.
- ❖ Funds may be earmarked for remedial teaching/special education of such children.
- ❖ Making the curriculum flexible and appropriate to accommodate the diversity of school children including those with disability in both cognitive and non cognitive area.
- ❖ Involving parents, family and community in the education and sensitize them.
- ❖ Mobilize special schools as resource centers for providing support to inclusive schools.
- ❖ Organizing educational and vocational guidance session for these children.

- ❖ Reduce class size to a maximum of 30 students and a maximum of 20 in case the class includes children with special needs.
- ❖ Develop perspective and skills in all administrators, including school principals, for planning and executing programmes based on the philosophy of inclusion.
- ❖ Interested teachers should be encouraged to build their capacity in the area of special education. There should be a provision of special incentive or education leave for such teachers.
- ❖ Itinerant teacher should be appointed in the block/cluster level resource centre.
- ❖ Provision of extra time should be given to the visually impaired persons during examination or facility of a writer.
- ❖ Making all options of education such as open schools, regular schools, special schools, and alternative education system, open to these children.
- ❖ The students of the open/distance schooling system should be provided nominal registration charges and nominal examination fee.

Special Focus Group

Uttarakhand in a literal state in states. There in 99% enrolment at Elementary level and 69% GER at secondary level, but quality of education in state in a great concern. The enrolment at secondary and higher secondary level in a major issue in state. Drop out, repetition and low transition rate are major constraints in secondary education.

The participation of girls and children of special focus groups in law in state. For better participation of these group state proposed following innovative activities in plan.

Participation of Girls in Secondary Education

- **Community Awareness programme for Gender Sensitization :**

2 Days Gender Sensitization programme at School level will organize in each School. 1770 SMDC's 17700 members will aware about importance of girls education. How community play role in improvements of girls participation at Secondary Levels and what are the major local issues about girls education have also discussed in this programme.

- **Retention of Girls & SC ST Children**

1. **Distribution of Books, TLE etc.** – Most of the girls and special focus group children quit their education due to unavailability of necessary requirement of school. So districts are proposed free distributions of School Dress, Books and Stationary for girls and Books and Stationary for special focus group children. All text books and learning material will distributed under RMSA for all girls and SC, ST boys. The procurement and distribution of text books and other material will done by SMDCs.

2. **Providing School Uniform-** School uniform will provide to all Girls. The SMDC will responsible for procure and distribution of uniform. Total 10411 girls will benefited under this intervention.

- **Providing Accessibility of SE for continuous Education For KGBV Girls :**

State Govt. take initiative for KGBVs girls to continue their education in secondary level, but the secondary schools are far from KGBVs hostels. So districts have proposed transportation facility for KGBVs and other out of school girls. In Uttarkashi District the distance of nearby secondary School is more than 5 Km. Local Transport Facility will hired on Tender bases by

SMDC & KGBV management. Total 60 girls of KGBV in Uttarkashi district will covered under this intervention.

- **Promote Life Skills & Self defence activity to Girls :**

Uttarakhand in rich state in kind of natural and traditional resources. There is large scope of mountaineering tourism, Bamboo, Carpet, woolen and small scale industries. The skill development training programmes will also prepared at school and local level to promote their kind of skills in children.

Most of the Girls are interested in vocational course after SE, but there is a Lack of proper guidance & counselling about Life Skill courses. camps for guidance & counselling for vocational guidance will organised at district. Specialist will provide guidance to better opportunity for skilled vocational courses. The Mountainring, and other adventured activities will also provide to children for self defence and self confidence. Total 1660 girls of Chamoli & 300 girls of Uttarkashi district will covered under this intervention. 1960 boys also will covered under this scheme

- **Remedial Teaching :**

Teachers will identified poor performed children on basis of CCE results. The SRG will prepared Crash courses/Contact programmes modules with help of SCERT and DIETs. Guidance & concillingare organized at District level for identified Girls by the teachers. Total 32351 children will proposed under this intervention. Poor performed SC & ST student in core Subjects will identified & Crash courses will be at School Level.

Interventions On Equity

Component	Intervention	Target Group	Description of the Intervention				Financial	
			The Background	The Goal	The Strategy	The Rationale	Unit Cost	Total
Participation of Girls in SE	Community Awareness programme for Gender Sensitization	1770 SMDC's 17700 members	1. GER of Girls at Secondary Level is 66.17 2. The Gap between GER of Boys & Girls is 6 %	1. Increase in Girls GER in Year 2010-11. 2. Additional 4549 Girls will be enrolled	2 Days Gender Sensitization programme at School level will organize in each School	Lake of Community awareness about Girls Education	<i>Under Community Mobilization</i>	
Retention of Girls	1. Distribution of Books, TLE etc. 2. Providing School Uniform	All 10411 girls	Dropout Rate of Girls at Secondary Level is 6.78 e.g. 10072 Girls dropout in every Year.	1. Providing Free Text Book & TLE for 10411 girls. 2. Providing School Dresses for 10411 girls.	1. Purchase of Text Book & other TLE for through SMDC. 2. Purchase & Distributed Uniforms through SMDC.	1. Most of Girls dropout or irregular due to not having TLE & Text Book. 2. State Govt. providing Free Education to all girls so Free School Dress to all Girls.	Rs. .015 For Distribution of Books, TLE & Rs. .015 For School Uniform	Rs. 3123.33 Lakhs
Providing Assessability of SE for continuous Education For KGBV Girls	Providing Transport Facility For Girls of KGBV	60 Girls of KGBV (District Uttarkashi)	State Govt. provided Hostel facility to all KGBV Girls for Secondary Level but in Uttarkashi District the distance of nearby secondary School is more than 5 Km.	Providing Assessability of SE for KGBV Girls	Local Transport Facility will hired on Tender bases by SMDC & KGBV management.	Due to none Schooling facility within the radius of 5 km. hostel, most of the Girls are Dropped out after Class VIII.	.09 lakhs	5.94 lakhs
Promote Life Skills & Self defence activity to Girls	Providing Life Skill Courses.	864 Girls (834 Girl in District Chamoli & 30 Girls of District Uttarkashi)	Most of the Girls are interested in vocational course after SE, but there is a Lack of proper guidance & counselling about Life Skill courses.	1. Organizing camps for guidance & counselling for vocational guidance. 2. Crash courses/Contact programmes.	1. Guidance & counselling are organized at District level for identified Girls by the teachers. 2. Poor performed Girls in core Subjects will identified & Crash courses will be at School Level.	1. The board exam results shows that most of the girls are not performing satisfactory. 2. Lack of proper guidance most of girls are not able to decide the future plan.	.04 lakhs	33.36 lakhs
Exposure activity to Girls	Providing self confidence & Exposure	All Schools	Most of the Girls are interested in vocational course after SE, but there is a Lack of proper guidance & counselling about Life Skill courses.	Educational Tours/Study Tours/Excursion Trips	Girls participation in the Field Visit will be insured		<i>Under Study Tours/Excursion Trips</i>	

Interventions On Equity

Component	Intervention	Target Group	Description of the Intervention				Financial	
			The Background	The Goal	The Strategy	The Rationale	Unit Cost	Total
Retation of SC, ST & edu. Backward Chilren	Distribution of Books, TLE etc.	All 48959 Boys	Most of the SC,ST and Backword community are economically poor and able to afford financial burden of text books and TLE	Providing Free Text Book & TLE for 48959 Boys.	Purchase of Text Book & other TLE for through SMDC.	Most ofboys belonging to these community dropout or irregular due to not having TLE & Text Book.	Rs. .015 For Distributi on of Books, TLE.	Rs. 734.385 Lakhs
Promote Life Skills & Self defence activity	Providing Life Skill Courses.	1960 (1660 in Chamoli & 300 student in Uttarkas hi district)	Most of the student are intrested in vocational course after SE, but there is a Lack of proper guidance & counselling about Life Skill courses.	Organizingg camps for guidance & counselling for vocational guidance.	1. Guidance & counsellingare organized at District level for identyified student of these community by the teachers.	1. The board exam results shows that most of the student of these community are not performing satisfactory. 2. Lake of proper guideance most of students are not abel to decide the future plan.		33.90 lakhs
Improvement in learning achievement	Remedial teaching	32351 student	poor performance in maths, science and english	Crash cources/Contact programmes at school level	Poor performed student in core Subjects will identyified & Crash cources will be at School Level.	The board exam results shows that most of the student of these children are not performing satisfactory.	.06 Lakhs	1941.06 Lakhs

Innovative Activities

Uttarakhand is a literal state in states. There in 99% enrolment at elementary level and 69% GER at secondary level, but quality of education in state in a great concern. The enrolment at secondary and higher secondary level is a major issue in state. Dropout, repetition and low transition rate are major constraints in secondary education.

The participation of girls and children of special focus groups is low in state. For better participation of these group state proposed following innovative activities in plan.

- 1. Skill Development Programmes** – Uttarakhand in rich state in kind of natural and traditional resources. There is large scope of mountaineering tourism, bamboo, carper, woolen and small scale industries. The skill development training programmes will also prepared at school and local level to promote their kind of skills in children. This will help not only the student but also the migration of the youth from the hilly region, which is a major issue in Uttarakhand. Workshop seminar and Training programme will also be organize for this kind of girls. The estimated budget for 2266 children @ 3000/- per children is Rs. 68.00 lakhs.
- 2. Health Check up Camp** – As it is always a major concern that children suffering with disabilities suffers in school education and as a result dropout of these children. Regular check up camp will be organized at cluster at block level. Identified of CWSN, Health Card, parents counseling, aids and appliances distribution activity will be conducted in this camp with help of health department and other relative departments. For nearly 12166 children @ 4000/- per children the estimated budget Rs. Is 84.64 lakhs.

Chapter VIII

Estimation of Additional Inputs

After analyzing the present scenario of secondary education of Uttarakhand and projection of enrolment based on targeted GER we had identified the physical and academic needs and additional inputs for achieving the RMSA goals in plan period. We had divided all inputs or needs in two major heads.

1. Up-gradation of UPS in secondary school or up-gradation of secondary school in higher secondary schools.
2. Strengthening of existing schools. Out of these two major heads we also prepared some extra inputs for community mobilization, capacity building programmes of teacher education planner and administrators, educational institutions, bridging the social and gender gaps, interventions for out of school children etc. The details of additional inputs estimated interventions were as following-

Advocacy and Stakeholder Participation

Stakeholder participation is a key factor to achieve RMSA goals for which we had proposed and defined roles of SMDC, PTA, Teachers unions, PRIs in planning, monitoring and implementation of RMSA interventions at school level to state level. We had proposed orientation programs, training, Kala Jathas, Nukkar Nataks, Rally, Poster, Pamplets, Education fairs and publicity programmes for stakeholder participation in RMSA. All districts proposed 05 days orientation programmes for all SMDC members across the plan period. Training programmes for PRIs members prepared at district level for all 95 block development committees' members and all 13 Zila Panchayat member teachers union representatives will also participate in their training and orientation programmes. Education fairs will be organized at district level and state level in these fairs best SMDCs, PRIs will be awarded for their contribution in implementation of RMSA.

Quantitative Expansion- Access and Participation

To provide secondary school accessibility to all children within the radius of 05 km and higher secondary schooling accessibility within the radius of 10 km as per need, we are proposing upgradation of upper primary school to secondary school and up-gradation of secondary school to higher secondary school. Out of total proposed 340 upgraded secondary schools, 282 are proposed in hilly areas and 58 are proposed in plain areas. 63 upgraded secondary schools are proposed for year 2010-11 and 134 are in 2011-12, 99 are in 2012-13 and 21 are in 2013-14. We assume that maximum habitation will be saturated up to year 2011-12 by secondary schooling facilities within the norms.

For each upgraded secondary school one classroom for one section, 01 science laboratory with lab equipments, 01 headmaster room, 01 office room, 01 computer room, 01 art/craft room, 01 library with books and separate toilets blocks for boys and girls are proposed in AWP&B.

For upgradation of secondary school in higher secondary school are proposed from year 2011-12 in which out of total proposed 251 upgraded secondary school 195 are proposed in hilly area and 56 are proposed in plain areas. 33 upgraded secondary school are proposed for year 2010-11 and 79 are in 2011-12, 85 are in 2012-13 and 37 are in 2013-14. For each upgraded secondary school one classroom for one section, 01 science laboratory with lab equipments, 01 headmaster room, 01 office room, 01 computer room, 01 art/craft room, 01 library with books and separate toilets blocks for boys and girls are proposed as per requirement in AWP&B.

Strengthening of Existing Schooling Provisions

To strengthening of existing schools we are proposed classroom as per classroom student ratio 1:30 at secondary and higher secondary level but atleast 01 classroom for each section. Science laboratory with lab equipments, computer room, art and craft room library, furniture and fixture, development of play grounds are also proposed as per requirement. The yearwise detail of proposed provision are in table no 8.1.1. and 8.2.2.

Quality Improvement

According to access and participation at secondary and higher secondary level the State has shown better achievement after separation form Uttar Pradesh but the output of education system as good education quality is still a issue. To address the quality issue the State government took many innovative decisions like that curriculum revision, text book revision, teacher appointment, physical infrastructure in schools, establishment of SIEMAT, SCERT and examination board etc.

For quality improvement at secondary level, we are proposed atleast 01 head teacher and 07 full time teachers with one lab attendant, 01 office assistant and 02 peons in a new school. Out of 07 regular teachers it will be necessary that 01 language, 01 science, 01 mathematic, 01 social studies must be appoint. There is also proposed establishment of integrated learning resource centre at school level and at district level. 05 days in-service teacher training, remedial teachings and other innovative activities are also proposed for quality improvement.

Education of Focus Groups

To bridge the gender and social gaps we are proposed school dress, books and stationary, transport facilities, skill development programmes and other innovative programmes for girls and SC, ST and minority children.

Regular health check-up camps, parent counselling, scot facility, aids and appliances are also proposed for CWSN.

Capacity building for planning and management

SCERT and SIEMAT are fully functioned in State. These institutions are play greater role in strengthening of teachers and other educational administrator. SCERT will prepare training module and master trainer for capacity building of teachers. SIEMAT will prepare training module and trained the education administrators, planers and policy makers. The districts are also proposed strengthen of DIET for capacity building of secondary level teachers training. SIEMAT trained the all level planning team like State planning team, district planning team, block planning team and principals, block education officer etc.

Education Management Information System

All 13 districts are well equipped with computer hardwares. Districts are also proposed computer operators at district project office to manage the EMIS. The post of Asst. State Project Director, EMIS with computer operators are also proposed at State Project Office. SEMIS is fully functioned in all districts and perspective plan are prepared on basis of SEMIS data.

Monitoring and Evaluation System

The monitoring mechanism will be developed from block level to state level for this we are proposed block project office at block level, district project office at district level and state project office at state level with appropriate man power at each level. DIETs, SCERT, Education Board Office, SIEMAT and School Education Directorate will also monitored the academic achievements of RMSA. We are also proposed internal and external review missions for evaluation of programme. Internal and External audit system will also develop for financial monitoring. The third party evaluation will be conducted to know physical and qualitative achievements of civil works and other interventions.

Chapter IX

Planning for Implementation

Implementation Schedule & Responsibilities

Monitoring, Inspection & Supervision

Monitoring is an internal management process of continuous control of inputs, processes and outputs in order to identify strengths and weaknesses, formulate practical proposals for action and take the necessary steps to reach the expected results. It is important to remember that monitoring include action and is not simply limited to an identification of strengths and weaknesses.

At the secondary level monitoring is done through the inspectorate system. This system has served largely to exercise authority and control rather than provide academic support to teachers. The school inspectors perform a number of functions, one of which is to visit schools under their preview. Their visits are usually few and far between, during which the students and teachers tend to present a positive picture of the school, regardless of the ground realities due to fear of punishment. This reduces monitoring to a 'policing' function.

Monitoring must be seen as a process that enables and provide constructive feedback. The monitoring system put in place must be carefully analysed in relation to its objectives, and the norms and practices that are to be institutionalized to achieve the objectives. It must provide for sustained interaction with schools in terms of teaching-learning processes within the classroom context.

For carrying out the activities of monitoring inspection and supervision effectively. The committee has been formed at the state level i.e. General body committee, in the chairmanship of chief minister, executive committee, in the chairmanship of chief secretary, Finance Committee in the chairmanship of principal secretary of finance and program monitoring committee in chairmanship of education secretary. These committees monitor and supervise all the activities and suggestions give to the state mission RMSA.

**Staff Position
State Project Office**

SN	Post	Staff Sanctioned	Staff filled	Remarks
1	State Project Director	1	1	<i>Ex officio Director, School Education</i>
2	Additional State Project Director	1		Selection Process is going on
3	Finance Controller	1	1	<i>Ex Officio, FC School Education</i>
4	Joint Project Director	2	2	
5	Assistant Project Director	4		Selection Process is going on
6	Account Officer	1		Selection Process is going on
7	Accountant	1		Selection Process is going on
8	Administrative Officer	1		Selection Process is going on
9	Computer Operators	3	1	Selection Process is going on
10	Peons	3		Selection Process is going on
	Total	18	5	

District Project Office

SN	Post	Staff Sanctioned	Staff filled	Remarks
1	District Project Officer	13*	13	<i>Ex officio ADEO (Secondary)</i>
2	District Resource Person	26**		Selection Process is going on
3	Assist.Finance & Account Officer	13*		Selection Process is going on
4	Accountant	13*		Selection Process is going on
5	Computer Operators	13*		Selection Process is going on
	Total	78	13	

* One post in every District

** Two post in every District

State level-

Activities	Monitoring Agency	Member	Steps to be taken
Civil Work	SPO, Uttarkh and Sabhi Ke Liya Madhyamik Shiksha Parishad	<ul style="list-style-type: none"> • Executive Engineer • J.D. Planning and Civil work • External Agency 	<ul style="list-style-type: none"> — Supervision of work according to map design. — Monitoring of qualitative aspect of civil work. — Testing the quality of material. — Reporting to SPO. — Release of the Budget. — Spot verification of the civil work. — Quarterly/monthly progress of civil work and reporting. — Monitoring of quality of construction. — To insure quality work. — Action Taken.

Finance	SPO, Uttarkha nd Sabhi Ke Liya Madhya mik Shiksha Parishad	<ul style="list-style-type: none"> • Finance Controller 	<ul style="list-style-type: none"> — To prepare monthly and quarterly progress report. — Allocation of the budget from time to time according to the proposal. — Physical verification of the spot and financial records. — Implementation of the suggestions of the audit report. — Monitoring of all the financial aspects at different levels.
Academic	SCERT, Board SPO	Functionaries of <ul style="list-style-type: none"> • SCERT Board • J.D. Academic • (SPO) 	Monitoring of quality of all the academic aspects- <ul style="list-style-type: none"> — Curriculum and text books. — Teachers training. — Remedial Teaching. — Continuous and comprehensive evaluation. — Research and action research. — Guidance and Counseling. — Innovative activities. — Teaching learning process. — Learning Resource Centers. — Classroom process. — Quality education of children with special needs. — Monthly/quarterly/yearly reporting and monitoring of all the activities for qualitative improvement.
Planning	SIEMAT and SPO	Functionaries of <ul style="list-style-type: none"> • SIEMAT • SPO 	<ul style="list-style-type: none"> — Monitoring and Supervision of SEMIS data. — Monitoring of the quality of the plan. — Monitoring of the norms set up by the central govt. — Appraisal of district plans. — Monitoring of the implementation of the plan according to the set target. — Monitoring of the quality of the training of managerial functionaries.
Administ rative	Directora te	Directorate of School Education	<ul style="list-style-type: none"> — Implementation of the suggestions based on monitoring report.
States Internal mission	Board, SCERT, SSA, SIEMAT, Directora te and Universit y	One member from Board, SCERT, SPD (SSA), SIEMAT Directorate of School Education, University members	<ul style="list-style-type: none"> — A review mission will monitor all the activities in every six month.
State Resource group		Subject experts, finance experts, NGO's, Educationist, PRI, member, experts of national academic and planning agencies.	<ul style="list-style-type: none"> — To provide suggestions to SPO regarding preparing the plan and its implementations.

District Level – The district project committee has been formed in the chairmanship of district magistrate. Its role is to monitor and implement all kinds of activities under the perspective plan and AWP&B. Additional District Education Officer (Secondary) will be the district project officer and his role will be monitor and supervise all activities. District Education Officer will be the patron of RMSA of all administrative and academic work will be done by DEO.

Activities	Monitoring Agency	Member	Steps to be taken
District/ Infrastructura 1	DPO and External Agencies	<ul style="list-style-type: none"> • A.E. Civil work • District Resource • Person planning • and civil work 	<ul style="list-style-type: none"> • Supervision of work according to map design. • Monitoring of qualitative aspect of civil work. • Testing the quality of material. • Reporting to DPO. • Spot verification of the civil work. • Quarterly/monthly progress of civil work and reporting. • Monitoring of quality of construction. • To insure quality work. • Action Taken. • To check the quality work and reporting. • Supervision and Monitoring of SEMIS data. • Support to SMDC.
Financial	DPO	<ul style="list-style-type: none"> • Assistant Finance • and Account • officers 	<ul style="list-style-type: none"> • To prepare monthly and quarterly progress report. • Physical verification of the spot and financial records. • Implementation of the suggestions of the audit report. • Monitoring of all the financial aspects at the district and school levels. • To monitor school level account, audit and progress.
Academic	DPO and DIET	<ul style="list-style-type: none"> • DIET (05 subject experts) • District Resource person • Academic, Evaluation and • Innovations. 	<ul style="list-style-type: none"> • Supervision, monitoring and reporting of all the academic activities. • To monitor school level academic activities. • To monitor the implementation of teacher training in classroom process.
Planning	SPO and DIET	<ul style="list-style-type: none"> • Functionaries of DIET and SPO 	<ul style="list-style-type: none"> • Monitoring and Supervision of SEMIS data. • Monitoring of the norms set up by the central govt. • Appraisal of district plans. • Monitoring of the implementation of the plan according to the set target.

Block Level – Block Education Officer will be responsible for all administrative and academic work at the block level.

Activities	Monitoring Agency	Member	Steps to be taken
Civil Work, Financial, Academic, Planning	Block Education Office and External Agencies	<ul style="list-style-type: none"> • JE Civil work • B.E.O. • Regional Education officers. 	<ul style="list-style-type: none"> — Monitoring and reporting at the three levels of construction- <ul style="list-style-type: none"> ➤ Plinth level. ➤ Door band level. ➤ Lintel level. — Monthly reporting at the district. — Collection and verification of SIEMS data. — Monitor and supervise all the academic and administrative activities.

School Level – At the school level SMDC has been formed. It has two sub committees i.e. Civil work Monitoring Committee and Academic Committee. Its main functions will be monitoring and supervision of the activities related to school.

Activities	Monitoring Agency	Member	Steps to be taken
Civil Work	School	<ul style="list-style-type: none"> • Principal • Functionaries of School Infrastructural Development committee 	<ul style="list-style-type: none"> — Monitoring and reporting weekly/monthly progress to block and district level. — Monitoring of school planning.
Academic	School	<ul style="list-style-type: none"> • Member of academic Committee 	<ul style="list-style-type: none"> — Monitoring of academic aspects related to quality improvement. — To assess the child progress. — Monitoring of Management, teaching-learning processes and school administration. — Result obtained. — Action plan

1. State Level Activities Under MME

	Activity	Brief about activity
1	Research & Evaluation	
1.1	GIS Mapping & School Mapping	GIS mapping will be conducted with help of outer agency Uttarakhand Antriksha Upyog Kendra. School mapping exercise will be conducted in all 13 districts.
1.2	Research study	Impact of New Reforms in Evaluation System at SE
2	Supervision & Monitoring	
2.1	Monthly Review Meeting of District Level Officers at SPO	Review of RMSA activities in State/district.
2.2	Orientation Workshop & Seminar	Meeting of SRGs. Workshop on TNA conducted.
2.3	Field Visit of SPO Officials	For physical verification and awareness building of SPO official study tour and exposer visit will be organised.
3	Management and Quality	
3.1	Salary	For all SPO staff.
3.2	Capacity Building Programme for Project Functionaries	26 DRPs and 13 DPOs, 13 AAOs and 13 computer operators will be oriented.
3.3	Strengthening of State Level Institute (SCERT, SIEMAT & Board)	State level institution will be strengthened to implement and facilitate to SE.
3.4	Community Mobilization & Awareness Comp.	Separate write up submitted.

3.4	Strengthening OF MIS (SEMIS)	Printing of DCF and data entry, purchasing of computers and other accessories.		
3.5	Innovation & other Activities	Separate write up submitted.		
3.6	Other Office Expenses	All Office Expensive, Printing of Various Formats & Registers, Brocers, Pamphlets etc., AWP&B Preparation, TADA, Vehicles Hiring, POL, Contingency, Consultancy etc.		
2. District Level Activities Under MME				
2	Supervision & Monitoring			
2.1	Monthaly Review Meating	Review of RMSA activities in district/Blocks.	13	6.50000
2.2	Orientation Workshop & Seminar (Disttrict. & Block Level)	Meeting of DRGs. & BRG's	13	32.00000
3	Management and Quality			
3.1	Salary	For all DPO staff.	13	213.20000
3.2	Strengthening of Training Institute	Strengthening of DIET's with establishment of Secondary Education Unit at DIET.	13	6.50000
3.3	Community Mobilization & Awearness Comp. (Including Block /School Level)	Separate write up submitted.	13	31.98000
3.4	Strengthening OF MIS (SEMIS)	Printing of DCF and data entry, purchasing of computers and other accessories.	13	19.50000
3.5	Other Office Expenses (Including Block Level)	All Office Expensive, Printing of Various Formats & Registers, Brocers, Pamphlets etc., AWP&B Preparation, TADA, Vehicles Hiring, POL, Contingency, Consultancy & block level Expendeture etc.	13	233.77000

Table 9.1.1 Activities proposed under MMER in 2010-11

1. State Level Activities

S.N.	State Level Format	Amount In Lakhs Proposed Outlay
1	Research & Evaluation	
1.1	GIS Mapping & School Mapping	20.00
1.2	Impact of New Reforms in Evaluation System at SE	10.00
Sub Total :		30.00
2	Supervision & Monitoring	
2.1	Monthly Review Meeting of District Level Officers at SPO	2.00
2.2	Orientation Workshop & Seminar	4.00
2.3	Field Visit of SPO Officials	4.00
Sub Total :		10.00
3	Management and Quality	
3.1	Salary	50.00
3.2	Capacity Building Programme for Project Functionaries	2.00
3.3	Strengthening of State Level Institute (SCERT, SIEMAT & Board)	6.00
3.4	Community Mobilization & Awareness Comp.	1.00
3.4	Strengthening OF MIS (SEMIS)	4.00
3.5	Innovation & other Activities	
3.5.1	Skill development programme	68.00
3.5.2	Health Check up Camp	84.65
3.6	Other Office Expenses	34.00
Sub Total		249.65
Total		289.65

Table 9.1.2 2. District Level Activities

Sr. No.	District Level Format	Unit Cost	Phy Target	Fin
1	Research & Evaluation			
1.1				0.00
1.2				0.00
	Sub Total			0.00
2	Supervision & Monitoring			
2.1	Monthly Review Meeting	0.50	13	6.50
2.2	Orientation Workshop & Seminar (District. & Block Level)	3.00	13	32.00
	Sub Total			38.50
3	Management and Quality			
3.1	Salary	16.40	13	213.20
3.2	Strengthening of Training Institute	0.50	13	6.50
3.3	Community Mobilization & Awareness Comp. (Including Block /School Level)	2.46	13	31.98
3.4	Strengthening OF MIS (SEMIS)	1.50	13	19.50
3.5	Other Office Expenses (Including Block Level)		13	233.77
	Sub Total			504.95
	Total			543.45

Chapter X

Budget Estimates

GOI releases funds based upon the approved Annual works plan and budget (AWPB) of SIS. The fund will be released in two installments. For this purpose the separate bank account has been opened. The first release is made soon after the approval of the AWPB and is approximately 50 percent of the GOI share. Subsequently, the state government releases its share to the SIS. The second installment is released based upon demand from the state (usually six months after the first release) in a similar manner. This release takes into account the expenditure incurred and a forecast of cash requirements for the rest of the financial year.

WITHIN THE STATE:- A separate bank account has been maintained by all district project offices and School Management and Development Committee (SMDC)s. The SIS releases funds to the district office based upon the approved annual plan, expenditure incurred, and future requirements. Further the district office releases funds to the SMDC and schools following the same principles. However, releases at this level consider 'norms' as laid down in the proposed RMSA manual.

In the fund flow it is important to note that all releases from GOI are made electronically and a significant number of districts will further release the funds to implementing agencies, electronically.

Procurement for RMSA is carried out in accordance with the Manual for financial Management and Procurement (FMP) with the state procurement rule 2008. Audit will be done by impaneled chartered accountant. The utilization certificate is duly forwarded to the MHRD by the state governing council for further release. The district maintains the accounts in the double entry system. The state office audits the computerized daywise, headwise, monthwise expenditure periodically.

Monthly review will be organized by the state to assess the level of performance.

TRANSPARENCY AND ACCOUNTABILITY:-

ROLE OF STATE GOVERNMENT:-The Right to Information Act should be followed both in letter and in spirit by all the implementing machinery of the Government Departments in all matters relating to RMSA .Section 4 of the Act which concerns proactive disclosure of information, should be strictly complied with all levels. Key documents related to the RMSA should be proactively disclosed to the public. Without waiting for anyone to “apply” for them .A list of such documents should be prepared by the State Mission and updated from time to time. Public access to key records and key information should be ensured at all levels. This should also be displayed on the website.

The school display board has to show all investments being made in the school. Teacher attendance should be publically displayed, for improving the quality of school level data regarding enrolment, attendance, retention dropout etc. besides the maintenance of other records and registers.

Monthwise updated data on-progress of each component of the scheme, progress of expenditure and utilization including funds received and spent. Payments made, works sanctioned and works started, cost of works and details of expenditure on it, duration of work etc. should be made public in a pre-designated format outside all offices of all agencies involved in implementing the scheme. All these information should also be shared with the Gram Panchyats/ULBs and should be discussed in their meetings.

Similar efforts at transparency should be made right up to the State level. Copies of all sanctioned orders for re project/project activities would be pasted on the website of the department of secondary education.

ANNUAL REPORTS:-

The Central Government as well as the State Governments shall prepare an annual report on the implementation of the scheme. This report will be laid before parliament and the State Governments respectively.

FINANCIAL AUDIT:-

The Audit report of the Chartered Accountant and the Utilization certificate for the previous year must be submitted latest by September next year by the District Project Officer.

The District Project Officer will ensure that the opening and closing Balance included in both the Audit Report and the Utilization certificate tally. In case there is variation due to any unavoidable reason, it has to be clearly explained with reasons to the satisfaction of the SIS, with documentary support, if any.

PHYSICAL AUDIT:-

A physical audit of the works undertaken will be conducted to verify the quality of works and to check that the expenditures incurred have led to the creation of durable assets.

ACTION ON AUDIT REPORTS BY THE STATE GOVERNMENT:-

A copy of every audit report, whether conducted by the chartered accountant, the internal Audit and grievance cell and auditors of the Accountant General or Comptroller and Audit General and Social Audit reports (if any) will be sent to the State Government concerned.

The State government will ensure speedy action against the concerned officials/non-officials for misappropriation of funds, frauds, incorrect measurement, false entries in the registers/records and other irregularities of a serious nature, resulting in the leakage of Government/Public funds/resources. The state Government will also take appropriate steps to prevent such irregularities.

RMSA, UTTARAKHAND
District - Wise Plan Summary
AWP&B 2010 - 2011

SN	District	Plan For Year 2010-2011		
		Spill Over	Fresh/New Proposal	Total (Col 3+4)
1	2	3	4	5
1	Almora	689.42	4754.19	5443.61
2	Bageshwar	225.80	2357.47	2583.27
3	Chamoli	251.72	4857.70	5109.42
4	Champawat	121.18	1442.22	1563.40
5	Dehradun	527.86	4285.87	4813.73
6	Haridwar	301.40	3125.59	3426.99
7	Nanital	448.00	4398.93	4846.93
8	Pauri Garhwal	595.96	4143.72	4739.68
9	Pirhauragarh	175.72	3128.18	3303.90
10	Rudrprayag	219.20	1285.95	1505.15
11	Tehri Garhwal	319.40	3543.17	3862.57
12	US Nagar	363.25	2363.16	2726.41
13	Uttarkashi	220.50	1996.27	2216.77
	Total	4459.41	41682.40	46141.81
14	State/MMER	0.00	833.24	833.24
	G. Total	4459.41	42515.64	46975.05

Table 10.1.2 RMSA, SUMMARY OF AWP&B 2010 - 2011 All District UTTARAKHAND
District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Plan For Year 2010-2011									
				Spill Over			Fresh/New Proposal				Total Plan (Spill Over+Fresh/New)		
				No. of Schools	Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
Physical Infrastructure - Non Recurring													
Upgraded Upper Primary Schools	1.1. Classroom	H	5.63	19	46	258.98	48	96	10.12	971.52	67	142	1230.50
		P	5.63	4	14	78.82	15	56	8.67	485.52	19	70	564.34
	1.2. Science Laboratory	H	6.10	19	19	115.90	48	48	10.62	509.76	67	67	625.66
		P	6.10	4	4	24.40	15	15	9.12	136.80	19	19	161.20
	1.3. Lab Equipments		1.00	23	23	23.00	63	63	1.00	63.00	86	86	86.00
	1.4 Headmaster/Principal Room	H	5.00	19	19	95.00	48	48	9.52	456.96	67	67	551.96
		P	5.00	4	4	20.00	15	15	8.07	121.05	19	19	141.05
	1.5. Office Room	H	5.00	19	19	95.00	48	48	9.52	456.96	67	67	551.96
		P	5.00	4	4	20.00	15	15	8.07	121.05	19	19	141.05
	6. Computer Room	H	5.00	19	19	95.00	48	48	9.52	456.96	67	67	551.96
		P	5.00	4	4	20.00	15	15	8.07	121.05	19	19	141.05
	1.7. Art/Craft/Culture Room	H	5.00	19	19	95.00	48	48	9.52	456.96	67	67	551.96
		P	5.00	4	4	20.00	15	15	8.07	121.05	19	19	141.05
	1.8. Library	H	7.00	19	19	133.00	48	48	14.06	674.88	67	67	807.88
P		7.00	4	4	28.00	15	15	11.88	178.20	19	19	206.20	
1.9. Separate Toilet Blocks & D. Water	H	1.50	19	19	28.50	48	48	3.86	185.28	67	67	213.78	
	P	1.50	4	4	6.00	15	15	3.25	48.75	19	19	54.75	
	Sub Total (1)			23	244	1156.60	63	656		5565.75	734	900	6722.35
Existing Secondary Schools	2.1. Classroom	H	5.63	64	110	619.30	128	221	10.12	2236.52	191	331	2855.82
		P	5.63	17	27	152.01	60	160	8.67	1387.20	77	187	1539.21
	2.2. Science Laboratory	H	6.10	60	60	366.00	193	193	10.62	2049.66	253	253	2415.66
		P	6.10	15	15	91.50	50	50	9.12	456.00	65	65	547.50

Table 10.1.2 RMSA, SUMMARY OF AWP&B 2010 - 2011 All District UTTARAKHAND
District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Plan For Year 2010-2011									
				Spill Over			Fresh/New Proposal				Total Plan (Spill Over+Fresh/New)		
				No. of Schools	Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
	2.3. Lab Equipments		1.00	808	808	808.00	336	336	1.00	336.00	1144	1144	1144.00
	2.4. Headmaster/Principal Room	H	5.00	0	0	0.00	0	0	9.52	0.00	0	0	0.00
		P	5.00	0	0	0.00	0	0	8.07	0.00	0	0	0.00
	2.5. Office Room	H	5.00	0	0	0.00	0	0	9.52	0.00	0	0	0.00
		P	5.00	0	0	0.00	0	0	8.07	0.00	0	0	0.00
	2.6. Computer Room	H	5.00	46	46	230.00	224	224	9.52	2132.48	270	270	2362.48
		P	5.00	9	9	45.00	49	49	8.07	395.43	58	58	440.43
	2.7. Art/Craft/Culture Room	H	5.00	33	33	165.00	334	334	9.52	3179.68	367	367	3344.68
		P	5.00	8	8	40.00	85	85	8.07	685.95	93	93	725.95
	2.8. Library	H	7.00	53	53	371.00	322	322	14.06	4527.32	375	375	4898.32
		P	7.00	16	16	112.00	80	80	11.88	950.40	96	96	1062.40
	29. Separate Toilet Blocks & D. Water	H	1.50	172	172	258.00	265	265	3.86	1022.90	437	437	1280.90
		P	1.50	30	30	45.00	61	61	3.25	198.25	91	91	243.25
	Sub Total (2)			233	1387	3302.81	490	2380		19557.79	3162	3767	22860.60
	3. Furniture & Fixture		1.00	0	0	0.00	458	458	1.00	458.00	458	458	458.00
	4. Development Of Play Ground		0.10	0	0	0.00	276	276	0.10	27.60	276	276	27.60
	5. Boundary Wall			0	0	0.00	0	0		0.00	0	0	0.00
	Sub Total (1 to 5)			256	1631	4459.41	1287	3770		25609.14	4630	5401	30068.55
Physical Infrastructure - Recurring													
	6. Residential Quarters for Teachers	H	6.00	0	0	0.00	0	0	6.00	0.00	0	0	0.00
		P	6.00	0	0	0.00	0	0	6.00	0.00	0	0	0.00
Upgrad ed Schools	7. Salary For Upgraded School												
	7.1. HM/Prin. Salary		0.40	0	0	0.00	86	86	0.40	412.80	86	86	412.80
	7.2. New Full Time Teachers Salary		0.28	0	0	0.00	86	602	0.28	2022.72	86	602	2022.72

Table 10.1.2 RMSA, SUMMARY OF AWP&B 2010 - 2011 All District UTTARAKHAND
District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Plan For Year 2010-2011									
				Spill Over			Fresh/New Proposal				Total Plan (Spill Over+Fresh/New)		
				No. of Schools	Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
	7.3. New Part Time Teachers Salary		0.15	0	0	0.00	0	0	0.15	0.00	0	0	0.00
	7.4. Lab. Attendent Salary		0.10	0	0	0.00	86	86	0.10	103.20	86	86	103.20
	7.5. Office Assistance Salary		0.15	0	0	0.00	86	86	0.15	154.80	86	86	154.80
	7.6. Watchman Salary		0.08	0	0	0.00	86	86	0.08	82.56	86	86	82.56
	7.7. Peons		0.08	0	0	0.00	86	86	0.08	82.56	86	86	82.56
	7.8. Librarian		0.10	0	0	0.00	0	0	0.10	0.00	0	0	0.00
Existing Schools	8. Salary For Existing School												
	8.1 New Full Time Teachers Salary		0.28	0	0	0.00	40	284	0.28	954.24	40	284	954.24
	8.2 New Part Time Teachers Salary		0.15	0	0	0.00	0	0	0.15	0.00	0	0	0.00
	8.3 Lab. Attendent Salary		0.10	0	0	0.00	0	0	0.10	0.00	0	0	0.00
	8.4. Librarian		0.10	0	0	0.00	0	0	0.10	0.00	0	0	0.00
	9. Trainings												
	9.1. In service Teachers Training (5 Days) Subjective		0.01	0	0	0.00	2116	17264	0.01	172.64	2116	17264	172.64
	9.2. Induction Training Of New Teachers (5 Days)		0.01	0	0	0.00	126	886	0.01	8.86	126	886	8.86
	9.3. Headmaster/Principal & Edu. & Project Functionaries Trg. Of Leadership		0.05	0	0	0.00	2116	2328	0.05	116.40	2116	2328	116.40
	9.4 Other Trg (@Rs. 200/-Per Day)			0	0	0.00	0	0		0.00	0	0	0.00
	10. Repairing and Renovations												
	10.1 Major Repair under Special Circumstances (upto 4 ections Rs. 4akhs)		1.00	0	0	0.00	222	365	1.00	365.00	222	365	365.00
	10.2 Minor Repair		0.25	0	0	0.00	1548	1548	0.25	387.00	1548	1548	387.00

Table 10.1.2 RMSA, SUMMARY OF AWP&B 2010 - 2011 All District UTTARAKHAND
District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Plan For Year 2010-2011									
				Spill Over			Fresh/New Proposal				Total Plan (Spill Over+Fresh/New)		
				No. of Schools	Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
	11. Repair/Replacement of Lab Equipment & Purchase of Lab Consumable Articles		0.25	0	0	0.00	2116	2116	0.25	529.00	2116	2116	529.00
	12. Purchase of Books, 2eriodicals, Newspapers etc.		0.10	0	0	0.00	2116	2116	0.10	211.60	2116	2116	211.60
	13. School Grant		0.50	0	0	0.00	2116	2116	0.50	1058.00	2116	2116	1058.00
	14. Study Tours/Excursion Trips		0.05	0	0	0.00	2116	2116	0.05	105.80	2116	2116	105.80
	15. Science Exhibition		0.05	0	0	0.00	2116	2116	0.05	105.80	2116	2116	105.80
	16. Provision For Out Of School Children												
	16.1. Bridge Course(Special coaching)		0.15	0	0	0.00	2116	6276	0.15	941.40	2116	6276	941.40
	16.2 Alternative Scholing(Crash courses)		0.15	0	0	0.00	0	6355	0.15	953.25	0	6355	953.25
	16.3 Transportation Facility		0.15	0	0	0.00	0	450	0.15	67.50	0	450	67.50
	16.4 Voucher Scheme		0.15	0	0	0.00	0	387	0.15	58.05	0	387	58.05
	17. Incentives For Special group												
	17.1. Girls												
	a. School Dress		0.015	0	0	0.00	2116	104111	0.015	1561.67	2116	126177	1561.67
	b. Books & Stationary		0.015	0	0	0.00	0	104111	0.015	1561.67	0	126178	1561.67
	c. Transport Facility (KGBV)			0	0	0.00	0	60	0	5.94	0	60	5.94
	d. Other Inovative/Skill Dvt. Prog.			0	0	0.00	0	864	0	34.56	0	864	34.56
	17.2. SC/ST/OBC &Ed. B. Mino.												
	a. Books & Stationary		0.015	0	0	0.00	2116	48959	0.015	734.39	2116	48959	734.39
	b. Remedial teaching/Coaching		0.060	0	0	0.00	0	32351	0.06	1941.06	0	32351	1941.06
	c. Other Inovative/Skill Dvt. Prog.			0	0	0.00	0	1960	0	33.90	0	1960	33.90
	17.3. CWSN Children		0.03	0	0	0.00	2116	2180	0.03	65.40	2116	2180	65.40
	18. Strenthaning Of DIET's												

Table 10.1.2 RMSA, SUMMARY OF AWP&B 2010 - 2011 All District UTTARAKHAND
District level Format for COSTING (Amount In Lakhs)

School	UNIT	Area	Unit Cost (In Lakhs)	Plan For Year 2010-2011									
				Spill Over			Fresh/New Proposal				Total Plan (Spill Over+Fresh/New)		
				No. of Schools	Total Units	Financial (In Lakhs)	No. of Schools	Total Units	Unit Cost	Financial (In Lakhs)	No. of Schools	Total Units	Financial (In Lakhs)
	18.1. Infrstructure (Hostel, Lib., Staff Room, Trg. Hall & Bading)		61.50	0	0	0.00	13	13	61.50	799.50	13	13	799.50
	18.2. Human Resource (5 Expert)		0.35	0	0	0.00	0	65	0.35	273.00	0	65	273.00
	18.3. Other Expen.		2.00	0	0	0.00	0	13	2.00	26.00	0	13	26.00
	18.4. Books		2.00	0	0	0.00	0	13	2.00	26.00	0	13	26.00
	19.Guidence & Counseling		9.00	0	0	0.00	0	13	9.00	117.00	0	13	117.00
						0.00			0.00	0.00	0	0	0.00
	Sub Total (6 to 19)			0	0	0.00	25741	342468		16073.26	25741	342468	16073.26
	Total (1 to 19)			256	1631	4459.41	27028	346238		41682.40	27284	347869	46141.81
	20. Management Cost (MMER)		2.2%	0	0	0.00	0	0		833.24	0	0	833.24
	Grand Total (1 to 20)			256	1631	4459.41	27028	346238		42515.63	27284	347869	46975.04
	Total Civil Work					3628.41				26009.64	0	0	29638.05
	Civil work %					81.37				61.18			63.09

RMSA, AWP&B 2010 - 2011
Activity-wise Time Schedule & Implementing Agency
UTTARAKHAND

SN	Activity	Ph. Target	Time Schedule	Implementing Agency	Remark
1	Opening/Upgradation of UPSchool				
a	Opening New School Upgradation	86	July-Aug. 2010	SES (SPO)	
b	Placement of Head Master	86	Aug.- Sep. 2010	SES (SPO)	
c	Placement of Teachers & Other Staff	946	Aug.- Sep. 2010	SES (SPO)	
d	Construction New School Upgradation	86	Oct. 2010 to March 2011	SPO, DPO, SMDC	
2	Construction Work in Exi. School				
a	Add. Class Room	518	Oct. 2010 to Jan. 2011	SPO, DPO, SMDC	
b	Science Laboratory	318	Oct. 2010 to Jan. 2011	SPO, DPO, SMDC	
c	Computer Room	328	Oct. 2010 to Jan. 2011	SPO, DPO, SMDC	
d	Art & Craft Room	460	Oct. 2010 to Jan. 2011	SPO, DPO, SMDC	
e	Library	471	Oct. 2010 to Jan. 2011	SPO, DPO, SMDC	
e	Toilet & Drinking Water	528	Oct. 2010 to Dec. 2010	SPO, DPO, SMDC	
3	Lab Equipment	1230	Oct. to Nov. 2010	SMDC	
4	Furniture for Class Room etc	458	Oct. to Nov. 2010	SMDC	
5	Salary Of Teachers & Other Staff	1316	Aug. 2010 to March 2011	DPO	
6	Training				
a	In Service Teachers Training	17264	Oct. to Dec. 2010	SCERT & DIET	All Teacher (Govt+ Govt. Aided)
b	Teachers Induction Training	886	Sep. to Oct. 2010	SCERT & DIET	
c	Headmaster/Principal & Edu. & Project	2328	Oct. to Dec. 2010	SIEMAT & DIET	All HM/Pri. (Govt+ Govt. Aided)

	Functionaries Leadership Training				
7	Repairing and Renovations				
a	Major Repair	222	Oct. to Dec. 2010	DPO, SMDC	
b	Minor Repair	1548	Oct. to Dec. 2010	DPO, SMDC	
8	School Grant & Other Grant	2116	Oct. to Dec. 2010	DPO, SMDC	All School (Govt+ Govt. Aided)
9	Provision For Out Of School Children				
a	Bridge Course(Special coaching)	6276	Sept. 2010 to Feb. 2011	DPO, SMDC	
b	Alternative Scholing(Crash courses)	6355	Sept. 2010 to Feb. 2011	DPO, SMDC	
c	Transportation Facility	450	Sept. 2010 to March 2011	DPO, SMDC	
d	Voucher Scheme	387	Sept. 2010 to March 2011	DPO, SMDC	
10	Incentives For Special group				
a	Girls	126177	Oct. to Dec. 2010	DPO, SMDC	All Studentl (Govt+ Govt. Aided)
b	SC-ST & Others EBComu.	48959	Oct. to Dec. 2010	DPO, SMDC	All Studentl (Govt+ Govt. Aided)
c	CWSN	2180	Oct. to Dec. 2010	DPO, SMDC	All Studentl (Govt+ Govt. Aided)
11	Strengthening of DIET	13	Sept. 2010 to March 2011	SPO, SCERT, DPO, DIET	

RMSA, AWP&B 2010 - 2011
Activity-wise Time Schedule & Implementing Agency
UTTARAKHAND

SN	Activity	Jul. 10	Aug. 10	Sep. 10	Oct. 10	Nov. 10	Dec. 10	Jan. 11	Feb. 11	Mar. 11
1	Opening/Upgradation of UPSchool									
a	Opening New School Upgradation									
b	Placement of Head Master									
c	Placement of Teachers & Other Staff									
d	Construction New School Upgradation									
2	Construction Work in Exi. School									
a	Add. Class Room									
b	Science Laboratory									
c	Computer Room									
d	Art & Craft Room									
e	Library									
e	Toilet & Drinking Water									
3	Lab Equipment									
4	Furniture for Class Room etc									
5	Salary Of Teachers & Other Staff									

6	Training									
a	In Service Teachers Training									
b	Teachers Induction Training									
c	Headmaster/Principal & Edu. & Project Functionaries Leadership Training									
7	Repairing and Renovations									
a	Major Repair									
b	Minor Repair									
8	School Grant & Other Grant									
9	Provision For Out Of School Children									
a	Bridge Course(Special coaching)									
b	Alternative Scholing(Crash courses)									
c	Transportation Facility									
d	Voucher Scheme									
10	Incentives For Special group									
a	Girls									
b	SC-ST & Others EBComu.									
c	CWSN									
11	Strengthening of DIET									