

GOVERNMENT OF SIKKIM FOREST, ENVIRONMENT AND WILDLIFE MANAGEMENT DEPARTMENT



ANNUAL ADMINISTRATIVE REPORT. 2005-2006

FOREWORD

The Himalayas have always held a deep fascination for the foresters all over the world because of the varied nature of flora and fauna found here. Sikkim is a state which is entirely within the Himalayas, has forests ranging from tropical to temperate and alpine zone.

The state of Sikkim with only 0.22% Of the geographical area of the country harbors around one third of the flowering plants of India. It has about 4500 species of flowering plants and 350 species of ferns and fern allies. Sikkim of the home of the Orchids and has about 450 species both in the sub-tropical and temperate regions. Available genetic material of Orchids in Sikkim has immense potential for commercial varieties. The biodiversity of Sikkim is very rich and also includes wild relatives of more than 400 species of medicinal plants in the state. The state support luxuriant tropical and alpine vegetation in its pristine virgin form. Its unique geographical position, varied topography, high annual precipitation, minimum demographic pressure make the state one of the richest botanical treasure house of the country. While forest cover accounts for over 44% of the total geographical area of the state, the total area of the state under the administrative control of Forests, Environment and Wildlife Department in the state is over 81% of its total geographical area. We have set aside 34% of our geographical area for the protected area network consisting of the National Park, Sanctuaries and Biosphere Reserve as against a figure of 5% or so of the country. In our forested areas hitherto unspotted animals like Takin are reappearing. In ex-situ conservation center wild animals are multiplying. We have successfully bred Red Panda in our Zoological Park.

Although the total tree cover in the state is about 46%, the density of tree cover in main areas is very low. The state would try to increase the area under tree cover further and also improve the density of the tree cover. A massive need based and time bound 'Programme of Afforestation and Tree Planting' needs to be taken up with greater emphasis in production of fuel wood and fodder in degraded and denuded lands, both forest and nonforest. An urban forestry programme is a necessity to improve the environment in the urban areas of all the districts through planting of ornamental trees and bushes. Such a programme will increase the scenic beauty of the towns as well as check soil erosion and landslides in these areas.

S.B.SUBEDI MINISTER

Forests, Env. & Wildlife Management, Mines, Minerals & Geology and Science & Technology Departments

PREFACE

Forest is one of the richest natural resources of Sikkim. The total land area managed by and under administrative control of Forest Department is above 81% of the total geographical area of the state. Sikkim has unique bio-diversity. The composition ranges from tropical Dry Deciduous Forests with Sal and its associates in the valleys of Teesta and Rangeet to the Alpine Scrub and grassland in high altitude. Sikkim being agriculture-based State, more than 80% of the population depends on agriculture and animal husbandry. During the last two decades forest Department has laid emphasis on development of fodder and fuel wood in the agriculture fallow lands of the villagers giving priority to plantation of fodder grasses like Broom Grass and fodder trees in agricultural fallows for economic upliftment of the villagers. This year, the target for afforestation under 20-point programme was 12000 hectares of which forest Department has achieved 8012.87 Ha. by plantation in forest lands. Besides, 613000 seedlings of fuelwood fodder and timber were distributed to the villagers and voluntary organizations for planting in private lands due to which 306.50 Ha. of private wastelands have been afforested. The Department is trying its level best to meet the aspirations and demands of the people who are directly or indirectly dependent on forest resources. Joint Forest Management is being strengthened by introduction of Forest Development Agencies in all districts, the structure of which will be federation of all Joint Forest Management Committees in the district. Emphasis has also been laid down for development of inland fisheries and trout farming. Sericulture being one of the schemes for socio-economic development of the people in rural areas, extension and development of the scheme in all the four districts was taken up in the 9th five year plan and the programme is continued in the 10th Five Year Plan also. This Department has given high priority in generation of revenue. Realization of revenue during the last five years has exceeded the target fixed for the Department.

T.R.Poudyal,IFS

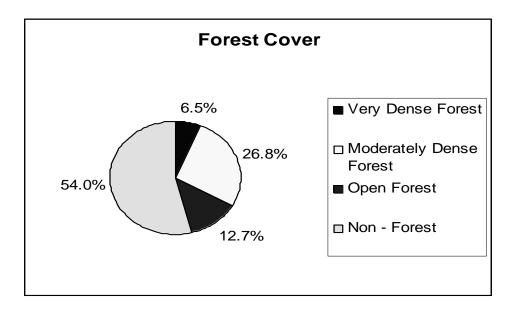
Principal Chief Conservator of Forests-cum-Secretary
Forest, Environment and Wildlife Management Department .

1. <u>INTRODUCTION</u>

Sikkim is a small mountainous state in the Eastern Himalayan region extending approximately 114 km from North to South and 64 km. from East to West, having a total area of 7096 sq. km. only. The State is situated between 88 0 00' 58" and 88 0 55' 25" East longitudes and 27 0 04' and 28 0 07' 48" North latitudes. It is surrounded by vast stretches of Tibetan plateau in North; Chumbi Valley & Kingdom of Bhutan in the East; Darjeeling District of West Bengal in South and Kingdom of Nepal in West.. Over one third of the total area of the state remains covered by snow in winter and a population of 5.42 lakhs on 2001, the bulk of which resides in rural areas and is heavily dependent on forest resources. The entire state comprises of hilly terrain with forests on hilltops and valleys. Over 81% of the total geographical area of the state is under the administrative control of the forest department. Sikkim is endowed with a variety of natural flora and fauna and is a paradise of nature lover, botanist, environmentalist, conservationist and trekkers. The state houses over 400 species of flowering plants, 300 species of ferns and its allies, 11species of oaks, 8 species of tree ferns, 40 species of Primulas and 20 species of Bamboo. The faunal wealth of Sikkim comprises of 144 species of mammals, 600 species of birds, 400 species butterflies and moths and many species of reptiles. Several species of medicinal plants and herbs are found throughout the state.

STATE OF FOREST REPORT

8111	TE OF FOREST REPORT
Geographic Area	7096 sq. km.(0.2% of country)
Population	5.40 lakhs
a. Urban	0.60 lakhs (11.1%)
b. Rural	4.80 lakhs (88.9%)
Average Population Density	76 persons per sq.km.
Livestock Population	3.90 lakhs (0.1% of country)
Forest Cover	
a. Very Dense Forest	458 sq. km.
b. Moderately Dense Forest	1,904 sq. km.
c. Open Forest	900 sq. km.
d Tree Cover	22 sq. km.
TOTAL	3284 sq. km.
Of State's Geographic Area	46.28 %
Of Country's Forest & Tree Cover	0.42 %
Per Capita Forest & Tree Cover	0.61 ha.



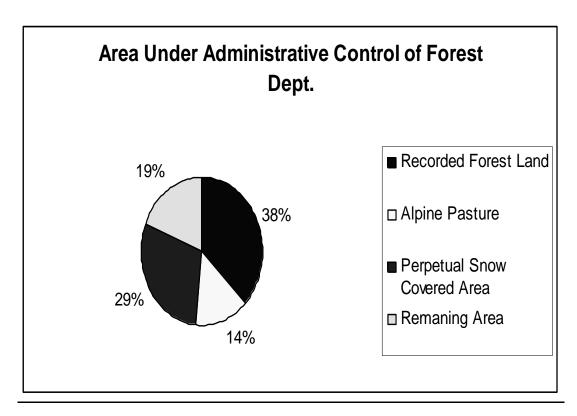
2. RECORDED FOREST LAND FOREST AND TREE COVER

Over 81% of the total geographical area of the state is recorded as forest land comprising forest land tree cover, road reserve, streams, lakes, alpine pasture and scrub and land under perpetual snow cover. There has been and increase of 469sq.km.of forest covers till 1993 and another 8 sq.km, between 1993 and 1995. The details of forestland and increase in forest cover is shown below:

AREA STATISTICS OF FOREST COVER IN SIKKIM

Description		% of Total
	Area in Sq.Km.	Area.
(1) Recorded forest land with tree cover.		
(i) Reserve Forest	2261.00	
(ii) Khasmal Forests	285.00	
(iii) Goucharan Forests	104.00	
Total	2650.00	37.34
(2) Alpine Pasture and scrub	1024.00	14.44
(3) Perpetual snow Covered Area	2091.10	29.50
Total(1+2+3)	5765.10	81.28
(4) Remaining Area	1331.00	19.00

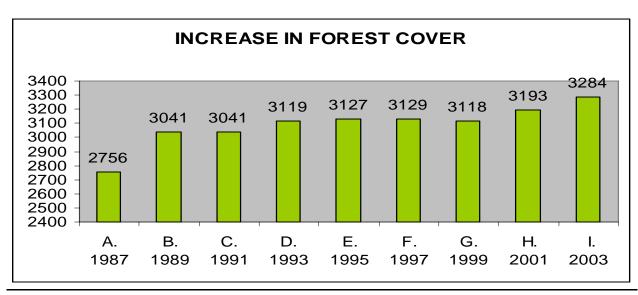
Hence, total area which is under administrative control of Forests, Environment and Wildlife Department is 5765.10 square kilometers which accounts for 81.28 % of the total geographical area of the state.



3. INCREASE IN FOREST COVER

There has been and increase of 469sq.km.of forest covers till 1993 and another 8 sq.km, between 1993 and 1995. The total net increase from 1993 to 2005 614.16 sq. km. The details of forestland and increase in forest cover is shown below:

Descrip	tion			Area in Sq. Kms.	% of To Geographical	
a)		ed forest Area under tree cover as on 19 Forest Cover Assessment	975-76	2650.00	37.34	4
	(a)	1987		2756.00	38.8	4
	(b)	1989		3041.00	42.80	6
	(c)	1991		3041.00	42.8	6
	(d)	1993		3119.00	43.9	5
	(e)	1995		3127.00	44.0	6
	(f)	1997		3129.00	44.1	0
	(g))	1999		3118.00	44.0	0
	(h)	2001		3193.00	45.0	0
	(i)	2003		32 84.00	46.2	8
•		rease in forest cover till 2005		634.00	8.93	3
•	geograp	in forest cover as percentage of total hical area of the state.			8.93	%
•	recorded	in forest cover as percentage of the forest area of the state. age of total geographical area under fores	st cover.		23.92 46.289	



4. (i) AREA STATISTICS FOR SIKKIM- TOTAL STATE (IN SQ. KMS.)

	A STATISTICS FOR SIKKIM- TOTAL STATE (1	1
SL. No	CLASS	RESERVE FOREST	REVENU E BLOCK	TOTAL	%OF TOTAL
1.	CROP LAND (TERRACED./SEMI TERRACED)	0.00	604.85	604.85	8.52
2.	FALLOW/ SCRUB IN REVENUE BLOCKS	0.00	155.69	155.69	2.19
3.	SAL DENSE FOREST	5.30	0.77	6.07	0.09
4.	SAL OPEN FOREST	15.93	1.54	70.47	0.25
5.	SAL DEGRADED FOREST	3.32	0.71	4.03	0.06
6.	MIXED DENSE FOREST	464.46	138.88	603.34	8.50
7.	MIXED OPEN FOREST	433.37	333.38	766.75	10.81
8.	MIXED DEGRADED FOREST	194.56	235.06	429.62	6.05
9.	DENSE CONIFER FOREST	351.94	16.14	368.08	5.19
10	OPEN CONIFER FOREST	340.63	21.55	362.18	5.10
11.	DEGRADED CONIFER FOREST	156.89	16.30	173.19	2.44
12.	OAK-RHODODENDRON FOREST	100.34	26.24	126.58	1.78
13.	SCRUBS IN RESERVE FOREST	101.87	0.00	101.87	1.44
14.	FOREST BLANKS	90.56	0.00	90.56	1.28
15.	ALPINE SCRUB	611.44	27.72	639.16	9.01
16.	ALPINE PASTURES	431.32	0.00	431.32	6.08
17.	ALPINE BARREN	815.80	2.35	818.15	11.53
18.	SNOW	1018.23	5.41	1023.64	14.43
19.	GLACIERS	208.23	0.00	208.23	2.93
20.	LAKES	32.30	0.70	33.00	0.47
21.	RIVERS/MAJOR STREAMS	31.81	32.50	64.31	0.91
22.	DRY RIVER BEDS	31.49	9.10	40.59	0.57
23.	BUILT –UP AREA	0.30	3.24	3.54	0.05
24.	LAND SLIDE AREAS	5.37	5.16	10.53	0.15
25.	MISCELLANEOUS	6.93	6.30	13.23	0.19
	Total	5452.39	1643.59	7095.98	100.00
	1	1	1	1	1

District –wise Forest Cover (Assessment year 2001):

Districts	Geographic		Forest Cover					
	area	Dense	Dense Open Forest		Percent			
		Forest	_					
East Sikkim	954	571	99	670	70.23	85		
West Sikkim	1,166	570	142	712	61.06	52		
North Sikkim	4,226	836	465	1,301	30.79	204		
South Sikkim	750	414	96	510	68.00	0		
Total	7,096	2,391	802	3,193	45.00	341		

Source: State of Forest Report 2003 (FSI)

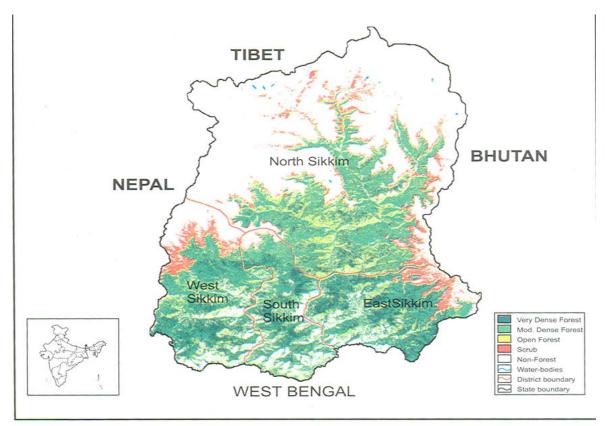
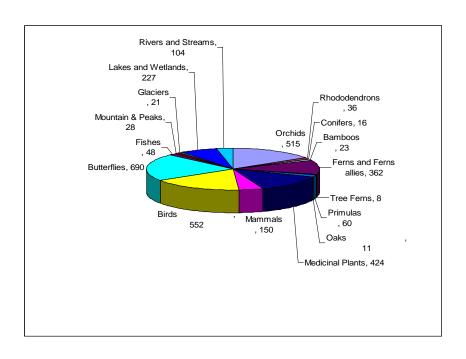


Fig. 7.24 Forest Cover Map of Sikkim

Source: State Of Forest Report 2003, (FSI)

BIODIVERSITY & NATURAL RESOURCES OF SIKKIMAT GLANCE (estimated)

Biodiversity	Nos
Flowering Plants	4500
Orchids	515
Rhododendrons	36
Conifers	16
Bamboos	23
Ferns and Ferns allies	362
Tree Ferns	8
Primulas	60
Oaks	11
Medicinal Plants	424
Mammals	150
Birds	552
Butterflies	690
Fishes	48
Mountain & Peaks	28
Glaciers	21
Lakes and Wetlands	227
Rivers and Streams	>104



5. ADMINISTRATIVE SET-UP

Under the **Minister** in charge of Forests. Environment and Wildlife, Department is headed by the **Principal Chief Conservator of Forests cum Secretary** who is assisted by the following officer at different wings/levels.

•	Additional Principal Chief Conservator of Forests	5
•	Chief Conservator of Forests	4
•	Conservator of Forests	5
•	Additional Director of Forests	4
•	Joint Director of Forests	6
•	Special Secretary	1
•	Joint Secretary	1
•	Chief accounts Officer	1

Offices under the Additional Principal CCF (I)

CCF(Wor	king Plan)		CCF (Social Forestry/Utilization/Sericulture)								
CF (Worki	ng Plan)	Addl. Director (Sericulture)			CF (Social Forestry)				Additiona Research, NTFP,SM		
DFO	DFO	Joint Director (Sericulture)	DFO DFO DFO DFO DFO DFO			Joint Director NTFP, SMPB	Joint Director Research Edn. & Extn. DFO				
(Working Plan)	(Survey & Demarcation		North	East	SF & Zilla South	West	Zilla North	Zilla East	Zilla West	NTFP	Silvi.
-	ACF (Survey & Demarcation	Assistant Director (Sericulture)									
R.O.	R.O 2	R.O. Rorathang R.O. Mamring	RO -2	RO-4	RO-3	RO-3	-	-	-	R.O-2	RO-1

The Range Officers are assisted by Block Officers, Head Forest Guards and Forest Guards

Offices under the Additional Principal CCF (Territorial)

CCF(Territorial)										
			C	F (Territorial)						
DFO I	North	DFO East	DFO	Pakyong	DFO	South	DFO West			
ACF	ACF	ACF Gangtok	ACF	ACF Rongli	ACF	ACF	ACF	ACF		
Ch'thang	Mangan		Pakyong		Rabongla	Namchi	Soreng	Geyzing		
Ranges	Ranges	Ranges	Ranges	Ranges	Ranges	Ranges	Ranges	Ranges		
Lachen	Mangan	Gangtok	Pathing	Phadamchen	Lingmo	Namchi	Sombaria	Geyzing		
Lachung	Phodong	Ranipul	Pakyong	Rongli	Rabongla	Melli	Soreng	Yuksom		
Ch'thang	Dzongu	Singtam				Namthang	Dentam	Tashiding		
		Kyongnosla								
		Tumin								

The Range Officers are assisted by Block Officers, Head Forest Guards and Forest Guards

Offices under the Additional Principal CCF (Wildlife/Chief Wildlife Warden)

CCF(Wildlife)									
	CF (Territorial)					ector of Forests(N.P.	& Zoo)		
				Jo	oint Direc	tor of Forests	Senior		
					(N.P.	& Zoo)	Research		
DFO	DFO East	DFO	DFO West	DFO	DFO	Deputy Director	Officer		
North		South		(KNP)	(KNP)	Himalayan	Wildlife		
				North	West	Zoological Park			
R.O.	R.O.Fambonglho	R.O.	R.O. Barsey			ACF (HZP)			
Shingba	Wildlife Sanctuary	Mainam	Rhodo-						
Rhodo-		Wildlife	dendron						
dondron	R.O.Pangolakha	Sanctuary	Sanctuary						
Sanctuary	Wildlife Sanctuary								
	R.O.Kyongnosla			R.O.	R.O.	RO(HZP)	-		
	Alpine Sanctuary			North	West				
The Range	Alpine Sanctuary Officers are assisted by	Block Office	ers, Head Forest G			, , ,			

Offices under the Additional Principal CCF (Environment)

Offices under the Additional Frincipal CCF (Environment)									
CCF((Landuse & Environment)									
	CF ((Lar	duse & Environme	nt		Additional Director				
DFO North	orth DFO East DFO South DFO West DFO (EPC)								
					ACF (RVP)				
R.O.Chungthang	R.O.Gangtok - 3	R.O.Namchi	R.O. Sombaria	R.O1	R.O 6				
R.O. Mangan	R.O.Singtam	R.O.Rabongla	R.O. Dentam						
R.O.Dzongu	R.O.Sang	R.O.Namthang							
	R.O.Pakyong								
	R.O.Samdong								
The Range Officers are assisted by Block Officers, Head Forest Guards and Forest Guards									

Offices under the Additional Principal CCF (Planning and Administration)

Offices under the fiducional I fine pur Ser (I tuming und fiduministration)								
Joint Director (Planning & Adm)	Joint Director (Statistics)	Special Secretary						
Deputy Director (Statistics)	-	Joint Secretary						
Assistant Director	Assistant Director	Under Secretary - 3						
Statistical Officer	Statistical Officer	OS						
Statistical Investigators - 4	Statistical Investigators-1	HAs, UDCs, LDCs						

ACCOUNTS DIVISION

Chief Accounts Officer
Senior Accounts Officer
Accounts Officer - 2
Senior Accountants
Accountants, Jr. Accountants, LDCs

DIFFERENT BOARDS UNDER FORESTS, ENVIRONMENT AND WILDLIFE DEPARTMENT.

State Wildlife Advisory Board

State Land-use Board

State Pollution Control Board

State Medicinal Plants Board

6. MANPOWER

Forest, Environment and Wildlife Department is one of the largest departments in terms of manpower strength. There are 110 gazetted officers and 839 regular employees of Group 'B' and 'C" category. This department has provided round the year employment to as many as 824 on muster roll and 13 on work charged employment in the rural areas in the form of nursery labourers and chowkidars in plantation areas. Beside, this department provides seasonal employment to a large number of villagers in plantation activities and soil and water conservation works including development of sericulture and fisheries. The present manpower strength of the department is as follows.

SL.NO.	DESIGNATION	IN POSITION
I	IFS CADRE	
	1. PCCF-cum-Secretary	1
	2. Member State Planning Commission	1
	3. Addl. PCCF	5
	4. C.C.F.	4
	5. C.F.	5
	6. O.S.D.	1
	7. Deputy Conservator of Forests	2
	8. IFS Probationers	3
	9 On Central Deputation	5
	10 On State Deputation	1
	A. TOTAL IFS (GAZETTED)	28
II	SFS CADRE	
	Addl. Director of Forests	3
	2. Joint Directors	4
	3. Deputy Conservators	25
	4. Assistant Conservators of Forests	27
	A. Gazetted	59
	4. Range Officer	109
	5. Block Officer	108
	6. Head Forest Guard	50
	7. Forest Guard	271
	B. Non-Gazetted	538
	TOTAL (A+B)	597
III	SERICULTURE	
	1. Addl. Director	1
	2. Joint Director	1
	3. Assistant Director	1
	A. Gazetted	3
	4. R.O. (Sericulture)	2
	5. B.O. (Sericulture)	2
	B. Non-Gazetted	4
	TOTAL SERICULTURE (A+B)	7
IV	STATISTICAL SERVICE	
	1 Joint Director	1
	2. Deputy Director	1
	3. Assistant Director	2
	A. GAZETTED	4
	4. Statistical Officer	2
	5. Statistical investigator	8
	B. Non-Gazetted	10
	TOTAL (A+B)	14

SL. NO.	DESIGNATION	MEN IN POSITION

V	Fina	ance and Accounts Service	
	1.	Chief Accounts Officer	1
	2.	Sr. Accounts Officer	1
	3.	Accounts Officer	2
	Α.	GAZETTED	4
	4.	Sr. Accountant	8
	5.	Accountant	11
	6.	Jr. Accountant	27
	7.	Accounts Clerk	9
	В.	Non- Gazetted	55
	-	TOTAL (A+B)	60
VI.	_	te Civil Service	
	1.	Special Secretary	1
	2.	Joint Secretary	1
	3.	Under Secretary	3
	В.	GAZETTED	5
	4.	Office Superintendent	4
	5.	Head Assistant	4
	6.	U.D.C.	19
	7.	L.D.C.	52
	B.	Non-Gazetted	79
		ΓAL (A+B)	84
V		HERS	-
	1.	Sr. Scientist	1
	2.	Sr. Research Officer	1
	3.	Assistant Scientific Officer	1
	4.	Deputy Director (Wild Life & Zoo)	1
	5.	Sr. Private Secretary	1
	6.	Private Secretary	1
	7.	O.S.D.	1
	8.	Assistant Engineer (Power)	1
	Α.	GAZETTED	8
	9.	Steno	7
	10.	Sr. Technical Assistant	2
	11.	Cartographer	2
	12.	Surveyor	1
	13.	Assistant Surveyor	2
	14.	Tracer	1
	15.	Draftsmen	3
	16.	Jr. Engineer (Power)	1
	17.	O.S.D.	1
	18.	Tally Clerk	1
	19.	Supervisor	2
	20.	Lab Attendant	1
	21.	Vet. Compounder	1
	22.	Bearer	1
	23.	Cook	1
	24.	Chowkidar	17
	25.	Peon	48
	26.	Mali	22
	27.	Driver	38
	28.	Pipe Fitter	1 1 72
	b.	Non-Gazetted	153
	TO	ΓAL (OTHER A+B)	161

SL. NO.	DESIGNATION	IN POSITION
	TOTAL GAZETTED	110
	TOTAL NON-GAZETTED	839
	MUSTER ROLL WORKERS	824
	WORK-CHARGED EMPLOYEES	13
	ON CONSOLIDATED PAY	5
	GRAND TOTAL	1791

7. CHRONOLOGICAL ORDER OF MAIN EVENTS AND. NOTIFICATION AND AMENDMENT OF ACTS IN SIKKIM FORESTRY

- 1893 Forest Department was constituted.
- 1902 Reserved Forest Demarcated vide C.M.3-3 -1902.
- 1905 Khasmal Forest Demarcated out of R.F.s vide Notification No-2 of 29.3.1905 Issued by Political Officer.
- 1911 Gaucharan Forest demarcated vide notification No. 14 of 22.11.1911 issued by Forest Department.
- Till 1956 forest were managed by one forest manager, one R.O. & 2/3 of FGs posts conservator, DFO, R.Os created. Demarcation up to Ranges & Blocks for Administration.
- 1976 Four Territorial Divisions, 3 Functional sub-divisions created. Indian Wildlife Act extended to Sikkim.
- 1978 Sericulture sub-division created.
- Remote sensing cell created, 1988 Sikkim forest water conservation and Road Reserve (preservation and protection) Act, enforced.
- 1989 Extension of Indian Forest Act 1927, to Sikkim. Directorate of Land Use & Env. merged into Forest Department Wood working Center handed over to Education Department.
- 1990 In conformity with directives of the Hon'ble Courts regarding moratorium on green felling in the hill areas, the State Government has also banned logging operations since 1990. Only fallen trees and twigs are allotted to needy villagers.
- 1992 Himalayan Zoological Park creation started.
- 1993 New Forest Annexe building construction works started.
- Joint director fisheries upgraded to director fisheries. Grazing in RFs and plantation areas in south / west district and in perennial water sources was banned.

1995 Notification for withdrawal of grazing from Reserve Forest, 1995. 1995 Notification empowering the Forest Officers in implementing Indian Forest Act (XVI), 1927. 1996 -Sikkim State Forest Service cadre was reviewed and the cadre strength was increased to 75 1 post of Additional Director, 4 posts of Joint Director, 8 posts of Deputy Conservator of Forests and 4 posts of Assistant Conservator of Forests were created. 1997 Indian Forest Service Cadre was reduced to 30 from 36. 1998 Joint Forest Management introduced in Sikkim vide Notification No.202/F dated 22.6.1998. 1998 Notification for creation of Directorate of Sericulture under Forests, Environment and Wildlife Department, 1998. 1998 Sikkim Forests (Compounding of Offences) Rules, 1998. 1998 Sikkim Forest Department Reward Rules, 1998. 1998 Notification empowering the Forest Officers in implementing Sikkim Wildlife (Immunization of Livestock) Rules, 1998 1998 Notification on Entry and other related fees in Khangchendzonga National Park and Wildlife Sanctuaries, 1998 Sikkim State Subordinate Forest Service Rules, 1998. 1998 Government of Sikkim (Forest Department) Allotment of Staff Quarters Rules, 1998 1999 Sikkim Transit of Timber and Forest Produce Rules, 1999. 1999 Creation of Joint Forest Management Committees/ Eco Development Committees (JFMCs/ EDCs): throughout the State, 155 JFMCs and 49 EDCs have been constituted. 1999 Creation of Forest Development Agencies (FDAs): A total of 7 Forest Development Agencies have been created under Forest Environment & Wildlife Management Department . are registered These under the Societies Registration Act with the Law **FDAs** Department. 2000 Amendment of Sikkim Forests, Water Courses and Road Reserve (Preservation and Protection) Act, 1998 in the year 2000 in order to make the penal provisions more stringent. 2000 Rajya Van Sangrakshan Evam Paryavaran Puraskar Notification, 2000. 2000 The Sikkim Forests Cattle Tress Pass Rules, 2000 were framed and notified in order to defer grazing within forest and plantation areas. 2000 State Policy of Environment Forests and Land Use 2000 State Forest Fire Management Policy: This policy was framed as a consequence of the Capacity building project implemented through AUSAID. Under this project a State Forest Fire Policy was notified and a Fire Training Manual was brought out.

- 2001 The Sikkim Forest Department (Appointment of Sales Agents and Conditions of Sales of Timber) Rules 2001: These rules are framed to regulate the activities of the timber sales agents to prevent unauthorized collection and sale of timber.
- 2001 Ban on collection of medicinal plants for commercial use to preserve the mother stock of these plants in their state and to expand their occurrence.
- 2002 The Sikkim Forest (Detection, Enquiry and Disposal of Forest Offences) Rules, 2002:
- The Sikkim Wildlife Specified Plant (Licensing and Transportation) Rules, 2004: These Rules provide for registration of growers of specified plants under the Wildlife Protection Act in order to enable them to export the cut flowers or other floral items out of the State.
- The Sikkim Private and Other Non- Forest Lands Tree Felling Rules, 2006: These Rules have been framed in order to regulate removal of trees from private lands with a view to prevent harmful effects of tree removal on the nearby lands in particular and the environment in general.
- 2006 The Sikkim Forest, (Allotment of Areas for Quarrying of Sand and Stone) Rules, 2006 :
- 2006 The Sikkim State Sub- Ordinate Forest Service (Discipline and Appeal) Rules, 2006:

8. INFRASTRUCTURE CREATION

Under the Integrated Forest Protection Scheme formulated for the development of infrastructure for protection the following infrastructure has been created in the Forest Environment & Wildlife Management Department since 1999.

Sl.	Component particulars	2001-02	2002-	2003-04	2004-05	2005-06	TOTAL
No.			03				
I	INFRASTRUCTURE COMP	ONENT					
	1. Transit Hostel at Gangtok			1			1
	2. DFO Office			1		1	2
	3. DFO Residence			3			3
	4. ACF Residence			3		1	4
	5. RO Office-cum-Residence		5	1			6
	6. BO Office-cum-Residence		7	4			11
	7. FG Quarters		25	2			27
	8. Check Posts	10	3				13
	9. Roads (Km)		0.5	9.5			10
	10. Computer Equipments		4			5	9
	11. Wireless Communications	30			32		62
	12. Vehicles	4	14		7		25
	13. Motor Bikes	10			1	1	12
II	WORKING PLAN, SURVEY DEMARCATION	. &					
	1. Survey with Angle Iron B.P.	250		765	500	3739	5504
	2. Global Positioning System		3			4	7
	3. GIS Workstation		1			1	2
	4. Computer & Accessories		6	1		2	9
	5. Scanners					2	2
	6. Colour Laser Printer					1	1
	7. Lap Top					3	3

Other infrastructure like Inspection huts at Rachela, Pangolakha and Haticharey with inspection paths, Range Office cum residence, Block Office cum residence, Forest Guard Quarters and Way side garden under Kyongnosla Range of East District, Log Hut at Cittrey and Chewabhanjang and FG Barrack at Hilley under West District, BO Office cum quarter and FG Quarter s at Lachen, fencing at Dombang Valley, Up gradation of Thangu Forest Rest House under North District and up gradation of existing infrastructure at different locations have been executed under Border Area Development Programme (BADP).

9. ACTIVITIES CARRIED OUT BY SURVEY & DEMARCATION DIVION DURING 2005-06

The State though covering an area of 7096 Sq.Km. is rugged. The undulating mountainous terrain makes the job of surveying and inventorying the natural resources highly challenging. The first recorded cadastral land survey had been undertaken during 1950-52. During the survey, boundaries of the forest land which had been classified into Reserve Forest, Khasmal and Goucharan were surveyed and demarcated. Along the boundaries of the RFs, stone boundaries pillars had been erected. These pillars during the transition period in mid 1970s were damaged and/or shifted by the encroachers. The matter was further complicated by the cadastral survey undertaken during the 1979-80. In such a situation surveying and demarcating forest boundaries using only the traditional method of chain and compass survey posed a gigantic task fraught with possibility of igniting unwanted unrest and providing fuel to the vested interests. It was to overcome this difficulty that the Department of Forest, Environment & Wildlife Management, Government of Sikkim adopted the Navigation System with Time and Ranging Global Positioning System (NAVSTAR GPS) popularly known as GPS technology to complement the traditional survey techniques.

The GPS technology was applied for the boundary Survey and Demarcation of the Reserve Forests in the State. Consultations with the elders, people of the area were also undertaken. After establishing the field benchmarks survey line of about 6-10m were cleared along the entire stretch of the boundary. This was followed by the Angle Iron Boundary Pillars at a spacing of about 100m. The Angle Iron Boundary Pillars (AIP BPs) were also redesigned in view of the cost escalation and the need for greater ground visibility. The old AIP BPs were prone to be covered by small landslips and even by accumulated leaf and ground litter. This reduced visibility and encouraged alteration and damages to the pillars which remained undetected for quite long period. Hence a new design for the Angle Iron Boundary Pillar was adopted. The new pillar is more prominent with greater visibility while possessing the tensile strength of the old pillar and on being subjected to various physical forces especially at the exposed Angle Iron part was found to withstand them substantially This technology in tandem with the traditional techniques have been used successfully to survey and demarcate forest boundaries through the State. Some of the major achievements are as follows;

- Survey and demarcation of Khechoperi and Tumin.
- Prevention of forest land encroachment
- Capacity building of the staff
- Identification of encroachments
- Assist the forest officers in management and supervision
- Disputed cases settled amicable
- Providing employment

DEMARCATION WORK CARRIED OUT DURING 2005-06

S1.	Item of Work	Unit	Total Target		Achievement	t up to
No.					March 2006	
			Phy.	Fin	Phy.	Fin.
				(Rs. In lakhs)		(Rs. In lakhs)
1.	Survey of RF Boundaries	KM	424	41.79	277	11.92
2.	Erection of Angle Iron	Nos.	4239	146.21	1815	44.18
	TOTAL			56.10		56.10

Future Requirements:

Division has been receiving whole hearted support till date, however there are still more priority areas which needs immediate attention. These are s follows;

Manpower: There is an urgent need to strengthen the existing technical manpower for both the field works and for data entry-compilation works. Some of the technical personnel are on Muster Roll basis, their services needs to be regularised at the earliest.

Logistics: The State having now being covered by a wide network of roads, a vehicle transporting the field teams is required during shifting of camps from one locality to another. This shall greatly help in increasing work efficiency and shall also act as force multiplier.

Different GPS: The present hand held GPS displays an accuracy ranging between 4 m to 20 m, hence a differential GPS with sub meter accuracy is urgently required.

10. FOREST FIRE CONTROL AND MANAGEMENT

A forest fire management policy has been developed in State for the first time to enable the government to focus on fire prevention aspects and to coordinate efforts by various agencies towards this important function. The policy integrates modern fire fighting approaches with community based fire fighting strategies and is devised to preserve the unique biodiversity of the forests of the State especially those of the lower altitudes. The policy provides for zoning of the forests on the basis of their vulnerability, assessed ecological impacts and intrinsic value so that different treatments can be meted out to the different zones. In the year 2003-04 the Forest details are as under:

Year	Area affected	No of incidents	Loss due to fire	Casualties (if any)	Type of fire	Reasons
	by fire			-		
	(ha)					
2000-01	680	53	Most of the cases are	nil	Manmade/	For control and
2001-02	33	9	of ground fire due to	nil	incidental	immediate action,
2002-03	45	14	which ground flora,	nil		W/T control
2003-04	37	18	natural regeneration,	nil		room in head
2004-05	377	46	plantations/ saplings &	nil		office and all the
2005-06	1136	106	some of the trees			districts has been
			including the wildlife			made operational
			habitat has been			round the clock
			damaged & affected.			and proper
						recording of data
						has been taken
						up.

11. "SMRITIVAN" – PEOPLES PROGRAMME OF AFFORESTATION

All over the world, people believe in perpetuating the memory by erecting memorials. Trees can be planted as "Live Memorial". Planting of trees(s), on any occasion would not only satisfy the desire to keep the memory fresh, but also help in the national cause of "Greening and Maintaining the ecological balance as well as atmospheric equilibrium." The concept of "Smriti Van" is a novel ides of involving society at large in nature conservation. This is a concept in which trees can be including on marriage, birthdays, anniversaries, demise and friendship or in the remembrance of near and dear ones. The planning and implementation would necessarily require active participation of the local community and ultimately the management should be entrusted to the local community, organizations, NGOs etc. The programme was launched by the Hon'ble Chief Minister on the occasion of World Environment Day i.e. 5th June 1999 at Bulbuley Smriti Van in East District which was followed in

other districts. In this programme till date in the state of Sikkim, in addition to Smriti Van in every Panchayat (166 Nos,), more than 62 (sixty two) number of Smriti Van at various places have been created such as: Bulbuley (56 nos. East District); Rinchenpong- Tagore Smriti Van & Sakyong (West District); Guru Padma Sambhava Smriti Van at Samduptse (Tendong) & Rabong (South District); and the Yumthang Valley Smriti Van (High Altitude) in North District; A total of more than 1,12,327 (one lakh twelve thousand three hundred & twenty seven) numbers of seedlings in addition to Panchayat Smriti Vans have been planted in the year 1999-2000, 2000-01, 2001-02, 2002-03, 2003-04, & 2004-05 and are being maintained, nursed and protected by various Non- Government Organizations (NGOs), Community Based Organizations (CBOs), Associations, Religious and Social Institutions, schools, Government & semi- Government Agencies and by individuals as well. The response and participation is tremendous and very encouraging.

NOS. OF SEEDLINGS PLANTED DURING 1999-00 TO 2004-05

Sl. No.	YEAR	NOS. OF SEEDLINGS
1.	1999-2000	17510
2.	2000-01	11885
3.	2001-02	15405
4.	2002-03	21552
5.	2003-04	34715
6.	2004-05	11260
	TOTAL	112327

12. FOREST DEVELOPMENTN AGENCIES, JFMCs AND EDCs

Forest resources are basically the community resources and the community itself has to address it self to the task of regeneration, protection and rehabilitation of degraded areas. Therefore, by analyzing all the facts and problems, the State Government decided that the people's participation and involvement is very much essential for the management and development of natural resources. It is, however, the primary responsibility of the State Government to develop the natural resources areas as the productive units by ensuring the proper management of the forests with the active participation of the people.

The Government, therefore, has adopted the participatory approach to forest protection, management and development. It has taken up formation of Joint Forest Management Committees / Eco-Development Committees at the village-level which comprises of all the villagers who wish to participate in the forest management, development and protection functions of the forests that are located in the vicinity of their villages. So far 155 JFMC's (Under four territorial FDAs) have been registered all over the State and the work of JFMC constitution in the villages not yet covered is being taken up. At the district level all the JFMC's have together been formed into a confederation called the Forest Development Agency (FDA). The JFMC's will be entrusted with the task of afforestation and protection of the natural resources of their area and they will be implementing the National Afforestation Programme through the four FDAs in the Tenth Plan period. More than 10000 hectares of land will be developed over the Plan period through this Scheme. Joint Forest Management Committees have been constituted in all the four FDAs under Territorial Circle. District wise JFMCs are as follows.

District	No. Of JFMCs	Villagers Involved
North	32	5180
East	49	15625
South	36	16889
West	<u>38</u>	<u>9515</u>
Total	155	47209

Fund for execution of the field work has been transferred to the Account of the respective JFMCs. All the field work is being executed by the JFMC members. Out of the total amount of Rs. 2709.81 lakhs approved

by the Ministry of Environment and Forests, Government of India, 1400.68 lakhs has been released for implementation of FDA Projects under Territorial Circle out of which, Rs 1398.75 lakhs has been spent and the remaining balance is being spent for field activities.

PLANTATION WORK CARRIED OUT UNDER FDA UPTO 31.03,2006

IEKI	TERRITORIAL CIRCLE (Rs. In lakhs)								
S1.	Name of	Total	Total	Fund	Fund	%	Physical		
No.	FDA	Project	Physical	nysical Released by GOI U		Utilized	Achievement		
		Cost	Target	Till 31.3.2006			In Hectare		
1.	North (T)	650.32	2700	32276	321.46	99.59 %	2330		
2	East (T)	813.98	2900	385.12	384.37	99.80 %	2533		
3.	South (T)	616.73	2655	359.19	359.31	100.03 %	2655		
4.	West (T)	628.78	2680	333.61	333.61	100 %	2229		
	TOTAL	2709.81	10935	1400.68	1398.75	99.86	9747		

13. CATCHMENT AREA TREATMENT:

The Catchment Area Treatment Programme is an integral part of all the development projects especially all Hydroelectric Projects. To conserve and protect the Water Shed Area of the development projects it is mandatory. The Teesta Stage V Hydro-electric project is being executed by the National Hydroelectric Power Corporation (NHPC). As part of this project the Catchment area of the project is being treated so as to increase the life of the project by cutting siltation. The Project is being implemented in the North & East District from the year 2001 and will continue till 2008-09 at a total cost of **Rs.2420.45 lakhs**. The project has been **revised** based on the revision of the minimum wage rate of Rs. 85/- per man-day w.e.f. 1.4.2004. The total financial implication to achieve the original physical target has been worked out to **Rs.4031.77 lakhs** & submitted to NHPC for funding the remaining amount of Rs. 1611.32 lakhs so that the physical target could be achieved.

14. ENCROACHMENT AND EVICTION:

The State Government is committed to protect the natural resources as well as the lands under them. All efforts have been made to check the encroachments on forest lands and a massive eviction drive has been taken up to remove encroachments from forest areas. The action is continuing.

Status of encroachment as on 31-3-2006

Name of	Encroached	Total evicted	SC	ST	OBC	OTHERS	TOTAL	.Remarks
District	Forest Area Ha	area Ha						
1	2	3	4	5	6	7	8	9
East	586.56	57.863	13	21	69	29	142	Remaining area of 528.697 ha. Is under process for eviction
West	30.362	30.362	1	-	4	-	5	Nil
North	*N.R.							
South	*N.R.							
TOTAL	616.922	88.225	14	21	73	29	147	-

^{*} N.R: Not Received from Divisions

15. LAND USE AND ENVIRONMENT :(2005-06)

The Land Use & Environment Circle deals with Soil & Water Conservation, Catchment Area Treatment and general environmental mitigation and improvement. The soil and water conservation activities are mainly supported by State Plan but very limited. The catchment area treatment has been funded by N.H.P.C. for mitigation of catchment area of Teesta Stage- V situated in North-East catchment of the Teesta River. The project was initiated in the 2000-2001 and is running in the 6th Plan Period of the project. The details of achievement for the project during 2005-06 for the North & East Division are given in the table below.

WORK CARRIED OUT UNDER CAT TEESTA STAGE - V PROJECT 2005-06 (Rs. in Lakhs)

Sl.	Item of Work	Unit	North	Division	East I	Division
No.			Physical	Financial	Physical	Financial
1.	Bamboo Plantation	HA.	36.00	5.07	34.50	5.00
2.	Maint. Of Bamboo Pltn.	HA.	208.00	5.30	76.00	1.29
3.	Jhora training	Cum.	-	-	802	12.41
4.	C.C.M.Wall	Cum.	506	8.13	218	3.94
5.	Creation of Nursery	Ha.	-	-	3.5	3.69
6.	Watch & Ward	No.	ı	4.51	-	3.41
7.	Maint. Of Nursery	Ha.	6.00	8.28	3.5	6.51
8.	Maint. Of Pltn.	Ha.	285.00	7.27	-	-
9.	Afforestation	Ha.	200.00	24.10	-	-
10.	1 st & 2 nd weeding	Ha.	285.00	5.47	-	-
11.	Sausage Wall	Cum	1610	13.65	-	-
12.	Dry. Stone Wall	Cum	150	1.11	782	3.94
	TOTAL			82.89		40.72

The Landslide Treatment projects sanctioned for South and West District under Technology Development, Extention & Training for Wastelands Development in Non-Forest Area has indicated corrective solutions of landslide and soil erosion vis-à-vis training of nallahs and jhoras. The project involves participation of local stakeholders of the landslide affected areas. The restoration landslide and soil erosion has material out put share of the local stakeholder and awareness, education and sensitization of the fringe villages. The deatails of the work carried out under this project in South & West Districts are given below.

(A).TREATMENT OF LANDSLIDES AND EROSION CONTRIL IN WEST SIKKIM UNDER THE SCHEME "TECHNOLOGY DEVELOPMENT EXTENSION AND TRAINING " DEPARTMENT OF LAND RESOURCES,MINISTRY OF RURAL DEVELOPMENT, GOVERNMENT OF INDIA.(2005-06)

Rs. in lakhs

Sl	Item of Work	Phys	sical			Financ	cial (Up	to March	rch 2006)		
					Sanctioned Expenditure Inc					Incurre	d
N		T	A	DoLR	Bene-	FEW	Total	DoLR	Bene-	FEW	Total
О.					ficiary	MD			ficiary	MD	
1.	H.P.Sausage Wall	2082	1830	85.10	6.40	0.0	91.50	79.93	3.1	0.0	82.23
2	H.P. Stone Wall										
	inside sausage for										
	river training	1500	1250	66.00	0.0	0.0	66.00	54.60	0.0	0.0	54.60
3.	SMC Works	20	0.0	4.60	0.0	2.0	6.6	0.0	0.0	0.0	0.0
4.	Plantation	15	0.0	1.90	0.0	1.2	3.1	0.0	0.0	0.0	0.0
5.	Bamboo Plantation	30	0.0	5.90	0.0	1.8	7.7	0.0	0.0	0.0	0.0
6.	Bally Benching	20	0.0	3.6	0.0	1.4	5.0	0.0	0.0	0.0	0.0
7.	Supervisor	1	1	1.40	0.0	0.0	1.40	0.40	0.0	0.0	0.40
8.	Adm. Overheads	24.50	15.41	24.50	0.0	0.0	24.50	15.41	0.0	0.0	15.41
	TOTAL			193.0	6.4	6.4	205.80	150.30	3.10	0.0	153.44

(B).TREATMENT OF LANDSLIDES AND *EROSION* CONTRIL INDONEK-SETI KHOLA, SOUTH SIKKIMT SIKKIM UNDER THE SCHEME "TECHNOLOGY DEVELOPMENT EXTENSION AND TRAINING "DEPARTMENT OF LAND RESOURCES, MINISTRY OF RURAL DEVELOPMENT, GOVERNMENT OF INDIA. (2005-06)

(T = Target, A=Achievement) Financial-Rs. in lakhs

S.	Item of Work	Phy	sical	Financial (Up to March 2006)							
N.					Sanctio	oned		E	Expenditure Incurred		
		T	A	DoLR	Bene-	FEW	Total	DoLR	Bene-	FEW	Total
					ficiary	MD			ficiary	MD	
1.	Sausage Wall	1200	1200	51.30	2.50	0.0	53.00	51.3	2.50	0.0	53.00
2	H.P. Stone Wall inside sausage for										
	river training	600	515.51	26.40	0.0	0.0	26.40	26.40	0.0	0.0	21.90
3	Supervisor	2	2.0	0.72	0.0	0.0	0.72	0.27	0.0	0.0	0.27
8.	Adm.	22.54	14.91	22.54	0.0	0.0	22.54	22.91	14.91	0.0	14.91
	Overheads										
	TOTAL			99.96	2.50	0.0	102.46	88.40	2.50	0.0	90.90

Besides the catchments area treatment and soil moisture & conservation, the Circle has organized various environmental awareness programme during 2005-06. The World Environment Day, 5th June 2005, was celebrated in a well organized manner. The programme was inaugurated by the Hon'ble Chief Minister. A large number of participants, right from the schools to the Government officials, Panchayat and civil society took part during the day. The Hon'ble Chief Minister released poster on Door to Garbage Collection, poster on eco-tourism awareness, the Sikkim Biodiversity and Strategy action plan, website of Green Circle- Sikkim, poster on endangered fauna of Tso Lhamo, Cold Desert of North Sikkim and website of ENVIS- Sikkim. All the district DFOs also organized World Environment Day by involving local Panchayats, school children, civil society and other in their area and planted saplings of around 23,695 numbers. The Circle also revised and prepared National Green Corps Programme of the schools and introduced garbage disposal programme for schools and local NGOs and submitted to the Ministry for release of fund. As many as 540 schools were identified for formation of eco-clubs. Around 44 NGOs and 10 have been identified for project waste disposal. The project has been sanctioned by the Government of India to be implemented in the year 2006-07. Another of the Circle was to reorganize and restrengthen the existing Botanical Garden, Rumtek. The project for strengthening the existing botanical garden was prepared and submitted to the Government of India for consideration. A site for National Natural History Museum at the adjoining boundary of Botanical Garden was selected and it is under active process The Circle also took active part in mobilization of the divisions to organize the Vanmahatsav 2005 in the Districts. The Division could manage to take part in the pragramme by involving large number of public and created awareness among the general public.

16. WILDLIFE SECTOR

Wildlife Sector is headed by Additional Principal Chief Conservator of Forest-cum-Chief Wildlife Warden stationed at Head Office, Gangtok which controls the overall activities of the four Wildlife Divisions, Khangchendzonga National Park, Biosphere Reserve and the Himalayan Zoological Park. The Wildlife sector of the Department controls over the Conservation and protection of the Wild life (Flora & Fauna) of the State's rich biodiversity. At present there are wildlife sanctuaries and one National Park. The National Park having 1784 square kilometers of area forms the core area of the Khangchendzonga Biosphere Reserve. The total area of the Biosphere Reserve is over 2600 square kilometers. The list of the Wildlife Protected Areas in the state is given below.

Next page→

Sl.No	Name of Protected Areas	Location/	Month & Year of Notification	Area(Sq.Km)
1	Khangchendzonga National Park	North East.	August 1977	1784.00
2	Shingba Rhododendron Sanctuary.	North	August 1984	43.00
3	Kyongnosla Alpine Sanctuary	East	August 1984	31.00
4	Fambonglho Wildlife Sanctuary	East	April 1984	51.76
5	Pangolakha Wildlife Sanctuary	East	November 2000	128.00
6	Mainam Wildlife Sanctuary	South	March 1987	34.35
7	Barsey Rhododendron Sanctuary	West	July 1996	104.00
	Total			2176.11

The Wildlife Sanctuaries has special protection scheme by way of implementing the various Centrally Sponsored Schemes and state Sponsored Projects. The visitors require the permission of the concerned WL Officer for entering into the sanctuaries. The Wildlife wing aims at the Conservation and Protection of the Wildlife (Flora & Fauna) all over the State as per the Wildlife Protection Act of 1972.

Aims and objectives:

- 1. Protection & Conservation of Wildlife.
- 2. Implementation of CSS Projects and State Projects.
- 3. Preservation & Conservation of State's rich Biodiversity.
- 4. Protection through the people's participation.
- 5. Rescue of injured wild animals.
- 6. Implementation of CSS Projects and State Projects.

Future Plans:

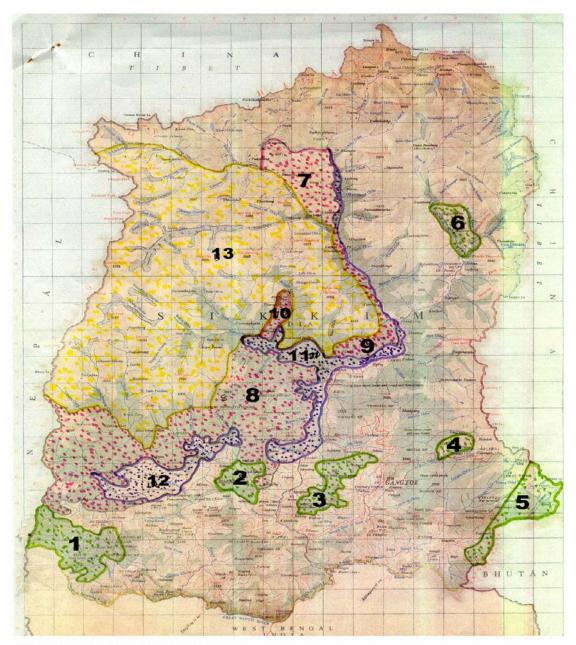
The Wildlife Circle is now being strengthened with the improvement of communication networks and increased mobility and arms and ammunitions for the protection of Wildlife and the field staffs. Management plan for each sanctuary is under preparation.

Development of National Parks & Wildlife Sanctuaries:

For protection of flora and fauna of the state and the habitat of the endangered fauna like Snow Leopard, Blue Sheep, Red Panda, Takin, Tibetan Wild Ass, Shapi and other Himalayan Wildlife, about 34% of the total geographical area of the State is managed as Protected Area Network in the form of National Park and Wildlife Sanctuaries the details of which are as under. Funds are provided by the Ministry of Environment & Forests, Government of India for management of these PAs as 100% C.S.S. The Status of allocation and utilization is as under.

S.	Protected	Fund Allocation	Utilisation
N.	Area	2005-06	2005-06
1	KhangchendzongaNational Park	21.40	18.12
2	Shingba Rhododendron Sanctuary	23.40	16.09
3	Kyongnosla Alpine Sanctuary	24.39	11.72
4	Fambonglho Wildlife Sanctuary	22.84	15.82
5	Pangolakha WL Sanctuary	15.99	9.33
6	Mainam Wildlife Sanctuary	15.00	14.99
7	Barsey Rhododenndron Sanctuary	22.40	22.39

LOCATIONS OF WILDLIFE SANCTUARIES IN SIKKIM



WILDLIFE SANCTUARIES

- 1. BARSEY RHODODENDRON WILDLIFE SANCTURY (WEST)
- 2. MAENAM WILDLIFE SANCTUARY (SOUTH)
- 3. FAMBONGLOWILDLIFE SANCTUARY (EAST)
- 4. KYONGNOSLA WILDLIFE SANCTUARY (EAST)
- 5. PANGOLAKHA WILDLIFE SANCTUARY (EAST)
- 6. SINGBA RHODODENDRONWILDLIFE SANCTUARY (NORTH)
- 13. CORE ZONE I , KANCHENDZONGA N.PARK (NORTH &WEST) BUFFOR ZONE = 7,8,9, 10,11, & 12.

TARGETS AND ACHIEVEMENTS IN PROTECTED AREAS SHINGBA RHODODENDRON SANCTUARY.

Sl.	Item of Works		200	05-06	
No.		Physical		Financial	(Rs. in Lakhs)
		Target	Achievement	Target	Achievement
1.	Boundary Demarcation	5 km	5 km	2.85	2.85
2.	Awareness Raising	10 nos.	1 nos.	1.50	0.14
3.	Construction of cattle camp	1 unit	1 unit	2.00	2.00
4	Creation of salt licks	10 nos.	10 nos.	0.50	0.50
5	Construction of water holes	6 nos.	6 nos.	3.00	3.00
6.	Construction Watch Tower	2 nos.	2 nos.	6.00	2.60
7.	Camping kits for staff	10 sets	nil	1.00	nil
8.	Trekking trails	5 km	5 km	5.00	5.00
9.	Procurement of arms	3nos	nil	1.20	nil
	(i). Auto 9 mm IA Pistol				
	(ii)0.315 sporting rifles	2 nos.	nil		
10.	Interpretative signs, printing of	-	-	0.35	-
	Materials, brochures etc.				
	TOTAL			23.40	16.09

KYONGNOSLA ALPINE SANCTUARY

Financial: Rupees in lakhs

Sl	Name of Work	2005 -06 ach	2005 -06 achievements				
No.		Location	Physical	Financial			
1.	Training & capacity building programme	Within Kyongnosla Alpine Sanctuary	10 Nos	1.00			
2.	Construction of Briddle Foot Path	Chekyo to Panchgotey 3 kms		6.72			
3.	Anti poaching & Trap Demolition	In 7 around Kyongnosla Alpine Sanctuary	4 camps	200			
4.	Survey Line Clearance	Changu dara to Nakchu	4 kms	0.50			
5.	Construction of Boundary Pillar	Changu dara to Nakchu	4 kms	1.50			
	TOTAL			11.72			

PANGOLAKHA WILDLIFE SANCTUARY

Financial: Rupees in lakhs

Sl.	Name of Work	2005 -06 ac	hievements	
No.		Location	Physical	Financial
1.	Anti poaching and Trap	Within Pangolakha	5 Nos	2.00
	demolition	Wildlife Sanctuary		
2.	Creation of Salt lick centre	Do	10 Nos	0.50
3.	Construction of water holes	Do	2 Nos	0.85
4.	Camping kits for field staff	-	10 sets	0.98
5.	Construction of FG Qtr.cum	At Dalapchand-	1 No	5.00
	Check post	Hatichire		
	TOTAL			9.32

FAMRONGLHO WILDLIFF SANCTUARY

	Name of Work	Location	2005-06				
Sl			Phys	ical	Finar	ıcial	
No.			Target	Ach.	Target	Ach.	
1.	Construction of	1.Chulli- Rakdong RF	1 No	1 No	0.425	0.425	
	water holes	2.Malingani-Namrang RF	1 No	1 No	0.425	0.425	
		3.Banjang- Tumin RF	1 No	1 No	0.425	0.425	
		4. Thamchok-Rumtek RF	1 No	1 No	0.425	0.425	
		5. Gufa Dara– Somdara RF	1 No	1 No	0.425	0.425	
		6. Gupti- Sang RF	1 No	1 No	0.425	0.425	
			6 Nos	6 Nos	2.55	2.55	
	Salt Licks	1.Chulli- Rakdong RF	1 No	1 No	0.015	0.014	
		2.Malingani-Namrang RF	1 No	1 No	0.015	0.014	
		3.Banjang- Tumin RF	1 No	1 No	0.015	0.014	
		4. Thamchok-Rumtek RF	1 No	1 No	0.015	0.014	
		5. Gufa Dara– SomdaraRF	1 No	1 No	0.015	0.014	
		6. Gupti- Sang RF	1 No	1 No	0.015 0.014		
			6 Nos.	6 Nos.	0.90	0.87	
3.	Construction of Briddle Path	1.Chulli to Sidhichok-Rakdong Namphong RF 2. Bangla to Deorali- Tumin RF	2 Kms	2 Kms	4.70	4.69	
4.	Maintenance of Forest Quarters, Log House	1.B.O.Quarter-Tumin 2. Log House-Golitar 3.Kitchen for Log House-Golitar	3 units	3 units	4.00	3.99	
5.	Forest Guard hut & Check Post During 2004-05	1. Rumtek Block	1 Unit	1 Unit	4.00	3.99	
6.	Awareness Training & Capacity Building	1.Ranka EDC 2.Golitar EDC 3.Samdong EDC4.RakdongEDC					
	Programme	5.Simik Lingzey EDC	5 Nos.	5 Nos.	0.50	0.499	
7.	Maintenance of Forest .Rest House	1. Tumin	1 Unit	Nil	1.00	Nil	
8.	Construction Watch	1.Tinjurey-Tumin RF	2 Nos.	Nil	6.00	Nil	
	Tower with Iron	2.Buki- Song RF					
	Angles				****	1	
	TOTAL				22.84	15.83	

DEVELOPMENT WORKS CARRIED OUT IN BARSEY RHODODENDRON SANCTUARY DURING 2005-06 Financial: Runees in lakks

	1110 2003-00		. Rupces III las	
SL.	ITEM OF WORK	Physical	Financial	LOCATION
NO.		Achievement	Achievement	
1.	Construction of cattle proof trench	5Km.	7.90	Sankhu to Dentam- Begha- Bittey
	along the boundary of Sanctuary			-
2.	Rejuvenation and desilting of	3 Nos.	3.00	Deonigalaydhap, Kanchi Pokharie
	Lakes, Water Bodies			& Harkatey
3.	Construction of Watch Tower	2 Nos.	6.00	Taaldara & Line Dara
4.	Construction of Patrol Camp	1 No.	4.00	Hilltop. Gorkhey
5.	Awareness raising and capacity	10	1.50	Okharey, Sombarey, Bariakhop,
	building programme	programmes		Soreng, Sribadam, Hee, Yangthang,
				Dentam. UttereyHilley
	TOTAL		22.40	

DEVELOPMENT WORKS CARRIED OUT IN MAENAM WILDLIFE SANCTUARY DURING 2005-06

Financial: Rupees in lakhs

SL.	ITEM OF WORK	Physical	Financial	Location
NO.		Achievement	Achievement	
1.	Printing of Signade & publicity materials	1 job	0.50 lakh	
2.	Construction of R.O. Office-cum-Quarter	1 No.	7.00 lakhs	Ravangla
3.	Development of Trekking Trail	4 Kms	4.00 lakhs	Upper Yangang to
				Bhlaedhunga
4.	Dev. Of Camping ground along trekking	3 Nos.	1.50 lakhs	Dhajey, Phalantey
	trail			& Dhapper
5.	Construction of Patrol Camp	1 Nos.	2.00 lakhs	Alleykharka
	TOTAL		15.00 LAKHS	

KHANGCHENDZONGA NATIONAL PARK

With a view to protect, preserve and to encourage propagation of rich flora and fauna in this part of Sikkim which is of great importance from ecological, geomorphological and biological significance, an area of 850sq.km. was declared as Khangchendzonga National Park, vide Sikkim Government Gazette Notification No. 95, August 26, 1977. Then again, vide Sikkim Government Gazette Notification No. 1/KNP(WL)F/27 DATED:THE 19TH May, 1997, the area of Khangchendzonga (High Altitude)National Park was expanded from the existing area of 850 sq.km. to 1784 sq.km.

For the development of the Park, Government of India, Ministry of Environment and Forests, New Delhi is providing 100% grant, as assistance to the State on the basis of the project proposal, Annual Plan of Operation (APO), submitted BY State Government under Assistance to States for Development of National Park and Sanctuaries. The scheme envisaged the infrastructural development, protection and management of habit and habitats of the Core areas. The activities taken up under Development of National Parks and Sanctuaries – KNP-Sikkim, during 2005-06 is as under:

PHYSICAL AND FINANCIAL PROGRESS REPORT IN RESPECT OF DEVELOPMENT OF KHANGCHENDZONGA NATIONAL PARK FOR THE FINANCIAL YEAR 2005-06

Financial – Rupees in lakhs

Sl. No	Item of Expenditure	Location	Rate/ Ha./No.	Physical Target Ha/No.	Financial Target	Physical Achieve- ment	Financial Achieve- ment
1.	Bio-diversit Check post	Labdang & Sankalang	3	2	6.00	-	-
2.	Wildlife Enforcement	Yambong,Kasturi Orar, Neythang, German-Orar, Bikmatar, &Satdharey	-	-	3.00	6 places	1.00
3.	Construction of log Bridge	Kokchurang over Prekchu	3	1	2.00	-	-
4.	Drinking water provision for Interpretation Centre & Staff quarter.	Yuksom	L.S.	L.S.	3.00	-	-
5.	Removal of debris, Landslide spoils,soil & Anti-erosion works surrounding the Centre	Yuksom	-	-	5.00	-	-
6.	Upgradation of trekking trails	i) Phidang towards Kockchurang-2Km ii) Zema towards Zakchen- 1 Km iii) Shipgyar towards Bikmatar – 2 Km	0.80	5 km	4.00	-	-

Sl. No	Item of Expenditure	Location	Rate/ Ha./No.	Physical Target Ha/NO.	Financial Target	Physical Achieve- ment	Financial Achieve- ment
7.	Habitat Management	-	0.17	30	0.51	-	-
8.	Soil Moisture Conservation	Paha-Khola, Kyongety, Nesha, Pokhari-Norkhola, Nakung, Kudik-Slip, Satdharey, Bikmatar	Rs. 0.20 lakhs	30	6.00	30	6.00
	Spill OverWorks:						
9.	Construction of Check Post	Yuksom	Rs. 5.00 lakhs	1	5.00	1	5.00
10.	Purchase of Gypsy	-	-	1	0.41*	1	0.41
11.	Purchase of Motor- Bikes	-	-	3 Nos	0.74*	3 Nos	0.74
12.	Purchase of Arms & Ammun.	-	L.S.	-	2.00	-	-
	TOTAL				37.66		18.15

^{*}Remaining cost to be paid.

WORK CARRIED OUT UNDER MANAGEMENT ACTION PLAN OF KHANGCHENDZONGA BIOSPHERE RESERVE FOR THE YEAR 2005-06

S.	Item/Head	Unit/Cost	Target		Achievemo	ent
N.		(Rs./Unit)	Physical	Financial	Physical	Financial
Α.	Eco-Development Activities					
1.	Piggery Farming	2500/-pair	60 families	1.50	120	1.50
2.	Cardamom Rejuvenation	7,500/-hac	60 families	4.50	60	4.50
3.	Sewing Machine	4000/-Nos	50 families	2.00	50	2.00
В.	Social welfare Activities					
1.	Health Camp	L.S.	-	1.00	100	1.00
2.	Cane Bridge at Kanak River,					
	connecting Passingdong to Leek	L.S.	1Nos.	2.00	1	2.00
C.	Habitat management					
1.	Bamboo Plantation	14500/ Ha	30 Hac	4.35	30 Hac	4.35
2.	Gap Filling	8300/- Ha	30 Hac	2.49	30 Hac	2.49
D	Infrastructure Develioment					
1.	Log Bridge at Mukuthang Khola	-	1	1.50	1	1.50
E	Research & Extension					
1.	Training on handicrafts, Handloom,					
	CardamomFarming, Sewing &	-	-	5.00	140	5.00
	Knitting					
2.	Nature Trip to Villagers & students	L.S.	-	1.50	90	1.50
F.	Purchase of LCD Projector,					
	Computers, posters and sign boards	L.S.		5.00	-	5.00
G.	OVERHEAD EXPENSES	L.S.	-	2.00	-	2.00
	TOTAL			32.84	120 Hac	32.84

17. UTILIZATION CIRCLE

This is the commercial wing of the department. Extraction of Wind-fallen trees, trees from project sites where forest land is diverted to the user agencies, extraction of poles from thinning of old plantations and conversion into timber, firewood and charcoal and sale of these forest produce is done by this Circle.

Details of Extraction and Sale of Forest Produce

Year	Timber		Firewood		Charcoal		Total
	Quantity	Revenue	Quantity	Revenue	Quantity	Revenue	Revenue
	extracted and	realized	extracted	realized	extracted	realized	realized
	sold (Cubic	(Rupees	and sold	(Rupees)	and sold	(Rupees	(Rupees)
	feet))	(Piles))		(Bags))	
1997-1998	2153.50	2.75	36	0.50	986	0.57	3.82
1998-1999	1004.75	1.41	58	0.22	180	0.18	1.81
1999-2000	1535.52 1872 Nos (Ballies)	2.23	157	0.84	620	0.45	3.52
2000-2001	1741.75 1393 Nos (Ballies)	2.93	168	0.83	245	0.18	3.94
2001-2002	11869.54 1225 Nos (Ballies)	22.31	95	0.18	77	0.37	22.86
2002-2003	13421.31 cft.	20.13	379.72	1.90	213	0.28	22.31
2003-2004	4863.50cft <u>.</u>	10.28	151.82	0.76	176	0.26	11.30
2004-05	3852.62 cft.	8.23	169.15	0.85	13	0.21	9.29
2005-06	3367.52cft	8.14	111.80	0.77	13	0.19	9.1
Total:	4490 Ballies 43809.31 cft	78.41	1326.49	6.85	2523	2.69	87.95

18. FOREST CONSERVATION ACT, 1980 CELL

Forest (Conservation) Act, 1980 is a unique piece of legislation and a regulatory mechanism that Reflects the collective will of the nation to protect its rich biodiversity and natural heritage and that permits only unavoidable use of forest land for various developmental purposes. It embodies the firm commitment of the Government of India and the State Government to balance the conservation of forests with the sustainable development need of the country contributing to better environment, health and economy.

Since 1980, Rules and Guidelines have been framed for diversion of forest land for non-forestry purposes. Since its inception, the Act has facilitated developmental activities like construction of power projects, irrigation projects. Roads, railways, schools. Hospitals, rural electrification, telecommunication, drinking water facilities, mining etc. on forest lands and checked the indiscriminate diversion of pristine forest areas. Between 1950 and 1980, forest lands have been diverted at the rate of 1.50 lakh hectare per annum by the various State Government/UT Administrations. This diversion has however, come down to as low as 0.38 lakh hectare per annum after 1980.

Table : I <u>DETAILS OF WORK CARRIED OUT BY FCA CIRCLE DURING 2005-06</u>

(Rs. in lakhs)

Sl.	Name of Scheme	Item of Work	Unit	Achiev	ement
No.	Name of Scheme	item of work	Omt	Physical	Financial
1.	Diversion of 13.735 ha for Const. of 132	Block Plantation	На.	28	3.46
1.	KV Lilio Transmission line from Gyling	Fencing	Km.	2.5	12.87
	(West) to Ranipool (East) by Power Grid	SMC	Ha.	7	1.61
	Corporation of India Lmt.	21.10	11	•	1,01
2.	Diversion of 0.0135 ha for CosntWayside	Block Plantation	На.	0.125	0.15
	Amenities by Tourism Deptt. At Lower Martam in East Sikkim	SMC	На.	0.25	0.57
3.	Diversion of 0.957 ha. For Const. of new	Block Plantaion	Ha.	3	0.37
	road by RDD from Samlik Dara to ALLEY Govt. Primary School (East)	SMC	На.	0.8	0.18
	Govt. Filliary School (East)	Avenue Plantation	Km.	0.5	0.29
4.	Diversion of 1.982 ha for Const. of 66/11	Block Plantation	На.	4.0	0.49
	KV Switch Yard Sub-Station at Bulbuley, East	Veg. Fencing	Km.	0.5	2.57
	Sikkim	SMC	На.	0.5	0.12
5.	Diversion of 1.2780 ha for Polytechnic Institute, HRD Deptt.	Block Plantation	Ha.	2.5	0.31
		SMC	На.	0.5	0.12
6.	Diversion of 0.225 ha. For Const of Bridge over Rangrang River in Mangan, North Sikkim	Block Plantation	На.	0.15	0.18
		Avenue Plantation	Km.	2.6	1.50
7.	Diversion of 12.69 ha. For Const. of Road	Block Plantation	Ha.	26.0	4.81
	from Katao to Bump by BRO in Lachung in North Sikkim	SMC	На.	6.5	2.19
8.	Diversion of 0.1460 ha for Const. of Labi-	Block Plantation	На.	0.50	0.61
	Bakcha Road in Phodong in North Sikkim	SMC	Ha.	2	0.46
		Avenue Plantation	Km.	1.5	0.87
9.	Diversion of 0.5003 ha for Development of	Block Plantation	Ha.	3.25	0.40
	Tourist Infrastructure at Durpin Dara in	Fencing	Km.	0.4	0.60
	Chakung, West Sikkim	SMC	На.	0.8	0.18
10.	Diversion of 0.51 ha for Bridge at Bansoi	Block Plantation	Ha.	1.755	0.33
	on Chungthang Lachen Road by BRO in North Sikkim	SMC	На.	0.5	0.17
11.	Diversion of 0.441 ha for Const. of	Block Plantation	На.	0.3	3.70
	Sombaria-Siktam Road by SPWD in West	SMC	На.	0.5	0.11
	Sikkim	Avenue Plantation	На.	0.25	0.14
12.	Diversion of 0.2005 ha for installation of	Block Plantation	Ha.	0.4	0.05
	water tank & pipeline connection to Printing Ink Factory, Mamring by SCIPA, India Ltd. In S.Siikim	SMC	На.	0.15	0.04
	TOTAL			70.19 Ha. 4.5 Km.	87.96

19. RIVER VALLEY PROJECT SCHEME

A project proposal for implementation of R.V.P. Scheme for the 10th Plan was submitted to the Government of India for TB3g Watershed which is the catchments of Reshi Khola in Samdong, Sribadam area in West Sikkim. This catchments has been recognized as very very high priority area by the All India Soil and Land Use Survey Organization (AISLUS) for scientific watershed management. The project has been approved by the Government of India for implementation at a total cost of Rs . 599.93 lakhs during five years Plan Period. Under the guidelines for Macro Management issued by the Government of India, the funds for the State Government are released to the State Agriculture Department which is the nodal Department for routing the fund to Forest Department.

The R.V.P. Scheme of Tb3g watershed was started during 2003-2004 and total expenditure was incurred to Rs. 20.00 lakhs. The physical and financial achievement for the year 2005-06 involving the total expenditure of Rs. lakhs is given below in the table.

INFORMATION ON PROJECT UNDER IMPLEMENTATION.

Name of the Project : Reshi Khola Watershed Development, 100 % C.S.S.
 Name of Scheme : Soil Conservation for Enhancing Productivity of

degraded lands in the Catchments River Valley Project

and Flood Prone Rivers.

3. Sponsored by : National Resources Management Divisions, Ministry of

Agriculture and Cooperation, Government of India.

4. Funded from : Macro Management Mode in Agriculture.
5. Project Period : 2003-04 to 2007-08 (Approved in 2003)

6. Commencement : Financial Year 2003-04.

7. Water Shed Name : Sub-Watershed Code Tb3g of Teesta Catchment

(Classified as High Priority Water Shed by AISLUS)

8. Total Project Cost : Rs.510 Lakhs.

9. Annual outlay approved

for 2003-04 : Rs.58 lakhs.

10. Total fund provided

for 2003-04 : Rs.20 lakhs. Fund Channeled through Agriculture Department,

Government of Sikkim

11. Villages Covered : Boom Busty, reshi busty near Kaluk, West Sikkim.

12. Total no of Beneficiaries

involved : Agro Forestry > 78 persons

Horticulture Plantation >82 persons

Planting/Maintenance

Cost paid to

Beneficiaries : Agro Forestry>Rs.1000/-Each (1 unit of 250 plants for each

Person)

Horticulture Plnt. : Rs.750/-each (1 unit of 300 plants for Each person)

13. Species planted = Agro forestry > Kimbu (Mulberry)

Horticulture Pltn > Large Cardamom

Sowing & Planting > Rani Champ, Phusrey Champ, Panisaj, Nevara,

Acer, Lapsi, Tooni, Lampatey, Arupatey, Neem, Bakaina, Khamari, Pipli, Kainjal, Kawla etc.

14. Project Headquarter : Office of the Divisional Forest Officer,

River Valley Project Division,

Forest, Environment & Wildlife Management Department,

P.S.Road, Gangtok, Sikkim.

WORK CARRIED BY R.V.P.DIVISION DURING 2005-06

(Rs. in Lakhs)

SL.NO.	ITEM OF WORK	Physical	Financial
		Achievement	Achievement
Ι	FOREST LAND		
	a) Sowing & Planting	150 ha.	Rs. 6.30 lakhs
	b) Silvipasture Development	50 ha.	Rs. 2.40 lakhs
	c) Gap filling with post planting care	150 ha.	Rs. 5.16 lakhs
	d) Drainage line treatment	20 nos.	Rs. 1.68 lakhs
	Sub Total	350 ha.	Rs.15.54 lakhs
II	WASTE LAND	20Nos.	
11	WASTE LAND	5 4 1 _{2 0}	Da 2.00 lalaha
	a) Sowing & Planting	54 ha.	Rs. 2.98 lakhs
	b) Silvipasture Development	40 ha.	Rs. 1.93 lakhs
	c) Gap filling with post planting care	54 ha.	Rs. 1.86 lakhs
	d) Drainage line treatment	33 nos.	Rs. 6.63 lakhs
	Sub Total	148 ha.	Rs.13.40 lakhs
		33 Nos.	
III	AGRICULTURAL LAND		
	a) Contour Bunding	21 ha.	Rs. 1.14 lakhs
	b) Agro Forestry	100 ha.	Rs. 1.20 lakhs
	c) Horticulture Development	376 ha.	Rs.19.18 lakhs
	Sub Total	497 ha.	Rs.21.52 lakhs
		51 Nos.	
	TOTAL	995 ha.	Rs.50.46 lakhs
		104 Nos.	

20. ACTIVITIES TAKEN UP UNDER EPC DIVISION URING 2005-06

ENVIS CENTRE IN SIKKIM

ENVIS Centre on State of Environment is established under EPC Division in the year 2002-03. A brief description about the Centre is given below.

INTRODUCTION

Realizing the importance of Environment Information, the Government of India, in December,1982, established an Environment Information System (ENVIS) as a plan programme. The focus of ENVIS since its inception has been on providing environmental information to decision makers, policy planners, scientists and engineers, research workers, etc. all over the country.

Since environment is a broad-ranging, multi-disciplinary subject, a comprehensive information system on environment would necessarily involve effective participation of concerned institutions/organizations in the country that are actively engaged in work relating to different subject areas of environment. ENVIS has, therefore, developed itself with a network of such participating institutions/organizations for the programme to be meaningful. A large number of nodes, known as ENVIS Centres, have been established in the network to cover the broad subject area of environment with a Focal Point in the Ministry of Environment & Forests.

WHAT IS ENVIS?

ENVIS, the Environmental Information System is a decentralized system with a network of distributed subject oriented Centres ensuring integration of National efforts in environmental information collection, collation, storage, retrieval and dissemination to all concerned. Presently the ENVIS network consists of Focal Point at the Ministry of Environment & Forests ENVIS Centres set up in different organizations/establishments in the country in selected areas of environment.. These Centres have been set up in the areas of pollution control, toxic chemicals, central and offshore ecology, environmentally sound and appropriate technology, biodegradation of wastes and environment management, etc. ENVIS Focal Point ensures integration of national efforts in environmental information collection, collation, storage, retrieval and dissemination to all concerned.

OBJECTIVES OF ENVIS CENTRE

1. Long Term Objectives

- > To build up a repository and dissemination centre in Environmental Science and Engineering
- > To gear up modern technologies of acquisition, processing, storage, retrieval and dissemination of information and environmental nature : and
- > To support and promote research, development and innovation in environmental information technology.

2. Short Term Objectives

- > To provide national environmental information service relevant to present needs and capable of development
 - To meet the future needs of the users, originators, processors and disseminators of in formations;
- > To build up storage, retrieval and dissemination capabilities with the ultimate objectives of disseminating information speedily to the users:
- > To promote, national and international co-operation and liaison for exchange of environment related information:
- > To promote, support and assist education and personal training programmes design to enhance environmental
 - Information processing and utilization capabilities:
- > To promote exchange of information amongst developing countries.

Responsibilities of ENVIS Centre:

- > Building up a good collection of books, reports and journals in the particular subject area of environment;
- > Establishment of linkages with all information sources in the particular subject area of environment;
- > Responding to user queries;
- > Establishment of data bank on some selected parameters relating to the subject area;
- > Coordination with the Focal Point for supplying relevant, adequate and timely information to the users;
- ➤ Helping the Focal Point in gradually up an inventory of information material available at the Centre; identification of information gaps in the specified subject areas and action to fill these gaps;
- > Bringing out newsletter/ publications in their subject area for wide dissemination.

The ENVIS Sikkim Centre is functioning under Forest, Environment and Wildlife Management Department, in the subject area "Status of Environment and Related Issues of Sikkim". The Centre has launched a website with the domain name of www.sikenvis.nic.in. The website contains information environment related issues

including forest and forestry, status of environment, land and water, wildlife, biodiversity, ecotourism, sericulture etc. The website also includes various reports and publications in addition to the legislation on forest and environment. Various programmes relating to forest and environment implemented in the State of Sikkim also being included.

ACTIVITIES TAKEN UP UNDER EPC DIVISION DURING 2005-06

State Plan

Sl .	Activities Taken Up	Source of Fund	Amount
No.			
1.	20 Ha. Of Aided Natural Regeneration at Meinmenthu and *Bombay Reserved Forest	State Plan	Rs. 2.50 lakhs
2.	Cleaning of Lakes and its surroundings at Meinmentsu and Changu	State Plan	Rs. 0.53 lakhs
3.	Dry Wall Silt detention Structure 230 cum at Changu and Meinmentsu Lake	State Plan	Rs. 2.22 lakhs
4.	Afforestation of 4.36 ha. At Bombay RF	State Plan	Rs.0.96 lakhs
5.	Maintenance of Kyongnosla Nursery 0.6 ha.	State Plan	Rs. 1.62 lakhs
6.	Maintenance of Pinetum Nursery 0.4 ha.	State Plan	Rs. 0.62 lakhs
7.	Maintenance of JN Botanical Garden at Rumtek	State Plan	Rs. 3.57 lakhs
	Total		Rs. 12.02 lakhs

The Details of Funds Received under ENVIS SINCE Inception in 2002-03 to 2005-06

Sl.	Year	Funds	Expenditure	Activities	Remarks
.No.		Received	(in lakhs)		
		(in lakhs)			
1.	2002-03	3.87	Nil		
2.	2003-04	1.77	2.27	Establishment of Centre, Data	
				collection and compilation	
3.	2004-05	5.27	1.56	Data Collection and compilation	
4.	2005-06	1.74	5.26	Data collection on environment information, web site on ENVIS with the domain name of www.sikenvis.nic.in; collection; publication of pamphlets on ENVIS Centre and Green Mission prepared.	was Rs. 2.26 lakhs, 3.00 lakhs was
	TOTAL	12.65	9.09		

NATIONAL GREEN CORPS PROGRAMME:

The EPC Division is the Nodal Agency for National Green Corps Programme in the State. In 2005-06, proposal to establish 540 eco-clubs was sent to MoEF, Government of India. Accordingly, GOI sanctioned for establishment of eco-clubs in 540 schools covering all the schools of JHS and above in the State. The fund is received in the year 2006-07 and is being implemented. Each school will get Rs. 2500/- as a Grant for taking up of activities under eco-clubs established under National Green Corps Programme. This Programme is implemented through State Environment Agency and District Environment Committee constituted vide No. 2541/F dated 28/03/2006.

The EPC Division is also the Nodal Agency for implementation of National Environment Awareness Campaign Programme in the State. There are 54 organizations including almost all the Sr. Secondary Schools of Sikkim The total fund sanctioned for the year 2005-06 was Rs. 5.63 lakhs for execution of awareness related programme in the theme of "Solid Waste Management". However, the funds are received in the year 2006-07 and is being implemented through the State Environment Agency and District Environment Committee constituted vide No.: 2541/F dated 28/03/2006.

21. PARKS AND ZOO CELL

(i) Himalayan Zoological Park

Introduction:

The role of Zoos and Zoological Park in conservation of many rare forms of Wildlife gets prominence in our country where phenomenal growth of human and cattle population have ravaged the habitat to threaten their very existence in the wild. The role played by Zoos and Zoological Parks to provide an inexpensive, efficient, thrilling and refreshing past time is too well known. In India, several Zoos and Zoological Parks have come into existence since the middle of the last century. Most of them might not have fulfilled the requirements of the time. Now a days, the Zoos, Zoological Parks and Zoological Gardens are required to be established with modern developments in view of the changing concept of their role. The need for keeping the wild life animals in simulated natural conditions in capacity has been recognised for a long time. This not only keeps the animal occupied but also the people will see them in a naturalistic environment. Every animal has it own requirement in their natural habitat. Such requirement varies from animal to animal and some animals' requirements may be of a special or unique nature. Food, shelter and health are basic requirements but apart from these, there are many other requirements for each animal, which are fulfilled in the wild. Keeping in mind the requirements of each animal, the enclosures are constructed with environmental enrichment works to provide physical enrichment, physiological enrichment, biological enrichment and behavioural enrichment. Such enrichment devices will make the animal feel at home and several others breed successfully.

The Himalayan Zoological Park at Bulbulley, Gangtok is first of its kind in the North-Eastern region designed with developments in line with the concept of the modern Zoo that the animals have been kept in simulated natural conditions. The Zoological Park initially established in the year 1991 is in infant stage now with limited number of animals in capacity. The Himalayan species of animals and birds are unique and amazing not found in low lands. Enclosures for animals such as Snow Leopard, Musk Deer, Bharal or Blue Sheep, the Great Tibetan Sheep, Serow, Himalayan Tahr or the Shapi of Sikkim, Clouded leopard and high altitude pheasants are being made ready. The Zoological Park, when set up fully will have finest collection of high altitude and birds of native land.

The State of Sikkim is rich in floral and faunal wealth. The floral wealth comprises with a record of as many as 4000 flowering plants and herbs, 450 species of orchids, 300 species of fern and fern allies, 9 species of conifers and over 40 varieties of rhododendrons. It is a veritable storehouse of a multitude of medicinal and economic plants. The faunal wealth is also equally rich with an estimated 144 species of mammals, 550 species of birds, 650 species of butterflies, 33 species of reptiles and 16 species of frogs. The myriad of life forms both plant and animal that characterise this small bio-geographical region is unique and unparallel, perhaps in the whole world encountered nowhere else in a similar situation and size. Sikkim is bio-diversity hotspot in the eastern Himalayan region. With so much of rich in animal species in the State, the Zoological Park could have good collections of Zoo exhibits by now but due to prohibition of capturing from the wild this has resulted in lesser number of animals in this Park at present. The other Zoos in the country are not in the position to exchange high altitude animals, as they do not have and those who have no surplus numbers for exchange. Most of the present collection has been brought through rescue.

The State Government of Sikkim in the Department of Forests, Environment & Wildlife Management is the controlling authority of this Himalayan Zoological Park. The management makes efforts to have high altitude animals of native land besides few exotic species and will house over 50 species of mammals, 5 species of primates, 25 species of birds etc. making a total number of about 300 individuals in future.

Location and Area:

The Himalayan Zoological Part, Gangtok is located as an altitude of 5840 ft. (1780m) from msl at Bulbuley at a distance of 3 km(approx.)from Gangtok, the capital of Sikkim. The Zoological Park is spread over an area of 205 hectares of mountainous land with terrain suitable for high altitude animals and birds. The present Park area was in vary bad shape before establishment due to both biotic and abiotic reasons. Grazing was taking place. Firewood and fodder collections were rampant. Soon after the area was taken up for Zoo, fencing with GI wires was done initially, the limiting factors disappeared gradually and now the area has developed dense forests with small bamboos and shrubs for animals &birds to live in natural environment.

Climate: Summer temperature: Max.21 C, Min.13 C.

Winter temperature: Max.13 C, Min.0.5 C.

Best Seasons: Mid-February to May end

Mid-September to December end.

Objectives: 1. Conservation and breeding of endangered and other Himalayan species of animals and

birds and restocking in the wild.

2. Promote education, enquiry, research, culture and ecological functions.

3. Inculcate love, affection and create awareness among the people about wildlife.

4. Promote eco-tourism for employment and sustainable life.

Zoo exhibits:

The cat-bear or Red Panda which is the State animal of Sikkim, Panther or common Leopard, Himalayan Palm civet, Leopard Cat, Himalayan Black Bear, Tibetan Wolf, Barking deer, Goral spotted deer, common Langur and a few high altitude pheasants are kept in the simulated natural environment. They are quite difficult to be sighted due to thick shrubs and small bamboos. Since the Zoo area is quite big and fully fenced, some of the animals species such as Red Panda, small cats, deer, Kaleej pheasants, jackals and foxes are also living wild due to congenial habitat and food availability.

Health, Hygiene & Sanitation:

Maintenance of health of animals in a Zoological Park or Zoo is of primary importance; as such it is fully attended to here. There is a veterinary section headed by the veterinary doctor of the rank of Deputy Director who is assisted by veterinary compounder and laboratory assistants. Zoo hospital has also been constructed for treatment of Zoo and rescued sick animals. The veterinary sector is well equipped with darting equipments, medicines, drugs, lab. equipments etc. for the present situation. Besides satisfactory general sanitation, sufficient space for animals, nutritious diet, clean water, proper shelter for protection from extremes and vagaries of climate are available. Feeds and food supplements are monitored daily by the veterinary personnel's.

Zoo Education:

Wildlife educational programmes are conducted in the Zoological Park from tine to time and during the Wildlife Week in October every year. School children are mostly involved in such programme, which includes wildlife quiz, painting, debates, nature trails, campings etc. Wildlife interpretation centre with a host of wildlife books & reading facility in the library has come up for educational programmes to promote and

support wildlife education and interpretation aimed at wider public appreciation of the importance of wildlife to human betterment. Wildlife brochures and pamphlets are printed and distributed to the public and visitors to promote the programmes.

Amenities to the Public:

The Zoological Park is a public institution meant to attract a large number of visitors; an effort is being made to provide reasonable amenities to the visitors. Both private and public transport is allowed to enter unto certain permitted area since walking may not be possible for many of the visitors. Watch towers, sheds for shelter, resting seats, drinking water, toilets, picnic spots, lawns and shades are available for visitors.

Entry fees:

Visitors are allowed to enter the Zoological Park with tickets only. Adults have to pay Rs.10/-per heads for one entry and minor children half of it. There are fees for transport vehicles @Rs.20/-per vehicles for entry for those who want to take the vehicle inside. The fees are subject to change.

Research facilities:

A research wing is being set up with qualified research faculty members. The branch will find out ways and means to improve management and study the ecological behaviour of animals. The wing will also have contacts with research institutions and zoological museums in the country to encourage research hands ensure fuller utilization of research materials available with the Zoological *Park*.

Other special features:

The Zoological Park has also embarked upon zoological museum, setting up of nocturnal animal house, reptile house, insectariums, aquarium etc. to enhance the appeal of the park to the visitors.

Financing Agency and Monitoring:

The State Government being the controlling authority is financing for the management of this Himalayan Zoological Park since inception in 1991-92. Since the financial resource being meagre with the state Government, the Central Zoo Authority of India was also requested to provide fund for development and the Authority is also granting fund since 9th.Plan. The Zoological Park is monitored annually by the CZA and all constructions are as per their guidelines.

Suggestions invited:

The Himalayan Zoological Park at Bulbuley, Gangtok is in infant stage and may take quite a long time to become a fully organised Zoo. The reason being may such as inadequate fund and trained manpower and non-availability of animals for Zoo display as and when required when the structures are already ready, lack of proper infrastructure etc. Sooner or later, this Himalayan Zoological Park has to flourish fully fulfilling its laid out aims and objectives and set an example as one of the modern Zoos in the country, an appeal is made to all visiting the Park to send in their valuable advice and suggestions.

The Zoological Park was started in the 8th Five Year Plan and continued in the 9th Five Year Plan. This is an on-going scheme of the 8th Five Year Plan which has continued in 9th as well as 10th Five Year Plan.

The Salient Features of the project are as under.

1. Establishment of Project started	-	1991-92
2. Initial Project Cost	-	Rs. 467.00
3. Revised Project Cost (1997)	-	Rs. 675.55
4. Revised Project Cost (2000)	-	Rs 1,064.00
A . Expenditure upto 9 th .plan	-	Rs. 395.03
B . Fresh Proposal for 10 th .plan	-	Rs. 1,504,60
TOTAL OF (A + B)	-	Rs. 1,899.63

Animals Housed in the Zoo.

Sl.No	Species	Male	Female	Total
1.	Himalayan Black Bear	1	-	1
2.	Barking Deer	2	4	6
3.	Goral	1	-	1

4.	Red Panda	4	1	5
5.	Tibetan Wolf	2	3	5
6.	Leopard(common)	1	1	2
7.	Leopard Cat	2	1	3
8.	Himalayan Palm Civet.	3	2	5
9.	Spotted Deer	1	-	1
10.	Monkey	1	-	1
	Total:	18	12	30

The Himalayan Zoological Park having an area of 205 Ha. is established at Bulbuley which is about 5 kilometers from the main town of Gangtok. This is for the purpose of providing recreation and education need of the local people as well as the visiting tourists in ex-situ conservation of wildlife. This zoological park provides the natural habitat to the animals. Currently, this park harbours the following animals.

Himalayan Black Bear.

Red Panda

Goral

Barking Deer

Wolves

Clouded Leopards

Civet Cats

Monkeys

Monal Pheasant etc.

Construction of enclosures for animals like Himalayan Thar, Snow Leopard etc are under construction and are expected to be completed within a year.

PHYSICAL AND FINANCIAL ACHIEVEMENTS OF FOR THE YEAR 2005-06 UNDER HZP

Total Financial Achievements for works & animal feeds:

(a) upto 9th plan 9 (upto 2001-02) :Rs 395.03lacs (b) 2002-03 :Rs 92.96lacs (c) 2003-04 :Rs 36.23lacs (d) 2004-05 :Rs 13.28lacs (e) 2005-06 :Rs 43.95 lacs TOTAL: Rs 581.35 lacs

PHYSICAL &FINANCIAL TARGETS & ACHIEVEMENTS FOR THE YEAR 2005 -06

Financial: Rupees in lakhs

Sl.	Activities			ets	Achievements		
No.		/CSS/CZA	Phy.	Fin.	Phy.	Fin	
1.	Supplies & materials-	State Plan		10.00		9.96	
	Purchase of animal feeds & other						
	essential items						
2.	Minor Works:						
	(a)Plantation of ornamental plants.	State Plan		4.00	5000 plants	3.69	
	(b) Purchase of medicines etc.					0.26	

Financial: Rupees in lakhs

Sl. No.	Activities	State Plan /CSS/CZA	Targets	Achieve ments		
			Phy.	Fin.	Phy.	Fin

4.	Assistance from CZA				
	(a) Purchase of Zoo Hospital				
	Equipments.	CSS (CZA-	10.00		6.56
	(b) Computer & Accessories	100 %)	0.50		0.53
5.	Grants under 12 th F.C.	CSS			
	(a) Zoo Boundary Fencing	(100%)	15 .00	995mtrs.	15.00
	TOTAL				43.95

22. PLANNING AND STATISTICAL CELL:

The main role of this cell is to assist the Principal CCF-cum-Secretary in all matters related to policy to policy matters, planning the activities to be undertaken by the department, monitoring the progress of the schemes being implemented by different circles and reporting the progress to the state as well as central governments. This circle also deals with the works of management of IFS and SFS cadres, training of IFS and SFS officers, inter as well as intradepartmental meetings. Reply to Parliament Questions, Cases of the Department in the Supreme Court and Co-ordination with the different Ministries in the Government of India, Planning Commission, preparation of Five Year Plan and Annual Plans etc. is being taken care of by this Cell

23. SERICULTURE DIRECTORATE:

Nature of Silk Industry: Sericulture practices in Sikkim State remained confined within the few Government farms from the period it was started in the year 1977-78 by the Department of Forests and Wild Life. Over the past two decades there had been limitations in its extension developmental activities and only towards the mid of the 9th Five Year Plan this sector got break through in its funding .Subsequently, extension packages of mulberry sericulture are extended to the villages in three Districts in Sikkim where it was found feasible and minimum required infrastructures were also augmented in the existing Government farms. But certain limitations like little manpower and insufficient input technology has become major hindrance for prospering this new venture till date..

Moreover, launching of this CDP Scheme sponsored by the Central Silk Board (CSB) in the year has contributed in the increase of both area of mulberry plantation in the State and number of people engaged in silkworm rearing practices. On the other hand, heavy mortality in plantations and repeated failure of silkworm rearings due to climatic adversity particularly in the farmers' level and because of poor marketing facility of cocoon produced in the state has become main hindrance. Therefore, the production figure of the cocoon is far below to the figure of the area of plantations and people adopted under the scheme.

District wise area covered and production of mulberry cocoons during 2005-06

SL.	Name of	Area (arc)	Area (arc) till date; To		Dfls.in	Produc	ction of reeling
NO	the District.	Rainfed;	Irrigated;	Adopted.	hundred Nos.	Cocoo	ns.(in kg)
						BV	MV
1	East.	106	Nil.	106	2575	327	
2	West	131	Nil	131	1550	105	
3.	South	133	Nil	133	4845	553	
	TOTAL	370	-	370	8970	985	

ERI SECTOR

Eri primary food plants i.e. Castor plants are abundantly under natural condition and the Tapioca food plants are traditionally being cultivated by every farmer of Sikkim for consumption of its root. Besides, one more perennial host plant EUVADIA Fraxnifolia L. (Khanakpa in local language) is also available in most of the places in altitude ranging from 100-to 5500 ft. And till date people known this plant is used for domestic purposes like animal fodder and firewood. Infact, it has medicinal values and also could be used in ericulture

purpose in the near future. Hence, in consideration to its availability and economic importance, leaves and seeds of castor plant could be used for Ericulture, it was introduced first time on 2003-04 in Sikkim.Subsequently, the same are started in the villages which is being sponsored by the CDP of Central Silk Board.

MUGA SECTOR

Augmentation of Muga food plants was introduced in the year 2003-04 in Sikkim.Litsea Polyanth (Kutmero in local language) are abundantly available in natural conditions which needs only systematic plantation to maintain quality leaves for Muga rearing. In the same year nearly 12 acre of land are brought under Muga host plant plantations in South and West Sikkim.

MARKETING OF COCOONS:

One of the major constraints faced by the Sericulture Sector is the marketing of cocoons e.g. out of the four crops ,only last crop harvested in the month of October had been disposed off to the private granules as Seed cocoon, that too at a very low price. Lack of infrastructures and technical manpower is another hindrance with only 9 men including staff and officer are manning the farm who are to be refreshed with new evolved technology and training. Lack of awareness among the public/farmers is also another problem which needs to be addressed. Interested farmers involved with are to be made aware with the schemes and its techniques. Infrastructures required for the Sericulture industry in the State is very limited. However, the minimum possible required facilities are arranged in the Government farms. Marketing of cocoons could be solved by either providing facility for cocoon processing within the State and also having network with neighboring State of West Bengal. But rest of the constraints are to be addressed by the Government as it involves the policy decisions at the higher level..

EMPLOYMENT IN SERICULTURE INDUSTRY TILL 2005-06

Out of the 370 families those have taken up mulberry plantations in their own land, very few of them are continuing it as part time work and majority of the farmers have shown negligence since they are unable to build up self confidence out of it due to (i) Higher mortality of plantations (ii) Often failure in rearings (iii) Less remuneration or lack of marketing and (iv) And number of other reasons. The villages earning few out of part time sericulture are cited below.

District	No of villages	No. of family involved in rearing	Average no. of crops	Avg. no. of Dfls. Consumption per crop/per family	Avg. Cocoon harvested in 100 dfls.	Remarks
East	02	09	04	25	23kg	Dfls. Consumption
South	04	12	04	20	20kg	per crop is very low
West	03	10	03	15	15kg	

Suggestions:

- 1. People are attracted to the scheme but after some time they start loosing interest.
- 2. More exposure and confidence building programme is required.
- 3. Regular and active follow up action are required.
- 4. Required infrastructure/manpower and appropriate technology I transfer is necessary.

Other Information's:

It has been a joint venture between State Government and Central Silk Board to make the Sericulture practice flourish in this non-traditional zone of Sikkim. In this regard continues efforts are being made by the CSB through the Regional Extension Centre situated at Rangpo. Various Programmes are independently launched by them lie TAR .However, inspired of every effort of the Government and financial assistance to the farmers and upgradation of Government establishment under the CDP, stakeholders are sometimes found to be quite unresponsive which could be overcome

EXPENDITURES UNDER THE STATE PLAN UNDER SERICULTURE SCHEME.

VIII				No. provision
Plan	1992-97	60.00	60.00	For extension.
IX	1997-2002	210.00	210.00	CDP Extensions in Villages
Plan				were undertaken, maximum
X	2002-03	40.00	40.00	infrastructures have been also
Plan	2003-04	26.00	26.00	augmented in theGovt. frams.
	2004-05	16.00	16.00	However, manpower remains
	2005-06	20.00	20.00	the same and is insufficient to
		1		Handles the large area.

Three types of sericulture brought under practices shows ample scope for its all dimension growth in this region, and over the period desperately requires serious through in exercising appropriate package of technology and financial input. Financial input remains secondary to for the success however, technology manpower and infrastructure plays role in process of development.

24. BIODIVERSITY RESEARCH (WILDLIFE) ACTIVITIES 2005-06

This year due to lack of budget for field research works, no surveys and other field activities could not be carried out. Effort was spent in maintenance of State Forest Herbarium, deciphering the wildlife data gathered from Tso Lhamo cold desert in Tibetan and computerization; awareness talks and lectures delivered at various places, presenting of scientific papers at national and international level seminars and workshops, in liaison with other departments and NGOs in wildlife matters and providing research inputs in upcoming Butterfly and Bird Parks.

RESEARCH ACTIVITIES

- ❖ Maintenance of seven decades old **State Forest Herbarium** with the help of Herbarium Assistant.
- ❖ Coordination with Nature Conservation Foundation, Mysore for preparing **Project Snow Leopard**
- ❖ Coordination with Department of Animal Husbandry, LF & VS, Government of Sikkim
 - a. Getting the Non Steroidal Anti- inflammatory Drug (NSAID) **Diclofenac** banned by notification, making Sikkim the first State in the country to do so
 - b. Increasing awareness on **Bird Flu** / Highly Pathogenic Avian Influenza (HPAI H5NI) especially among military and para- military forces in high latitudes in Sikkim
- Coordination with local NGOs SKES and TMI during mass deaths of Himalayan Griffon Vulture in KBR, West Sikkim, in identification through Bombay Natural History Society, getting assistance for follow- up investigation through Wildlife Trust of India and sample collection
- ❖ Preliminary field surveys of upcoming Rangrang Butterfly Park in North Sikkim and Rabdentse Bird Park in South Sikkim

EXTENSION & EDUCATION ACTIVITIES:

I. IN SIKKIM:

- 1. Meetings / Workshops / Interviews: ECOWATCH- Education Steering Committee Meetings, ECOSS; TASS; Ecotourism Enhancement in Sikkim; National Ecotourism; AIR- Gangtok
- 2. Poster published on Endangered Fauna of Proposed Tso Lhamo Cold Desert Conservation Reserve (TLCDCR) with local NGO Green Circle; released by HCM on World Environment Day (WED) along with Sikkim State Biodiversity Strategy and Action Plan (SBSAP) book; Article on Biodiversity of Sikkim for SAARC Summit
- 3. Biodiversity Presentation (Audio visual) to (a) Army, (b) Tourism Entrepreneurs, (c) local NGOs, (d) SGMI Gangtok, (e) CCRT Teachers participants from various Indian States, (f) Frontline Forest Department staff, IFS AND SFS probationers (Census Techniques Lectures)

- II. OUTSIDE SIKKIM: Seminars/ Workshops (National and International) , (Papers presented on Sikkim Biodiversity)
 - XIX Annual Research Seminar (ARS) of Wildlife Institute of India, Dehra Dun; Workshop on Grassland Ecology & Gene Pool, Conservation, Jaipur Forest Department, Rajesthen; International Vulture Conservation Workshop, MOEF & BNHS New Delhi; National Conference on Environment Education for Sustainable Lifestyle, Patna Women's College (paper: 'Role of Values and Ethics and Biodiversity Conservation in Sikkim'); International Workshop on Rangelands and Wildlife Conservation in the Himalayas at WII, Dehradun.
- III. MEMBER (of Committees of Departments & Institutions): Forest, GOS, AHLF & VA, GOS, Bombay Natural History Society (BNHS) Mumbai, IUCN/ Species Survival Commission's Equid and Pheasant Specialist Groups.

25. STATE MEDICINAL PLANT BOARD

- 1. The State Medicinal Plants Board (SMPB), A State Level Body has been set up by the Government vide Notification No. 100/FEWD dated 10.06.2002 under the guidance of National Medicinal Plants Board (NMPB) to look after policy formulation & coordination with department/ organization ensuring sustained availability of medicinal plants and to coordinate all matters relating their development and sustained use.
- 2. The NMPB sanctioned 13 (thirteen) Herbal Garden Projects of 10 ha. each in different locations in the State. They have been created for ex-situ cultivation covering in an area of 130 ha. And in-situ conservation of medicinal and aromatic plants in different regions depending upon the agro-climatic zones. Total in-situ conservation areas covered under the scheme are more then 2100 ha. In different locations covering all four districts for conservation of germ plasm, seed stands for quality planting materials.
- 3. Created and established 1 (one) ha. Area of each modern nurseries with poly and hothouse by providing maximum nursery inputs for production of quality planting materials. The total estimated planting materials produces in each nursery is **75000 to 2,50.000 seedlings depending upon the characteristic of species and agro-climatic zones** which have been widely utilized for ex-situ cultivation and in-situ conservation areas in herbal garden and some seedlings have been distributed to the farmers and Self-Help Groups.
- 4. The Action Plan of SMPB has been prepared with a view to have comprehensive study to assess the requirement for the development of the sector, commercial potential of various medicinal plants, to gather a reliable data on the existing demand & supply position and price mechanism duly involving existing growers, primary collectors, traders and user networks thereby covering the entire conceivable value chain.
- 5. The initial total outlay for year 2002-03 funded by NMPB under the scheme for creation and establishment of 13 Herbal Garden and nurseries was Rs. 272.00 lakhs. The NMPB has recently provided fund for maintenance of Herbal Nurseries for 2006-07 to 200809 to the total outlay of Rs. 25.00 lakhs.

13 (Thirteen) Herbal Gardens in Sikkim

NORTH	SOUTH	EAST	WEST
Dombang	Bio-diversity Park	Rateycgu	Guransey
Thangu	Samduptse	Tamze	Yoksum
Zema	Kitam	Kyongnosla	Barsey
	Maenam		

Besides these 13 Gardens, there are 166 nos. of Panchayat Herbal Gardens in all the Panchayat unit of Sikkim. There are also 3 (three) private agents of medicinal plants and 7 (seven) manufacturers in the State.

OBJECTIVES:

- ✓ To familiarize general public with herbal plants.
- ✓ To disseminate Medicinal plants cultivation technique.

District	2 (two)	8 TH	10 TH SFC	11 TH SFC	13 TH SFC	15 TH	District
	commercial	Standing	approved	approved 5	approved 4	Standing	wise
	project	financial	Contractual	Contractual	Contractual	Committee	Sanctioned
	Proposal	Committee	Farming	Farming	Farming	7	Projects
	Sanctioned	approved	Projects for	Projects for	Projects for	Contractual	
	for the	12	the	the	the	Farming	
	financial	Contractual	financial	financial	financial	Project for	
	year 2003-	Farming	year 2004-	year 2004-	year 2005-	for the	
	04	Projects on	05	05	06	financial	
		6 th				year 2005-	
		Aug.2004				06	
East	-	02	-	-	-	01	03
		0.4		0.4		0.4	1.0
West	-	04	-	04	-	04	12
North	-	03	-	01	01	00	05
					-		
South	02	03	02	-	03	02	12
TOTAL	02	12	02	05	04	07	32

Total evaluated scheme of 32 Projects - 260.80 lakhs

Total subsidy sanctioned - 79.51 lakhs

Subsidy released in 1ST installment - 40.11 lakhs

PRESENT STATE OF THEIR COLLECTION AND UTILIZATION:

Prior to establishment of State Medicinal Plants Board (SMPB) collection and transit of medicinal and aromatic plants from the state was regulated by Forest Department. The Forest Department used to issue collection permit on payment of royalty to the government. Two years before the establishment of SMPB in the year 2002, Government banned the collection of medicinal and aromatic plants from the forest to rejuvenate the areas. After establishment of SMPB the main emphasis of SMPB is to encourage progressive farmers to under take cultivation of medicinal plants such as Aconitum hetorophyllum, Aconitum ferox, Picrorhiza Kurooa, Swertia Chirayita, etc. After establishment of SMPB considerable quantity of Chirayita has been in the process of marketing by the SMPB collected from the Herbal Gardens and farmers engaged in cultivation of medicinal plants during the year 2004-05 & 2005-06.It is expected that more and more farmers will start cultivation of medicinal plants and SMPB is expecting considerable volume of herbal products of Chirayita, Atees, Vatsnabh, Kutki, Jatamansi, Kalihari, Shatavari etc.

The SMPB has registered 463 (four hundred sixty three) farmers, 186 (one eighty six) Collectors and 221 (two hundred twenty one) Traders.

AVAILABILITY OF AGRO-TECHNOLOGY AVAILABLE

After establishment of SMPB the Board is also maintaining 10 ha. Of nurseries of medicinal plants attached to the herbal garden at different locations. It is continuously experimenting to improve the agro technology through extension of technology in their nurseries and herbal gardens. The agro techniques of a few species like Chirayata, Atees, Kalihari, Shatavari, Kutki, Jatamansi etc. have been transferred to the farmers.

TRADE STATUS

Prior to year 2000 the collectors from the state used to sale their herbal products collected from the wild to the traders located at Gangtok, Kalimpong, Siliguri and Kolkota. Since the Government has banned the collection of Medicinal plants products from the wild and encouraged cultivation of medicinal plants , the traders from different parts of the country have approached the SMPB for supply of raw drugs products namely Aconitum hetorophyllum, Picrorhiza Kurooa, Swertia Chirayita etc.

PANCHAYAT BIODIVERSITY REGISTER:

The State Government has decided that all Panchayats will open register (to be called Bio-diversity register) to register every specie in their area as to the kind and usage especially of the medicinal value. This way they will also undertake to protect the biodiversity – our flora and fauna as well as our traditional knowledge bar. Annual feedback and information from these registers shall be compiled by the SMPB and they shall be classified. It is proposed to provide technical and financial support to Panchayats for better result and output.

TRAINING OF STAKE HOLDERS:

The success of development of medicinal plant mission primarily depends on the effective & vibrant involvement and initiative of stakeholders. Duly realizing this, the SMPB has organized several training programme and workshops to promote technology and knowledge to the stakeholders like field functionaries of the Forest Department, training of community bases para-taxonomists, tribal and other forests dwellers.

JARIBUTI CHETNA KENDRA

Created and established Medicinal Plants Awareness Centre (Jari Buti Chetna Kendra) in Kyongnosla, East Sikkim for raising awareness among the stakeholders. Establishment of Jari Buti Chetna Kendra at State Bio-Diversity Park, Damthang, and Bagwa both in South Sikkim are also completed.

HERBARIUM AND RAW DRUG MUSEUM

The Museum was established for indigenous medicinal and aromatic plants of the State in Forest Annexed Building Complex and collection and display of live herbarium, live specimen, agro techniques and its uses in Indian System of Medicine and Local Health Tradition Practices are under progress.

JARI BUTI KHOSH (HERBAL MEDICINAL PLANTS):

Jari Buti Khosh is being created under State Medicinal Plants Board (SMPB). The Operational Guidelines for implementation Jari Buti Khosh is prepared to ensure smooth technical administrative and financial management. The total budget for Rs. 50.00 lakhs has been sanctioned by the State Government for the development of works under this scheme.

STATUS OF STATE DRUG TESTING LABORATORY:

In the 2ND Annual Meeting of the Governing Body of the SMPB, it was agreed that a state- of –art Drug Testing Laboratory should be established under the State Health Department. This was subsequently approved by the Government and work on the construction of its building has already begun from State resources. However, its final commissioning is expected to take a few years. In view of this crucial time gap, it is opined that for the intervening period the SPMB should identify a suitable existing Drug Testing Facility in any other sector for its usage after strengthening and due adaptation for our level of job for their current Programme. In this context, utilization of the existing small level Drug Testing Facility of the Manipal Institute of Technology, Majitar, East Sikkim has been under consideration.

BOTTLENECK:

The cultivation of medicinal plants is a relatively new field for the farmers and cultivators of the State. It is not easy to convince them because they have been traditionally engaged in food production for their local use. Besides this, due to lack of knowledge of traders in medicinal plant products it will take some time to make them aware of the potential available in the State on account of suitability of climatic condition for production high value herbal products.

26. BAMBOO DEVELOPMENT IN SIKKIM

Bamboo Development Agencies were constituted vide Notification No. 2/Home/2004 with the objectives to formulate Bamboo Policy for effective management and scientific exploitation for industrial uses. North East Council has funded for plantation of Bamboo in the State during the year 2004-05. The work carried out are follows:

A. High Altitude - 105 ha. Low Altitude - 48 ha.

B. Bamboo Plantation in private holdings - 388 ha.
C. Distribution of Bamboo seedlings - 3600 nos.
D. No. of Bamboo Nurseries (1 ha. Each) - 4 Nos.

Pasingthang, North Singtam & Song, East Donok, South

Raniban & Bermiok, West Sikkim

E. Fund Received fro NEC during

2004 -05 with the loan component of 11.11 % 63.40 lakhs

27. BORDER AREA DEVELOPMENT PROGRAMME (BADP)

Ministry of Home Affairs, Government of India vide their letter No. BM- 13 SIKKIM/ 2004/BADP dated 20TH January 2005 has conveyed approval of Rs.40.73 lakhs for Extension and Improvement of Kyongnosla Herbal Garden under the Border Area Development Programme (BADP). The distribution of fund allotted has been done as follows:

 2004 - 05
 Rs. 13.81 lakhs

 2005 - 06
 Rs. 8.41 lakhs

 2006 - 07
 Rs. 6.18 lakhs

 2007 - 08
 Rs. 5.96 lakhs

 2008 - 09
 Rs. 1.19 lakhs

 TOTAL
 Rs. 40.73 LAKHS

Work carried out under BADP, SMPB DURING 2005-06 are as follows:

S1.	East Range	Area in Ha.
No.	BADP Kyongnosla	
1.	Advance Work of Herbal Garden	15
2.	Creation OF Herbal Garden	20
3.	Maintenance of Herbal Garden	10
4.	Maintenance of Herbal Garden Nursery	01

28. INTEGRATED WASTELANDS DEVELOPMENT PROJECTS (91.67:8.33% CSS)

The Integrated Wasteland development Programme is being implemented on watershed basis under the common guidance for Watershed Development generally treatment of watershed outside of recorded forest area. This programme is promoting the generation of employment in the rural areas besides anhancing people's participation at all stages in the development of wastelands leading to sustainable development and equitable sharing of the benefits. The programme is being implemented with full participation of the Watershed Development Committees, villagers, local NGOs, and line Department in planning, implementation and monitoring.

Rs.in lakhs.

SL No.	Project Code No.	Name of Schemes	Year of Sanction	Amount	Fund Received G.O.I.	State-S	hare	Remarks
1	South Sikkim-V	17 Micro Watershed South District (S.F)	1999- 2000	448.00	198.60	Nil	Nil	(No State share is required)
2.	West Sikkim -II	Hee Dentam Khola(West Sikkim II) PIA- 1(SF), PIA-II (Lamapathey)	1999- 2000	362.40	235.13	Nil	Nil	Old guidelines (no state share is required)
3	South Sikkim-VII	Teesta Rangeet, South District (W/L)	2000- 2001	630.00	75.00	7.88	Nil	State share Released during 05-06
4	East Sikkim - V	Martam-Tadong W/S Project v East Sikkim (S.F)	2001- 2002	360.00	49.50	4.50	4.50	State share Released during 2003-04
5	East Sikkim- VI	Karthok Sumin, East Sikkim(LUE)	2001- 2002	360.00	49.50	1.12	3.38	State share Released during 2005-06
6	East Sikkim- VII	Khani Burdang, West & Central, Pandam,duga pachak,kamarey Sajong,East District (S.F)	2003- 2004	360.00	49.50	Nil	4.50	
7	West Silkkim-III	Yoksum,Khechopari,Darap, Tashiding,Gyalshing,Zeel, Soreng,Chakung,West Sikkim(WL)	2003- 2004	360.00	49.50	4.50	Nil	
8	North Sikkim-III	Tung Naga,Hariyali North district (LUE)	2003- 2004	360.00	148.50	4.50	9.00	State share for 1 st instt.released during 04-05 from BADP
9	East Sikkim- VII	Kambal Thangsing, Hariyali, East Sikkim (SF)	2004- 2005	360.00	49.50	4.50	Nil	State share released during 05-06
10	East Sikkim- IX	Subaneydara, East Sikkim (S.F)	2004- 2005	328.14	45.12	Nil	3.76	
11		Lingdum,Naitam (Hariyali)LUE	2004- 2005	200.94	27.63	Nil	2.30	
12	West Sikkim-V	Tsocho,Khechopari,Thingling, Malli,Singlitam,Tingbrum, Japong, Nambu-Darap (S.F)	2005- 2006	129.60	17.82	Nil	1.62	
13	West Sikkim-VI	Labdong,Kongri,Gangyap, Tsocha-rang Project VI West Sikkim(S.F)	2005- 2006	120.00	16.50	Nil	1.5	
14	West Sikkim-VI	Yangthang, Tikjek, Sardang, Sapong, Bangtem, Project VIII West Sikkim (S.F)	2005- 2006	47.22	6.49	Nil	0.59	
15	East Sikkim- X	Lingssay,Doungdong, Khamdong, Byang, Byang, Chisopani,Rabdong, Tsamlangthang,Tirkutam, East District (LUE)	2005- 2006	244.50	33.62	Nil	3.06	
		Total		4670.80	1051.91	27.00	29.71	

29. NATIONAL AFFORESTATION PROGRAMME

Implementation of National Afforestation Programme funded by the Ministry of Environment and Forests, Government of India, through Forest development Agencies, Joint Forest Management Committee and Eco-Development Committees.

The Ministry of Environment and Forests, Government of India has sanctioned seven projects in Sikkim under Integrated Afforestation Scheme. These projects are being implemented by Joint Forest Management Committees and Eco-Development Committees under seven Forest Development Committees. The physical and financial targets of the projects are given in following table. Three of the seven projects are being implemented in the fringe villages of the protected areas for a period of five years at a cost of Rs. 840.88 lakhs by the following Eco-Development Committees in an area of 5200 hectares.

FDA Projects Under Wildlife Circle Plantation work carried till 31.03.2006

(Rs. In lakhs)

			(113.	III lakii 3)			
Sl.	Name of	Total	Total	Fund	Fund	%	Physical
No.	FDA	Project	Physical	Released by GOI	Utilized	Utilized	Achievement
		Cost	Target	TILL 31.3.2006			(in hectare)
1	North-EastWildlife	349.59	2000	298.70	298.70	100%	710
2	South-West Wildlife	309.69	1632	221.50	221.50	100%	1350
3	KNP FDA	235.00	1000	125.00	125.00	100%	350
	TOTAL	894.28	4632	645.20	645.20	100%	2410

Sl.No. Name of the Protected Area Khangchendzonga	Name of FDA KNP FDA	Name of EDC Formation of		
National Park		EDC under process.		
Shingba Rhododendron	North-East	1. Singhba Faka		
Sanctuary	Wildlife FDA	•		
Fambonglho Wildlife	North-East	1. Sumik 2. Tumin 3. Samdong		
Sanctuary	Wildlife FDA	4. Rakdong 5. Martam 6. Sang		
		7. Ranka 8. Ray 9. Rumte		
Kyongnosla				
Alpine	North-East	1. Kyongnosla		
Sanctuary	Wildlife FDA	2. Changu		
Pangolakha Wildlife	North-East	1. Dalapchan		
Sanctuary	Wildlife FDA	2.Regu 3.Singaneybans 4.Phadamchen		
Maenam Wildlife	South-West	1. Sada Phamtam 2. Borong		
Sanctuary	Wildlife FDA	3. Ralang 4. Rabongla 5. Pathing		
		6. Yangang 7. Lingmo 8. Sokpey		
Barsey Rhododendron	South-West	1. Ribdi 2. Sombaria 3. Soreng		
Sanctuary	Wildlife FDA	4. Hee Patal 5. Dentam 6. Uttarey		
		7. Sribadam 8. Bermiok		

4126 families of the above villages are being involved in afforestation and other activities around the protected areas.

31. <u>DISTRICT WISE NUMBER OF QUERRIES UNDER FOREST</u>, ENV. WILDLIFE <u>M.DEPARTMENT</u>

Sl.	Year		5	TOTAL		
No.		North	East	South	West	
1.	1999-00	0	34	11	32	77
2.	2000-01	1	29	11	24	65
3.	2001-02	1	41	19	31	92
4.	2002-03	1	44	23	33	101
5.	2003-04	7	43	35	28	113
6.	2004-05	11	70	46	29	156

Note: Report for the year 2005-06 is being collected.

32. Statement of revenues realised during last seven years.

Sl.No.	Financial	Estimated	Realised	Percentage	Remarks
	Year	(in lakhs)	(in lakhs)		
1	1997-1998	170.00	137.76	81.04	Shortfall 18.98 %
2	1998-1999	140.70	159.63	113.45	Excess 13.45 %
3	1999-2000	145.00	411.63	283.61	Excess 183.61 %
4	2000-2001	145.00	639.32	440.91	Excess 340.91 %
5	2001-2002	200.00	664.77	332.39	Excess 232.39 %
6	2002-2003	438.00	712.72	164.32	Excess 64.32 %
7	2003-2004	550.00	723.4	131.53	Excess 31.53 %
8.	2004-2005	550.00	787.45	143.17	Excess 43.17 %
9.	2005-2006	700.00	817.66	116.81	Excess 16.81 %

32. AFFORESTATION UNDER 20 POINT PROGRAMME

Afforestation, Natural Regeneration, Pasture Development (Fodder Plantation), Plantation of Bamboo other Minor Forest Produce as well as Medicinal Plants is being carried out by Forests, Environment and Wildlife Department regularly. Area under both forest as well as private lands covered under plantation during the last 30 years is given below.

A maa	in	Hectares
Alta	Ш	Hectares

Sl.	Period of	Government	Private	Total	
No.	Afforestation	land	land	Area	
1.	1971-80	7463.00	1,317.00	8780.00	
2.	1980-85	3332.65	676.35	4009.00	
3.	1985-86	1,666.25	558.75	2225.00	
4.	1986-87	1,470.00	490.00	1960.00	
5.	1987-88	1,511.25	503.75	2015.00	
6.	1988-89	1,616.25	538.75	2155.00	
7.	1989-90	1,852.50	617.50	2470.00	
8.	1990-91	3,416.25	1,138.75	4555.00	
9.	1991-92	4,622.47	1,580.82	6203.29	
10.	1992-93	5,484.00	1,828.00	7312.00	
11.	1993-94	5,786.70	1,928.90	7715.60	
12.	1994-95	6,900.00	2,300.00	9200.00	
13.	1995-96	7,189.50	2,398.50	9588.00	
14.	1996-97	7,500.00	2,500.00	10000.00	contd

Area in Hectares

Sl.	Period of	eriod of Government		Total
No.	Afforestation	land	land	Area
15.	1997-98	6,356.56	2,610.30	8966.86
16.	1998-99	7,537.00	500.00	8037.00
17.	1999-00	6,923.00	4,183.00	11,106.00
18.	2000-01	8,048.00	3,031.00	11,079.00
19.	2001-02	6,217.00	2,483.24	8,600.24
20.	2002-03	3,696.00	2,946.00*	6,618.00
21.	2003-04	6125.19	1,732.00	7,857.19
22	2004-05	6191.00	2064.00	8255.00
23.	2005-06	8012.87	306.50	8319.37
Total	l :	1,18,917.44	38,209.11	1,48,807.18

^{*} Area worked out on the basis of 14,73,000 seedlings distributed to public for raising plantation on private land, Smritivan, World Environment Day etc.@ 500 seedlings per Ha.

33. PLAN BUDGET ALLOCATION UNDER FORESTS, ENVIRONMENT AND WILDLIFE DEPARTMENT.

The overall allocation for 10th.five year plan to Forest, Environment and Wildlife Management Department is 5% less than the allocation made in 9th.five year plan. The "State Policy of Environment Forest and Land Use" which was passed by the Legislative Assembly in the year 2000 in which it has been envisaged that 5% of the State Plan fund is to be set aside for protection and management of Forest and Environment in the State. However, the funds allocated for the purpose is little over 2% in the 10th.Five Year Plan. The Annual Plan Allocation during 2005-06 & 2006-07 is as follows:

ALLOCATION OF PLAN BUDGET

(Amount Rs. In Lakhs).

Sector	Year	Allocation	Utilization	% of utilization.
1	2	3	4	5
2106-Forest and Wildlife	2005-06	651.00	648.00	99.53
2402-Soil&Water Conservation	2005-06	80.00	88.00	110.00
3435-Ecology and Environment	2005-06	35.00	35.34	100.97

NURSERIES MAINTAINED BY FORESTS, ENVIRONMENT AND WILDLIFE DEPARTMENT DURING THE YEAR 2003-2004.

Sl.	Name/Location	Circle/	District	Area in	Number of	Scheme under
No.	of Nursery	Division		Hectare	Labourers	which engaged
1	Labarbotey	SF(North)	North	1.00		CAT, TS V Project
2	Gnon Marsom	SF(North)	North	1.00		"
3	Gnon Sangdong	SF(North)	North	1.00		"
4	Gaidhara	SF(East)	East	2.00		"
5	B-II	SF(East)	East	2.00		"
6	Raksey	SF(East)	East	1.00		"
7	Tumin	SF(East)	East	1.00		"
8	Salingey	SF(East)	East	1.00		
9	Dhanbari Dian Dana	LU&E East	East	2.50		CAT, TS V Project
10	Dipu Dara Namprikdang	LU&E East LU&E North	East North	1.00		"
13	Gnon Sangdong	LU&E North	North	1.00		"
14	Phidang	LU&E North	North	1.00		"
15	Tanek	LU&E North	North	1.00		"
16	Chawang	LU&E North	North	1.00		"
17	Kyongnosla	EPC	East	1.00		EPC
18	Gangtok, Pinatum	EPC	East	0.40		EPC
19	Bulbulay	FCA	East	2.00		Comp. Afforestn.
20	Bharikhola	Silviculture	South	1.00		Research
21	Lingdok	Terri. (East)	East	6.00	13	CAT, TS V Project
22	Kabi	Terri. (North)	North	1.00	5	CAT, TS V Project
23	Chawang	Terri. (North)	North	1.00	5	CAT, TS V Project
24	Lingdong	Terri. (North)	North	2.00	10	CAT, TS V Project
25	Hee Gyathang	Terri. (North)	North	2.00	10	CAT, TS V Project
26	Mangan/Pakshap	Terri. (North)	North	2.00	10	CAT, TS V Project
27	Tingchim	Terri. (North)	North	1.00	4	CAT, TS V Project
28	Dara Chok	Terri. (North)	North	1.00	4	CAT, TS V Project
29	Hee Ringdem	Terri. (North)	North	1.00	5	CAT, TS V Project
30	Mom	Terri. (North)	North	1.50	7	CAT, TS V Project
31	Mirik Lakha	Terri. (North)	North	1.50	8	CAT, TS V Project
32	Rakdong/Burul	LU&E, East	East	2.60	13	State Watershed
33	Gyalshing	LU&E, West	West	2.00		State Watershed
34	Bop	LU&E,North	North	1.50	7	State Watershed
35	Mamring	LU&E,South	South	2.00	10	State Watershed
36	Zaluk	IWDP East	East	1.00	5	IWDP CSS.
37	Rorathang	IWDP East	East	1.00	5	IWDP CSS.
38	Yumthang	Terri. North	North	0.60	3	State Plan
39	Karthok	Terri. East	East	1.00	5	State Plan
40	Sang	Terri. East	East	2.00		State Plan
41	Bagey Khola	Terri. East	East	1.60		State Plan
42	Sangkhola	SF(East)	East	1.50		FDA
43	Likchu Khola	SFEast)	East	1.00		FDA
44	Lower Martam	SF East	East	0.60		FDA
45	Salingey/Bagey	SF East	East	1.00		FDA
46	Assam Lingzey	SF East	East	1.50	7	FDA

Sl.	Name/Location	Circle/	District	Area in	Number of	Scheme under
No.	of Nursery	Division	.	Hectare	Labourers	which engaged
47	Rorathang	SF East	East	0.80	4	FDA
48	Gurdum	SF East	East	1.00	3	FDA
49	Baluwakhani	SF East	East	0.40	2	FDA
50	Burtuk	SF East	East	1.00	4	FDA
51	Bagey	Terri (East)		1.50	6	FDA
52	Sang Herbal Nry	NTFP	East	2.50	11	FDA
53	Baluwakhani	NTFP	East	1.00	3	FDA
54	Kyongnosla	NTFP	East	2.60	6	FDA
55	Singtam	NTFP	East	2.00	10	FDA
56	Lachen Nursery	NTFP	North	0.80	3	FDA
57	Zegupeck/Lachen	NTFP	North	1.00	5	FDA
58	Rajay	NTFP	North	1.00	5	FDA
59	Kabi Namsing	NTFP	North	1.00	5	FDA
60	Munsithang	LU&E,North	North	2.50	13	FDA
61	Singring	LU&E,North	North	0.50	3	FDA
62	Rafom	LU&E,North	North	1.50	7	FDA
63	Pipaley	Terri North	North	1.00	5	FDA
64	Herbal garden	NTFP	South	0.40	2	FDA
65	Dorali	NTFP	South	1.60	7	FDA
66	Sagbari	NTFP	South	1.00	6	FDA
67	Kamdaley	NTFP	South	2.40	12	FDA
67	Dorongpani	NTFP	South	1.90	9	FDA
68	Bhanjyang	NTFP	South	1.00	3	FDA
69	Melli	NTFP	South	2.00	10	FDA
70	Chirbireytar	NTFP	South	1.20	6	FDA
71	Bharikhola	NTFP	South	1.00	6	FDA
73	Tinkitam	NTFP	South	1.00	5	FDA
74	Tirchey	NTFP	West	1.00	5	FDA
75	Nunthaley	NTFP	West	2.00	6	FDA
76	Hee-Yangthang	NTFP	West	1.00	5	FDA
77	Rumbuk	NTFP	West	1.00	6	FDA
78	Yuksom	Terri.(West)	West	1.00	4	FDA
79	Tikjuk	Terri.(West)	West	1.00	5	FDA
80	Bega	Terri.(West)	West	1.50	5	FDA
81	Okhrey	Terri.(West)	West	1.20	7	FDA
82	Srithang	SF(West)	West	1.00	5	FDA
83	Kaluk	SF(West)	West	1.00	5	FDA
84	Burikhop	SF(West)	West	1.00	5	FDA
85	Baingtar	SF(West)	West	1.00	5	FDA
86	Simphu	SF(West)	West	1.20	5	FDA
87	Daramdin	LU&E(West)	West	1.50	7	FDA
88	Tikpur	LU&E(West)	West	1.50	7	FDA
	Total			117.30	532	

