



DEPARTMENT OF FOREST, ENVIRONMENT
& WILDLIFE MANAGEMENT



ANNUAL ADMINISTRATIVE REPORT
2017-2018



Minister,
Forest and Environment,
Mines & Geology,
and Science & Technology Department,
Government of Sikkim
Phone (O) 03592-201228

MESSAGE

Forest is one of the richest natural resources of Sikkim. With just 0.2% of India's total geographical area, the State is bestowed with abundant natural resources, abode of snows, mountains, mighty rivers Teesta & Rangeet and lush green forest forming a major land use in Eastern Himalayan Eco-system.

The State Government is committed not only to conserve but also to propagate these rich natural resources and aims to make our State a model for other States as well as to the world in conservation of forest, protection of environment and ecology and sustainable management of all other natural resources without which life support system cannot survive.

I am happy to learn that Forest and Environment Department, Government of Sikkim has been bringing out Annual Administrative Report every year updating the forestry statistics and highlighting the achievement of the Department. I hope this report will be informative and useful to all.

Karma Loday Bhutia



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PREFACE

The Forest and Environment Department has been publishing Annual Administrative Report every year highlighting various aspects of forest working.

The report for the year 2017-2018 brought out by the Planning & Statistical Cell of the Department has attempted to present statistical reports of various schemes under Forest and Environment Department.

The publication contains updated statistics of the forest areas, its management, manpower, physical & financial achievement of forestry developmental works and organizational set up of the Department. The data provided herein should prove interesting and useful for all those who are connected with forestry at various levels within and outside the State. Suggestions for improving the formats and contents are welcomed.

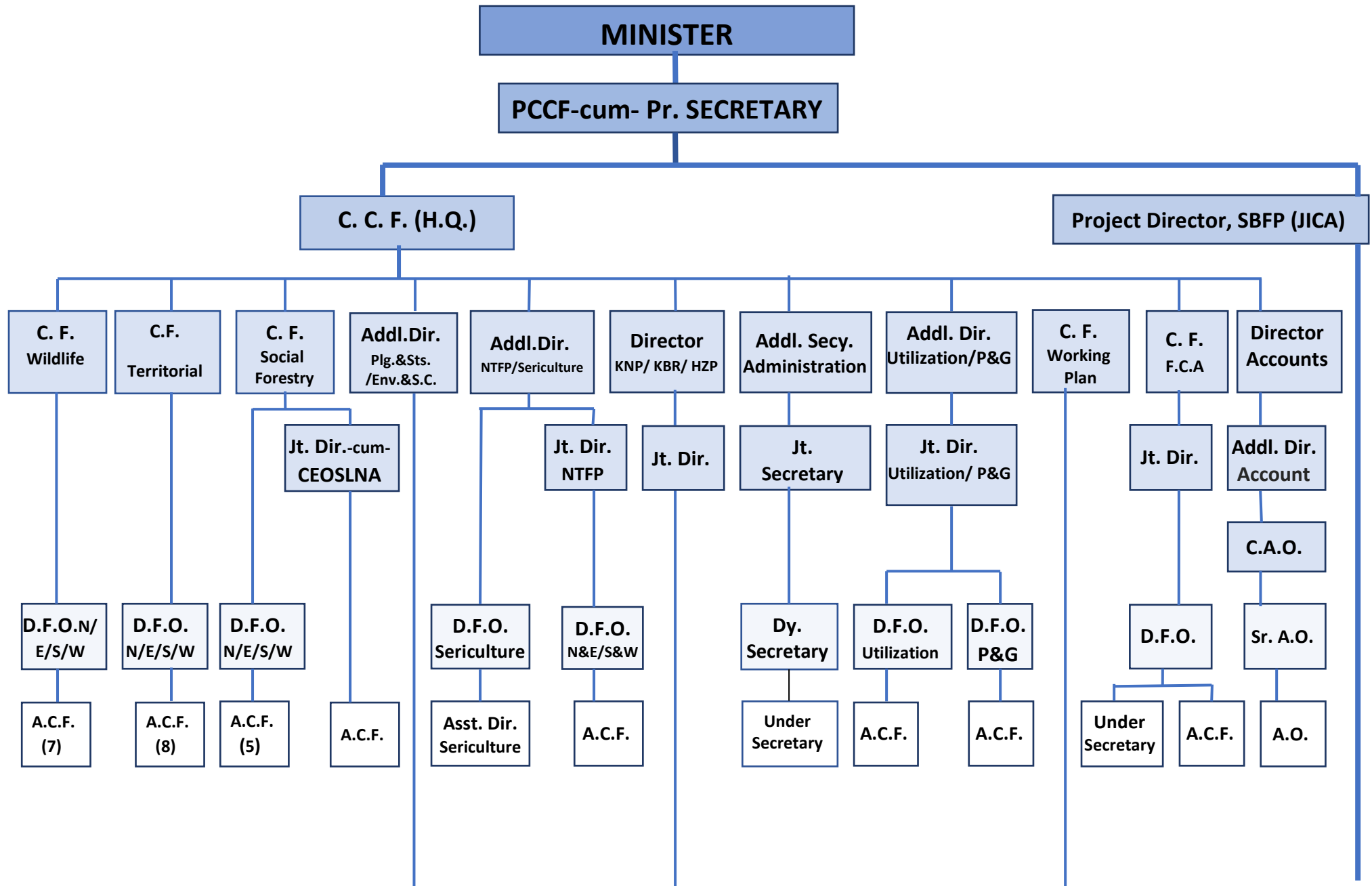
*(M.L.Srivastava) IFS,
P.C.C.F-cum-Principal Secretary.*

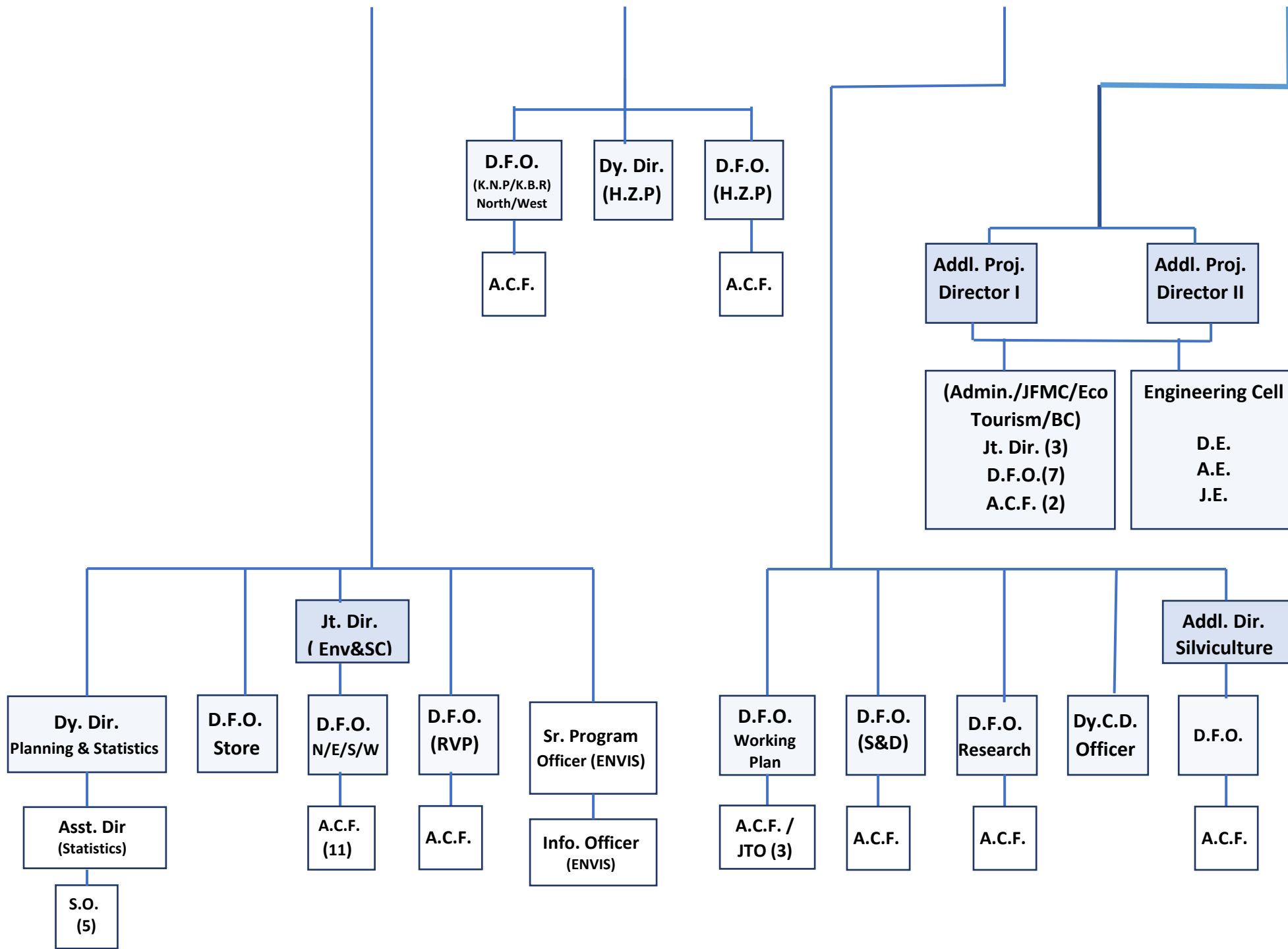
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ORGANISATIONAL CHART (2017-2018)
FOREST AND ENVIRONMENT DEPARTMENT





D.F.O.
(K.N.P/K.B.R)
North/West

Dy. Dir.
(H.Z.P)

D.F.O.
(H.Z.P)

A.C.F.

A.C.F.

**Addl. Proj.
Director I**

**Addl. Proj.
Director II**

**(Admin./JFMC/Eco
Tourism/BC)
Jt. Dir. (3)
D.F.O.(7)
A.C.F. (2)**

Engineering Cell

D.E.
A.E.
J.E.

Dy. Dir.
Planning & Statistics

D.F.O.
Store

Jt. Dir.
(Env&SC)

D.F.O.
N/E/S/W

D.F.O.
(RVP)

**Sr. Program
Officer (ENVIS)**

**Asst. Dir
(Statistics)**

**S.O.
(5)**

**A.C.F.
(11)**

A.C.F.

**Info. Officer
(ENVIS)**

D.F.O.
Working
Plan

D.F.O.
(S&D)

D.F.O.
Research

**Dy.C.D.
Officer**

**Addl. Dir.
Silviculture**

D.F.O.

**A.C.F. /
JTO (3)**

A.C.F.

A.C.F.

A.C.F.

Chapter-2

Important Events- 2016-2018.

- ENVIS (Environmental Information System) Centre at Forest and Environment Department, Government of Sikkim was awarded the Best State ENVIS Centre of the country by the Ministry of Environment, Forests & Climate Change, Government of India. The certificate was handed over by Shri Prakash Javadekar, Minister of State (Independent Charge) Environment, Forests and Climate Change during the inaugural function of National Evaluation workshop of ENVIS Centres held on 17th February 2016 in New Delhi.
- KNP fulfils UNESCO's criteria for both natural and cultural heritage, and is the first site in India to be awarded the status of a Mixed World Heritage Site on 17 July 2016 by the World Heritage Committee at Istanbul, Turkey.
- Sikkim State celebrated 3rd successive fifteen day (June 15-30) environment festival 'Paryavaran Mahotsav'. This fifteen day festival witnessed the various events such as Greenathon (Green Run), environment lectures on low carbon life styles at various schools, cleanliness drives at major towns, awareness campaigns and State's flagship plantation programmes; 7th successive phase of Ten Minutes to Earth and 10th successive phase of State Green Mission with a total plantation of 3, 56,803 seedlings throughout the State.
- Sikkim becomes the first Indian State to ban on use of mineral water bottles in government programmes. State Government through Notification No.25/Home/2016 dated 19/05/2016 has imposed a ban on use of packaged drinking water bottles in any government functions and meetings to reduce the creation of garbage. Use of filtered water or large reusable water dispensers or reusable water bottles during government functions is encouraged.
- State Government through Notification No.26/Home/2016 dated 19/05/2016 has imposed ban on sale and use of disposable items such as cups, plates, containers etc made from Styrofoam throughout the State with immediate effect.
- Heritage Trees- Recognizing the silvicultural importance and ecosystem values of the historically significant trees found all over the State that are intimately linked with the evolution of human settlements and agrarian lifestyles of the people of Sikkim, the State Government vide Notification No.83/GoS/FEWMD Pr.Secy-PCCF dated 04/06/2016 and Notification No.269/GoS/FEWMD Pr.Secy-PCCF dated 08/11/2016 has notified 21 trees of girth class 25 ft and above and 32 trees of girth class 20 ft.to 25 ft respectively under forest land as "Heritage Trees" of the State.



- Mith Trees- In order to promote and revive the age-old tradition of forging brotherhood relationship with trees, the State Government has notified Sikkim Forest Trees(Amity and Reverence Rules,2017 that allows any person to associate with trees standing on his or any public land by entering into a Mith /Mit or Mitini relationship with a tree or trees, in which case, the tree shall be called a” Mith/Mit Tree” or by adopting a tree as if it was his or her own child in which case the trees shall be called an “Adopted Tree” or by preserving a tree in remembrance of a departed relative in which case the tree shall be called a ‘Smriti tree’

The tree will be registered under the individual’s name after due verification and scrutiny. The trees registered may be part of the person’s property or belong to someone else. In the latter scenario, an agreement will have to be signed between the individual and the owner along with some compensation. In case of the tree growing in a public space, permissions will have to be sought from the concerned government department. Any damage to a registered Mith, adopted or Smriti tree will be treated as a forest offense.



- The book titled “Wildlife Population Estimation for all Protected Areas of Sikkim 2016-17” which was the compilation of first phase of Wildlife Population Estimation exercise was released on the occasion of 70th Independence Day, 15th August, 2017.

- To study the impact of Climate Change, the study of oak, forest ecosystem in the State has been initiated in collaboration with Department of Botany, Sikkim University.

- For facilitating the promotion of cultivation and utilization of commonly used agro forestry tree species grown by farmers in their private/agricultural field, the State Government vide Notification No.178/GOS/FEWMD/PR.SECY-PCCF dated 15/12/2017 & Notification No.203/GOS/FEWMD/PR.SECY-PCCF dated 22/2/2018 has given exemption the following trees species from obtaining marking order for felling and transit permit for transportation of the timber/firewood within the State of Sikkim.

- | | |
|-------------------------------------------|--------------------------------------|
| 1. <i>Populus</i> (Poplar) | 6. <i>Acacia</i> (Babul) |
| 2. <i>Eucalyptus</i> (Tarpin) | 7. <i>Melia dubia</i> (Malabar neem) |
| 3. <i>Grevillea robusta</i> (Silver oak) | 8. <i>Prosopis spp.</i> (Khejri) |
| 4. <i>Leucaena leucocephala</i> (Subabul) | 9. <i>Salix alba</i> (Indian Willow) |
| 5. <i>Casuarin</i> (Agoho) | 10. <i>Gmelina arborea</i> (Gamari) |

- To promotes cultivation of bamboos in private, non-forest and agricultural land, the State Government vide Notification No.GOS/FEWMD-PR-SECY-cum-PCCF/142 dated 7/11/2017 has exempted from payment of royalty obtained from private & non-forest land. Further the transportation of Bamboos shall be free with no need for transit permit under the Sikkim Forest (Road Reserve & Water Course) Preservation and Protection Act 1988. However, Pan-India Transit Permit in the prescribed format for inter-state transport of bamboo shall be issued by the Divisional Forest Officer (Territorial) of the originating district.

- Construction of Butterfly Park at Rangrang, North Sikkim is in progress. The management staffs (seven nos.) have also been appointed.

Landscaping works in Butterfly Park at Rangrang



Chapter-3

Area Statistics:

(a) Increase in Forest Cover:

SN	FSI Report year	Forest Cover (sq km)	%	Tree Cover (sq km)	Forest + Tree Cover (sq km)	Total %
1	1987	2756	38.84	NA	NA	NA
2	1989	3041	42.86	NA	NA	NA
3	1991	3041	42.86	NA	NA	NA
4	1993	3119	43.95	NA	NA	NA
5	1995	3127	44.07	NA	NA	NA
6	1997	3129	44.10	NA	NA	NA
7	1999	3118	43.94	NA	NA	NA
8	2001	3193	45.00	14	3207	45.19
9	2003	3262	45.97	22	3284	46.28
10	2005	3262	45.97	27	3289	46.35
11	2009	3357	47.31	20	3377	47.59
12	2011	3359	47.34	25	3384	47.69
13	2013	3358	47.32	31	3389	47.76
14	2015	3357	47.31	35	3392	47.80
15	2017	3344	47.13	35	3379	47.62

(b) Forest Cover

Sl.No.		Within Green wash (sq.km)	Outside Green wash (sq.km)	Total (sq.km)
1	Very Dense Forest	952	129	1081
2	Moderate Dense Forest	1069	506	1575
3	Open Forest	337	351	688
	Total	2358	986	3344
4	Tree Cover			35
5	Total Forest and Tree Cover			3379
6	Per capita forest and tree cover			0.556
7	Of State's Geographical Area			47.62%
8	Of India's Forests and Tree Cover			0.42%

Source: Forest Survey of India, 2017.

(c) District wise Classification of Forest Area

District	Khasmal/Goucharan	Reserved Forest (RF)	Total Forest Area	Geographical Area
East	105.01	505.50	610.51	954.00
North	60.20	3880.00	3940.20	4226.00
South	104.06	304.75	408.81	750.00
West	119.73	761.75	881.48	1166.00
Total	389.00	5452.00	5841.00	7096.00

Source: FCA Division.

(d) District wise Forest Cover.

District	Geographical area	2017 Assessment				% of G.A.	Change *	Scrub
		Very dense forest	Moderate dense forest	Open forest	Total			
East	954	266	319	128	713	74.74	14	54
North	4,226	398	600	287	1285	30.41	- 31	207
South	750	172	291	109	572	76.27	3	4
West	1,166	245	365	164	774	66.38	5	42
Grand Total	7,096	1081	1575	688	3344	47.13	-9	307

*Change compared to updated 2015 assessment

Source: FSI Report- 2017.

Chapter-4

MAN POWER : 2017-18 AS ON 31.03.2018				
SL NO	IFS CADRE	DESIGNATION	IN POSITION	
I	1	Advisor	NIL	
	2	PCC-cum-Pr. Secretary/CWLW	1	
	3	Chief Conservator of Forest	1	
	4	Conservator of Forest	6	
	5	Deputy Conservator of Forest	2	
	6	Addl Project Director	2	
	7	Additional Director	1	
	8	IFS Probationers	NIL	
	9	On Higher Study	NIL	
	10	On Central Deputation	8	
	11	On State Deputation	7	
A. TOTAL IFS (GAZETTED)			28	
II	SFS CADRE			
	1	Principal Director	NIL	
	2	Director	NIL	
	3	Additional Director	2	
	4	Joint Director	3	
	5	Deputy Conservator	44	
	6	Assistant Conservator	40	
	A. GAZETTED			89
	7	Range Officer	79	
	8	Block Officer	101	
	9	Head Forest Guard	116	
	10	Forest Guard	310	
	B. NON-GAZETTED			606
	TOTAL (A+B)			695
III	SERICULTURE DIRECTORATE			
	1	Principal Director	NIL	
	2	Additional Director	1	
	3	Deputy Director	NIL	
	4	Assistant Director	1	
	A. GAZETTED			2
	5	Sericulture Range Officer	1	
	6	Sericulture Block Officer	1	
	B. NON-GAZETTED			2
	TOTAL (A+B)			4

IV	STATISTICAL SERVICE		
	1	Joint Director	NIL
	2	Deputy Director	1
	3	Assistant Director	1
	4	Planning Assistant	1
	A. GAZETTED		3
	4	Statistical Officer	6
	5	Statistical Inspector	1
	6	Statistical Investigator	1
	B. NON-GAZETTED		8
	TOTAL (A+B)		10
V	FINANCE AND ACCOUNTS SERVICE		
	1	Additional Director	1
	2	Chief Account Officer	1
	3	Sr. Accounts Officer	1
	4	Accounts Officer	1
	A. GAZETTED		4
	5	Senior Accountant	7
	6	Accountant	13
	7	Junior Accountant	4
	8	Accounts Clerk	18
	B. NON-GAZETTED		42
	TOTAL (A+B)		46
	VI	STATE CIVIL SERVICE	
1		Additional Secretary	1
2		Joint Secretary	1
3		Deputy Secretary	1
4		Under Secretary	2
A. GAZETTED		5	
5		Office Superintendent	5
6		Head Assistant	13
7		Upper Division Clerk	27
8		Lower Division Clerk	45
9		Computer Operator	3
10		Office Assistant	46
B. NON-GAZETTED		139	
TOTAL (A+B)		144	

VII	OTHERS		
	1	Principal Scientist	1
	2	Pr. Research Officer	1
	3	Sr. Scientific Officer	1
	4	Assistant Scientific Officer	1
	5	O.S.D.	1
	6	Divisional Engineer (Civil)	1
	7	Assistant Engineer (Civil)	3
	8	Assistant Engineer (Env.)	1
	9	Junior Technical Officer	3
	A. GAZETTED		13
	9	Senior Technical Assistant	NIL
	10	Cartographer	1
	11	Surveyor	NIL
	12	Assistant Surveyor	2
	13	Draftsmen	2
	14	Tracer	1
	15	Junior Engineer (Civil)	NIL
	16	Tally Clerk	1
	17	Sub Inspector Wireless	1
	18	Inspector	NIL
	19	Junior Lab Assistant	1
	20	Bearer	1
	21	Chowkidar	110
	22	Cook	2
	23	Office Attendant	106
	24	Mali	179
	25	Driver	70
	26	Pipe-Fitter	1
	27	Watcher	2
28	Supervisor	12	
29	Zoo Keeper	16	
B. NON-GAZETTED		508	
TOTAL (Other A+B)		470	

STENOGRAPHER SERVICE			
VIII	1	Principal Private Secretary	NIL
	2	Senior Private Secretary	1
	3	Private Secretary	3
	A. GAZETTED		4
	4	Stenographer G- I & G- III	2
	B. NON-GAZETTED		2
	TOTAL (A+B)		6

(A) ABSTRACT (REGULAR):		
SL NO	PARTICULAR	IN POSITION
1	Total Gazetted Officer	148
2	Total Non-Gazetted Employees	1307
3	Grand Total- (A)	1455
(B) ABSTRACT (TEMPORARY EMPLOYEE):		
SL NO	TYPES OF SERVICE	NO. OF EMPLOYEES
1	ADHOC	16
2	CONSOLIDATED	12
3	CONTRACTUAL	71
4	CONTRACT	58
5	MUSTER ROLL	695
6	89 DAYS	13
7	WORK-CHARGED	9
TOTAL (B)		874
TOTAL (A+B)		2329

Chapter - 5

STATEMENT OF REVENUES REALISED DURING TWELVE YEARS

(Rs.in lakhs)

Sl.No.	Financial Year	Estimated (in lakhs)	Realised (in lakhs)	Percentage	Remarks
1	2006-2007	800.00	802.00	100.25	Excess 0.25%
2	2007-2008	700.50	800.26	114.24	Excess 14.24%
3	2008-2009	800.00	848.09	106.01	Excess 6.01%
4	2009-2010	1000.00	879.00	87.90	Shortfall 12.1%
5	2010-2011	1100.00	1115.17	101.37	Excess 1.37%
6	2011-2012	1100.00	1253.05	113.90	Excess 13.90%
7	2012-2013	1348.00	919.98	68.25	Shortfall 32 %
8	2013-2014	1450.00	1066.68	73.56	Shortfall 26.44%
9	2014-2015	1115.35	933.74	83.72	Shortfall 16.25%
10	2015-2016	1206.00	1246.56	103.36	Excess 3.36%
11	2016-2017	1206.00	1357.00	113	Excess 13%
12	2017-2018	1359.00	1420.82	105	Excess 5%

STATEMENT OF EXPENDITURE – 2017-18.

(Rs.in lakhs)

SECTOR	ACTUAL EXPENDITURE					
	PLAN	CSS	FCA	NEC	ANY OTHER	NON-PLAN
SOIL AND WATER CONSERVATION	579.92	140.00	-	-	-	-
FORESTRY & WILDLIFE	7421.28	542.36	-	-	-	-
ECOLOGY & ENVIRONMENT	68.12	93.83	-	-	-	-
TOTAL -	8069.32	776.19	-	-	-	-

Chapter-6

FOREST FIRE:**(A) Forest Fire Cases since 2002-2017.**

Calendar Year (Jan –Dec)	Number of fire incidents in forest area	Forest area affected by fire (in ha.)	Estimated Loss		Casualties		
			Loss of Timber				
	Total	Total	Volume in cu.mt.	Value in lakhs	Human Life	Cattle	Wildlife
2002	32	170	2.00	1.00	Nil	Nil	Nil
2003	23	122	2.00	1.00	„	„	„
2004	21	118	2.00	1.00	„	„	„
2005	42	362	3.00	1.50	„	„	2
2006	58	408	3.00	1.50	„	„	2
2007	31	100	1.00	0.50	„	„	Nil
2008	42	328	2.00	1.00	„	„	„
2009	300	1303	20.00	3.50		4	4
2010	34	133	25 no of Chewri bushes	1600 Rhizomos	-	-	-
2011	64	523.60					
2012	21	21	96.5 ha.	4	-	-	Habitat Damaged
2013	74	272.30	Approx. 5000 saplings, Tree-350, Rhododendron- 300 approx. & Ground bushes.		-	-	Habitat Damaged
2014	80	881	-	-	-	-	-
2015	103	502	-	-	-	-	-
2016	54	307.3	-	-	-	-	-
2017	62	328.71	-	-	-	-	-

(B) District wise Forest Fire Cases.

District	Year	No. of Incidents	Area damaged (Ha.)
South	Jan to Dec,2017	6	17.5
West		9	32.5
East		43	259.71
North		4	19
TOTAL		62	328.71

(C) Details of approved sites for collection of lose boulders, stone and sand through open tender.

Sl.No.	Year	District	No. of sites	Total area (in sq.ft)
1	2017-2018	North	18	297100
2		South	36	1312600
3		East	90	153240
4		West	26	386894
Total-				170

Chapter-7

Nurseries under Forest, Env. & Wildlife Management Department.

Sl.No.	District	Name of Nursery	Name of Division	No. of Nursery	Area in Ha.
1	2	3	4	5	6
High Altitude					
1	West	i) Noonthalay	Wildlife	1	1
2		ii) Tersey		1	1
		Sub Total		2	2
3	North	i) Lachen	Territorial	1	0.5
4		ii) Lachung		1	0.5
		Sub Total		2	1
5	East	Kyongnosla Herbal	NTFP	1	1
6	North	Thangu RET		1	1
		Sub Total		2	2
7	East	Kyongnosla	EPC	1	0.6
		Sub Total:		1	0.6
Grand Total :				7	5.6

Sl.No.	District	Name of Nursery	Name of Division	No. of Nursery	Area in (Ha.)
1	2	3	4	5	6
Low Altitude					
1	East	Gurdum	WL	1	0.65
2		Rakshey		1	1.00
3		Likchu		1	0.50
		Sub total:		3	2.15
		TOTAL (LA) WILDLIFE		3	2.15
4	North	Bhop	Env.& SC	1	1.50
5		Phidang		1	1.00
6		Gnon Samdong		1	1.00
		Sub total:		3	3.50
7	West	Gyalshing	Env. & SC	1	2.00
8		Sumphu		1	1.20
9		Begha		1	1.00
		Sub total:		3	4.20
10	East	Burung	Env. & SC	1	1.00
11		Dhanbari		1	2.50
12		Parakha		1	0.30
13		Chewribotey		1	0.20
14		Dipudara		1	1.00
15		Rongli		1	1.00
16		Lagyap		1	0.5
17		Jitlang		1	0.5

Sub total:				8	7.00
18	South	Mangba-Samatar	Env. & SC	1	1.00
19		Passi & Mamring		1	0.70
Sub-total:				2	1.70
TOTAL (LA) ENV. & SC.				16	16.40

20	East	Karthok	Territorial	1	1.00
21		Sangchem		1	2.00
22		Bagey Khola		1	1.60
23		Baluwakhani		1	0.50
24		Pangthang		1	0.50
25		Lingdum		1	1.00
Sub total:				6	6.60
26	West	Yuksom	Territorial	1	1.00
27		Gyalshing		1	0.50
28		Ridge Park		1	2.00
29		Buriakhop		1	1.20
30		Okhrey		1	0.50
31		Tikpur		1	1.50
32		Hee Kyongbari		1	1.00
33		Phedimbotay		1	1.00
Sub total:				8	8.70
34	North	Pakshep	Territorial	1	2.00
35		Tingchim		1	1.00
36		Heegyathang		1	2.00
37		Lingdong		1	2.00
38		Phodong		1	0.40
39		Rafom		1	0.50
40		Mensithang		1	2.50
41		Kabi		1	1.00
42		Chawang		1	0.60
43		Mangan		1	
44		Dzongu		1	
Sub total:				11	12.00
45	South	Dorongpani	Territorial	1	1.80
46		Melli		1	2.00
47		Baguwa 10th Mile		1	2.00
48		Public Garden Rock Garden nursery (Chamgoan Park) (LA)		1	2.00
49		Ravong Dew		1	0.40
50		Ralong Deorali		1	1.40
51		Kamdaley		1	2.40
52		Bhanzyang		1	1.00
53		Chisopani		1	1.20
Sub total:				9	14.20
TOTAL (LA) TERRITORIAL				34	41.50

Sl.No.	District	Name of Nursery	Name of Division	No. of Nursery	Area in (Ha.)
1	2	3	4	5	6
54	East	Lagyap Nursery	Social Forestry	1	2.60
55		B-II Nursery		1	2.00
56		Assam-Lingzey		1	1.20
57		Burtuk Nursery		1	1.00
58		Gaidhara		1	2.00
59		Salingay Bagey		1	1.00
Sub total:				6	9.80
60	North	Namprikdang	Social Forestry	1	1.00
61		Dikchu Laborbotey		1	1.00
Sub total:				2	2.00
TOTAL (LA) SOCIAL FORESTRY				8	11.80
62	West	Okhrey	SBFP	1	1.50
63		Kaluk		1	1.00
64		Tikjuk		1	1.00
65		Daramdin		1	1.00
66		Sherethang		1	1.00
Sub total:				5	5.50
67	South	Rayong	SBFP	1	1.00
68		Mamring Nursery		1	1.00
69		Sagbari		1	1.00
Sub total:				3	3.00
70	East	Pangthang	SBFP	1	2.00
Sub total:				1	2.00
71	North	Namprikdang Nursery	SBFP	1	1.00
72		Butterfly Park Nursery Rangrang		1	0.50
Sub total:				2	1.50
TOTAL (LA) SBFP				11	12.00

Sl.No.	District	Name of Nursery	Name of Division	No. of Nursery	Area in (Ha.)
1	2	3	4	5	6
73	South	Mamring	NTFP	1	1.00
Sub total:				1	1.00
74	West	Sipsu	NTFP	1	1.00
Sub total:				1	1.00
75	East	Pangthang TSP Nursery	NTFP	1	1.00
76		Rorathang Amla Nursery		1	1.00
Sub total:				2	2.00
77	North	Namsing TSP Nursery	NTFP	1	1.00
78		Tingda Amla		1	1.00
Sub total:				2	2.00
79	South	Bharikhola Nursery	Silviculture	1	1.50
Sub total:				1	1.50
TOTAL (LA) SILVICULTURE				1	1.50
80	East	Pinetum Nursery/Forest Colony	EPC	1	0.40
Sub total:				1	0.40
TOTAL (LA) EPC				1	0.40
81	North	Mensithang	KNP	1	1.00
Sub total:				1	1.00
TOTAL (LA) KNP				1	1.00
82	East	Bulbulay Nursery	FCA	1	2.00
Sub total:				1	2.00
TOTAL(LA)				82	94.75
TOTAL (HA)-				07	5.60
GRAND TOTAL:-				89	100.35

Chapter-8

FOREST CHECK POSTS:

SL.NO.	NAME OF CHECK POSTS.	DISTRICT:
01	Ranipool	East
02	Bojoghari	East
03	Chandmari	East
04	Sichey	East
05	Rhenock	East
06	Reshi	East
07	Pakyong	East
08	Singtam	East
09	32 No.	East
10	Rangpo	East
11	Dipu Dara Khamdong	East
12	Sirwani	East
13	Mamring	South
14	Manpur	South
15	Tarku	South
16	Melli	South
17	Jorethang	South
18	Namchi	South
19	Kabi	North
20	Chungthang	North
21	Dikchu	North
22	Legship	West
23	Dentam	West
24	Soreng	West
25	Okharay	West
26	Nayabazar	West
27	Gyalshing	West

**Total Number of Rest Houses under Forest, Env. & Wildlife Management
Department as on 31.03.2018**

SL NO	DISTRCT	LOCATION/PLACE
1.	EAST	1. Rhenock
		2. Phadamchen
		3. Fambonglho
		4. Tumin
2	WEST	1. Dentam
		2. Hilley
		3. Sombaria
		4. Yuksom
		5. Rinchenpong
		6. Naya Bazar
		7. Hee Bermiok
3	NORTH	1. Namprikdang, Lower Dzongu
		2. Hee- Gyathang, Lower Dzongu
		3. Thangu
		4. Tingbong, Upper Dzongu
		5. Lachung
4	SOUTH	1. Ravangla
		2. Namchi
		3. Phurchachu
		4. Melli
TOTAL		20 Nos

Chapter-9

TOTAL NUMBERS OF GOVERNMENT VEHICLE UNDER FEWMD AS ON 31.03.2018

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
1	Fortuner	SK-01G-0018	Shri Tshering Wangdi Lepcha, Forest Minister
2	Scorpio	SK-01G-0071	Shri Y.K Naygi, Chairman, SLUB
3	Tata Strome	SK-01G-2527	Shri Lakpa Ghishing, Chairman, SPCB
4	HEXA	SK-01G-0060	Shri Thomas Chandy, IFS Principal Secretary- Commerce & Industries
5	Scorpio	SK-01G-0074	Shri S. B. S Bhaduria, Secretary, SNT
6	TATA HEXA	Sk 01 G 0070	Shri C.S. Rao, IFS, APCCF
7	Scorpio	SK-01G-1270	Shri B.P Pradhan, CCF, Social Forestry
8	Tata Safari Strome	SK-01G-2764	Shri Y.P Gurung, IFS, CF (FCA)
9	Bolero	SK-01G-2269	Shri B.S.Siktel, IFS, CF, Joint Director, KNP/KBR/HZP
10	Scorpio	SK-01G- 2786	Shri. N.W. Tamang, IFS, CF (T)
11	Bolero	SK-01G-2557	Shri D.C Nepal, CF, Working Plan
12	Bolero	SK-01G-2780	Shri Karma Legshey D., IFS, APD-I, SBFP
13	Bolero	SK-01G-1289	Shri Udai Gurung, IFS, APD-II, SBFP
14	Bolero	SK-01G-2792	Shri S.K Thatal, Addl. Director, Sericulture
15	Bolero	SK-01G-1262	Shri B.B Gurung, Additional Director (E&SC/Plg)
16	Bolero	SK-01G-1253	Shri N. Jaswant IFS, Joint Secretary Tourism
17	Bolero	SK-01G-1269	Shri Ravi Kumar, IFS DFO
18	Bolero	SK-02G-0333	Shri Sunil Kumar, IFS DFO (T) West
19	Bolero	SK-01G-0755	Shri Deepak Pradhan, Director (Accounts)
20	Scorpio	SK 01 G 2767	Shri Gopal Pradhan, Pr. Scientist(SPCB)
21	Bolero	Sk 01 G 0691	Shri Norbu Dadul Bhutia, Addl. Director, Accounts

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
22	Bolero	SK-01G-2782	Mrs. Sonam Choden Bhutia, Additional Director, Silviculture (Add Charge of Sericulture)
23	Bolero SLX	SK-01G-1272	Mrs. Radha Koirala, Joint Secretary, Administrative Section
24	Bolero	SK-01G-1265	Mrs. Rajni Bhandari, Jt. Director, Utilization/Parks & Garden and TA to PCCF
25	Bolero	SK-01 G-2973	Mr. Sangay Gyatso Bhutia, Joint Director, KNP/KBR & HZP
26	Bolero	SK-01G-1266	Shri. Dazom Lachungpa, Joint Director (E&SC)
27	Bolero	Sk 01 G 1242	Shri. Jeewan Pradhan, Vigilance Officer
28	Wagnor	SK-01G-2525	Smt. Pamin Lepcha, CAO,(A/Sec) HQ
29	Bolero	SK 01 G- 0836	Ms. Tshering Denka Bhutia, DFO(WL) South
30	Bolero	SK-01G-1285	Ms. Yangchen Bhutia,DFO (NTFP N/E)
31	Bolero	SK 01 G-2784	Ms. Tshering Pintso Bhutia, DFO, SBFP
32	Bolero	SK-01G-1278	Mrs. Merab Basnett, DFO (NTFP, East)
33	Bolero	SK-01G-0151	Shri Nischal Gautam, DFO (T) East
34	Bolero	SK-01G-1268	Ms. Bhumika Rai, DFO , Working Plan
35	Bolero	SK-02 G-0229	Ms. Sonam Norden Bhutia, DFO, Adm &PIng, SBFP
36	Bolero	SK-01G-0696	Shri N.P Gautam, DFO (E & SC) East
37	Bolero	SK-01G-1257	Shri Sudhir Gurung, DFO SF (West)
38	Bolero	SK-01G-1256	Shri Karma Choden Bhutia, DFO, Wildlife,North
39	Bolero	SK-01G-1271	Shri Sanula Bhutia, DFO (KNP/KBR)

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
40	Bolero	SK-01G-1207	Ms. Arati Basnet, DFO., Territorial, South
41	Bolero	SK-01G-1258	Ms. Dechen Lachungpa, DFO (W/L) East
42	Bolero	SK-01G-1274	Shri C.P.Sharma, DFO, store
43	Bolero	SK-01G-2797	Shri Sugen M. Saring, DFO (T) North
44	Marshal	SK-01G-0752	Under custody of Mr. Palzor Ongda, DFO, Namchi
45	Bolero	SK-01G-1282	Mrs. Urmila Thapa, DFO, Silviculture
46	Bolero	SK-01G-1208	Ms. Shewani Pradhan, DFO, HZP, Gangtok
47	Bolero	SK-01G-1283	Shri Blen Tshering Targain, DFO, FCA
48	Bolero	SK-01G-1228	Shri. Sonam Pintso Bhutia, DFO, Parks & Garden
49	Bolero	SK-01G-1260	Ms. Smita Shilal, DFO , Sericulture, HQ
50	Bolero	SK-01G-1218	Ms. Peggyla Tshering Venchungpa, DFO(T),Namchi
51	Bolero	SK-01G-1219	Ms. Angel Ongmu Chettri, DFO (Adm/SC) SBFP
52	Bolero SLE	SK-01G-1277	Ms. Dichen Namdul, DFO, Utilization, Gangtok
53	Bolero SLE	SK-01G-1280	Shri. Jigme Tsewang Sharngoe, DFO, Survey & Demarcation
54	Bolero	SK-01G-2784	Shri Tshering Pintso, DFO, JFM & Planning SBFP
55	Bolero	SK-01G-2779	Shri Moti Chand Pradhan, Divisional Engineer, SBFP
56	Bolero SLX	SK-03G-0196	Verbally attached to Shri James S. Lepcha, DFO
57	Bolero	SK-01G-1201	Shri N.T Bhutia, DFO (S/F) North Division)
58	Bolero SLE	SK-04G-0327	Ms. Srijana Chettri, DFO, (S/F), East
59	Bolero	SK-01G-1279	Shri Hem Bahadur Rai, DFO (RVP)

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
60	Bolero	SK-01G-1273	Verbally Attached to Shri Tenzing Norbu Bhutia, DFO, IWMP, North
61	Bolero	SK-01G-0174	Shri K.B.Basnett, DFO, Social Forestry, HQ
62	Bolero	SK 01G-1215	Ms. Marmit Lepcha, SFS, DFO, Social Forestry (South)
63	Bolero	SK-01G-2777	Smt. Kusum Gurung, SFS, DFO (BC) SBFP
64	Bolero	SK-01G-1281	Ms. Nisha Subba, DFO (Wildlife) West
65	Mahindra KUV-100	SK 1/TR/2018/2416	Shri. S. K Lama, Sr. Accounts Officer(HQ)
66	Bolero	SK-04G-0348	Shri Palzor Ongda Bhutia, DFO (T) South Division Office
67	Bolero	SK-01G-1276	Shri Pempa Tshering Bhutia, ACF, Fambonglho, East
68	Bolero	SK-01G-0777	Shri Bijoy Upreti, ACF (FCA) & Surekha Mukhia, Under Secretary
69	Bolero	SK-02G-0246	Temporarily Allotted to Shri Gajendra Gurung, ACF, E&SC with Addl. Charge of W/L ACF
70	Bolero	SK-03G-0185	Shri Karma Gelay Lachungpa, ACF, Wildlife (North)
71	Bolero	SK-02G-0228	Shri Tenzing Norbu Bhutia, ACF (T) Gyalshing
72	Bolero	SK-03G-0222	Shri C.C Lachungpa, ACF (T), Chungthang
73	Bolero	SK-02G-0255	Shri Satish Chandra Basistha, ACF (T) Soreng
74	Bolero SLE	SK-03G-0215	Shri S.T Lachungpa, ACF (KNP,North)
75	Bolero	SK-01G-0186	Shri Norzang Lachenpa, ACF (NTFP, North)
76	Bolero	SK-01G-0220	Mr. Zigdal Lachenpa, ACF,E&SC, East
77	Bolero	SK-01G-1259	Shri Sonam Ongdi Bhutia, ACF (E&SC) Mangan, North

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
78	Bolero	SK-01G-1261	Shri R.P Rai, Assistant Director, Sericulture & Shri T.T Bhutia, ACF, Sericulture (on pool basis)
79	MARUTI CAR	SK-01G-1128	Shri Barun Kumar Rai, ACF, Store
80	Bolero	SK-01G-0820	Shri Samdup Goley Bhutia, ACF, Dzongu
81	Bolero	SK-01G-0178	Shri Norden Lepcha, ACF, Kabi Lungchuk BAC, North Sikkim
82	Bolero	SK-01G-1267	Mrs. Kunzang Bhutia, Asst. Scientific Officer(SPCB)
83	Bolero	SK_01G-1229	Mr. B. K Chettri, Sr. Scientific Officer(SPCB)
84	Bolero	Sk 01 G 1227	Shri Chewang Tashi Bhutia, ACF, Research & Extension
85	Bolero	SK-01G-1288	Shri.T.T Bhutia(ACF)HZP
86	Bolero	SK-02 G-0197	Shri Nar Bahadur Chettri, ACF, E&SC, Ravangla
87	Bolero	SK-01G-1222	Shri Sunil Kumar Bagdas, Assistant Engineer, North-East, SBFP
88	Bolero	SK-02G-0275	Mr. Joshep Lepcha, ACF, KNP/KBR, West
89	Bolero SLE	SK-03G-0211	Shri Pempa D. Lachenpa, ACF (T) Mangan
90	Bolero	SK-04G-0329	Shri Sherap Dadul Sangdarpa, ACF (T) Ravangla
91	Bolero	SK 01 G 0699	Shri Tseten W. Lachungpa, ACF (T) Dzongu
92	Bolero Camper	SK-01D-2004	Patrolling Van (East wildlife Division)Fambonglho
93	Bolero	SK-01G-1248	Shri. Ramesh Chettri, A.E , SBFP
94	Bolero	SK-01G-1217	Shri N.K Pradhan, Finance Officer, SBFP
95	Bolero	SK-01G-1234	Shri S. B Subba, ACF, E&SC, East

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
96	Bolero	SK-01G-0275	Ms Sonam Norden Bhutia, ACF, KNP/KBR Yuksom
97	Bolero	SK-01G-2010	ACF, NTFP, North/South
98	Bolero	SK-04G-0326	Shri Tseten Tashi Lepcha, ACF (T) Namchi
99	Bolero	SK-01G-0825	Shri Tek Bahadur Chettri, ACF (Env. & Soil Conservation) Gyalshing West Division
100	Bolero SLX	SK-01G-1216	Shri K.B Ghaley, ACF, (Survey & Demarcation)
101	Bolero	SK-04G-0328	Shri Tilak Mukhia, ACF (Kitam Bird Sanctuary)
102	Bolero	SK-01G-0832	Shri Arun Kumar Gurung, ACF Parks & Gardens
103	Bolero	SK-01G-1214	Shri Budhilal Bhattra, ACF, Utilization
104	Bolero	SK-01G-1250	Shri C.B Chettri, ACF-cum-PIA, IWMP East
105	Bolero	SK-01G-1275	Shri B.S Tamang, ACF (T) Rongli
106	Bolero	SK-01G-0540	Mrs. Hema Devi Sharma, Under Secretary, Administrative Section
107	Bolero	SK-01G-1249	Mrs. Manu Hangma Subba, Deputy Director (Plng. & Sts.)
108	Bolero	SK-01G-1252	Mr. Ranjan Rai, Asstt. Environment Engineer
109	Bolero	SK-01G-0225	ACF (T) Soreng
110	Utility Van	SK-04G-0374	Namthang (T) Range South
111	Scorpio	SK-01-G1254	FCA Monitoring Team
112	Marshal	SK-01G-0752	Shri Sherap D. Sangdarpa, ACF, E&SC, Namchi
113	Ambassador Car	SK-01G-0792	Ms. Hem Kumari Pradhan, Assistant Director (Planning & Sts)
114	Bolero	Sk 01 G 1210	Shri Tashi Tsewang Bhutia, ACF, NTFP (West)
115	Bolero Camper	SK-02G-0197	Range Officer (T) Gyalshing

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
116	Bolero	SK-01G-2551	Shri T.B Subba, ACF-cum-Estate Manager, Silviculture/ Sericulture
117	Wagnor	SK 01 G 2952	Legal Cell, Monitoring Team
118	Wagnor	SK 01 G 2954	Ms Sarita Subba, Sr. PS and Ms. Nindey Kazi, PS (on pool basis)
119	Wagon- R	SK 01 G 2953	Ms. Dawa Doma Bhutia, PS and Ms. Thingley Ongmu Bhutia, PS (on pool basis)
120	Scorpio	SK-01G-1235	PS & CA to HM/FEWMD
121	Utility Van	SK 01 D 3692	Under Sericulture Division
122	Thar	SK-01G-2798	Range Office (T) Gangtok
123	Thar	SK-01G-2796	Range Office (T) Kyongnosla
124	Thar	SK-01G-2807	Range Office (T) Rongli
125	Thar	SK-01G-2795	Range Office (T) Ranipool
126	Thar	SK/TR/149	Range Office (T) Gyalshing
127	Thar	SK/TR/150	Range Office (T) Namchi
128	Thar	SK/TR/153	Range Office (T) Sombaria
129	Thar	SK-03G-0316	Range Office (T) Mangan
130	Thar	SK-03G-0315	Range Office (T) Phodong
131	Thar	SK-03G-0277	R.O (T) Lachen
132	Thar	SK/TR/147	Range Office (T) Ravangla
133	Thar	SK/TR/144	Range Office (W/L) Maenam WLS
134	Thar	SK/G/2801	Range Office (W/L) Fambonglho WLS
135	Thar	SK-02G-0266	R.O (T) Soreng
136	Bolero	SK-04G-0374	R.O (T) Namthang
137	Thar	SK-04G-0367	R.O (T) Melli
138	Motor Bike	SK-01G-1099	Under SBFP
139	Motor Bike	SK-01G-2100	Under SBFP
140	Motor Bike	SK-01G-2140	Under SBFP
141	Motor Bike	SK-01G-2758	under SPCB
142	Motor Bike	SK-01G-2759	under SPCB
143	Motor Bike	SK-01G-1039	Shri Sonam Dadul Tamang, Range Officer, FWLS
144	Pulsar Bike	SK-07-TR-8165	Shri. John Rai, B.O (T) Melli, Melli Range
145	Pulsar Bike	SK-01/G/0250	Shri Binod Chettri, BO (T) Soreng , West
146	Bajaj Bike	SK-01/G/1089	Shri Padam Bdr. Chettri , BO, Sericulture , West

SL NO	Type of Vehicle	Vehicle Registration Number	Name & Designation of Officer attached with
147	Motor Bike	SK-01G-2560	BO (T) Kyongnosla
148	Bolero Camper	A/F	Block Officer (T) Nayabazar
149	Pulsar Bike	SK-07-ATR-0271	Shri. Nirmal Tamang, FG and Chiranjive Gautam, FG, Namchi Range
150	Pulsar Bike	SK-04-G 0354	Shri. Suraj Limboo, FG , Namchi Range
151	Pulsar Bike	SK-04G-0353	Shri. Roshan Rai, FG, Ravangla Range
152	Pulsar Bike	SK-07 ATR-0281	Shri Anil Pradhan, FG, Mamring , Namthang Range
153	Bolero Camper	SK/TR/5275	North Wildlife Division
154	Marshal	SK-01G-0574	Ranipool (T) Range
155	Bolero Camper	SK-01D-0753	Utilization Circle
156	Bolero	SK 01 D 1397	HZP, Bulbuley
157	Bolero	SK-02G-0183	Under Range Office Dentam
158	Bolero Camper	SK-04G-0205	Namchi Range
159	Thar	SK-01G-1284	Singtam (T) Range
160	Bolero Camper	SK-01 G- 8567	Territorial Range
161	Bolero Camper	SK-01G-1247	under East (T) Division
162	Bolero Camper	SK-01G-2601	Shingba Range
163	Bolero Camper	SK-01G-1286	Phademchen Rongli (T) Range
164	Bolero	SK-01D-0119	Utilization Circle
165	Marshal	SK 01G- 0890	Mr.Bhuwan Pradhan, Jr. Tech. Officer, (WP)
166	Gypsy	SK-01-G-1206	Mr. G.B. Chettri, Jr.Tech.Officer(WP)

Chapter- 10

State Domestic Product (SDP) during 2017-2018.

(Rs. In lakhs)

Sl.No.	Items	North		East		South	
		Quantity	Value	Quantity	Value	Quantity	Value
01	Sand	713969	7.50	110050	1.15	4753638	49.91
02	Stone	2439800.22	21.96	4201000	37.81	2489864	22.41
03	Stone Chips	772734.72	13.91	7609100	136.96	2788451	50.19

Sl.No.	Items	West		Total	
		Quantity	Value	Quantity	Value
01	Sand	1273395.23	13.37	6851052.23	71.93
02	Stone	2180170	19.62	11310834.22	101.80
03	Stone Chips	514253.89	9.26	11684539.61	210.32

Sl.no.	Silk Cocoon	Quantity	Value
01	Mulbery (in kgs)	400	0.90
02	Eri (in kgs)	161	0.34
03	Muga (in kgs)	3609	0.036

Sl.no.	Item	Quantity	Value
01	Industrial Wood (in cft)	7047.15	26.83
02	Fire Wood (in piles)	153.53	1.21
03	Charcoal	-	-

FORESTRY AND WILDLIFE

Chapter- 11

(A) FORESTRY:

Twenty Point Programme:
TARGET AND ACHIEVEMENT UNDER 20 POINT PROGRAMME

52 a – Area covered under plantation					52 b- Seedling planted		
Sl.No	Year	Target	Achievement	% Ach.	Target	Achievement	% Ach.
			(ha)				
1	2	3	4	5	6	7	8
1	1971-80		7463			6.59	
2	1980-95		37658.32			60.79	
3	1995-96		7189.5			11.99	
4	1996-97		7500			12.5	
5	1997-98		6356.56			13.05	
6	1998-90		7537			2.5	
7	1999-2000		6923			20.91	
8	2000-01		8048			15.15	
9	2001-02	12000	6217	51.81	22	12.42	56.45
10	2002-03	7500	3696	49.28	22	14.73	66.95
11	2003-04	7500	6125.19	81.67	22	8.66	39.36
12	2004-05	8000	6191	77.39	22	10.32	46.91
13	2005-06	12000	8012.87	66.77	15	6.13	40.86
14	2006-07	15000	3550.26	23.66	15	9.75	65
15	2007-08*	12000	3456.73	28.8	*78	30.84	39.54
16	2008-09	12000	3862.37	32.2	78	23.04	29.55
17	2009-10	25000	8006.85	32.02	162.5	48.61	29.54
18	2010-11	5000	2734.07	54.68	32.5	55.68	105.6
19	2011-12	6000	7454.76	124	39	50.33	129.06%
20	2012-13	7450	9019.23	121.06	48	60.27	125.57
21	2013-14	6160	4805.00	78.00	40.04	31.92	79.72
22	2014-15	6160	4095.30	66.48	40.04	23.07	57.62
23	2015-16	4810	1324.76	27.54	31.27	16.30	52.14
24	2016-17	4095	3376.47	82	26.62	22.98	86
25	2017-18	3410	364.70	11	22.17	2.36	10.64

Chapter-12

Green Initiatives:

(a) State Green Mission

The Government of Sikkim launched a unique and innovative programme called “State Green Mission” with a view to raise avenue plantations along the roads and beautification of all vacant and waste lands to further reinforce spread recognition of Sikkim being a Green State. The State Government has taken initiative to generate avenue plantation in massive scale by using all the manpower in various departments in the Government and other nature lovers from the Government and Non-Governmental Organisations including different Eco-clubs and Self Help Groups. Accordingly, the Government issued a notification vide no 15/Home/06 dated 24/2/2006 in this regard.

No.of seedling planted during State Green Mission during 2016-17 & 2017-2018.

Phase	Year	Districts.				Year-wise total
		East	West	North	South	
1	2016-2017	205950	67413	235360	110624	619347
2	2017-2018	15927	26378	128126	43060	213491

(b) **Ten Minutes to Earth:**

Ten Minutes to Earth which falls on 25th day of June every year is observed by every citizen of the State as an annual ritual by dedicating ten minutes of their time in plantation, protection and conservation of Mother Earth.

Phase	Year	Districts.				Year-wise total
		East	West	North	South	
1	2016	65000	6628	4560	16590	92778
2	2017	3638	1412	12284	3900	21234



(c) **Parvavaran Mahotsav -2017.**

To commemorate the 2017 event, various activities as under were carried out throughout the State.

- Flag off ceremony of district headquarters, free distribution of seedling and garbage bags for vehicles.
- Massive plantation drives under the State's flagship programmes viz. Smritivans, State Green Mission (12th phase) and Ten Minutes to Earth (9th phase) on June 25.
- Cleanliness drives at major town to contemplate Swachh Bharat Abhiyan.
- Green walk, rally, banner campaign, street plays.
- Signature campaign on green pledges.
- Eco-competitions at schools, Awareness campaign at local level.
- Environment lectures on Low Carbon Lifestyles, wildlife and biodiversity conservation etc at various schools and colleges in the State.

Forest, Environment & Wildlife Management Department in active coordination with other government department, NGOs, urban and local bodies, panchayats, students and local public at large planted 234725 saplings across the State during the fortnight from June 15 to June 30. Free distribution of seedlings of various species was carried out in an extensive manner by setting up of booths across the State.

Seedlings planted on Parvavaran Mahotsav 2017.

Sl.No.	District	State Green Mission (12 th phase)	Ten Minutes to Earth (9 th phase)	Total
01	North	1,28,126	12,284	1,40,410
02	East	15,927	3,638	19,565
03	West	26,378	1,412	27,790
04	South	43,060	3,900	46,960
Total -		2,13,491	21,234	2,34,725



Chapter - 13

National Afforestation Programme (NAP):

The Government has adopted the participatory approach to forest protection, management and development. It has taken up formation of Joint Forest Management Committees (JFMCs) / Eco-Development Committees (EDCs) at village level which comprises of all the villagers who wish to participate in the forest management, development and protection, functions of the forest that are located in the vicinity of their villages. So far 162 JFMCs have been registered all over the State. At the district level all the JFMCs have together been formed into a confederation called the Forest Development Agency (FDA). The JFMCs have been entrusted with the task of afforestation and protection of the natural resources of their respective areas and they are implementing the National Afforestation Programme (NAP) through 9 FDAs under Territorial, Wildlife and KNP/KBR Circles.

Year wise expenditure under State Forest Development Agency, Sikkim (SFDA).

Sl.No.	Year	East Sikkim FDA	North Sikkim FDA	West Sikkim FDA	South Sikkim FDA
01	2002-03	43.98	2.27	4.23	15.86
02	2003-04	78.94	82.33	65.9	61.72
03	2004-05	163.91	138.76	172.33	131.68
04	2005-06	384.37	98.45	112.54	69.35
05	2006-07	107.03	72.91	98.14	49.76
06	2007-08	96.79	125	98.91	188.66
07	2008-09	161.59	39.16	87.78	64.97
08	2009-10	78.21	154.69	95.18	124.96
09	2010-11	196.19	230.35	127.77	144.01
10	2011-12	115.39	168.66	103.19	118.48
11	2012-13	88.71	103.73	59.76	61.65
12	2013-14	54.14	74.05	39.98	38.06
13	2014-15	82.70	108.06	60.06	67.16
14	2015-16	29.69	37.18	20.89	23.76
15	2016-17	32.83	40.35	24.04	26.92
16	2017-18	46.44	68.58	48.62	35.89

LIST OF JOINT FOREST MANAGEMENT COMMITTEES (JFMCs)**NORTH DIVISION:**

Sl. No.	Name of Range	Name of JFMC
I.	Mangan Range	1.Toong Naga
		2.Meyong-Manual
		3.Singchit
		4.Singhik-Sentam
		5. Pakshep Kazor
		6. Upper Singhik
		7. Kalow-Nampatam
		8. Tingchim-Chanday
		9. Mangshilla
		10. Namok-Swayem
II.	Phodong Range	1. Kabi Rongpa
		2.Linchom-Tingda
		3.Labi-Bakcha
		4.Men-Rongong
		5. Phamtam
		6. Upper Chawang
		7. Lower Chawang
		8. Labrang
		9. Upper Rongong
		10,Ramthang-Tanek
III.	Dzongu Range	1.Lingdong-Burfok
		2.Hee-Gyathang
		3.Gnon-Sangdong
		4.Lingthem
		5.Lingdem
		6.Laven
		7.Panon
		8. Lum
		9.Gor-Tareng
		10.Phedang-Sakyong
IV	Chungthang Range	1.Chungthang 2. Bob 3.Choten
V	Lachen Range	1.Thangu 2. Rabom
VI	Lachung Range	1.Sharchok-Dombang 2.Lachung-Singring
	TOTAL-	37 JFMCS

EAST DIVISION:

Sl. No.	Name of Range	Name of JFMC
I.	Ranipool Range	1.Aho
		2.Changey Santi
		3.Assam Gairi Gaon
		4.Bhusuk
		5.Tumlabung
II.	Kyongnosla Range	1.Serathang 2.Lagyep
III.	Rongli Range	1.Kopchey
		2.Rolep(HA)
		3.Lamaten
		4.Subanay Dara
		5.Rongli-chujachen
IV.	Gangtok Range	1.Syari
		2.Rateychu-Shotak
		3.Lower Lingdok
		4.Tumin Shalay
		5. Ralay
		6.Lower Samdong
		7.Lower Kambal
		8.Rakdong Kedangthang
V.	Phademchen Range	1.Lingtam (HA)
VI.	Singtam Range	1.Burdang Singleybong
		2.Central Pandam
		3.Budang Sajong
		4.Lower Martam
		5.Sirwani Chisopani
		6.Chadey
		7.Patuk
VII	Pakyong Range	1. Pakyong-Karthok
		2.Pacheykhani
		3.Pachey-Phirphirey
		4.Amba Taza
		5. U/Namcheybong
		6.East Pandem
		7.Linkey Tareythang
VIII	Barapathing Range	1.Parkha 2. Chochenpheri (HA)
		TOTAL-

SOUTH DIVISION:

Sl. No.	Name of Range	Name of JFMC	Sl. No.	Name of Range	Name of JFMC
I	Namchi Range	1.Sanganath	III	Ravangla Range	1.Borong-Phamtam
		2.Wok Omchu			2.Ralong-Numlung
		3.Tingrithang			3.Rabong-Sangmoo
		4.Damthang			4.Rayong-Tinkitam
		5.Mamlay Kamrang			5.Ben-Namprik
		6. Mikhola Boomtar			6.Legship
		7.Ghurpishey			7.Barfung-Zarrong
		8.Maniram Phalidara			8.Lamaten-Tingmoo
		9.Perbing Dovan			9.Kewzing-Bhakim
		10.Chuba Phong			10.Sattam-Samruk
		11.Temi			11.Sripatam-Gagyong
		12. Tarku	IV	Namthang Range	1.Kateng Pamphok
		13.Namphing			2.Nagi Karek
		14.Berniok Tokal			3.Turung Suminkhore
		15.Poklok Denchung			4.Danak Mamring
		16.Assanthang			5.Namthang Maneydara
		17.Rong Bull			6.Rameng Niz Rameng
II	Melli Range	1.Tangzi-Bikmat	V	Lingmoo Range	1.Payoung
		2.Rateypani			2.Niya-Brum
		3.Mellidara Payong			3.Lingee
		4.Salghari			4.Lingmoo
		5.Turuk	Total-	48 JFMCS.	
		6.Sumbuk Kartikey			
		7.Sorok-Shyampani			
		8.Sadam-Suntaley			
		9.Tinik-Chisopani			
		10.Lungchuk-Kamarey			

WEST DIVISION:

Sl. No.	Name of Range	Name of JFMC	Sl. No.	Name of Range	Name of JFMC
I	Yuksom Range	1.Melli-Aching-Topung	V	Soreng Range	1.Tharpu
		2.Thingling-Khechuperi			2.Soreng
		3.Topsing-Mangsabong			3.Malabassey
		4.Labing-Gerethang			4.Chakung
II	Tashiding Range	1.Tashiding			5.Zoom
III	Gyalshing Range	1.Sindrabong			6.Deythang Maneythang
		2.Rimbi			7.Sangadorji
		3.Nambu			8.Suldung Kamling
		4.Singpheng-Darap			9.Chingthang
		5.Singyang-Chumbung			10.Buriakhop
		6.Sakyong			11.Mabong Segeng
		7.Gyalshing Omchung			12.Khaniserbong
		8.Sardong			13.Tadong-Rinchenpong
		9.Changey Bongten	VI	Sombaria Range	1.Bhareng-Ribdi
		10.Geetang Karmatar Ferek			2.Okharey
IV	Dentam Range	1.Mandybong Sopakha			3.Siktam Tikpur
		2.Sangkhu Radhu Khandu			4.Upper Thambong
		3.Hee-Kyongbari			5.Lower Thambong
		4.Martam			6.Rumbuk Buriakhop
		5.Bermiok Berthang			7.Lungchok-Salangdang
			TOTAL-	40 JFMCS.	

TOTAL JFMC's

Sl.No.	District	Total
01	North	37
02	East	37
03	South	48
04	West	40
Total -		162

Chapter-14

FOREST CONSERVATION (FC) CELL

Forest Conservation (FC) Cell, a separate working unit headed by the Nodal Officer, is dealing the forest land diversion cases with the inception of Forest (Conservation) Act 1980. This is a unique piece of legislation, enacted by the Parliament in the year 1980, and came into force in the State of Sikkim with the subsequent Rules and Guidelines framed by the Govt of India from time to time.

The Govt of India launched the on-line submission of Proposals in the web site portal “On-Line Submission & Monitoring of Forest Clearance Cases” designed by the Ministry of Environment Forests & Climate Change, New Delhi and made it mandatory with effect from 15th August 2014. Accordingly, the proposals are being received through on-line as well as in off-line mode also and processed at each level of authority procedurally, and monitored simultaneously till the forest clearance are granted on case to case basis.

Since 1980, the Act has facilitated various developmental activities like construction of power projects, irrigation project roads, railway lines, school, hospitals, rural electrification, telecommunication, drinking water facilities, mining and others etc in forest lands and checked the indiscriminate diversion of pristine forest areas. The followings are the achievements made by the FC Cell till the year under report:-

2 Achievement under Forest (Conservation) Act, 1980 as on 31-03-2018.

Sl. no.	Item	District Wise				Total
		North	East	South	West	
1	Number of cases approved for diversion	109	162	127	61	459
2	Total forest land diverted (In ha)	892.84	1056.76	525.75	144.88	2620.23
3	Compensatory Afforestation stipulated (In ha)					
	(a) In forest land	2104.27	1671.78	1056.83	258.72	5091.60
	(b) In non-forest land	74.28	0	0	10.28	84.56
	Total (a+b)	2178.55	1671.78	1056.83	269	5176.16
4	Compensatory Afforestation completed (In ha)					
	(a) In forest land	869.31	716.74	498.42	142.24	2226.71
	(b) In non-forest land	0	0		0	0
	Total (a+b)	869.31	716.74	498.42	142.24	2226.71

3. Receipt and utilization of fund under State-CAMPA during 2017-18.

(Rs. in lakhs)

Year	Opening balance	Fund released by Adhoc CAMPA	Interest accrued	Total	Expenditure	Closing balance
2017-18	1421.80	0.00	0.00	1421.80	510.08	911.72

4. Stipulation of Compensatory Afforestation.

(In Ha.)

Sl. no.	Category	North		East		South		West		Total	
		In FL	In NFL	In FL	In NFL	In FL	In NFL	In FL	In NFL	In FL	In NFL
1	Road	1317.24	0.00	536.55	0.00	162.03	0.00	75.00	0.00	2090.82	0.00
2	Defence	476.00	67.00	415.82	0.00	0.00	0.00	0.00	0.00	891.82	67.00
3	Transmission	52.66	0.00	157.98	0.00	412.52	0.00	44.98	2.50	668.14	2.50
4	Irrigation	0.00	0.00	6.50	0.00	0.60	0.00	0.00	0.00	7.10	0.00
5	Drinking Water	0.00	0.00	5.23	0.00	35.35	0.00	27.02	0.00	67.60	0.00
6	Hydel	208.57	2.26	430.30	0.00	358.84	0.00	92.02	7.78	1089.73	10.04
7	Others	48.81	5.01	87.12	0.00	87.37	0.00	19.10	0.00	242.40	5.01
8	Mining	1.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
9	School	0.00	0.00	2.51	0.00	0.12	0.00	0.00	0.00	2.63	0.00
10	Railway	0.00	0.00	23.77	0.00	0.00	0.00	0.00	0.00	23.77	0.00
Total		2104.28	74.28	1671.78	0.00	1056.83	0.00	258.12	10.28	5091.60	84.56

Chapter-15

UTILIZATION CIRCLE:

Outturn of Timber and Fire Wood:

Utilization Circle is the commercial wing of the Department. Extraction of trees posing danger, trees from diverted forest lands, poles from thinning of plantations and conversion into timber, firewood and sale of these forest produce is done through this Circle. The Circle operates two sawmills, at Chuba, East Sikkim and Bharikhola, Jorethang, South Sikkim. The Circle is also engaged in conversion and distribution of Sal timber to REDRH beneficiaries as per the policy decision taken by the Government. In this year, a total of 2840 cft of Sal timber has been distributed free of cost to REDRH beneficiaries.

Detail of extraction and sale of forest produce and import fee during
2017-2018 under Utilization Circle.

(Rs.in lakhs)

Sl.No.	Forest Produce	Production	Value
I	Industrial Wood		
	a)Hard Wood		
	b)Soft Wood	7047.15	26.83
	c)Off cut		
2	Charcoal	-	-
3	Firewood	153.53 pile	1.21
4	Sawing charge	370 cft.	0.20
5	T.P.Charge	-	0.08
6	VAT upto June 2017	-	0.66
7	GST w.e.f. 13/11/2017	-	3.93
II	Import Fees		
	Timber	81120.72	22.14
	License fee	-	0.32
	Bamboo	550	0.39
	Grand Total	-	55.76

Details of Extraction and Sale of Forest Produce for the last twenty-one years.

Year	Timber		Firewood		Charcoal		Total
	Quantity extracted and sold (Cubic feet)	Revenue realized (Rupees)	Quantity extracted and sold (Piles)	Revenue realized (Rupees)	Quantity extracted and sold (Bags)	Revenue realized (Rupees)	Revenue realized (Rupees)
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.	10.28	151.82	0.76	176	0.26	11.30
2004-2005	3852.62 cft.	8.23	169.15	0.85	13	0.21	9.29
2005-2006	3367.52cft	8.14	111.80	0.77	13	0.19	9.1
2006-2007	1876.43cft	2.81	224	1.21	-	-	4.08
2007-2008	1007.53 cft	1.91	90.80	0.56	-	-	2.47
2008-2009	2659.95 cft 354 no of trees 1493 no of ballies	11.01	149.65	0.81	-	-	11.82
2009-2010	1627.98cft 183 nos.trees	8.77	150.5	0.82	-	-	9.59
2010-2011	5966 cft.+ 619 nos.trees	26.90	248.50	1.55	-	-	28.45
2011-2012	5697.41 cft.+111 nos.trees	22.55	271.00	1.64	-	-	24.19
2012-2013	6073.4 cft	21.05	222 piles	1.36	-	-	22.41
2013-2014	9551.52 cft.	28.07	294.50 piles	1.84	-	-	29.91
2014-2015	7139 cft.	24.47	197 piles	1.21	-	-	
2015-2016	6791 cft	21.13	212 piles	1.27	-	-	22.40
2016-2017	12183.5 cft	25.02	174.5 piles	1.28	-	-	26.30
2017-2018	7047.15 cft.	26.83	153.53 pile	1.21	-	-	28.04

Chapter-16

WORKING PLAN CIRCLE:

Working Plan Circle is stationed at Head Office, Gangtok which controls and look after the overall activities of Preparation of Working Plan/Working Scheme/Management Plans for forest areas of Sikkim.

The Working Plan Circle also maintains GIS cell of the Department for processing and analysing of remote sensing data and Preparation of GIS maps. Presently, the Working Plan Circle is having following officers and staff to carry out the Working Plan Circle's activities.

Staff Position:

Officers	CF (WP)	1
	DFO (WP)	1
	Planning Assisat	1
	ACFs (WP)	Nil
Technical	Junior Technical Officer	3
	Cartographer	1
	GIS Engineers	2 (Engaged under SBFP-JICA)
	Junior Research Fellow (JRF)	1
	Range Officer	1
Field Staff	Blocks Officers	5
	Forest Guards	1
	H.A	1
Office staff	UDC	1
	LDC	1
	Office Assistant	2
	Peon	3

WORK UNDERTAKEN BY WORKING PLAN CIRCLE DURING THE FINANCIAL YEAR 2017-2018.

- Preparation of Preliminary Working plan Report for South Sikkim.
- Creation of Permanent Preservation Plots 1ha each Exclusive and Non- Exclusive at Tumlabong R.F under Rangpoo Block, Singtam Range.
- Creation of Permanent Preservation Plots 0.1 ha each Exclusive and two Non- Exclusive one at Samardong R.F under Namthang Range and on at Rayong R.F under Rabong Range.
- Laying of 19 nos 0.1 ha area Sample Plots for data collection in the South District of Sikkim for revision of South Working Plan.
- The Annual Programme of Operation work allocated to Working Plan Circle under SBFP-JICA Proje were completed successfully.

Details of Fund Utilization by Working Plan Circle from JICA funded SBFP for 2017-18

(Rs.in lakhs)

SI No	Component	Budget allocated	Proposed	Utilized		Balance as per APO	Balance Available in SBFP	Shortage
1	C2-1-1 Update of topographical & land use map							
	a. Digital map preparation and procurement of equipments	16.68	16.68	1. purchase of computer DFO(ETD)	1.61	15.07	14.98	0.89
	Salary of Gis engineers	5.13						
	b. Training & capacity building	11.54		1. BO training	2.85	6.99	6.99	
				2. FG trng 50% adv	1.70			
2	C2-2-3 Enhancement of working plans and establishment of forest management zones							
	a. Enhancement of working plans and establishment of forest management zones							
	preservation plot survey	18.00	18.00	50% adv	9.00	9.00	9.00	
	Tree enumeration work	3.00	2.92	50% adv	1.46	1.56	1.55	
	Field work for preparation of PWPR	2.33	2.33	50% adv	1.16	1.16	1.16	
	In-state research assistant	2.01						
	workshop	2.42					2.42	
	Misc and consumables	14.19	5.87	1. fans	0.29	13.48	0.10	14.09
				2. Stationeries	0.42			

- National Carbon Project (NCP) is being carried out by Working Plan Circle which is funded by National Remote Sensing Agency (NRSA), Hyderabad for the estimation of Carbon Stock of Sikkim Forests.
- **The details of Physical and Financial target achieved under NCP Project in 2017-18 (Rs.in lakh)**

S. No.	Particulars	Amount Received	UC sent for FY 2016-17	Amount Spent (UC for FY 2017-18)	Total Amount spent till date	Balance
1	JRF Salary	2.21	1.58	0.55	2.13	0.08
2	Contingency and Consumables	0.25	0.16	0.09	0.25	0
3	Field work	2.16	1.04	0.99	2.03	0.13
4	CA Travel for Project Meetings	0.15	0	0	0	0.15
5	Reports, databases and outputs	0.10	0	0.01	0.01	0.08
6	Laboratory analysis	0.25	0	0.25	0.25	0
7	Overheads	0.07	0	0.00	0.00	0.07
8	Others	0	0	0	0	0
	Total	5.19	2.78	1.89	4.68	0.51

- Conducted one week Training Programme on GPS/GIS/Remote Sensing and Toposheet reading'' to newly appointed Forest Guards w.e.f 21st February to 24th February 2018 funded by JICA assisted Sikkim Biodiversity Conservation and Forest Management Project.
- Undertaken 15 days field training for B.Sc (Forestry) Graduates who are currently studying 3rd year and 4th year of graduation programme in their respective college.

POINT SAMPLING WORK



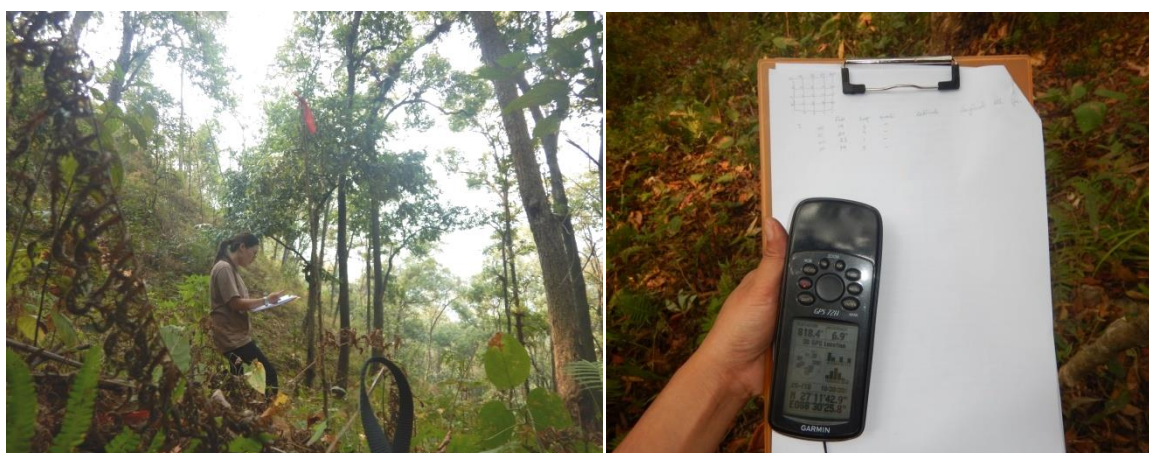
Overview of the Tumlabong Preservation Plot



Taking horizontal and vertical distances of an individual tree



Recording GPS coordinates



Some of the works carried out by GIS Cell during 2017-18.

1. Geo referencing of Scanned Toposheets for preparation of different maps
2. Digitization of Forest Areas maps including Reserve Forests, Protected Areas, Demarcation of Forest boundaries with the details of Compartment, Beats, Block, Range and Divisions boundaries.
3. Specialised Block map prepared with complete details viz., Block Boundary, Compartment Boundary, Road, Drainage, Block office and other forest infrastructure, JFMC/EDC Boundary, settlement, etc for the field guidance and reference of Block Officers
4. Digitization and preparation of complete layers pertaining to Forest types, Densities, water bodies, Roads, Settlement, elevation, etc.,
5. Digitization of wetlands has been done with the details of altitude, Slope and aspects with their catchment area for their conservation and future management.
6. Regular mapping of compensatory afforestation being done in forest areas are updated under FCA in the form of polygon to upload in the website of CAMPA
7. Mapping of rare, endangered and threatened species has been done based on the field data received under Rare Endangered and Threatened Species project of NTFP Circle for their intensive conservation and management practices.

8. Detailed Map has been prepared for the implementation of proposed Biodiversity Park at Damthang.
9. Rationalisation of jurisdictional boundary of EDC/JFMC has been mapped as per the decision of department with field details
10. The sample plots of Rapid Biodiversity survey has been done as per the field data provided to assess the biodiversity.
11. Mapping of 11 Ecotourism zone has been done as per the infrastructures available and created under SBFP Project to promote the ecotourism in the State.
12. Prepared fire prone area map district wise based on the past forest fire incidents from 2004 to 2014 for planning for better fire prevention and control mechanism.
13. Preparation of Eco-Sensitive Zones around protected areas as per the FCA guidelines of Government of India to regulate the non forestry activities in forest fringe areas.
14. Prepared Trekking trail maps and other eco-tourism infrastructure maps for SBFP Project to promote eco tourism in Sikkim.
15. Prepared Aerial distance map of project site from the PAs for proposals relating to FCA Clearance to ascertain that the non-forestry activities does not have harmful effect on Protected Areas.
16. Physical and Cultural map for KNP World Heritage Site has been prepared with all details of local sacred structure such as Gumpa, Monastery, other religious monuments, distribution of local community with different traditions and culture.
17. Grid map prepared for the census of wild animals and other wild life related management practices
18. Mapping of different features has been done based on field data viz., Forest types, Density, Slope, Aspect, Land use/land cover, watershed, settlement, etc for the preparation of perspective plan for Green India Mission Project(GIM).

As of now the GIS cell of Working Plan Circle is working on to develop land use/land cover map of South Sikkim with the field details of Forest area, Agriculture, Settlement, water bodies barren lands, landslide etc., for the preparation of working plan for South District.

Regular mapping of plantations is being done in GIS every year using LANDSAT imagery.

Apart from the services being rendered to Forest Department, **Services to other Govt departments, NEOs, project people and private parties also being given completely on free of costs, mostly the following data are provided to different user agencies**

- Soil type and topography map to Geology Department, Government of Sikkim(GoS)
- Settlement, Roads, water bodies and topography map to Housing and Building Department, GoS
- Road network map to Tourism Department, GoS
- Soil type, Topography, altitude, land use land cover map to Agriculture Department, GoS
- Settlement, Topography, altitude, water bodies and Road map to Urban Development Department, GoS
- Settlement, Road network, Topography and altitude map for Transport Department, GoS
- Any other specific data as per the requirement of project authority, NGOs, private parties, students, etc also being provided at free of cost.

Chapter-17

SURVEY & DEMARCATION:

The primary mandate of the Survey and Demarcation Division is to survey and demarcate forest areas for establishment of clear boundaries of Forest areas through erection of boundary pillars, for better administration and control of forests as well as to check encroachment. The area of operation of the Survey and Demarcation Division is the entire State and our survey team

During the financial year 2017-18, there has been no financial provision earmarked for carrying out survey and demarcation of forest areas. However, there has been a drastic increase in cases for on-demand surveys i.e. requests from third parties for carrying out joint surveys. The nature of requests being received for joint survey are v.i.z. directions from Hon'ble Court for joint survey of cases under litigation, cases seeking NOC for mutation of private land sharing boundary with forest, joint survey of disputed land, joint surveys for proposed diversion of forest land by projects, etc.

In the year 2017-18 alone, 48 such on-demand surveys and third party requests were carried out. There is no financial provision for such surveys and as such the financial achievement has been marked as nil.

Work carried out by Survey & Demarcation during 2017-2018.

Sl. No	Item of Work	Scheme	Achievement		Location	District	Remarks
			Phy	Fin			
1	Boundary Demarcation & Survey Line	N/A	Nil	Nil	N/A	N/A	No fund received for the said component in the f.y.
2	Erection of boundary pillars	N/A	Nil	Nil	N/A	N/A	
3	Field Inventory	N/A	Nil	Nil	N/A	N/A	
4	On Demand Survey	N/A	48 nos. of joint surveys	Nil	Various location of all four District		On demand surveys pertaining to requests for joint survey of forest and private land adjoining forest land for NOC, Hon. Court directions, third party user agency requests and requests from Revenue authorities. No earmarked financial provision for it.

Chapter-18

B) WILDLIFE:

1. Wildlife Conservation:

Wildlife Conservation has become worldwide priority sector now-a-days, National Parks and Sanctuaries which act as *sanctum sanctorum* have been commissioned all over the world for better protection and conservation of wildlife. India with the total forest cover of 7,01,673 Km² which is 21.34 % of the total land mass of 3,28,263 Km² is treasure trove of natural wealth and is one of the 12 mega bio-diversity countries of the world. The Protected Areas comprising National Parks and Wildlife Sanctuaries with Tiger Reserves and Elephant Reserves covering an area of 1,62,024.69 Km² which make up about 4.93 % of the total geographic area of the country is as mentioned in the following table. In addition to this, there are 150 recognized Zoological Parks having around 40,000 wild animals in captivity in the country. The Wildlife (Protection) Act, 1972 is the umbrella legislation for wildlife conservation in the country.

Sikkim, the 22nd State of India in the North-Eastern region lying in the Eastern Himalayas which is one of the 18 biodiversity provinces in the world is a bio-diversity “hotspot”. In the landmass of just 7096 Sq.kms, the State has varied eco-systems from humid tropical valleys to temperate montane habitat, alpine meadows and trans-Himalayan cold desert. It is a veritable house of rich bio-diversity and it includes:

2. Protected Areas of Sikkim (as on November, 2017)

	No.	Total Area (km ²)	Coverage % of State
National Parks (NP)	1	1784	25.14
Wildlife Sanctuaries (WLSs)	7	399.10	5.63
Biosphere Reserves(BR)	One	2931.12	0.0
Protected Areas (PAs)	8	5114.22	30.77

In the field of wildlife conservation, the State of Sikkim has made significant progress with the establishment of one National Park, one Biosphere Reserve with the National Park as the Core Zone, seven Wildlife Sanctuaries and one Wildlife Conservation Reserve for the purpose of protection and conservation of wildlife.

3. Details of Wildlife Protected Areas (WPA) are as under:

Sl.No.	Name	District	Total Area
1.	Shingba Rhododendron Sanctuary	North	43.00 Sq.km
2.	Fambonglho Wildlife Sanctuary	East	51.76 Sq.km
3.	Kyongnosla Alpine Sanctuary	East	31.00 Sq. Km.
4.	Pangolakha Wildlife Sanctuary	East	128.00 Sq. Km
5.	Kitam Bird Sanctuary	South	6.00 Sq. Km.
6.	Maenam Wildlife Sanctuary	South	35.34 Sq. Km.
7.	Barsey Rhododendron Sanctuary	West	104 .00 Sq. Km.
8.	Khangchendzonga National Park	North/ West	1784 Sq.km.

The Wildlife Protected Area covers as much as 30.76 % in terms of geographic area (7096 sq.kms) and 82.31% in terms of total recorded forest area (5841.39 sq.kms) of the State. It is the highest PA network State in the country today. The State Government for the promotion and protection of plants and animals has declared as State Tree, State Flower, State Animal and State Bird of the following plants and animals:

- (a) Rhododendron species, *Rhododendron niveum*, as the State Tree.
- (b) Orchid *Dendrobium nobile*, as the State Flower.
- (c) Red Panda *Ailurus fulgens*, as the State Animal and
- (d) Blood Pheasant, *Ithaginis cruentus*, as the State Bird.

Financial targets and achievements of schemes implemented by the Wildlife Sector during the year 2017-18 are as under:

Expenditure under CSS		2017-18				
Name of the scheme	Major Head	GOI Releases	State share Budget head	Expenditure		
				State Share (10%)	Centre share	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dev.of Singhba Rhododendron Sanctuary, North Sikkim	Plan 2406 Development of Singhba Rhododendron Sanctuary (100%CSS)	28.66	3435-03-101-62-00-50-other charges(plan)under Sikkim Ecology Fund & charges(under Sikkim Env.Cess-2016-17)	2.87	25.79	28.66
Dev.of Fambonlho Wildlife Sanctuary, East Sikkim	Plan 2406 Development of Fambonglho Rhododendron Sanctuary (100%CSS)	28.28		2.83	25.45	28.28
Dev.of Kyongnosla Alpine Sanctuary, East Sikkim	2406-02-110-13.45.85 Plan Development of Kyongnosla Alpine Sanctuary (100%CSS)	21.70		2.18	19.60	21.78
Dev.of Pangolakha Wildlife Sanctuary, East Sikkim	Dev.of Pangolakha Wildlife Sanctuary, East Sikkim	24.34		2.43	21.91	24.34
Dev.of Maenam WL Sanctuary, South Sikkim	Plan 2406 Dev. of Maenam Wildlife Sanctuary (100%CSS)	23.00		2.30	20.70	23.00
Dev.of Kitam Bird Sanctuary, South Sikkim	Plan 2406 Dev. of Kitam Bird Sanctuary, South Sikkim (100%CSS)	28.60		2.85	25.65	28.50
Dev.of Barsey Rhododendron Sanctuary, West Sikkim	Plan 2406 Dev. of Barsey Rhododendron Sanctuary, West Sikkim (100%CSS)	30.18		3.02	27.16	30.18
Total-		184.74		18.47	166.26	184.74

The Government is committed to protect and conserve bio-diversity including wildlife resources and it has prioritized this in its policies for protection, preservation and propagation in-situ as well as ex-situ habitats. In addition to many other prior Notification, Order for conservation and protection of wild animals & birds, FEWMD vide Notification No.GOS/FEWMD/Pr.Secy-PCCF/44 dated 20/05/2017 has imposed ban on manufacturing, procuring, stocking, sale or use of nylon thread and other synthetic thread coated with glass and such other harmful substances for kite flying or similar activities as they are likely to cause grievous injury and inconvenience to animals including birds as well as human beings during festivals or other occasion.

Wildlife Census: For the very first time Department of Forest, Env. & Wildlife Management, Government of Sikkim with the technical support and guidance from the Wildlife Institute of India (WII) Dehradun conducted Wildlife Population Estimation of all the Protective Areas of the State. The four month long exercise involving modern wildlife serving techniques such as Camera trapping of images was funded by JICA-assisted Sikkim Biodiversity Conservation and Forest Management Project (SBFP). Considering potential habitats in all Protected Areas a total of 262 camera traps were installed out of which 37 species were captured from 189 locations, with some significant findings. This exercise will help in creating baseline information for further estimation exercise and this initiative being seen as a way forward to make people more conscious about the faunal wealth of the State.

The book titled “Wildlife Population Estimation for all Protected Areas of Sikkim 2016-17” which was the compilation of first phase of Wildlife Population Estimation exercise was released on the occasion of 70th Independence Day, 15th August, 2017.

Abundance estimates (upper limit) for different species in sampled areas of Protected Areas in Sikkim.

Protected Areas	Barking deer	Wild Pig	Serow	Musk deer	Red fox
Barsey Rhododendron Sanctuary	72	119	29	6	11
Fambonglho WL Sanctuary	59	52	15	1	3
Kitam Bird Sanctuary	24	8	1	0	0
KNP & Biosphere Reserve	116	130	75	31	68
Kyongnosla Alpine Sanctuary	10	8	7	3	6
Maenam WL Sanctuary	30	37	10	2	4
Pangolakha WI Sanctuary	45	53	18	8	15
Shingba Rhododendron Sanctuary	20	18	22	11	14
Over all	376	425	177	62	121

Source: Wildlife Population Estimation for all Protected Areas of Sikkim.

Wildlife pictures taken by camera traps



YEAR WISE EXPENDITURE UNDER STATE DEVELOPMENT AGENCY, SIKKIM (SFDA)

Sl. No	Year	KNP FDA	East WL FDA	West WL FDA	North WL FDA	South WL FDA	TOTAL
1	2	3	4	5	6	7	8
10	2010-11	57.40	131.25	152.58	29.50	59.36	430.10
11	2011-12	88.73	84.84	101.34	24.59	52.70	352.21
12	2012-13	68.88	62.45	55.68	12.77	28.62	228.39
13	2013-14	45.38	48.12	37.37	9.56	22.16	162.59
14	2014-15	68.29	63.57	45.26	19.78	25.17	222.07
15	2015-16	23.36	21.00	15.54	6.09	7.97	73.96
16	2016-17	28.49	24.15	18.69	8.24	10.13	89.70
17	2017-18	61.11	32.43	38.78	12.41	10.10	154.83
TOTAL:							1713.85

LIST OF EDCS IN WILDLIFE SECTOR:

Sl.No.	Name of Sanctuary	District	Name of EDCs.
01	Maenam Wildlife Sanctuary	South	1.Sada Phamtam EDC
			2.Maidam Sumsi EDC
			3.Kau Chauridara EDC
			4.Niya Mangzing EDC
			5.Borong EDC
			6.Yangang Rangang EDC
			7.Ralong EDC
			8.Rabong EDC
			9.Pathing EDC
02	Kitam Bird Sanctuary	South	1.Mayur Kitam EDC
Total EDCs in South District-			10
03	Shingba Rhododendron Sanctuary	North	1.Shingba Faka EDC

Sl.No.	Name of Sanctuary	District	Name of EDCs.
04	Kyongnosla Alpine Sanctuary	East	1. Kyongnosla EDC 2. Tsangu EDC
05	Fambonglho WL Sanctuary	East	1. Nazitam-Lingtam EDC 2. Sang-Beyong EDC 3. Rumtek EDC 4. Ray-Lingdum EDC 5. Ranka EDC 6. Luing Perbing EDC 7. Simick-Linzey EDC 8. Tumin EDC 9. Rakdong-Tintek EDC 10. Lingdok-Namphong EDC 11. Samdong-Kambal EDC
06	Pangolakha WL Sanctuary	East	1. Phadamchen EDC 2. Kuouk EDC 3. Gnathang EDC 4. Dalapchand EDC 5. Signnaybas EDC 6. South Regu EDC 7. North Regu EDC
	Total EDC in East District-		20
07	Barsey Rhododendron Sanctuary	West	1. Hee-Patil EDC 2. Bermiok Martam EDC 3. Bega Mangmoo EDC 4. Uttarey EDC 5. Buriakhop EDC 6. Singling EDC 7. Ribdi Bhareng EDC 8. Sribadam EDC 9. Tarey Bhir EDC 10. Upper Okhrey EDC 11. Hattavan EDC 12. Dodhak EDC * 13. Saprey Nagi EDC *

* Two new EDCs added and amended to notification vide no.104 (i)/GOS/FEWMD/PCCF- SECY dated 28/09/2018.

Sl.No.	District	Total EDCS
01	East	20
02	West	13
03	North	01
04	South	10
	TOTAL-	44

Chapter-19

KHANGCHENDZONGA NATIONAL PARK:

World Heritage Site- KNP

The Khangchendzonga National Park (KNP) is situated in North and West Districts of Sikkim and includes the world's third highest peak. Mt.Khangchendzonga has an extremely impressive altitudinal range, a vertical sweep of 7,366 meters (m) across an elevation range of 1,220 m to 8,586 m above sea level (asl) within a relatively small areas. The Himalayas are narrowest here resulting in extremely steep terrain which magnifies the distinction between the various eco-zones which characterize the area. As a consequence, KNP contains a remarkable range of Eastern Himalaya landscapes and wildlife from sub-tropical to alpine to Trans-Himalayan (Cold Desert) within a small geographical area, Culturally, the National Park is significant as it is considered to be the core of the sacred hidden land or "beyul" which was blessed by Guru Padmasambhava. Mount Khangchendzonga itself is revered as it is regarded as the guarding deity of all Sikkimese people.

On account of these natural and cultural features, Khangchendzonga National Park was declared as a World Heritage Site in July 2016 based on both natural and cultural criteria for mixed criteria),

India's first mixed criteria World Heritage Site

Centrally Sponsored Scheme 2017-18.

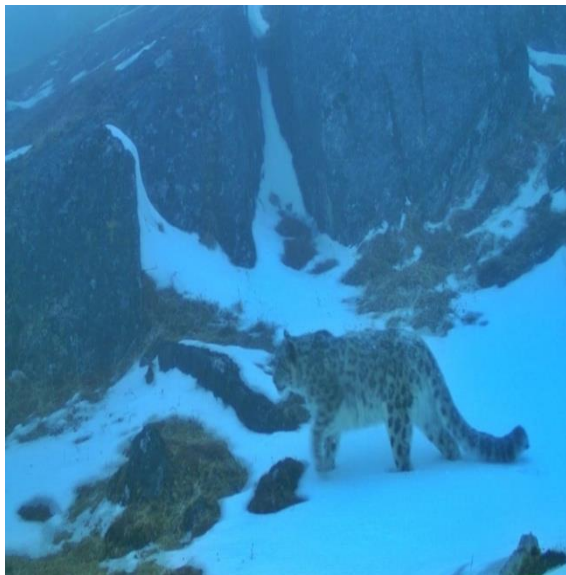
KNP/KBR Division:

		2017-18			
		Expenditure			
Capital Expenditure under CSS	Major Head	GOS	State share	Central share	Total
Name of scheme					
KBR (100%CSS)	2406-01-01-101-67-67.00.82		NIL	NIL	NIL
IDWH	2406-02-02.110.00.66-00.66.81		3.59	35.87	39.46

Relative abundance of mammals in K.N.P

Sl.No.	Species	No. of photo captures	Mean photo capture rate (#/100 days)	(Standard Error)
01	Himalayan Serow	62	15.45	11.13
02	Red Fox	35	7.52	2.82
03	Wild Pig	36	6.06	3.48
04	Barking deer	35	3.96	1.95
05	Himalayan Tahr	23	2.67	1.97
06	Musk Deer	18	3.00	1.17
07	Golden Cat	9	1.51	0.80
08	Himalayan Langur	9	0.85	0.47
09	Leopard Cat	9	0.86	0.33
10	Snow Leopard	9	0.89	0.67
11	Yellow Throated Marten	10	1.29	0.65
12	Himalayan Brown Goral	7	0.51	0.51
13	Himalayan Black Bear	6	0.64	0.30
14	Orange bellied squirrel	7	0.53	0.31
15	Hoary Bellied squirrel	4	0.20	0.20
16	Porcupine	4	0.40	0.40
17	Assamese Macaque	3	0.48	0.34
18	Blue Sheep	10	0.79	0.62
19	Rat	2	0.16	0.11
20	Red Panda	2	0.20	0.15
21	Bhutan Giant flying squirrel	1	0.06	0.06
22	Red Giant flying squirrel	1	0.14	0.14

Source: Wildlife Population Estimation for all Protected Areas of Sikkim



ECO-DEVELOPMENT COMMITTEE'S UNDER KNP-KBR DIVISION.

North and West KNP Division		
Dzongu Range (North)		Range Officer
1	Tingvoong	Mr.Tenzing Wangyal Lepcha
2	Sakyong	
3	Bey-Pentong	
4	Lingzya	
5	Saffu	
6	Shipgyer	
7	Leek	
Chungthang Range (North)		
1	Theng	Mr.Ringzing Lepcha (Range-in-charge)
2	Pegong	
3	Lachen	
4	Muguthang	
Yuksom Range (West)		
1	Khongtay	Mr.Tenzing Wangdup Bhutia
2	Labdang	
3	Karje-Mangnam	
4	Chongri	
5	Nesha	
6	Dhupi-Norkhola	
7	Naku-Kongri	
8	Chong	
9	Yuksom	
10	Hungry	
Total EDCs - 21		

Chapter- 20

HIMALAYAN ZOOLOGICAL PARK:

INTRODUCTION:

The Himalayan Zoological Park was formally opened to the public in 1997 with the aim to promote wildlife conservation, conservation breeding of endangered species and public awareness. Despite its sheer vastness of 230 Ha, it is classified as a “Small Zoo” by the Central Zoo Authority of India, the HZP today houses 19 species of birds and mammals manned by 21 dedicated zoo keepers.

Most enclosures within the Himalayan Zoological Park are based on an “Immersion Exhibit” concept which allows the animals as well as visitors to be immersed within the animal’s natural habitat without creation of additional artificial structures, save barriers. All enclosures are kept as naturalistic as possible by simply creating enclosed spaces around existing landscapes allowing animals to encounter varied land formations as they would naturally do in the wild

CAPTIVE BREEDING OF ENDANGERED SPECIES

The Himalayan Zoological Park plays an important role in the Conservation Breeding of Endangered Species program. The park is an active participating zoo in the Red Panda Breeding Program, as well as earmarked for Blue Sheep, Himalayan Tahr and Blood Pheasant. Owing to the already naturalized enclosures and endeavors to create a space with minimal human disturbance, we have achieved tremendous success in breeding Red Panda and Blue Sheep already. Our Goral Exhibit also possesses an excellent stock of breeding animals so much so that we are now faced with the problem of lack of space. Red Panda breeding for the year 2016 has also been held back owing to a lack of sufficient space.

We at the HZP take measures to ensure that all individuals in the Red Panda breeding program are genetically pure and not inbred. The park has a separate designated space, out of bounds for visitors, for Breeding Red Pandas. As the area is isolated and relatively undisturbed, it has seen the birth of several cubs all raised by their parents in as wild a state as possible.

In Conservation Breeding programs, it is essential that the animals are subject to minimal stress. The relation between the zoo keepers and the animals is such that animals are accustomed to their keepers’ movements in and around the enclosure while the keepers also respect the animal’s need for space and privacy. Animals are not handled unless required for veterinary examination, or routine zoo procedures. This level of trust and confidence between the animals and their keepers facilitates a stress free environment for monitoring animal movement and breeding activities.

Till date the HZP has successfully bred Red Panda, Blue Sheep, Grey Peacock Pheasant, Barking Deer & Goral.

HYGIENE AND SANITATION OF THE PARK

The Himalayan Zoological Park prides itself in being one of the cleanest Zoos in the country. The park is also declared as a Non- Smoking and Drinking area like most other public places which allows the park to maintain its clean and fresh atmosphere. There are provisions of public rest room in two separate areas of the park, the cleanliness of which is maintain by the park staff.

ANIMAL HEALTH, HYGIENE, FEEDING AND SUPPLEMENTATION

All animals in the park are routinely de-wormed and efforts are made to whitewash all feeding houses at least twice a year. All feeding houses are equipped with running water, washing soap and disinfectant solutions to ensure all feeding bowls and feeding areas are clean. Foot Dips with Potassium Permanganate solution are also kept for keepers during movement in and out of the enclosure and feeding houses. Visitors are not allowed near feeding houses. Visitors are also not allowed to feed the animals.

Extra precautions are taken during Bird-Flu outbreak so that visitors from potentially those parts of the country do not bring in the disease. All areas surrounding the Pheasantry are thoroughly disinfected.

Animal health is our foremost priority and every measure is taken to ensure that our animals are fed fresh fruits and vegetables. Diet Charts for all animals are prepared according to their size and physiological conditions. Additional feed may be ordered in from time to time to feed any rescued animals. Additional feed supplements are also provided to the animals from time to time to maintain healthy bones, skin and fur. Yearly vaccination camps for Livestock against FMD is also carried out in the fringe villages.

Animals under captivity.

A. Mammals as on 31/03/2018.

SL.No.	Species	No	Schedule
1.	Red panda	3	I
2.	Snow leopard	1	I
3.	Leopard cat	5	I
4.	Common leopard	1	I
5.	Clouded leopard	0	I
6.	Tibetan wolf	0	I
7.	Yak	2	I
8.	Himalayan black bear	4	II
9.	Blue sheep	2	I
10.	Large Indian civet	1	II
11.	Himalayan Palm civet	1	II
12.	Himalayan Tahr	2	I
13.	Himalayan Serow	1	I
14.	Goral	15	III
15.	Barking deer	5	III
16.	Porcupine	5	IV

B. Birds as on 31/03/2018.

SL. No	Species	No	Schedule
1.	Kalij pheasant	4	I
2.	Satyr Tragopan	1	I
3.	Peafowl	2	I
4.	Silver pheasant	2	Exotic
5.	Lady Amherst's Pheasant	2	Exotic
6.	Golden Pheasant	2	Exotic

C. Animal Rescue during 2017-2018.

Sl. No	Species	No of animals	Rescued from
1.	Barking deer	1	Sang Martam
2.	Barking deer	1	SajongRumtek
3.	Barking deer	1	Sichey
4.	Barking deer	1	Phadamchen
5.	Barking deer	1	Bojoghari Check Post
6.	Himalayan Black Bear	1	Sikkim Scouts camp (17 th mile) Kyongnosla
7.	Himalayan Black Bear	1	Sikkim Scouts camp (17 th mile) Kyongnosla
8.	Himalayan Black bear	1	Sikkim Scouts camp (17 th mile) Kyongnosla
9.	Himalayan Palm Civet	1	Bar-Pipal petrol pump Sichey
10.	Clouded leopard	1	TemiTarku
11.	Himalayan Serow	1	HZP Premises

D. Records of visitors in HZP and revenue collection.

Year	Name of Park	No. of Tourists.		Total	Revenue (in Rs)
		Indian	Foreigner		
2017-2018	Himalayan Zoological Park	62,775	1,598	64,373	23,99,205.00

Training for operation and functioning of Drone at Himalayan Zoological Park, Bulbulay: For combating various management issues such as incidences of Himalayan Black Bear, Forest fire, study of vegetation and so on, the Fambonglho Wildlife sanctuary has purchased a drone (Phantom Pro DJI) under the provision of Flexi Fund Component-IDWH-CSS (90:10). However, for the optimum use of the equipments a training was to be imparted at ACF, RO and BO level. The resource person for the training was from Kambill System, New Delhi. The training was successfully conducted from 3rd to 4th August 2017 at Himalayan Zoological Park, Bulbulay.

Training of Sniffer Dog Squads for strengthening wildlife enforcement: Four Forest Guards from Wildlife Section imparted training on Dog Squads for strengthening Wildlife Enforcement w.e.f. March 2017 to December 2017 (for ten months) at BSF Academy, Madhya Pradesh. The Department have deployed sniffer dog squad for strengthening protection activities and checking illegal trade of wildlife trophies and medicinal plants.

The feasible locations for accommodation of 4 dog's handlers and Kennel for two dogs as permanent station are selected as one in Rangpo near BO Quarter-cum-office and another is in Melli-Jorethang Road, Forest Check Post.

1. Functions & Objectives:

- To improve the Infrastructure with respect to the Animals Enclosure.
- To provide the essential supporting instruments for the animals.
- To improve the behavioral enrichment of the animals.
- To provide the qualitative feeds to the captive animals.
- To improve the animals' health and numerical strength of the animals through the captive breeding.
- Conservation of endangered species of Himalayan fauna.
- To educate the students and publics on the importance of wild animals and need of its conservation.

2. Plan and Non-Plan Allocation: Not yet intimated.

5. Implementation: Himalayan Zoological Park, FEWMD.

6. Work Implemented at: Himalayan Zoological Park, Bulbuley.

7. Activities undertaken:

8. Following detailed Annual Plan of Operation submitted for the Financial Year -2017-18.

SL. NO.	Items of Work	Physical Target	Financial Target (Rs In Lakhs)
1	Animal feed/Essential item/Medicines	62 nos. of species/18 enclosure	35.00
2.	Clearing and cleaning of jungle inside enclosure & weeding, clearing of footpath, service trails, roads, drainage	18 enclosure, footpaths eco trails, roads & drainage	1.50
3.	Partition of Red Panda Breeding Centre	01	1.50
4.	Engagement of Safai Karmachari	01 for 12 months	00.72
5.	Repair and maintenance of public toilet near parking area	01	00.15
6.	Printing of Entry Tickets for HZP		2.50
7.	Procurement and administration of FMD vaccination of pets and livestock of surrounding villages, HZP	Twice in a year	2.00
		Grand Total =	43.37

(Rupees: Forty -three lakhs thirty-seven thousand) only.

Until late nineties, the State Forest Department (now Forest and Environment Department) was managing a small Deer Park in the Tashiling Secretariat premises. It was named as Rustomji Deer Park after Shri N. Rustomji who was an important personnel during the then monarchical system of government in Sikkim. The Deer Park was primarily created to keep Deer species such as Sambar, Spotted Deer, and Barking Deer and they were there but later on, a few rescued wild animals such as Black Bear, Red Panda and high-altitude Pheasants were also to be housed. The Himalayan Zoological Park at Bulbulay came into existence due to the curiosity, principles and ideology of the persons in the higher echelon of the State Govt. administration. It was during 1989-90, the area was inspected at Bulbulay Reserved Forest and selection was made for an expanse of forest area to the extent of 230 hectare for the establishment of Himalayan Zoological Park. The work of area survey progressed with the preparation of a project appraisal. The zoo authorities had to toil hard to complete the project appraisal which was accorded approval of the State Government during the year 1991 with financial grants of Rs. 2 crores for the first phase of the project during the plan period and the project was given a start with constructions of the infrastructure. One of the objectives for creation of the Zoological Park was to shift the animals of the Deer Park to the Himalayan Zoological Park and shifting was completed by the year 1995.

The Himalayan Zoological Park was formally opened to the visitors from May 1997. Structure of admission fees was prepared and the visitors were charged. There were very few animals during the period. With the time that elapsed, the plans and programs of the Zoological Park also increased. The zoo exhibits which were about a dozen when it was opened to the visitors have now a record collection of 48 specimens of mammals and 13Nos. of birds, as on 2017-2018. Most animals belong to Schedule - I and II of Wildlife (Protection) Act.1972 and some are exotic birds, which also are of interest and educational value.

Although the flow of budget both for maintenance and developments of Himalayan Zoological Park is not so encouraging the number of captive animals is increasing through exchange programs and rescue operations.

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The animals of interest under captivity are:

A Mammals:

- i) Red Panda, the State animal of Sikkim,
- ii) Snow Leopard,
- iii) Tibetan Wolf,
- iv) Common Leopard,
- v) Clouded Leopard
- vi) Himalayan Black Bear,
- vii) Large Indian Civet,
- viii) Himalayan Palm Civet,
- ix) Leopard Cat,
- x) Yak,
- xi) Goral,
- xii) Barking Deer

- xiii) Porcupine
- xiv) Blue Sheep
- xv) Himalayan Tahr
- xvi) Himalayan Serow

B Pheasants (Birds);

- i) Kalij Pheasants
- ii) Peacock
- iii) Lady Amherst
- iv) Golden Pheasant
- v) Silver Pheasant.
- vi) Satyr Tragopan

The Himalayan Zoological Park is one of the few high altitude Zoos in the north and north - east of the country. It is still in the budding stage. The animal collections in high altitude zoos are very difficult, as the high altitude animals are not available on exchange and the rescuing operation if permitted by the governments is difficult due to inaccessibility to the mountainous land where the climate is harsh and the wild animals are too shy to come across.

The Himalayan Zoological Park falls under the category of Mini Zoo as per the Central Zoo Authority's classification but it has tremendous scope to rise to become the largest high altitude modern zoo in the country. The Central Zoo Authority has directed the management to prepare detailed Master Plan for long-term development of the Zoological Park on the Concept Plan which was conceived and agreed upon in the Facilitation Workshop held at Kolkata on 18-19 August, 2008 which attended to make an effort to give more inputs on the subject. The Master Plan of the Zoological Park for ten years (20013-14 to 2023-24) envisages it to rise from the Mini Zoo to Medium Zoo within the plan period if every proposal is hopefully given a seal and stamp of approval by the governments. If so, there will be continued efforts of the management until the conceived plan is fully geared up and the theme of display is achieved, perhaps to make the Himalayan Zoological Park, Gangtok a unique modern zoo in the country.

Captive Breeding:

The following animals are breeding successfully in HZP:

Sl. No.	Name of Species	Births during 2017
01.	Red Panda	02
03.	Ghoral	02
05.	Barking deer	01

Breeding in captivity is an achievement which supports conservation both in ex-situ and in-situ condition. Surplus and fit species can be released in the wild to support the dwindling wild species. These are some of the good aspects and roles of zoos they play to justify their being.

Animal Rescue:

The Tranquilizing team under HZP are doing rescue work in the whole area of the state. This year only following animals were rescued:

SL. No.	Name of species	No. of Animals	Rescued from
1.	Himalayan Black Bear	3	Kyongnosla W/L Sanctuary, East Sikkim
2.	Himalayan Serow	1	HZP Bulbulay East Sikkim
3.	Barking deer	1	Sang Martam
4.	Barking deer	1	SajongRumtek
5.	Barking deer	1	Sichey
6.	Barking deer	1	Phadamchen
7.	Barking deer	1	Bojoghari Check Post
8	Clouded leopard	1	Temitarku

Visitors Inflow and Revenue Collection:

During the year 2017, Revenue Rs. 23,99,205.00 (Rupees twenty-three lakh ninety nine thousand two hundred and five) only were collected from approximately 64,373 visitors/ tourist. Apart from the regular tourists, students and trainees from different schools and training centre used to visit every year for education, exposure and field experience.

For field activities, various school teachers used to bring their children to the zoo as a part of the curricular activities.

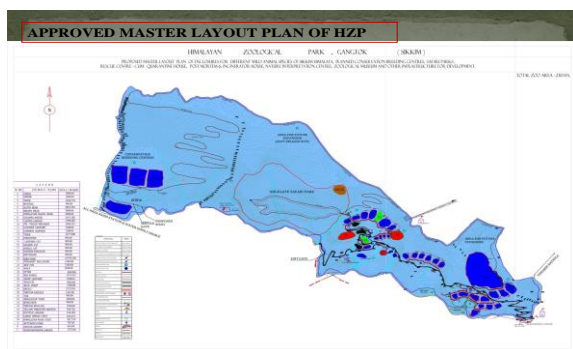
Infrastructural Development:

The Administrative building, Rescue Center and Post-mortem house with Incinerator are under construction. Apart from these, major works partition of Red Panda breeding centre, repair and maintenance of public toilet near parking area and minor works like repairing of enclosures, enrichment of enclosures, etc. were done which enriched the zoo in a greater way.

Future Action Plan

Majority of the people or visitors would agree that they visit zoo for entertainment while the zoo managers keep the wild animals in captivity mainly for their important justifications viz. conservation, education and research.

Many of us have not been able to see the wild animals in their natural habitat. The reasons are many. Wild animals live in places which are not easily accessible to human beings or in other words, they (the animals) don't invite onlookers and some animals are nocturnal so they don't come out in day time.



Zoo is an institution and unless there is entertainment, people would not visit. Therefore, captive wild animals play a vital role to entertain the visitors who, in turn learn a lot more about the animals. A sound zoo speaks itself about its management and the collections of interesting and rare animals. More the number of interesting animal, more the number of visitors and then, the zoo gets support to run the show through entry fees and the grants from the wildlife lovers.

Animal Collection Plan as per Master Plan:

Class	Schedule wise species				Other species	Total species
	I	II	III	IV		
Mammals	17	6	20	5	-	48
Birds	7	-	-	-	-	7
Exotic Birds	-	-	-	-	6	6
Total	24	6	20	5	6	61

Himalayan Zoological Park, Gangtok, is therefore proposed to be developed as the best ex-situ housing facility in the state and the North East at par with Darjeeling zoo, the future actions would also ensure better and optimum utilization of the area available which has a vast scope of expansion and development. The facilities and visitor amenities are proposed to be upgraded and provided at strategic locations. The staffing pattern would be strengthened and emphasis would be given to carry out fruitful works in the field of research and development. Veterinary section would be upgraded to provide better vet care to animals in the zoo and protected areas. A 10 kilometre nature trail along the boundary is proposed to be built which would not only cater to the need of the nature lovers but also ensure better management and protection of the park. Safari Parks for birds and ungulates have been proposed which would showcase the faunal diversity of the state and would be an excellent attraction to the visitors.

Entry Fee for Himalayan Zoological Park:

Particulars	Quantity	Rate	
		Indian in Rs.	Foreigner in Rs.
Adult	Per day	25/-	50/-
Children between 5-14yrs.	Per day	10/-	-
Educational visit of school/college students	Per day/ per student	5/-	-
Large Vehicle	Per day	100/-	-
Light Vehicle	Per day	40/-	-
Two wheeler	Per day	10/-	-

RESEARCH:

Chapter-21

(C) RESEARCH:

Wildlife Research.

Sl. No	Particulars	Details
1.	Name of Circle/ Division/ Directorate/ Other	Research & Extension Cell
2.	Functions and Objectives	Research Education and Extension Activities
3.	Plan and Non-Plan Allocations	NO Budget was allocated under Research, Extension and Education Cell. Hence, Research Extension and Education cell could not carry out any work during the FY 2017-18 except issue of research permits to different institutions from all over the country.
4.	Title of Works Programme/ Scheme/ Other	NA
5.	Implemented by Circle/ Division/Block/ Other if any	Research, Extension and Education Cell
6.	Work implemented at	Office
7.	Activities Undertaken	Facilitate the researchers by issuing research permits.
8.	Physical Achievements	Nil
9.	Mention Other Achievement, Innovations, Reforms etc of Significance	Permits issued for field research in Sikkim that includes PAs and non PAs after the recommendations of Research Evaluation & Monitoring Committee (REMC)
10.	Tangible Outputs	Nil
11.	Intangible outputs	Permits issued for field research in Sikkim that includes PAs and non PAs after the recommendations of Research Evaluation & Monitoring Committee (REMC)

Biodiversity Research Cell consist of Divisional Forest Officer, Assistant Conservator of Forest, Project Officer with five Staff comprising of UDC cum Herbarium staff, LDC, 02 Office Assistants and Office Assistant attendant.

Research permits issued based on recommendations during REMC Meetings (9th REMC -12th REMC) held between 3rd April'17 to 22nd Feb'2018 in Tragopan Meeting Room, Forest Dept.

Sl. No	Name of Applicant/ Researchers	Organization	Name of Project	Activities to be conducted in Field	Permit issued date
1	Dr. Trevor D. Price, Univ of Chicago, USA Ms. Supriya PhD Student Univ of Chicago, USA Ms. Ankita Das, Mr. Shiv Kumar, WII	Wildlife Institute of India, Chandrabani, Dehradun-248001, Post Box No: 18, Uttarakhand, India, EPABX: 0135-2640111, Fax: 0135-2640117, Email: www.wii.gov.in	Causes of avian diversity gradient along the Himalayas in KNP.	<ul style="list-style-type: none"> Bird survey by capture in mist nets, hold them in clean bag for 10 minutes, after defecation birds are weighed and released. Feces are stored in alcohol and take to WII for processing. Collection of Ants required from KNP and other insects to be counted and released 	27.4. 2017
2	Dr. Krishna Pal, Supervisor Mr. Mahendra Tamang PhD scholar	Shri Venkateshwara University, Gajraula, Amroha, (UTTAR PRADESH)	A study on Ethnobotany of West Sikkim with special reference to KBR	Collection of ethnobotanical plant specimen and information from the local people of West Sikkim	01.5.2017
3	Dr. Paramjit Singh Gol, MoEF , BSI Subhajt Lahiri, Research Scholar	Central National Herbarium BSI, Howrah	Bio-Diversity Assessment through long term monitoring plots in India Himalayan Landscape BSI and ZSI jointly Survey the selected Landscape of Indian Himalayan Region Proposed study areas: KBR, Kyongnosla, Gnathang plateau One year	<ul style="list-style-type: none"> To create geospatial and genetic database on the flora and fauna by establish long-term flora/ faunal diversity monitoring plots. To develop long-term monitoring protocols for selected indicator taxa of flora and fauna To develop appropriate methodology for propagation of individual RET for conservation and to develop local level capacity building through training/programs/ publications for awareness 	01.5.2017
4	Dr. Sunita Reddy, Associate Prof JNU Mr. Tshering Lepcha PhD Scholar	Centre of Social Medicine and Community Health, School of Social Sciences JNU, sunitareddyjnu@gmail.com Tel: 91-11 26704420	Integration of Traditional Healing Practices into Modern Health Care System: A Qualitative Study in Sikkim. One year	Integration of traditional healing systems into modern medical health care: a qualitative study in Sikkim	01.5.2017
5	Dr. Partha Sarathi Ghose AS ABOVE Extension	As above	Extended survey in connection to Snow leopard Study in Sikkim April 2017 –Mar 2018	<ul style="list-style-type: none"> Camera trapping and study of the food habits of the species Collection of pellets of snow leopard from the field for food habit study 	15.5.2017
6	J. K. Shukla,	Institute of	Extension of research	<ul style="list-style-type: none"> Family Gentianaceae 	15.5.2017

	Scientist_D & In-charge IBSD, Dr. Sunil. S. Thorat and His team, Sikkim Centre Gangtok: Extension	Bioresources & Sustainable Development (IBSD), Sikkim Centre, Gangtok-737102	permit for survey and collection of plant species from Sikkim State forest April 2017 –May 2018	(Swertia spp.) • Araliaceae (Panax spp.) • Valerianaceae (Valeriana spp.) • Melanthiaceae (Paris spp.) • Orchidaceae (Dendrobium spp.)	
7	Deepak Apte, Ph.D, Director Extension only	BNHS India	Continuation research on Impact of Climate Change on Indian Birds in Sikkim May 2017 – April'18	• Line Transect and Point count method through: grid system • Questionnaire based Data collection for qualitative data on pheasants and finches • Workshop and Consultation: meeting with stakeholders for general awareness on global warming, climate change and its effect on the species	15.5.2017
8	Dr. Partha Sarathi Ghose, Landscape Coordinator Priyadarshinee Shrestha, Partha sarathi Ghose, Lak Tsheden Theengh, Rishi Kumar Sharma, Amrit Gurung, Abhisek Chettri, Moumita Chakraborty	MWF-India, Khangchendzonga Landscape Programme, Sikkim programme Office, Deorali, Gangtok, Sikkim Extension of permission	Study on Red Panda for management and Conservation of its habitat in Sikkim May 2017 – 30 Apr '18	1. Collect scat samples 2. Red panda habitats for analysis on the vegetation type of the locality 3. To set up camera traps	03.6.2017
9	Dr. N. Bijyalaxmi Devi, Assistant Professor Ashis Rai, JRF Department of Botany, Sikkim University Extension only	Dept. of Botany, Sikkim University, Gangtok	Assessment of carbon stock and sequestration potential of major land use sectors of Sikkim Himalayas June 2017 – May'18	Identified in total 8 X 5= 40 plots, Soil carbon sequestration: total soil organic carbon in soil from a depth of 0-15 cm, 15-30 cm and forest and 0-15 cm, for agro-ecosystems using Walkley and Black method (1947), Environmental parameters air temperature, relative humidity and rainfall, soil parameters, soil moisture, soil pH	03.6.2017
10	Prof. Chandan Mahanta Anirudha Mahagaonkar, Research Student	Dept. of Civil Engineering IIT Guwahati, Cell: 09435119090, Email: mahantait@gmail.com	Assessing the changes in glaciers of Eastern Himalayas and studying its evolution in collaboration with Dr. Uttam Lal's team from Sikkim University	Collect water, snow and ice samples for hydro-chemical analyses and isotopic analyses.	16.6.2017
11	Dr. Debabrata Maity, PI, Mr. J. Ghosh, Project fellow, Mr. M. Midday, Tech Asst. Mr. S. K. Dey Research Scholar	Botany Dept. University of Calcutta, 35 Ballygunge Circular Road, Kolkata-700019, West Benga	Floristic Composition and its Diversity of Alpine Pasture of Sikkim (Eastern Himalayan) and Capacity Building in Taxonomy	1. Collection of two sets of plant specimens (except rare, endemic and threatened) Species. 2. Collected specimens will be dried, fumigated, poisoned and mounted to prepare herbarium specimens and to be identified with consultation of relevant literatures. 3. Capacity building in taxonomy through training courses/workshops to Research scholars/university and college teachers/BMC	03.6.2017

				members	
12	Dr. V.B Mathur, Dr. Pratap Singh, Dr. V.P Uniyal, Dr. Gautam Talukdar, Dr. G.S Rawat, Dr. Ruchi Badola, Dr. K. Shivakumar, Dr. J.A. Jhonson, Dr. Asha Rajvamshi, Dr. S. Satyakumar, Dr. K. Ramesh, Dr. Abhijit Das, Tapajit Bhattacharya, Rishi Kumar, Ishwari Datta Rai, Arun Kumar A	Wildlife Institute of India, Dehradun	Extended permission on Assessment & Monitoring of climate change effect on wildlife species and ecosystem for developing adaptation and mitigation strategies in the Indian Himalayan region. North East South West District	a. Terrestrial fauna and their habitats: Field surveys based on visual encounters and sign surveys along trails/transects, photo capture rates and local interviews. b. Aquatic fauna and their habitat: 1. Existing historical information and new data on fishes and their habitats, 2. Assessment / estimation of riverine habitat using remote sensed satellite data, 3. Field level studies to investigate the impact of climate in the selected study. c. Thematic areas: Human ecology: 1. Census data of 2001 and 2011 of representative villages , sampled for socio- economic status, resource use patterns , cultural changes and perceptions etc.	03.6.2017
13	Dr. Jayashree Ratanam, Dr. Jagdish Krishnaswamy Dharmendra Lamsal, SRF	National Centre for Biological Science, Bangalore DBT project Rufford small grant (1 year)	Programme support for Technological Innovations and Ecological Research for the sustainable use of Bio-resources in Sikkim Himalaya: Long term monitoring plots on understanding responses of alpine pastures to warming in Sikkim Him: Zema III, Yathang, Thangu and Chopta valley, Gochung, Giagong Extension	Data will be collected at peak and end of growing season ,species richness from every plot by using a 1x1 m further divided into hundred 0.1m grid growing season.	12.7.2017
14	Prof. H. Syiemlieh PI, Milap Chand Sharma Jt. PI & Ms. Manasi Debnath PhD Scholar	Geography Dept. North Eastern Hill University	Renewal of Palaeoclimatic Reconstruction of Changme Khangpu Glacier, Upper Tista Basin, India	1. Collection of about 100gm-150 gm of soil samples per site 2. About 10-15 sites of sediments from river banks and moraines where open sediment sections are available 3. Sediments will be collected through 1 foot long plastic pipe with 204 cm width	12.7.2017
15	Dr. Paramjit Singh Bsi, Kolkata, Dinesh Kr. Agrawala and BSI team	BSI, Gangtok	Floristic survey and exploration tour to different parts of Sikkim including WLPAs and non sanctuary	Survey and collection of voucher specimens: Shingba RS and KBR, KAS, Memenchu Lake, Fambonglho and Maenam WLS and Kitam BS	20.7.2017
16	Dr. Suresh Babu Asso. Prof., Rashmi Singh, PhD Scholar	Ambedkar University Delhi	Understanding the Rangeland Management, Ecological Dynamics, and Pastoral Practices	Social surveys with the residents of Yuksom and vegetation survey in the pastures bordering Yuksom and buffer zone of KNP.	24.8.2017

			in Yuksom, West Sikkim		
17	Dr. Jayashree Ratanam, Dr. Jagdish Krishnaswamy Dharmendra, SRF	National Centre for Biological Science, Bangalore Rufford small grant (1 year)	Understanding the responses of alpine grassland communities to future climate warming in the Sikkim Himalaya Biodiversity hotspot	Data collection from (already installed plots) on plant species richness, overall cover and the productivity of palatable and unpalatable species in alpine grassland of Lachen Valley	24.8.2017
18	Dr. Manju Rana, Asst Prof., Pema Sherpa PhD student	Dept of Horticulture Sikkim Univ	Study of microhabitats and in vitro multiplication of <i>Nardostachys grandiflora</i> DC from N, E, W Districts. (2 Years)	Survey and Collection of plant materials through sampling method one main plot will be marked, further divided into 3 Subplots under 15 random quadrats of size 1mx1m.	24.8.2017
19	Dr. Sharma, Program Manager, Prakash Chettri, Mahindra Lyuitel, Santosh Kumar Chettri and Bijay Rai	11.9.2017 TMI India SBFP	Study of Impact of Ban on Grazing in Himalayan Ecosystem in Sikkim from: Fambonglho WLS, RF areas in South, BRS, Singalila NP and adjacent RFs for control site from Darjeeling district.	Collection of Socioeconomic data for analyzing the economics of the grazing ban through PRA tools, focused group discussion, household survey, secondary data collection Phytosociological studies using quadrat method	24.8.2017
20	Dr. Basundhara Chettri, Associate Prof. PI, Ananta Rai PhD Scholar	Sikkim University	Study of distributional range and phylogeny of <i>Takydromus sikkimensis</i> along the Eastern Himalayas funded by SU	Collection of tissue samples from tails of three males and three females of <i>Takydromus sikkimensis</i> outside PAs (Singtam, Rangpo, Dikchu, Lingee, Melli, Jorethang)	24. 8.2017
21	Raaj Ramsankaran and team, in collaboration with SSCS & T	IIT Bombay	Field survey in East Rathong Glacier: Extension	To measure the glacier thickness and monitor using ground penetrating radar and terrestrial laser scanner	24.08.2017
22	Dr. K. Narayanan Nair Dr. TS Rana, Dr. A. S. Kanthraj (2016-2019)	CSIR-BNRI, Lucknow	Molecular systematic of the <i>Didymocarpus-Henckelia</i> (<i>gesneriaceae</i>) generic complex in India Extension	To collect bare minimum samples of the plants belonging to <i>Didymocarpus/ Henckelia</i> (<i>Gesneriaceae</i>) from Sikkim	24.8.2017
23	Dr. Bhoj Kr. Acharya Asst. Prof SU Zoology Ms. Purna Dhakal PhD Research Scholar	Department of Zoology, Sikkim University, Gangtok Ph: 03592-251067,	Study on the distribution of pattern of Amphibians along elevation gradient of Sikkim Himalaya and Phylogeny of the cryptic group: <i>Bufo</i> and <i>Megophryidae</i>	Collection of biological tissue samples specifically toe clips and blood of some cryptic species of <i>Amolops</i> and <i>Megophryidae</i> groups.	23.9.2017
24	Dr. Mithilesh Singh, Miss. Prashanti Pradhan, Dr. Dalbeer Singh, Mr. Amit Bahukhandi, Mr. Ajay Singh, Mr. L.K. Rai, Dr. Vikram Singh Negi	GB Pant National Institute of Himalayan Env. & Sustainable Development, Sikkim Unit, Pangthang,	NMSHE Project: Task force 3 :Forest Resources and Plant Biodiversity	1. Preliminary survey to North Sikkim 2. No collection of species is allowed unless permitted by PCCF	20.9.2017

		Gangtok 737101, Ph: 03592-237328			
25	Dr. Devendra Kr. Dr. Aseesh Pandey Ms. Sandhya Rai, Mr. Bhim Pd. Pandey	GBPNIHESD, Gangtok, Sikkim	Timberline and Altitudinal Gradient Ecology of Himalayas and human use sustenance in a warming climate	Preliminary survey: Collection of plant specimens for identification and herbarium from Yuksam-Dzongri transect, West Sikkim	20.9.2017
26	Dr. Djami Djeddour, Dr. Norbert Maczey, CABI United Kingdom and working for the organization CABI and Mr. Sangay Bhutia local Student SU & Dr. Gopi Ramaswamy, Country Director, India, and Science Director, South Asia- India	CABI-ICAR, Bakeham Lane Egham Surrey TW20 9TY, UK, Tel: 00441491829055, Mob: 00447776187696, Email: d.djeddour@cabi. org & Delhi-110 012 Tel: +91 (0) 1125841906, Fax: +91 (0) 115 842907)	Renewal: permission to survey and collection of Natural Enemies of Hedychium spp. (Wild Ginger) and their host plants for the purpose of research as part of an ongoing long term initiative on Invasive Species under a collaborative CABI-ICAR work plan endorsed by DARE	Survey and collect natural enemies of Wild Ginger Insects and Pathogens and their plant hosts under the ICAR-CABI workplan and NBPGR MoU with the rules made thereunder.	26.9.2017
27	Dr. Praveen Karanth Kunal Arekar	Centre for Ecological Sciences, Indian Institute of Science Bangalore	Determining the species of the Himalayan population of Hanuman Langur	1. Collection of fecal samples, tissue samples of Hanuman Langur from any road-kills found. 2. Molecular study using non- invasive techniques to determine of the Sikkim population of Himalayan Langur as genetically distinct species.	2.12.2017
28	Robert John Chandran, Asst Prof, Ms. Shivali Dubey (M.Tech. GIS/RS) Ms. Aleena Xavier Mr. Rounak Patra Dept of Biological Sciences, IISER, Kol	Dept of Biological Sciences, Indian Inst. Of Science Edn & Research (IISER) Kolkata Room B-16, Prefab-II Building Mohanpur – 741246, West Bengal	Understanding degradation and loss of primary forest in the Tista Valley of Sikkim Himalaya: a framework for recovery and mgmt of biodiversity and bioresources 3 years	Landscape-level analysis of vegetation in YUKSAM and DZONGU Study of vegetation upto 3300m	13.11.2017
29	Dr. Basundhara Chettri, HOD, Roshan Tamang M.Sc. III rd Semester	Dept. of Zoology, Sikkim University	Study of Niche Modelling of water Redstart for M. SC dissertation	Observing the species wherever it is present through scanning method and modeling through the use of Arc GIS software.	27.11.2017
30	Dr. Basundhara Chettri, HOD Pempa Lamu Bhutia M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Study of diversity of gecko (house lizard) along elevational gradient for M. SC dissertation	Survey in the lower elevation (below 1000m) and recording the identity, diversity and abundance of geckos.	27.11.2017
31	Dr. Basundhara Chettri, HOD Nim Chhiden Bhutia M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Plankton study and water analysis in Gurudongmar, Tsomgo, Menmecho and Khecheopalri Lakes for M. SC dissertation	Collection of water sample (2 litres) from above mentioned lakes for laboratory analysis.	27.11.2017
32	Dr. Basundhara	Dept. of Zoology	Altitudinal variation in	Collection of soil sample for	27.11.2017

	Chettri, HOD Krishna Rai M.Sc. III rd Semester	Sikkim University	earthworm diversity in cultivated and uncultivated land for M. SC dissertation	laboratory analysis and identification of the different species of earthworms found.	
33	Dr. Basundhara Chettri, HOD Bhadra Basumatary M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Study of Physico-chemical parameters along Teesta River for M. Sc dissertation	Collection of water samples for laboratory analysis to find out physio-chemical factors affecting the water of Teesta river and its aquatic life.	27.11.2017
34	Dr. Basundhara Chettri, HOD Dorjee Doma Lepcha M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Study of Diversity of Amphibians in West Sikkim for M.Sc dissertation	Night observation and identification by clicking the photographs in their natural habitat	27.11.2017
35	Dr. Basundhara Chettri, HOD Karsongmit Lepcha M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Study of Diversity of Birds in Maenam Wildlife Sanctuary for M. SC dissertation	Observing, identifying and counting the bird species following the Point count method at every 100 metres transect.	27.11.2017
36	Dr. Basundhara Chettri, HOD Zujamo A. Lepcha M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Study of Diversity of Fishes along the Teesta River for M. SC dissertation	Survey of the area and questioning the fishermen or the residents of the areas and clicking of photographs for identification as buying the fishes for measurement.	27.11.2017
37	Dr. Basundhara Chettri, HOD Yangchen Bhutia M.Sc. III rd Semester	Dept. of Zoology Sikkim University	Migratory birds in Gurudongmar, Tsomgo and Khecheopalri Lakes for M. SC dissertation	Observation, identification and counting of different bird species by marking four or five points around the periphery of the lake and observing the bird species within 100m radius.	27.11.2017
38	Dr. Basundhara Chettri, PI and Bhanu Bhakta Sharma M.Sc student	Dept. of Zoology Sikkim University	Study on Diversity of Agamids along elevational gradient for M. Sc dissertation	Identification of the species and measuring its length in their natural habitat.	27.11.2017
39	Dr. Arun Chettri (PI), Dr. Dhani Raj Chettri, Dr. Santosh Kr. Rai and Dr. N. Bijaylaxmi Devi Co-PIs	Department of Botany, Sikkim University	Study of Oak Forest Ecosystem in Sikkim Hamalaya with special reference to climate change, plant species diversity and distribution	<ul style="list-style-type: none"> • Study of distribution mapping through flora and herbarium data • Mapping of plants using maximum entropy modeling • To study the phenological pattern of Oak sp. along the elevation gradient by using marker oak tree community • Establishment of influence of abiotic variable on the distribution of oak forest plant sp. using standard established methodology. 	27.11.2017
40	Dr. G.P. Sinha Dr. Pooja Gupta	BSI, CRC 10, Chatham Line Allahabad	Taxonomic revision of lichen genus <i>Lecidea</i> of India	Collection of 1-2 lichen samples for each species of <i>Lecideaceae</i> family	2.12.2017
41	Dr. T. S. Rana, Sr. Principal Scientist (PI), Mr. Narendra Kumar, SRF and Mr. Harish Chandra Singh, Project Assistant	CSIR- National Botanical Research Institute (CSIR-NBRI), Rana Pratap Marg, Lucknow	Molecular Systematics of the genus <i>Betula</i> L. (Betulaceae) in India	Collection of <i>Betula</i> (<i>B. alnoides</i> , <i>B. utilis</i>) species: 1. 1 to 2 sample specimens for detailed taxonomic description and documentation in herbarium 2. 2 to 3 leaves from one or two plants per species for	2.12.2017

				molecular systematic studies.	
42	Dr. Sanjay Kumar, Director, Rakshak Kumar, Scientist, Srijana Mukhia	Biotechnology Division , CSIR-Institute of Himalayan Bioresource Technology Palampur-176061, HP India	Study of bacteria from the Ice-core of East Rathong glacier with reference to climate change	Collection of 50 ml of water and 10 gm of soil: 1. To study the physiochemical characteristics of collected ice core samples 2. To determine the distribution mechanism of bacterial abundance and community diversity in the ice core. 3. To relate the bacterial abundance and diversity study with climate change.	2.12.2017
43	Dr. Ajay Dashora, Asst Prof Abhishek Singh, Chandrasekhar, Chandrasekhar Reddy	IITGuwahati	Validation of alteration in geological and geospatial characteristics of glaciers due to climate change Location: East Rathong Glacier and Onglaktang Glacier (West); GSI Glacier No 242, Thekhang Glacier, Zemu Glacier (North).	1. Surveys through velocity stakes placed in the glacier surface approximately 8-10m surveyed at regular intervals and the displacement from their original positions is used to calculate the direction and magnitude of the surface ice movement. 2. Collection of Soil, rock and water samples. GPS data of such locations will be collected to understand the recent and historical changes at glaciers site.	15.3.2018
44	Dr. B.K. Acharya Zoology Dept. Dr. Sarala Khaling, Regional Director, ATREE, Pis, Dr. Basundhara Chettri Dr. Sunita Pradhan Dr. Laxuman Sharma, Co-Pis.	Sikkim University: Study locations : Lachen, Lachung, Thangu, Dzongu, Tumin, Sang-Khamdong Yuksom, Tashiding, Lingmoo, Yangyang , Temi Tea Estate	Key ecosystem services and biodiversity components in socio-ecological landscapes of Darjeeling - Sikkim Himalaya: deriving management & policy inputs and developing mountain biodiversity information system under National Mission on Himalayan Studies (NMHS) in collaboration with (ATREE), Regional Office Eastern Himalaya-Northeast India	To document key taxa on birds, butterflies, odonates, herpetofauna, small, mammals, trees and agro-diversity covering agro-pastoralism, agro-ecosystems and tea cultivation, etc. 1. Birds: Open-width point count method 2. Butterflies: fixed width point count method 3. Odonates: binoculars and standard photographs 4. Herpetofauna: time constrained visual encounter survey (VES) method for sampling herpetofauna 5. Small mammals: camera traps by dividing blocks using GIS 6. Trees: Quadrats sampling methods 7. Agrobiodiversity: quantitative and qualitative methods.	15.3.2018
45	Dr. Vikesano Rosaline Punyu, SERB-National Post Doctoral Fellow,	Department of Earth Science IISER Kolkata	Reconstruction of Paleo-monsoon from the Brahmaputra river Basin using Lipid Biomarker: Study on monsoon palaeoclimate in the NE region of India	1. Collection of few sediment cores from Gurudongmar lake. 2. The cores will be dated using radiocarbon dating 3. Lipid analysis will be done on the sediment cores.	15.3.2018

46	Prof. S.K. Borthakur Sabita Dahal PhD Student	Botany Dept, Gawahati University	Study and documentation of Traditional Medicinal Plants of Sikkim	1. Extensive field study in different parts of Sikkim to record occurrence of medicinal plants. 2. Collection of herbarium following conventional technique 3. Identification through literature of BSI Gtk and Kolkata 4. Ethno medicinal documentation through group interview with traditional herbal practitioners. 5. Ethno-medicinally species identified through field observation, consultation with the village people, etc.	15.3.2018
47	Dr. Awadesh Kumar Mr. Rakesh Basnett PhD scholar For Extension	North Eastern Regional Institute of Science and Technology (NERIST) Arunachal Pradesh	Ecology and human- Asiatic black bear (Ursus thibetanus) conflict in and around KNP, Sikkim	To study: 1. status and distribution pattern of Himalayan Black Bear in KNP 2. feeding ecology and to assess pattern of Human-black bear conflict in adjoining areas 3. traditional / scientific control measures to be adopted to reduce to impact of Himalayan Black conflict in buffer zone of KNP	15.3.2018
48	Dr. Suresh Babu Asso. Prof., Rashmi Singh, PhD Scholar. For extension of study areas	Ambedkar University, Delhi	Understanding the Rangeland Management, Ecological Dynamics and Pastoral Practices in Yuksom West Sikkim	Social surveys with the residents of Yuksom and vegetation survey in the pastures bordering Yuksom located in the buffer zone of KNP. For extension of study areas: to villages of Darap-Nambu GPU, Maneybong GPU	15.3.2018
49	Dr. Rajib Bandopadhyay Mr. Raju Biswas CSIR fellowship	Center of Advanced Study, Dept of Botany, Burdwan Univ. Golapbag, Bardhman – 713104, West Bengal, India	Bacterial diversity study in different lakes of Sikkim Himalaya	Collection of water 2 litres each from Aritar, Tsomgo and Kupup lakes and water parameter study	15.3.2018
50	H Lalthanzara Assistant Professor Dr. Ruth Lalfelpuii C. Zothansanga	Zoology Dept. Pachhunga Univ College Mizoram	Analyse the earthworm diversity of north- eastern states of India	Collection of 5 specimens of each species from road side, river bank, road side forest, around human habitation (opportunistic sampling) and KNP (North), Pangolakha WLS, Kyongnosla AS.	15.3.2018
51	Dr. M. Sanjappa INSA Senior Scientist & Former Director, BSI Dr. Rajappa Joga, Sr. Scientist & Mr. Bappa Karmakar, JRF, ICAR Meghalaya. Mr. R Karthick, JRF	Univ. of Agricultural Sciences, GKVK, Bengaluru 560 065. Karnataka State Agricultural University in collab with ICAR-NBPGR	Collection, taxonomy, molecular characterization and conservation of <i>Musa</i> Germplasm from North-eastern Region (NER) of India 3 Years East and West Districts	• Identification of <i>Musa: balbisiana</i> Colla, <i>sikkimensis</i> Kurz, <i>thomsoni</i> (King ex Schuman) Cowan & Cowan. • Collection of 3 samples each for herbarium, 200 grams of leaf samples, 2-3 suckers of each accession, 2-3 ripe, any other material of <i>Musa</i> spp. that cannot be identified in the field	15.3.2018

52	Dr. Nilesh Vijay Malpure Asst Prof. Mr. Prashant Somnath Raut, Project Fellow Botany Dept	Shri Sadguru Gangageermah Maharaj Science Gautam Arts and Sanjivani Comm College, Maharastra	Revisionary and Cytological studies in geophytic and succulent species of <i>Euphorbia</i> L. from India 3 years (2018-20)	1. Collection of one or two twigs of plants species from genus <i>Euphorbia</i> 2. To prepare taxonomic account, identification keys for all the collected species 3. To solve the taxonomic problems and revise geophytic and succulent <i>Euphorbia</i> for India	15. 3.2018
53	Dr. T. K. Mandal	Regional Ayurveda Research Institute, Tadong, Gangtok	Medico Botanical Survey tour from 12 th – 27 th March 2018 in the forest areas all over Sikkim	Medico Botanical Survey	19.3.2018
54	Dr. Uttam Lal, Nirjala Rai PhD Scholar	SU	Yak habitat and mountain Pastoralism in Sikkim Himalaya	<ul style="list-style-type: none"> Study involves qualitative and quantitative approach; survey, participant observations and ethological approach household schedule, semi-structured questionnaire, in-depth interviews Collection of soil samples and plant composition of area. 	15.3.2018
55	Dr. N. Baskaran, Mr. Khan Aamir Sohail Zafarullah, MSc student	Zoology and Wildlife Biology Dept. AVC College (Autonomous) Mannampandal-609305 Mayiladuthurai, Tamil Nadu	M.Sc dissertation on Captive Red-pandas : Drivers of Psychological and Physiological Stress among Captive Red Panda (<i>Ailurus fulgens</i>) in North Eastern India 5 months	Study involves: 1. Enclosure size of animal, substrate type, vegetation cover, presence of pool, den/hide, logs, natural barriers and artificial thermor regulators 2. Activity / Behaviour of animals influenced by variables like ambient temperature, visitor disturbance and keepers attitude 3. Collection of scat sample	15.3.2018
56	Dr. B. K. Acharya, Kishor Sharma PhD Scholar	Zoology Dept. School of Life Sciences SU	Diversity and distribution of birds and butterflies in the indigenous farming systems of Sikkim 3 years (2018-20)	<ul style="list-style-type: none"> Sampling of birds and butterflies and vegetation in different indigenous farming systems and forests Collection of 2-3 specimens of doubtful plants species, if necessary. 	15.3.2018
57	Dr. Arindam Bhattacharjee Aditi Rai PhD scholar	Microbiology Dept. NBU	Isolation, Characterization and Identification of α -amylase producing Psychrophilic Bacteria from High Altitude lakes of Sikkim 3 years	Collection of 100ml water and 10 GRAM soil samples from Samiti lake, Tsomgo lake and Crow's lake in Sikkim. North, West, South	15.3.2018
58	Dr. Archana Tiwari, Mentor Dr. Moumita Das PI and researcher	School of Biotechnology Rajiv Gandhi Proudयोगiki Vishwavidhyalaya Univ. of Tech of MP, Bhopal	Transcriptome profiling and development of EST-SSR markers for assessment of genetic relationships in <i>Gloriosa superba</i> 3 years (Feb-Mar 2018)	<ul style="list-style-type: none"> Development of large scale EST SSR markers of <i>Gloriosa 76odeli</i> through transcriptome sequence data to study the genetic relationships among different available <i>Gloriosa</i> genotypes/ecotypes Collection of around 1 kg of tubers with intact bulbs of 	15.3.2018

				<i>Gloriosa 77odeli</i> (Langarey tarul)	
59	Dr. A. K. Bisht, Asst Prof. Dr. R. S. Rawal, Sci-F, GBPNIHESD, Almora Ms. Sheila Sinha, SRF Based at GBPNIHESD	Botany Dept. Kumaun University Nainital, Uttarakhand	Plant diversity, its conservation and sustainability with a special focus on the socio-cultural practices of the Lepcha in Sikkim Himalaya. Study Area: KBR	Study includes: Quadrat and PRA method, Questionnaire survey, interviews, focused group discussions, etc focusing: <ul style="list-style-type: none"> Relationship between plant diversity and the Lepchas Analyze the socio-economic status of the tribe and their level of dependency on plant Documentation of entire aspect of human – plant interference, TK on conservation and sustainable use of the plant resources. 	15.3.2018
60	Dr. Anup Chandra & Dr. Ghanashyam Sharma, Supervisors, Mr. Prakash Chettri, PhD Scholar	FRI, Dehradun	Assessment of Anthropogenic disturbances on plant diversity of selected sites of South (T) Division 3 years	1. Socio-economic survey, transect survey, laying of plots for studying the diversity of plants 2. Collection of soil sample for nutrient analysis	15.3.2018
61	Prof. Milap Chand Sharma, Prof. Sunil Kumar De, Arindam Chowdhury PhD scholar, Manasi Deb Nath, Mr. Danish Khan	North-Eastern Hill Univ, Shillong, Meghalaya	Glacial Lake Dynamics and its Potential Risk assessment of Chhombu catchment in Upper Tista Basin Sikkim Himalayas Study area: Gurudongmar lake complexes, Cho Lhamu, Khangchung lakes of Chhombu Catchment	1. Glacier mapping and change detection using Standard false-colour composites methods 2. Glacier Fluctuation: glacier snout position detection, ELA, etc 3. Discriminate by applying normalized difference water index (NDWI) to further calculate the vulnerability of the growing lakes. 4. High resolution LISS IV and Sentinel 2 (MS bands) dataset will be visually interpreted for the classification of lakes in association with the glacier inventory 5. Collection of water (2 ltrs), and rock from the end moraines in the study areas.	15.3.2018
62	Dr. Rajib Bandopadhyay Associate Professor	Center of Advanced Study, Dept of Botany, Burdwan Univ. Golapbag, Bardhaman – 713104, West Bengal,	Microflora bacteria:	Collection of water from Gurudongmar Lake	15.3.2018

ENVIRONMENT
&
SOIL
CONSERVATION

Chapter-22

Status of Wetlands in Sikkim:

There are a number of wetlands in the State of Sikkim and most of them are located in high altitude areas of the State. All wetlands small or big are fresh water except Gyamtsona in North District of Sikkim which is brackish. Majority of wetlands in the State are located in East and North Districts and rest are distributed in West District of Sikkim. A number of small lakes / wetlands form wetland complexes in Sikkim Himalayas. Wetlands are source of drinking water, rivers, streams and important tourism destinations in the State.

521 numbers of wetlands in the State are enumerated using Remote Sensing Data along with their GPS coordinates. Around 95% wetlands are within the Reserve Forest/ forest or protected areas as 82% of the State's geographical area falls under recorded forest areas. All these wetlands/wetland complexes are protected and managed under the relevant State/Central Acts and laws as enforced from time to time. Hence, there is no severe problem of encroachment, pollution, weed infestation and anthropogenic activities. But the problem of siltation is substantial in almost all the wetlands due to degradation of catchment areas, climate change such as erratic and untimely rainfall especially when there is no grass cover during winter, early melting of snow in the mountains.

Some lakes such as Tsomgo, Khecheopalri, Gurudongmar, Dudhpokhari, Kathok lakes etc are considered as holy and sacred in the State. People in the State are God fearing and they never tend to pollute or degrade such lakes, instead they come for prayer and obtaining blessings from natural deity fulfilling wishes, people come forward to protect and preserve the wetlands in the State.

The Ministry of Environment, Forests and Climate Change, Wetland Division, Government of India has been funding the State Government for implementation of Management Action Plan for conservation and management of following wetlands out of 6 wetlands included in the National Wetland Conservation Programme in the State of Sikkim.

1. Gurudongmar wetland in North District.
2. Khecheopalri wetland in West District.
3. Tsomgo wetland in East District and
4. Bidang tso wetland in East District.

Following wetland complexes are included in Nation Wetland Conservation Programme by the Ministry of Environment and Forests, Government of India.

1. Gurudongmar wetland in North District.
2. Tembao wetland complex in North District.
3. Tamzey wetland complex in North and East District.
4. Tsomgo wetland complex in East District.
5. Bidang wetland complex in East District.
6. Khecheopalri wetland complex in West District

Tsomgo wetland is the most threatened wetland in the State due to siltation and anthropogenic activities. However, the timely intervention by Forest Department and Pokhari Sanrakshan Samiti, the lake is now managed well and protected. Pokhari Samrakshan Samiti constituted by Forest Department has played a vital role in conserving this wetland. There are few defence and civilian settlements on the northern and eastern catchment of the lake. Earlier, northern periphery of the lake along the road leading to Nathula Pass was teemed up with around 45 to 50 kutcha sheds for running shops by local people selling eatables and garments which had polluted the lake. Later the Forest Department rehabilitated the people shifting from the lake side down to diverted forest land below the lake. Since then the level of pollution has decreased in the lake.

Pokhari Sarakshan Samiti:

Another initiative of the Government towards environmental conservation is the constitution of Pokhari Sanrakshan Samitis (PSSs) or Lake Conservation Committees for those lakes which are important from the tourist point of view and which have the potential to be degraded as a result of tourism. PSSs have been successfully formed and are in operation for Tsomgo and Khecheopalri lakes. The Pokhari Sanrakshan Samitis have a general and executive body and they collect lake conservation fees from tourists which are used for lake conservation activities. Members of the PSSs include local residents, taxi drivers, NGOs and the Forest and Environment Department is the coordinating agency. Activities carried out by these Samitis include cleaning of the lake areas and its vicinity, garbage management, plantation, desiltation, awareness campaigns, bin and garbage bag distribution to taxis, construction of toilets, assistance to tourists etc.

SN	Name of Wetland	Year-wise fund Received by the State										
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Tsomgo, East Sikkim	5.00	16.31	15.00	13.95	0.00	18.50	0.00	0.00	0.00	0.00	23.27
2	Gurudongmar, North Sikkim	3.36	13.45	14.00	22.95	7.65	0.00	0.00	0.00	21.00	0.00	00.00
3	Phedang, East Sikkim	8.00	14.85	16.60	13.00	0.00	12.50	0.00	0.00	0.00	0.00	13.89
4	Khecheopalri, West Sikkim	0.00	8.70	38.19	0.00	40.15	0.00	0.00	0.00	21.28	26.60	5.32
5	Tamze, North Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.64	23.76	23.76

ENVIRONMENT & SOIL CONSERVATION (EAST)

Work carried out under Tsomgo Wetland Conservation Programme during 2017-18.

Sl. No	District	Location	Items of work	Achievement		Remarks
				Physical	Financial	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01	East	Tsomgo	Survey of soil type and hydrology	1 job	1,50,0000.00	Central Share 90%
02	-do-	-do-	Zero Garbage programme in Tsomgo village	1 programme	2,00000.00	-do-
03	-do-	-do-	Isolation of area for breeding of high Altitude birds and bird census.	1 job.	2,00000.00	-do-
04	-do-	-do-	Strengthening of village wetland Conservation committees	1 committee	1,00000.00	-do-
05	-do-	-do-	Education and awareness	1 programme	2,00000.00	-do-
06	-do-	-do-	Documentary film on birds of Tsomgo wetland	1 job	5,00000.00	-do-
07	-do-	-do-	Hydrological measure	1 job	2,00000.00	-do-
08	-do-	-do-	Preparation of comprehensive map (core)	1 no	5,00000.00	-do-
09	-do-	-do-	Dredging of silts from lake	48 cum	1,60000.00	State share 10%
10	-do-	-do-	Monitoring and evolution	1%	22,000.00	-do-
11	-do-	-do-	Administrative cost	-	46,000.00	-do-
	-do-	-do-		Total:-	Rs.22,78000.00	

(Rupees Twenty two lakh seventy eight thousand) only.

Work carried out under Phedang Wetland Conservation Programme during 2017-18.**Achievement.**

Sl. No (1)	District (2)	Location (3)	Items of work (4)	Physical (5)	Financial (6)	Remarks (7)
01	East	Phedang (Bithan)	Survey of soil type and hydrology	1 job	1,50,0000.00	Central Share 90%
02	-do-	-do-	Zero Garbage programme in Kupup village	1 programe	2,00000.00	-do-
03	-do-	-do-	Study on the behaviour migratory of birds and bird census.	1 job.	1,00000.00	-do-
04	-do-	-do-	Formation of village wetland Conservation committees.	1 committee	1,00000.00	-do-
05	-do-	-do-	Education and awareness	1 programme	2,00000.00	-do-
06	-do-	-do-	Preparation of comprehensive map (core)	1 no	5,00000.00	-do-
07	-do-	-do-	Dredging of silts from lake	30 cum	1,00000.00	State share10%
08	-do-	-do-	Monitoring and evolution	1%	14,000.00	-do-
09	-do-	-do-	Administrative cost	-	25,000.00	-do-
				Total:-	Rs.13,89,000.00	

(Rupees Thirteen lakh eighty nine thousand) only.

Work carried out under Cat Plan Project during 2017-18.

SL. NO	SCHEMES	COMPONENT OF WROK	LOCATION	PHYSICAL ACHIEVEMENT	FINANCIAL ACHIEVEMENT
01	CAT Plan (CAMP) under Sneha Kinetic Power Project Dikchu HEP.	Maintenance of old Artificial Regeneration	Tamzey Latui RF.	16 Hac.	56,994.00
02	CAT Plan CAMP) under LANCO HEP, Stage III.		Gathey Khola	06 Hac.	9,900.00
	-do-	-do-	Gathey Khola	22 Hac	36,960.00
	-do-	-do-	Tumin RF.	14 Hac.	23,320.00
	-do-	-do-	Fabonglho RF.	42 Hac.	1,22,760.00
	-do-	-do-	Linku RF.	20Hac.	59,400.00
03	CAT Plan (CAMP) under Rongnichu HEP,	-do-	Rai Limboo, RF.	20 Hac.	59,994.00
	-do-	-do-	7 th Mile RF.	20 Hac.	59,994.00
	-do-	-do-	Chongay Khas.	20 Hac.	59,994.00
	-do-	Maintenance of old Medicinal Plantation (NFTP)	Thulo Kharka RF.	05 Hac	21,998.00
	-do-	-do-	Yalli RF.	05 Hac.	21,998.00
				Total:-	Rs. 5,33,312.00

(Rupees Five lakhs thirty three thousand three hundred and twelve) only.

World Environment Day: 2017.

World Environment Day, with UNEP theme “Connecting People to Nature” was celebrated in all four Districts on 5th of June, 2017 with the participations of Students, Teachers, NGOs, JFMCs, EDCs, Panchayats, Municipalities, Urban & Local bodies, Private Companies & Public. The event included plantation drives, cleanliness drives, competition on essay writing, painting, slogan & debates on themes of Protection & Conservation of environment.

State Level World Environment Day was celebrated at the premises of BAC, Kaluk, West Sikkim. Similarly World Environment Day was also celebrated at district & local level in North, East & South Districts.

Sl.no	District	Official programmers held at	Approx.no.of participants	No.of seedlings planted
01	West Sikkim	State-level function, Kaluk BAC Premises	3000	5,384
02	North Sikkim	District -level: Govt.Sec.School Complex,Lindong	600	6,127
03	East Sikkim	District-level: Govt.Jr.High School complex,Mulukkey	500	1221
04	South Sikkim	District level: Sikkim Govt.College,Kamrang	700	3400
	Total-			16,132

Figure Source: ENVIS Newsletter, FEWMD.

Chapter-23

ENVIRONMENTAL INFORMATION SYSTEM - (ENVIS)

ENVIS CENTRE SIKKIM

Subject Area: “On Status of Environment & Related Issues”

Official Website: www.sikenvis.nic.in **Email:** sik@envis.nic.in

ENVIS is a 100% central sector scheme of the Ministry of Environment, Forests & Climate, Government of India since 1982-83. The scheme was launched in Sikkim under the Forest, Environment and Wildlife Management in the year 2002-03 as ENVIS Node and later fully operational in 2006-07. ENVIS is a distributed environmental information network with the mandate of collection, collation, storage, retrieval and dissemination to varying users, which include decision-makers, researchers, academicians, policy planners, research scientists, etc. The ENVIS Secretariat located in the Ministry coordinates the activities of all the ENVIS network partners to make ENVIS a web-enabled comprehensive information system.

This Centre is under the overall administrative control of the PCCF-cum-Pr. Secretary with the support of Addl. PCCF, Chief Conservator of Forests, Additional Director (Environment & Soil Conservation) Circle. The day to day affairs of the ENVIS centre are being managed by one Sr. Programme Officer, one Information Officer, one IT Officer and one Data Entry Operator.

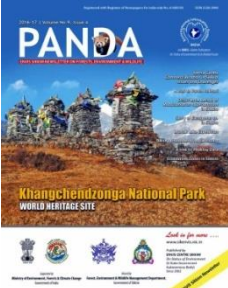



Sikkim State ENVIS Hub Team:

1. Mr. B. B. Gurung, Additional Director (E&SC) -cum- Coordinator
2. Mr. Rajen Pradhan, Senior Programme Officer
3. Mr. Laxuman Darnal, Information Officer
4. Ms. Renu Gurung IT Officer
5. Ms. TulshaGurung, Data Entry Operator

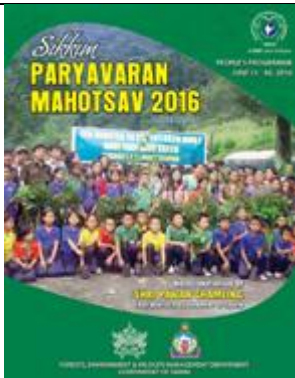
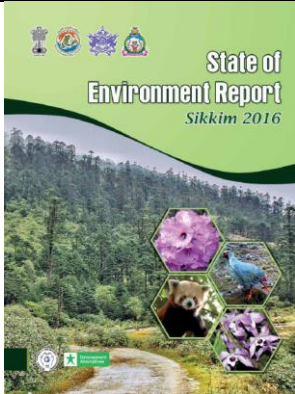
Services

1. Website Development and Updation: www.sikenvis.nic.in, www.sikkimforest.gov.in
2. Publication of Quarterly Newsletters including special edition ‘PANDA’
3. Preparation and publication of State of Environment Reports
4. Updation of ISBEID (Indian State-level Basic Environment Information Database)
5. Online/ in-person Query Response System
6. Library Facility
7. Other Publications/Reports/ Archives on Himalayan Journal
8. IT support/ LAN/ Intranet/Internet maintenance and services
9. Environment Awareness Programmes: **National Green Corps (NGC)** School Eco-Club programme amongst 766 schools of Sikkim; Green Teachers Training; Orientation Workshops, provision of environment kits and awareness material etc.
10. Coordination of Chief Minister’s Green School Rolling Trophy and State Green School Awards.
11. Continuous Engagement Programme for imparting environment awareness, education and training with agencies like Centre for Science and Environment (CSE) New Delhi, earthain WIPRO, Centre for Environment Education (CEE) Ahmedabad and Guwahati; etc.
12. Exchange of information with the Ministry, Research Agencies and promotion of national and international cooperation and liaison for exchange of environment related information.

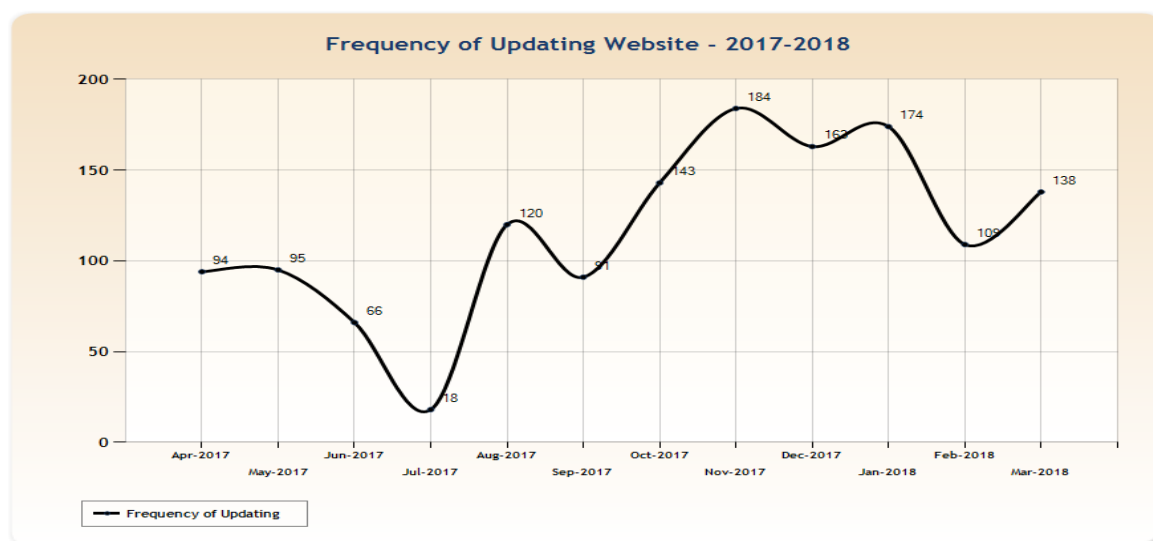
ENVIS Newsletters published during the Financial Year 2017-18:

Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	2017 Special Newsletter edition title PANDA Vol. 9 60 paged special edition ENVIS newsletter on scientific research articles, write-ups, observations and notes on flora, fauna, ecotourism, wildlife, climate change and other important environment issues over the year 2016-17 of Sikkim State. The newsletter is a compilation of articles received from foresters, environmentalists, scientists, scholars, students and volunteers.	2000 nos (60 Paged) <i>Supported by host organization</i> <i>Released by the Hon'ble Forest Minister of Sikkim on June 5, 2017</i>	http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20ENVIS%20-%20PANDA%20News%20Maganie%20Vol%209.pdf
	1 st Qtr (Apr-Jun) Vol. 10, Issue 1 <i>Rhododendron abhaya</i> a new species from Sikkim Himalaya, Paryavaran Mahotsav 2017, Chief Minister's Green School Rolling Trophy, World Environment Day, Ten Minutes to Earth, State Green Mission, Smritivan, First Bhairon Singh Shekhawat Lifetime Achievement Award to Sikkim CM, Green Stories from School Eco-Clubs, Nature based festivals of Sikkim,	500 nos. (12 Paged)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%201%20(Apr-Jun).pdf
	2 nd Qtr (Jul-Sep) Vol. 10, Issue 2 <i>Mucuna laticifera</i> a new species from Sikkim Himalaya, One World Grand Prix Award to Sikkim CM, Organic Sikkim, earthen school programme, ozone heroes, significant findings in new wildlife survey, swachh vidyalaya puraskar, Prakriti Paryavaran Aur hum, Green march, Swachhta Hi Seva, Pictorial map of South Sikkim, Major ginsenoside contents in rhizomes of <i>Panax sokpayensis</i> and <i>Panax bipinnatifidus</i> ,	500 nos. (12 Paged)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%202%20(Jul-Sep).pdf
	3 rd Qtr (Oct- Dec) Vol.10, Issue 3 Amphibians of Sikkim - Two New Records for the State, Mith Trees, Minimal pollution during Deepawali festival in Sikkim, Ban on Firecrackers, Sidkeong Tulku Bird Park, a flock of broadbill flight turns deadly, Tinjurey a shot nature trek, Popularizing local medicinal plants bhakimlo and mel, Green Teachers Training	500 nos. (12 Paged)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%203%20(Oct-Dec).pdf

Other ENVIS publications/ information products brought out during the Financial Year 2017-18:

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<p>Pamphlet on State Government's Initiative on Forestry, Environment and Wildlife Management</p> <p>Bilingual (English and Nepali) pamphlet especially published as awareness material for newly elected panchayats of the State.</p>	<p>1500 Copies each = 3000 nos</p> <p><i>Supported by host organization</i></p>	<p>http://sikenvis.nic.in/WriteReadData/UserFiles/file/Sikkim%20Environment%20Initiatives%20English.pdf <i>English</i></p> <p>http://sikenvis.nic.in/WriteReadData/UserFiles/file/Sikkim%20Environment%20Initiatives%20Nepali.pdf <i>Nepali</i></p>
	<p>Activity Book on 'Paryavaran Mahotsav 2016'</p> <p>Sikkim celebrated the 4th successive Paryavaran Mahotsav 2016. This 92 paged pictorial book highlights activities carried out throughout the State through mass public participation. The activities such as plantation drives, cleanliness drives, signature campaigns, Greenathon events and various other activities are highlighted in this publication.</p>	<p>1000 nos (92 pages)</p> <p><i>Supported by host organization</i></p> <p><i>Released by the Hon'ble Governor of Sikkim on June 25, 2017</i></p>	<p>http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav%202016.pdf</p>
	<p>State of Environment Report Sikkim 2016</p> <p>This will be second SoE Report for Sikkim by ENVIS. First edition was published in 2007.</p>	<p>1000 copies under print (126 pages)</p>	<p>To be released</p>
	<p>White Paper on Forestry, Environment and Wildlife Initiatives of the State Government 1994-95 to 2017-18</p> <p>ENVIS was assigned to compile and prepare this comprehensive report for submission to the State Legislative Assembly.</p>	<p>130 copies (165 pages)</p> <p><i>Supported by host organization</i></p>	<p>Restricted document.</p> <p>Not available online</p>

Frequency of updating Website 2017-18: The monthly average frequency of updation for 2017-18 is over **116 updates per month**. Total **1395 updates** have been made during 2017-18. The updates during June and July were hindered due to web server error.



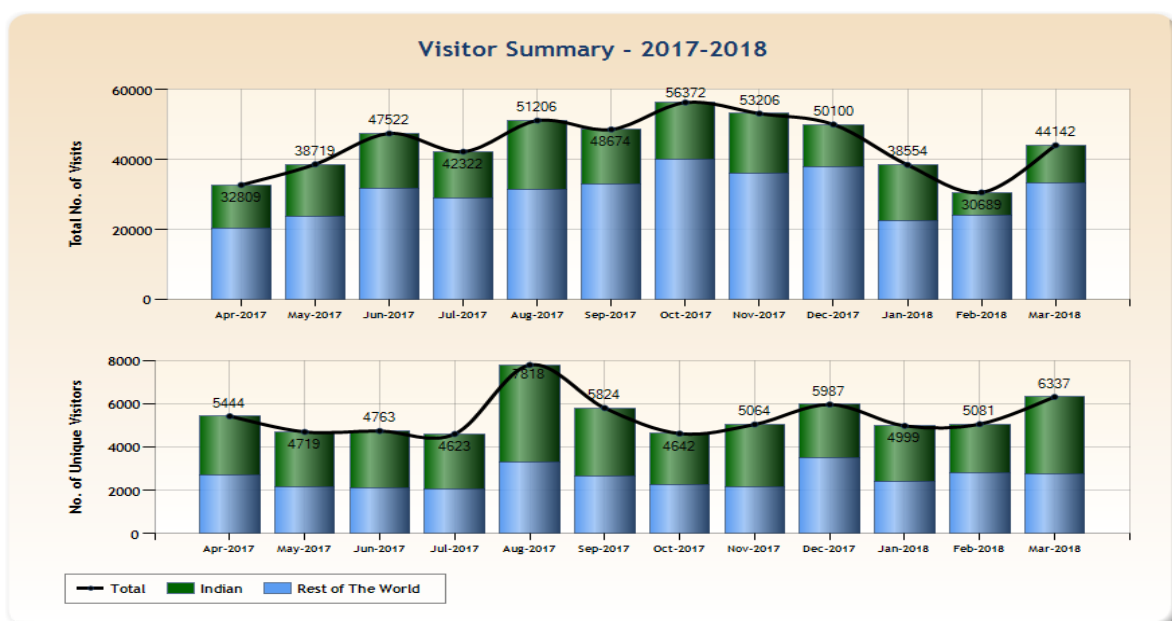
Months	Publications	Subject Area	Glossary	Bibliography	Major Activity	Kids Centre	Upcoming Events	Latest News	Photo Gallery	Frequency of Updating
Apr-2017	2	15	0	56	0	0	8	10	0	94
May-2017	1	17	0	67	0	0	4	6	0	95
Jun-2017	2	3	0	25	0	0	1	6	29	66
Jul-2017	1	0	0	13	0	0	2	2	0	18
Aug-2017	0	14	0	76	16	0	9	5	0	120
Sep-2017	1	19	0	65	0	0	1	5	0	91
Oct-2017	2	23	0	98	12	0	5	3	0	143
Nov-2017	5	20	0	140	0	0	3	16	0	184
Dec-2017	0	5	0	147	0	0	7	4	0	163
Jan-2018	1	22	0	138	0	0	5	8	0	174
Feb-2018	2	11	0	87	0	0	2	7	0	109
Mar-2018	1	23	0	106	0	0	4	4	0	138

User Engagement and Interaction (last three years)

<i>User engagement and interaction</i>		<i>FY 2015-16</i>	<i>FY 2016-17</i>	<i>FY 2017-18</i>
i.	Total number of visits	2,53,172	3,51,826	5,34,217
ii.	Number of unique visits	48,924	41,082	52,471
iii.	Reports Downloaded/Read	994	1,247	1,011
iv.	Total Number of Queries received	1400	1779	1898
v.	Number of Queries responded	1400	1779	1898
vi.	Grade received	81 'A'		

Total number of visits on Website (2017-18) : 5, 34,217

Number of unique visits on Website (2017-18) : 52,471



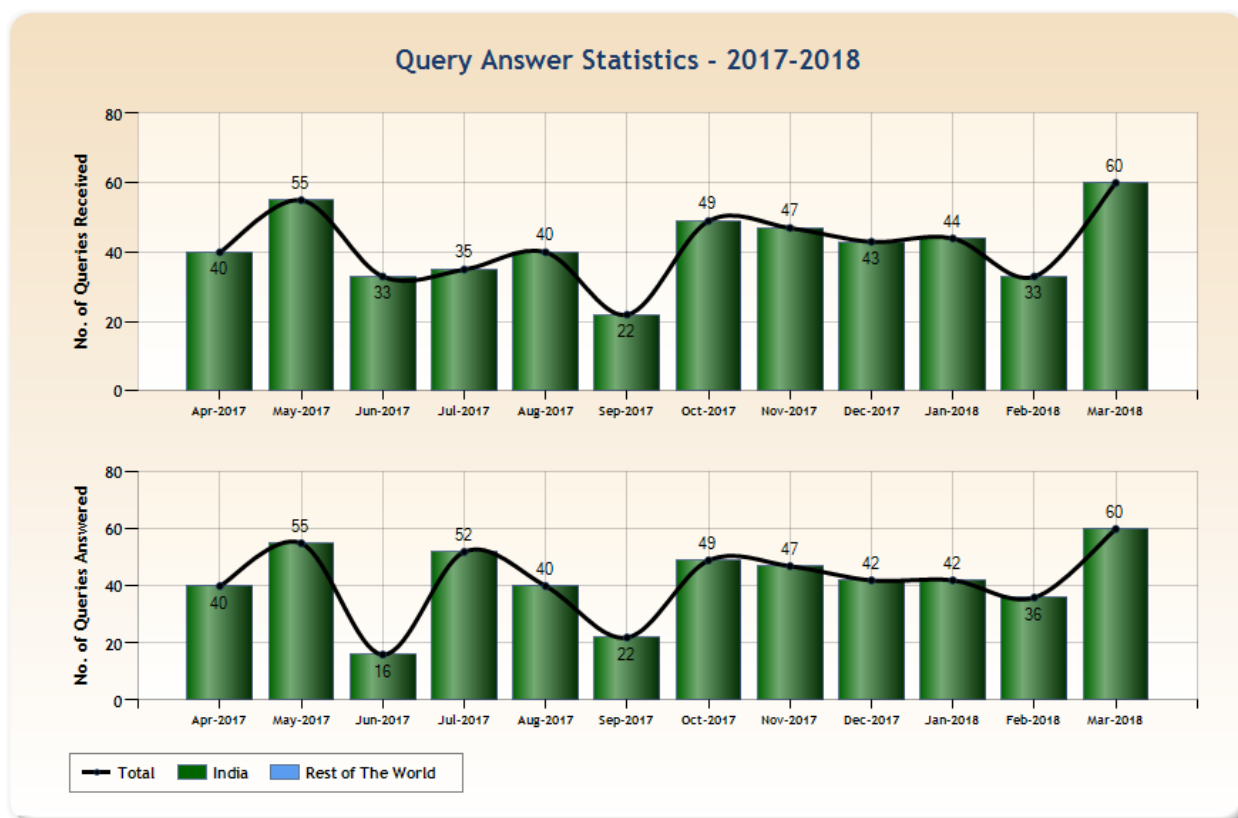
Months	Visits			Unique Visitors		
	Indian	Rest of the world	Total	Indian	Rest of the world	Total
Apr-2017	12261	20548	32809	2732	2712	5444
May-2017	14810	23911	38719	2534	2185	4719
Jun-2017	15620	31904	47522	2652	2111	4763
Jul-2017	13398	28925	42322	2560	2063	4623
Aug-2017	19562	31647	51206	4523	3295	7818
Sep-2017	15671	33006	48674	3178	2646	5824
Oct-2017	16150	40222	56372	2375	2267	4642
Nov-2017	16961	36246	53206	2877	2187	5064
Dec-2017	12210	37891	50100	2462	3525	5987
Jan-2018	15855	22702	38554	2559	2440	4999
Feb-2018	6694	23999	30689	2263	2818	5081
Mar-2018	10681	33463	44142	3560	2777	6337

Number of reports downloaded/ read by stakeholders: Total 1,011 downloads have been observed during 2017-18 as on 31-Mar-2018 in which about 55% of the downloadable items have been accessed from the Publications module and about 44% of the items have been downloaded from the subject area module. However, this figure is only restricted to sections of the website which require user login. The actual download figures is expected to be much more since 70% of the reports content of the website especially the subject area content have now been uploaded with direct URL of pdf files due to user demand.

Year	Publications			Subject Area			Report Read/Downloaded		
	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total
01 Apr 2017 – 31 Mar 2018	528	25	553	438	15	453	971	40	1011

Query-Answer Statistics 2017-18:

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded
Online (CMS based website)	501	501
Email (official NIC server)	490	490
Postal/Telephonic (incl. hand post)	242	242
Physical	665	665
Total	1898	1898



Status of utilization of grant (100% CSS) during the financial year 2017-18 and reasons for shortfalls, if any:

	Head of Expenditure	Sanctioned amount (Rs.)	Actual Expenditure (Rs.)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower	11,88,884	11,88,884	-
	Others	4,65,300	4,65,300	-
	Travel	3,00,000	16,778	-
Non-Recurring	Preparation of State of Environment Report 2016-Sikkim	30,97,500	24,14,990	Report is under print

Training, Extension, Awareness and Outreach Activities by ENVIS during 2017-18

1. Stakeholder's Consultation Workshop held



ENVIS Sikkim at Forest and Environment Department, Government of Sikkim, Gangtok organized stakeholder's consultation workshop with more than 30 line departments for the preparation of State of Environment Report 2016 Sikkim on April 24, 2017 at Sidkeong Tulku Forest Conference Hall, Deorali, Gangtok.

2. Chief Minister's Green School Rolling Trophy and State Green Schools Awards 2017 on the occasion of World Environment Day Celebration on June 5, 2017



ENVIS Sikkim actively played a role of the resource agency in scrutinizing and screening the reports from about 150 schools for the State's most prestigious award scheme, the Chief Minister's Green School Rolling Trophy and State Green Schools Award 2017. ENVIS Centre has been playing the role of nodal agency in implementing this award scheme in the State since its inception in 2011. The 2017 awards were presented to eight schools during the State level celebration of World Environment Day on 5th June 2017 at Kaluk BAC premises, West Sikkim. Other activities included plantation drive, cultural programmes, yoga demonstration, felicitation of dedicated foresters and public address by the senior forest officials and political dignitaries.

List of School Awardees 2017:

SN.	SCHOOLS NAME	AWARDS
1.	Govt. Sr. Secondary School, Buriakhop , West Sikkim	CM Rolling Trophy, Certificate, Cash prize – Rs. 5.00 lakh
2.	Govt. Sr. Sec. School, Kewzing , South Sikkim	Trophy, Certificate, Cash prize- Rs. 1.00 lakh
3.	Govt. Sr. Sec. School, Lingmoo , South Sikkim	Trophy, Certificate, Cash prize- Rs. 1.00 lakh
4.	Govt. Sec. School, Passingdong , North Sikkim	Trophy, Certificate, Cash prize- Rs. 1.00 lakh
5.	Govt. Sec. School, Sopakha , West Sikkim	Trophy, Certificate, Cash prize- Rs. 1.00 lakh
6.	JHS Category: Govt. Jr. High School, Raley , East Sikkim	Trophy, Certificate, Cash prize- Rs. 50,000/-
7.	Primary School Category: Govt. Primary School, Tingda , North Sikkim	Trophy, Certificate, Cash prize- Rs. 50,000/-
8.	Private School Category: Sunshine English School, Melli Bazaar, South Sikkim	Trophy, Certificate, Cash prize- Rs. 50,000/-

3. Paryavaran Mahotsav 2017: Swachh Bharat Pakhwada June 15-30



ENVIS Centre played active role in coordinating the 5th successive Paryavaran Mahotsav in Sikkim duly celebrating Swachh Bharat Pakhwada from June 15 to June 30, 2017. This fortnightly event which included the 12th phase State Green Mission and 9th Phase Ten Minutes to Earth programme was carried out throughout the State. The Centre's role was to spread mass awareness and publicity through online and print media. The centre designed and printed programme banners, posters, signages for signature campaign on green pledge, Go Green stickers for vehicles. The main objective of the program was to educate and encouraging people to be responsible towards environment and also bring awareness about different initiative taken by the government in order to preserve our ecosystem. During this fortnight, ENVIS compiled and recorded a total of 2.34 lakh seedlings planted across the State.

4. Teacher's Orientation on WIPRO's Earthian Schools Programme 2017

Sikkim State ENVIS, Forest and Environment Department in collaboration with WIPRO Bengaluru conducted green teacher's training programme for 100 schools across of the State on 29th July 2017 at Namchi DAC for South and West district schools and on 31st July 2017 at Forest Conference Hall, Gangtok for North and East district schools.



Picture (Top) Group photo of training session for South and West District Schools at Namchi (Below) Group photo of training session for East and North District Schools at Gangtok

5. **Swachhta Hi Seva** campaign organized at the office premises of Forest Secretariat, Gangtok, Sikkim on September 23, 2017 by taking up Green Pledge and cleanliness drive of the offices and its premises.



6. **Celebration of World Ozone Day – 30th Anniversary of Montreal Protocol**



World Ozone Day 2017 with the UNEP theme “Caring for all life under the sun” was observed and celebrated across the State of Sikkim on the 16th day of September 2017 with several pre-event and during the event activities. Sikkim State ENVIS Centre at Forest and Environment Department, Government of Sikkim, also functioning as a part of the State Nodal Agency for

National Green Corps School Eco-Club programme coordinated and conducted the following activities from 11th September to 16th September 2017 to commemorate the 30th anniversary of Montreal Protocol for the preservation of ozone layer that supports entire life on earth;

- Painting and Slogan writing competition at about 400 eco-club schools of the State on the theme “Protection of Ozone layer”; and submission of best entries in the ozone portal www.ozone30mp.nic.in
- Wide Publicity through ENVIS portal (<http://sikenvis.nic.in/ViewEvents.aspx?Id=5359&Year=2017>); Publicity through digital billboard at Forest Secretariat premise of Gangtok; Dissemination of posters in print, videos to schools at rural areas through block administrative centres.

- Coordination of rally/ banner campaign/ signature campaign/ morning assembly speech by school students across the State.
- Awareness/ video screening at various schools of the State; and at Forest Secretariat for schools at Gangtok, the capital town of Sikkim.
- Field Activity: Outreach interactive programme amongst students and electronic vendors/ service centers/ local people / tourists

7. Green Teacher's Training for 250 schools of Sikkim



Sikkim State ENVIS Hub organized a two day green teacher's training on environment auditing at schools focusing on water and sanitation in partnership with Centre for Science and Environment, New Delhi. The training attended by about 200 schools across the State was held at Forest Conference Hall, Gangtok on October 12-13, 2017.

8. State level Earthian Schools Award organized



Orientation of School Eco-club and State-level Awards on WIPRO's Earthian school programme was organized by ENVIS Hub at Gangtok, East Sikkim and at Namchi, south Sikkim on February 26th and 28th

respectively.

9. International Day of Forests observed on theme "Forests and Sustainable Cities" at Sidkeong Tulku Forest Conference Hall, Gangtok on 21st March, 2018.



The senior officers of the host institution along with State ENVIS Hub met and interacted on the current forestry and environmental issues to commemorate the International Day of Forests. ENVIS hub shared in ppt form the poster prepared by ENVIS RP IFGTB (*circulated through ENVIS WhatsApp group*). State ENVIS hub also made screening of short documentary film "Ecosystem: Mountain, Forest and Meadow".

The senior officers of the host institution along with State ENVIS Hub met and interacted on the current forestry and environmental issues to commemorate the International Day of Forests. ENVIS hub shared in ppt form the poster prepared by ENVIS RP IFGTB (*circulated through ENVIS WhatsApp group*). State ENVIS hub also made screening of short

10. Trainings/ Meetings attending by ENVIS during 2017-18

i.	ENVIS Sikkim attended a one day training-cum orientation on PFMS on 17 th August, 2017 organized by PFMS Sikkim Unit, State Finance, Revenue & Expenditure Department at Gangtok. ENVIS Sikkim also received PFMS login credentials.	
ii.	ENVIS Sikkim participated in the hands-on training on the EAT module of PFMS on September 11-12, 2017. The hands-on training was imparted by Mr. Sourav Hazarika, Operation Manager, PFMS Sikkim Unit of State Finance, Revenue & Expenditure Department at Gangtok.	
iii.	ENVIS Sikkim participated in the ENVIS National Workshop-cum-Training on GRIDSS at BISAG, Gandhinagar, Gujarat on September 21-23, 2017	
iv.	Sikkim State ENVIS Hub participated in the video-conference with State Pollution Control Board Sikkim and NIC New Delhi officials at NIC Gangtok on October 07, 2017 on Online Consent Management & Monitoring System for State Pollution Control Board (OCMMS) for facilitating Ease of Doing Business (EoDB) initiative of the Central Government.	
v.	Meeting with Dr. D K. Agrawal, Scientist 'D' and In-charge, Botanical Survey of India (BSI), Gangtok, Sikkim in regard to Green Skill Development Programme (GSDP) on October 24, 2017.	
vi.	Sikkim State ENVIS attended 2 nd round of PFMS training on EAT module at Accounts and Administrative Institute (AATI), Gangtok on October 27, 2017 organized by State Finance, Revenue and Expenditure Department.	
vii.	Meeting with Shri Abhinay Bhandari, Consultant, Renewable Energy Application and Consultation in Himalayas (REACH) on November 6, 2017 for stakeholder partnership and exchange of information on viable renewable energy applications in Sikkim.	
viii.	Brainstorming and stakeholders interaction to discuss the preparation of project proposal for funding under NMHS in partnership ENVIS RP Ecotourism, ECOSS and TMI Gangtok on November, 2017	
ix.	Meeting with NIC New Delhi officials Mr Anil Kumar and team along with the officials of State Pollution Control Board (SPCB) on facilitation of online consent management system for Sikkim State at NIC, Gangtok on December 6, 2017.	
x.	Meeting with the SIBIN group on development of e-permit and employee management system for the host department in consultation with the Additional Secretary, Administrative division.	
xi.	Stakeholder consultation with Eco-Tourism and Conservation Society of Sikkim (ECOSS) for formulating action plan (proposal) for Global World Environment Day celebration from Jan 15 to May 15, 2018.	
xii.	Networking with UNDP Sikkim team for conceptualizing the framework for monitoring the State's Action Plan on Climate Change (SAPCC). Meeting held on March 29, 2018 at ENVIS Hub office for demonstrating ENVIS and ISBEID portal as useful tool.	

11. Official Release of ENVIS Publication 2017-18



Release of 'PANDA' Newsletter Vol 9 by Hon'ble Forest Minister Shri T. W. Lepcha and other dignitaries during the State level celebration of World Environment Day on June 05, 2017 at Kaluk BAC premises, West Sikkim.



Release of 'Paryavaran Mahotsav 2016' pictorial activity booklet by the Hon'ble Governor Shri Shrinivas Patil during the Ten Minutes to Earth plantation programme on the 25th of June, 2017 at Raj Bhawan complex, Gangtok.

**DIFFERENT
BOARDS /
AUTHORITIES**

Chapter-24

(1) State Pollution Control Board (SPCB):

The State Pollution Control Board-Sikkim (SPCB-Sikkim) has been created under the provision of Sub-Section (1) of Section 4 of the Water (Prevention & Control of Pollution) Act, 1974 under the Chairmanship of Chairman, Land Use Board. The main function of SPCB – Sikkim is to act as:

- 1) Regulatory Body
- 2) Advisory Body

Under the advisory function, SPCB –Sikkim advises the State government in terms of measures to be taken for prevention, control and abatement of pollution.

Under the regulatory function, the SPCB –Sikkim is bestowed with the power of implementation of different Act and Rules pertaining to Environment Pollution Control. The State pollution Control Board-Sikkim implements the following Acts and Rules in the State of Sikkim.

- i) Water (Prevention & Control of Pollution Act) 1974
- ii) Water (Prevention & Control of Pollution Cess Act), 1977
- iii) Air (Prevention & Control of Pollution Act) 1981
- iv) Environment (Protection) Act, 1986
- v) The Public Liability Insurance Act, 1991.
- vi) Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016;
- vii) Bio-Medical Waste Management Rules, 2016;
- viii) Solid Waste Management Rules, 2016;
- ix) Plastic Waste Management Rules, 2016;
- x) E-Waste (Management) Rules, 2016;
- xi) Construction & Demolition Waste Management Rules, 2016;
- xii) The Noise Pollution (Regulation & Control) Rules, 2000.
- xiii) Batteries (Management & Handling) Amendment Rules, 2016;
- xiv) Environmental Impact Assessment Notification, 2006;

**ACTIVITIES/SCHEMES & PROJECTS OF STATE POLLUTION CONTROL
BOARD-SIKKIM (2017-18).**

1. NATIONAL AIR MONITORING PROGRAMME (NAMP):

With the increase in the establishment of industrial units in the state mostly the pharmaceuticals and ancillary units, the SPCB-Sikkim under the National Air Monitoring Programme (NAMP) established nine (09) nos. of Air Quality Monitoring (AQM) stations in order to monitor the air quality in the state. The state of Sikkim has been declared as the Air Pollution Control Area under Gazette notification no. 506 dated 08/09/2011. The details of the monitoring stations are as under:

Sl. no	Name of monitoring station :	Latitude° N	Longitude° E
1.	RANGPO	27.1736	88.5305
2.	SINGTAM	27.5144	88.4969
3.	DEORALI	27.3183	88.6063
4.	RAVANGLA	27.3075	88.363
5.	NAMCHI	27.17	88.35
6.	PELLING	27.3028	88.2344
7.	CHUNGTHANG	27.6033	88.6469
8.	MANGAN	27.5025	88.5358

*The 9th station located at Tashi View point, Gangtok was damaged due to landslide and currently not in operation.

In order to run these AQM stations the SPCB- Sikkim has inducted 07 Project Assistant and 14 Field Assistants (contractual basis) and the Board has also established 07 laboratories for carrying out analytical work of air quality parameters. The AQM is conducted twice a week. As per the study/finding it is seen that Air Quality Index of the State is good and well within the standards prescribed both for PM 10 and other parameters. The data so generated is being forwarded to CPCB for further analysis.

2. NATIONAL WATER MONITORING PROGRAMME (NWMP):

SPCB-Sikkim has established 09 Water Quality Monitoring Station in River Teesta basin and 05 Water Quality Monitoring Station in River Rangit basin under NWMP.

The major objectives of water quality monitoring are:

- To warrant appropriate pollution control on the discharge reaching the water bodies.
- To identify any deficiency in water quality and to implement water pollution control strategies.
- To determine effect of water quality the intensity and exposure of various pollution on human health.
- To determine long term trends in water quality.

The quality of water is regularly monitored by SPCB officials and the data so generated is being forwarded to CPCB, Delhi for further analysis. This is a 100 % central sponsored scheme. As per the analysis of data, the quality of water so far has been found to be good.

In order to maintain the quality, SPCB-Sikkim has been continuously monitoring the industrial activities and has been ensuring the running of Effluent Treatment Plant (ETP) 24 hours a day. Further, SPCB-Sikkim has made Zero Liquid Discharge (ZLD) mandatory so that the treated water meeting the prescribed standard is recycled and reused for gardening, flushing, cleaning and cooling purposes.

3 NOISE MONITORING:

Due to increase in developmental activities there has been a rise in noise pollution in the whole country. In order to measure the noise level in the state, SPCB has been carrying out regular noise quality monitoring.

One of the key works is the measuring of noise pollution during the festival of Deepawali. As per the study conducted by SPCB-Sikkim it has been observed that recently, the noise level has gone down extremely due to ban imposed by the State Govt on use of firecrackers and other illuminating items in the state.

NOISE LEVEL DURING PRE AND ON DEEPAWALI FESTIVAL AROUND GANGTOK TOWN (M.G. MARG), EAST SIKKIM, OCTOBER 2017.

- Description of monitoring site: Commercial area
- Activities around the monitoring location/sources of noise pollution: Vehicle movement at NH-10 near the monitoring site, Tourist & local public movement.

DATA/OBSERVATION

Table 1. Location - (Commercial area– M. G. MARG, East Sikkim)

LOCATION: Titanic Park, M.G. Marg.	NORMAL DAY (12.10.2017)			DEEPAWALI DAY (19.10.2017)			National Standard
Time Duration	Lmin	Lmax	Leq dB (A)	Lmin	Lmax	Leq dB (A)	
18:00 to 19:00 Hr	28.5 dB	64.9 dB	48.2 dB	27.6 dB	77.3 dB	55.6 dB	65 dB (A)
19:00 to 20:00 Hr	28.6 dB	75.2 dB	59.7 dB	28.7 dB	69.6 dB	56.9 dB	
20:00 to 21:00 Hr	28.5 dB	84.0 dB	64.0 dB	27.9 dB	76.5 dB	51.0 dB	
21:00 to 22:00 Hr	27.7 dB	50.3 dB	39.5 dB	28.2 dB	77.3 dB	52.5 dB	
22:00 to 23:00 Hr	28.0 dB	48.8 dB	31.1 dB	28.1 dB	65.7 dB	49.2 dB	55 dB (A)
23:00 to 24:00 Hr	28.0 dB	46.6 dB	30.3 dB	28.1 dB	76.0 dB	53.9 dB	

4. ESTABLISHMENT OF INDUSTRIAL UNITS:

Under the provision of Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 no units can be established without the prior consent of the SPCB. Till date 116 nos. of industrial units which are of large and medium scale have been granted with Consent to Operate (CTO) under manufacturing sector. Under the service sector consents are being issued to Hotels, Resorts, Health Care Facilities, Garage, Hot mix plant, Wet mix plant, Stone crushers, Sewage Treatment Plant (STP), etc.

1. AWARENESS PROGRAMMES/SENSITISATION/WORKSHOP:

Generation of awareness is one of the key factors for prevention of environment pollution. SPCB-Sikkim has been deeply engaged in creating awareness through different types of programs to educate general public on conservation and preservation of Environment.

Various programs viz., lectures, essay and painting competition, slogan completion are held among the student community. The celebration of World Environment Day, Paryavaran Mahotsav and Ten Minutes to Earth are the regular features of SPCB-Sikkim. SPCB-Sikkim has produced environment film, environment songs, documentaries and also different Environment related advertisement, films and material to educate the general masses.

The Urban Local Bodies (ULB) and Upadhakshyas are also taken on board to create awareness on the subject. The SPCB-Sikkim also organized Sensitization seminars and workshops to the head of Departments, all Block Development Officers, ADCs and all the industrial units including hydroelectric project on the different Acts and Rules related to environment protection. SPCB has been assisting different social groups, NGOs and other registered organizations by providing financial support and related tools and kits for keeping their locality neat and clean.

SPCB has taken steps to provide dustbins to ULBs, religious institutions, tourism destination, schools and colleges etc. for keeping the locality clean.

SPCB has also taken initiative to organize exposure visits for the students to different types of industrial units to encourage them to opt for carrier in the concerned field. The Board is also bringing out appeals to generate awareness through advertisement in print and electronic media. Special visit to the nearby industrial units are being arranged to the School students and local public through the management of the industry and insisting the industries to maintain transparency in operating their Corporal Social Responsibility (CSR) to gain the goodwill of the public and maintain the environment.

For strict compliance of standards prescribed in the CTO, the Board is engaged in regular monitoring of industrial activities. The Third Party Monitoring by an accredited consultant has been made mandatory to all the industrial units. One of the industrial unit viz., Esveegee Distillery situated at Manpur has started online monitoring.

FINANCIAL STATEMENT OF THE STATE POLLUTION CONTROL BOARD-SIKKIM FOR THE LAST SEVEN YEARS.

SL.NO	YEAR	AMOUNT RECEIVED	EXPENDITURE
01	2011-12	28645018	19364942
02	2012-13	25418308	11281835
03	2013-14	22255067	11747672
04	2014-15	23433457	13517162
05	2015-16	30451365	12067888
06	2016-17	22235667	14148707
07	2017-18	50363526	31165725

LIST OF INDUSTRIES: Present Status of Industries in the year 2017 -18

Sl. No.	Name of Breweries/	Address	Current Status
	Distilleries Unit		
1	Mayell & Fraser	Bagheykhola, Majhitar, East Sikkim	Recently Closed
2	Sikkim Breweries	Bagheykhola, Majhitar, East Sikkim	Not in Operation
3	Mount Distilleries	Bagheykhola, Majhitar, East Sikkim	Operational
4	Denzong Breweries	Mulukey, East Sikkim	Operational
5	Sikkim Distilleries	Rangpo, East Sikkim	Operational
6	Himalaya Distilleries	Majhitar, East Sikkim	Operational
7	LAHAG Spirits	Manpur, South Sikkim	Operational
8	Yuksom breweries	Melli, South Sikkim	Operational
9	Kanchenjunga Distilleries	Manpur, South Sikkim	Operational
Total	07 nos. Operational		
	02. nos. Recently Closed		

Sl. No.	List of Misc. Industries	Address	Current Status
1	SICPA	Samardung, South Sikkim	Operational
2	G.K. Burman Pet & Fragrances	Jholungey, Namchi, South Sikkim	operational
3	C.G. Foods India	Mining, Rangpo, East Sikkim	Operational
4	BFPL Inc.	Kumrek, East Sikkim	Operational
5	Indane Bottling Plant	Bagheykhola, East Sikkim	Operational
6	Sikkim Agro Chem I	Majhitar, East Sikkim	Operational
7	Indian Oil Corporation	Bagheykhola, East Sikkim	Operational
8	Godrej Consumer	Mamring, South Sikkim	Operational
9	Nextgen Printers	Majhitar, East Sikkim	Operational
10	Sikkim co-operative Milk Producers Union	5th Mile, Gangtok, East Sikkim	Operational
11	Sikkim co-operative Milk Producers Union	Dentam, West Sikkim	Operational
12	Temi Tea Estate	Temi, South Sikkim	Operational
13	Malu electrodes, Tea & Coffee	Bhasmey, East Sikkim	Under establishment
14	Malu electrodes	Bhasmey, East Sikkim	Operational
15	SUN Packmet	Majhitar, East Sikkim	Operational
16	Uttam Printers	Rangpo, East Sikkim	Operational
17	Flex Art Foils	Bardang, East Sikkim	Operational
18	Teesta Enterprises	Mamring, South Sikkim	Operational
19	Sikkim Organics	Manpur, South Sikkim	Operational
20	Bhawana Papers	Mamring, South Sikkim	Operational

Sl. No.	List of Misc. Industries	Address	Current Status
21	Epitome Petrochemicals	Tumbalong, East Sikkim	Operational
22	Nenamma Industries	Makha, East Sikkim	Operational
23	Lama Enterprises	Melli, South Sikkim	Operational
24	Kailash Roller Mills	Tadong, Gangtok, East Sikkim	Operational
25	Shree R. D. Mills	Jorethang, South Sikkim	Operational
26	Sikkim Supreme	Sang khola, East Sikkim	Operational
27	Sagar Food products	Nayabazaar, South Sikkim	Operational
28	Epitome Plasto pack	Manpur, South Sikkim	Operational
29	Scorpion Containers Unit I	Kumrek, East Sikkim	Operational
30	scorpion Containers Unit II	Rorathang, East Sikkim	Operational
31	V-Guard Industries Unit I	Majhitar, East Sikkim	Operational
32	V-Guard Industries Unit II	Majhitar, East Sikkim	Operational
33	V-Guard Industries Unit III	Mamring, South Sikkim	Operational
34	Zephyr Food	Aritar, Khamdong, East Sikkim	Operational
35	Anjali packaging	Manpur, South Sikkim	Operational
36	Transasia Bio Medical	Namchi, South Sikkim	Operational
37	SUN CARE	Majhitar, East Sikkim	Operational
38	Raviraj Foils	Majhitar, East Sikkim	Operational
39	Sikkim Packaging Industries	Baiguney, South Sikkim	Operational
40	Ajay Bio-Tech	Duga, East Sikkim	Operational
41	SeignurMedipack	Bhasmey, East Sikkim	Operational
42	Teximco Foils	Ranipool, East Sikkim	Operational
43	PRF Udyog	Bermoik, South Sikkim	Operational
44	Prolink Industries	Rorathang, East Sikkim	Operational
45	Futuristic packaging	Ranipool, East Sikkim	Operational
46	YaduNath enterprises	Namthang, South Sikkim	Operational
47	Titan	BagheyKhola, East Sikkim	Operational
48	Titan	Majhitar, East Sikkim	Operational
49	Anjali Flex & Containers	Manpur, South Sikkim	Operational
50	Amber Enterprises	Marchak, East Sikkim	Operational
51	Hidesign	Rumtek, East Sikkim	Recently Closed
52	North East pharma Pack	Pacheykhani, East Sikkim	Operational
53	MAN AASH LLP	Duga, East Sikkim	Operational
54	Phoenix Udyog	Majhitar, East Sikkim	Operational
55	ASSR Print Pack	Namli, East Sikkim	Operational
56	Moti Plast	Sirwani, Singtam, East Sikkim	Operational
57	Web Tech Labels	Majhitar, East Sikkim	Operational
58	Sikkim co-operative Milk Producers Union	Jorethang, South Sikkim	Operational
59	Net-surf Commuications	Duga, East Sikkim	Operational
60	R.P. Industries	Ranipool, East Sikkim	Operational

Sl. No.	List of Misc. Industries	Address	Current Status
61	Greenways	Ranipool, East Sikkim	Operational
62	G.K. Burman Pet & Fragrances	Namchi, South Sikkim	Operational
63	Homac Transformers	Sirwani, Singtam, East Sikkim	Operational
64	Huhtamaki PPL	Majhitar, East Sikkim	Operational
65	Rupen Pharma Pack	Majhitar, East Sikkim	Operational
66	Sikkim foils	Burdang, East Sikkim	Operational
67	Sikkim Agro Chem II	Majhitar, East Sikkim	Operational
68	Marchak Manufacturing	Samlik, Marchak, East Sikkim	Operational
69	Shree Balajee Industries	Sang khola, East Sikkim	Operational
70	UBR Pack	Temi-Tanak, South Sikkim	Operational
71	Dalam Beverages	Sombaria, West Sikkim	Operational
72	G.K. Burman Herbal & Health Care	Jholungey, Namchi, South Sikkim	Operational
Total	01 no. recently closed		
	01. no under establish.		

Present Status of Operational Hydro Electric Projects in Sikkim for the year 2017 - 18.

Sl. No.	Name of HEPs	Address	Current Status
1	60 MW Rangit HEP, NHPC Ltd.,	Rangit Nagar, Legship, South Sikkim	Operational
2	510 MW Teesta Stage V NHPC Ltd.,	Balutar, Singtam, East Sikkim	Operational
3	99 MW Gati Infrastructure Ltd.,	Chujachen, East Sikkim	Operational
4	96 MW Jorethang Loop	Ms/ Dans Energy Pvt. Ltd., Jorethang	Operational
5	1200 MW Teesta Urja	Mangan, North Sikkim	Operational
6	96 MW SKPPL	Dickchu, North Sikkim	Operational
7	97 MW Ms/ Shiga Energy Pvt. Ltd.	Tashiding HEP, West Sikkim	Operational
Total		07. nos in Operation	

Present status of Pharmaceutical Unit in the year 2017 -18

Sl. No.	Name of Pharma Unit	Address	Current Status
1	Micro Labs	Mamring, South Sikkim	Operational
2	Swiss GarnierGenexiaa Sciences	Mamring, South Sikkim	Operational
3	Alembic Pharmaceuticals	Samardung, South Sikkim	Operational
4	Mankind Pharma	Daring Block, South Sikkim	Operational
5	IPCA Laboratories, Unit I	Bharikhola, South Sikkim	Operational
6	IPCA Laboratories, Unit II	Melli-Jorethang Road, South Sikkim	Operational
7	Cachet Pharmaceuticals	Jholungay, Namthang, South Sikkim	Operational
8	AurochemLaboratories	Manpur, South Sikkim	Operational
9	Alkem Health Science Unit I	Samardung, South Sikkim	Operational
10	Alkem Health Science Unit II	Samardung, South Sikkim	Operational
11	Alkem Health Science Unit III	Samardung, South Sikkim	Operational
12	Salas Pharmaceuticals	Samardung, South Sikkim	Operational
13	CKIM Pharma Pack	Melli-Jorethang Road, South Sikkim	not in operation at present
14	Marc Life Sciences	Samardung, South Sikkim	Operational
15	Trophic Wellness	Manpur, South Sikkim	Operational
16	Zydus Wellness Unit I	Namthang, South Sikkim	Operational
17	Zydus Wellness Unit II	Namthang, South Sikkim	Operational
18	Intas Pharmaceuticals Unit II	Namthang, South Sikkim	Operational
19	Aishwarya Healthcare	Samardung, South Sikkim	Operational
20	Pinnacle Life Sciences	Jholungay, Namthang, South Sikkim	not in operation at present
21	STP Pharmaceuticals	Sangkhola, East Sikkim	Operational
22	PTS Packers & Providers	Sangkhola, East Sikkim	Operational
23	Indchemie Health Specialities Unit IV	Kumrek, East Sikkim	Operational
24	Indchemie Health Specialities Unit V	Kumrek, East Sikkim	Operational
25	Aristo Pharmeceuticals	BagheyKhola, East Sikkim	Operational
26	East-West pharma	Majhitar, East Sikkim	Operational
27	Torrent Unit III	Majhitar, East Sikkim	Operational
28	Macleods Pharmaceuticals	Aho-yangtam, East Sikkim	Operational
29	Lupin	Bhasmey, East Sikkim	Operational
30	Torrent Pharmaceuticals Unit I	Martam, East Sikkim	Operational
31	Torrent Pharmaceuticals Unit II	Martam, East Sikkim	Operational
32	Zydus Healthcare	BagheyKhola, East Sikkim	Operational
33	Golden Cross Pharma	Rorathang, East Sikkim	Operational
34	Alkem Laboratories	Kumrek, East Sikkim	Operational
35	Sangrilla Industries	Mining ground, Rangpo, East Sikkim	Operational

Sl. No.	Name of Pharma Unit	Address	Current Status
36	Sun Pharma laboratories Unit I	Nandok Block, East Sikkim	Operational
37	Sun Pharma laboratories Unit II	Namli Block, East Sikkim	Operational
38	Glenmark Pharmaceuticals	Marchak, East Sikkim	Operational
39	Heba Pharmaceuticals	Marchak, East Sikkim	Operational
40	Cipla Unit I	Kumrek, East Sikkim	Operational
41	Cipla Unit II	Rorathang, East Sikkim	Operational
42	Zuventus Pharmaceuticals	Bhasmey, East Sikkim	Operational
43	Regal Health Care	Bhasmey, East Sikkim	Operational
44	Swiss GarnierGenexiaa Sciences Unit II	Tarpin Block, East Sikkim	Operational
45	SBL Ltd.,	Majhitar, East Sikkim	Operational
46	Intas Pharmaceuticals Unit I	BagheyKhola, East Sikkim	Operational
47	Savi Health Science	Majhitar, East Sikkim	not in operation at present
48	LAA-Sun pharmaceuticals	Ranipool, East Sikkim	not in operation at present
49	Unimark Health care	Ranipool, East Sikkim	not in operation at present
50	VKA Projects & infrastructure	Pacheykhani, East Sikkim	Operational
51	Ideal cures	Pacheykhani, East Sikkim	Operational
52	Savi Pharma	Majhitar, East Sikkim	not in operation at present
53	Curetech Pharmaceuticals	TokalBermiok, South Sikkim	not in operation at present
54	Pristine Life Science	Singtam, East Sikkim	Recently Closed
Total	46 nos in Operational		
	07 nos. not in operation at present		
	01 no recently closed		

Current Status of Stone Crusher unit during the year 2017 – 18

Sl. No.	Name of Stone Crusher	Address	Capacity	Current Status
1	DebendraSubba	Mulukey, Rhenock, East Sikkim	40 TPH	Operational
2	M/s Arif Engineer (P) Ltd.,	Theng Tunnel, Chungthang,	10 -20 TPH	Not in operation
3	M/s Coastal Project Ltd.,	Rangit II, Rimbi, West Sikkim	40 TPH	Operational
4	Officer Commanding,	86 RCC	6 -10 TPH 04 nos.	
		GRES, lachen, North Sikkim	20 TPH 01 No.	Operational
5	Telu Ram Agarwal	M/s Jindal factory, Mazitar		
		South Sikkim	20 TPH	Operational
6	Santosh Pradhan	Chujachen, East Sikkim	10 TPH	Operational
7	M/s Abir Infrastructure Pvt. Ltd.,	C/o Teesta Urja Limited,	40 TPH	Operational
8	SSKC - SSKI (JV)	Mangan, North Sikkim	100 TPH x 2nos	Operational
9	Khimat Sing Rai	Baiguney Busty, Gelling, Samsing		
		West Sikkim	30 TPH	Operational
10	Officer Commanding,	86 RCC GRES		
		Changu, Tamze, East Sikkim	6-10 TPH 05 nos.	Operational
11	TsheringwangdiLepcha ,	Lungchok, North Sikkim	6 TPH	Operational
12	SamdupLepcha	Chungthang, North Sikkim	40 TPH	Operational
13	YasodaBasnett,	Chujachen, East Sikkim	6 TPH	Operational
14	Officer Commanding,	86 RCC GRES,	6 -10 TPH 3 Nos.	Operational
		Lachung, North Sikkim	20 TPH 2 nos.	
15	M.G Contractors, Pvt. Ltd.,	Lachung, North Sikkim	100 TPH	Operational
16	NavinChettri	Karthok, Pakyong, East Sikkim	20 TPH	Operational
17	Ravi Roshan Darjee	Tareythang Bering, East Sikkim	15 TPH	Operational
18	Sunil Kumar Agarwal	Jorethang, South Sikkim	50 TPH at Baiguney	Operational
19	Sunil Kumar Agarwal	Jorethang, South Sikkim	50 TPH at Churibotey	Operational
20	Sunil Kumar Agarwal	Jorethang, South Sikkim	40 TPH at Suldung	Operational
21	BijaySunar	SipchuKhola, South Sikkim	20 TPH	Operational
			60TPH at 8 th Mile	
22	Mahabir Pd.Agarwal	GAWAR Construction,		Not in

Sl. No.	Name of Stone Crusher	Address	Capacity	Current Status
		Namchi	Marchak, East Sikkim	operational
23	PemDechenDenzongpa	Kazi Road, Gangtok	20 TPH at Gyalshing	Operational
24	DhrubaTewari,	Tarku, South Sikkim	200 TPH	Operational
25	Pushpa Raj Adhikari	Lower samdong, East Sikkim	10 TPH	Operational
26	Dhan Maya Basnett	Neya Brum, South Sikkim	30 TPH	Operational
27	Mosh Varaya Infrastructure Ltd.,	Kumrekrangpo, East Sikkim	60 TPH X 2 nos.	Operational
28	RSK Construction (JV)	Singtam, East Sikkim	100 TPH, at Rollu, Melli	Operational
29	Khusendra Sharma	Dentam, West Sikkim	60 TPH	Operational
30	K.K. Group of Company (P) Ltd.,	Singtam, East Sikkim	50 TPH at Pabong, South Sikkim	Operational
31	Shangrilla, Industries Pvt. Ltd.,	Mining Rangpo, East Sikkim	40 TPH	Operational
32	Navayuga Engineering Co. Ltd.,	Chungthang, North Sikkim	150 TPH	Not in operation
33	LokNath Sharma	ReshiRhenock, East Sikkim	40 TPH at Reshi Rhenock	Operational
			40 TPH at North Regu	Operational
34	Binod Agarwal	Pakyong, Bazaar, East Sikkim	60 -70 TPH at patuk	Operational
35	Sunil Kumar Agarwal	Jorethang, South Sikkim	50 TPH at Baiguney	Operational
36	Pradeep Kumar Agarwal	Sombaria, West Sikkim	60 TPH	Operational
37	Mohan Bajaj,	P.S. Road, Gangtok	10 TPH at sangkhola	Operational
38	U. Narayan Sharma	Rangpo Bazar, East Sikkim	50 TPH at BagheyKhola	Operational
39	Ugen T. Ladhakhi	BagheyKhola, East Sikkim	30 TPH	Operational
40	Biren Chandra Rai	Jorethang, South Sikkim	6 TPH	Operational
41	Sunil Kumar Agarwal	Singtam, East Sikkim	75 -80 TPH at PabongTarku	Operational
42	Sunil Kumar Agarwal	Singtam, East Sikkim	75 -80 TPH at Damthang	Operational
43	Rajesh Kumar Chettr	Buriakhop, West Sikkim	25 TPH	Operational
44	M.K. Pradhan	20th Mile Bardang	2 TPH	Operational
45	Mahabir Prasad Agarwal	Namchi, South Sikkim	50 TPH at Boomtar, Namchi	Operational
46	Ratna Kumar Rapal,	Samardung, South Sikkim	50 TPH at Burul	Operational

Sl. No.	Name of Stone Crusher	Address	Capacity	Current Status
47	Neeknore Pradhan	Tadong, Gangtok	50 -60 TPH at Lower Samdong	Operational
48	Sunil Kumar Agarwal	Singtam, East Sikkim	40 TPH at Rumtek	Operational
49	Dinesh Chandra R. Agarwal	IBM, Rangpo, East Sikkim	200 TPH at Bhasmey	Operational
50	Anup Kumar Agarwal	ReshiRhenock, East Sikkim	40 TPH	Operational
51	Khageshwar Kumar Gupta	Geyzing, West Sikkim	25 TPH at Dentam	Operational
52	Manoj Karki	Rangpo Bazar, East Sikkim	10 TPH at KopcheyMamring	Operational

Total	67 nos.
Operational	64 nos.
Not in Operation	3 nos.

**Current Status of HMP/WMP/Batching Plant/Brik Plant/ during the year 2017 - 18
List of Hot Mix Plant (HMP)/ WET Mix Plant (WMP)/ Batching Plant (BP)**

Sl.no	Name of Unit	Address	Capacity	Status
1	Arief Engineers (P) Ltd.,	Theng Tunnel, Chungthang	1 no. Batching Plant	Not in Operation
2	Officer Commanding	86 RCC GREF, Lachen	01 no. Hot Mix Plant	Operational
3	M/s Abir Infrastructure Pvt. Ltd.,	C/o Teesta Urja Limited,	02 nos. Batching Plant	Not in Operation
4	Dinesh Chandra R. Agarwal	IBM, Rangpo, East Sikkim	1 no. Batching Plant	Operational
5	ZamyangKunga Bhutia	Geyzing, West Sikkim	60 TPH HMP	Operational
6	SSKC - SSKI (JV)	Mangan, North Sikkim	70 TPH HMP	Operational
7	Officer Commanding,	86 RCC GREF		
		LachenKalep, North Sikkim	02 nos, HMP	Operational
8	Officer Commanding,	86 RCC GREF		
		Gaigoan, North Sikkim	01 nos, HMP	Operational
9	M.G Contractors Pvt. Ltd.,	Mangan, North Sikkim	100 TPH HMP	Operational
10	Officer Commanding,	129 RCC GREF		
		JNM Road,East Sikkim	20 - 30 TPH HMP & 60 TPH WMP	Operational
11	Mahabir Prasad Agarwal	Namchi, South Sikkim	60 - 90 TPHHMP at Soreng, w. sikkim	Operational
			01.no. HMP at Phalidara	Operational
			01. no. HMP at Rinchenpong	Operational
12	Sunil Kumar Agarwal	Jorethang, South Sikkim	80 - 100 TPH HMP &	Operational

Sl.no	Name of Unit	Address	Capacity	Status
			100 TPH WMP at Baiguney	Operational
			75-80 TPH HMP at Pabung, S. Sikkim	Operational
13	Norden Dorjee Sangdarpa	Sangmo - Ravangla	60 -90- TPH HMP	Operational
14	Norden Bhutia	Mangalbaria, West Sikkim	60 - 90 TPH HMP	Operational
15	Simplex Apex Encon	Ramman Barrage, West Sikkim	30 cum/hour(1 no.BP)	Operational
16	Mosh Varaya Infrastructure Ltd.,	KumrekRangpo, East Sikkim	4 nos. Batching Plant	Operational
			01. No. Brik Plant	Operational
17	Mahabir Prasad	Gawar Construction, Namchi		
		Bazar, South Sikkim	60 - 90 TPH HMP	Operational
18	Mohan Bajaj	P.S.Road, Gangtok	2 nos. HMP, at Sangkhola	Not in Operation
			&Sherathang	Operational
19	Sunil Kumar Agarwal	Jorethang, South Sikkim		
20	ITD Cementation	Secretariat Road, Gangtok	01. no. Mobile Batching Plant	Operational
21	RenukaMangar	Kokoley, Samdong, E. Sikkim	10 TPH HMP at Singbel	
22	Dinesh Chandra R. Agarwal	IBM, Rangpo, East Sikkim	200 TPH wet mix plant	Operational
23	Anup Kumar Agarwal	ReshiRhenock, E. Sikkim	01 no. Hot Mix Plant	Operational
24	Officer Commanding	107 RCC (GREF) Chungthang	20 TPH HMP at Chungthang Road	Operational
25	LokNath Sharma	ReshiRhenock, E. Sikkim	01 no. Hot Mix Plant	Operational
		Batching Plant 09 nos.		
Total	Operational 18 (HMP)	Hot Mix Plants 20 nos.		
	Not in operation 02 (HMP)	Wet Mix Plant 02 nos.		
		Brick Plant 01. no.		

(2) STATE LAND USE BOARD (SLUB):

The Sikkim State Land Use Board (SLUB) was first notified vide Notification No.66, dated 1981 and was constituted vide Notification No.51 (7) Home/ 81 dated March, 1983 under the chairmanship of Chief Secretary, Government of Sikkim. The Rules for the purpose of effective functioning of the Land Use and Environment Board (SLUB) was framed vide Notification No.51(7)Home/81 dated 11th October, 1984.

Objectives of Sikkim State Land Use Board:

- i. To enable the State government for development of data base on land resources on the basis of revenue record. Topo-sheets, satellite imageries, soil survey reports etc.
- ii. Implementation of 19 points National Land Use Policy Outline (NLPO).
- iii. To take up suitable steps preferably through legislative measures, to prevent the conversion of agriculture land for non-agricultural purposes.
- iv. To work as forum for sharing technical and administrative experience pertaining to land utilization through organizing seminars, workshops etc.

Functions of Sikkim State Land Use Board:

- a) To conduct regular meetings of the Board to evolve policy decision relating to
 - i. Modification in the existing legislation of the State having a bearing on land use,
 - ii. Watershed management for sustainable agriculture farming
 - iii. Integrated Wasteland Development Project
 - iv. Carrying capacity of land with regard to human and animal population and
- b) To identify and entrust important studies to various institutions like G.B.Pant Institute of Himalayan Environment, Agricultural University Sikkim, Indian Council of Agriculture Research, Tadong and Sikkim University etc.

Components of Sikkim State Land Use Board:

- i. Strengthening of nucleus cell to service SLUB.
- ii. Development of infrastructure, such as installation of computer system, creation of software for development of data base on land use.
- iii. Support for special and evaluation studies, review of schemes etc.
- iv. Organizing of seminars / workshop/publicity and awareness campaign in the State.
- v. Support for extension and development of organic farming.
- vi. Preparation of prospective plan of Integrated Wasteland Development Plan.

(3) STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA):-:

State Level Env. Impact Assessment Authority (SEIAA) & State Level Expert Appraisal Committee (SEAC) has been constituted by Ministry of Environment, Forest & Climate Change, Government of India vide extra ordinary gazette Notification S.O.1100 (E) dated 27/4/2017 in exercise of the power conferred by sub-section (3) of the Environment (Protection) Act, 1986 and in pursuance of the Notification of the Government of India numer S.O.1533 (E) dated 14/9/2006.

The main function of SEIAA is to consider proposals falling under category 'B' projects listed at schedule of the Notification No.1532 (E) dated 14/07/2006 requiring prior environmental clearance from the SLEIAA in accordance with law and decision made in merit and take decision about granting Environment Clearance or otherwise pursuant to the recommendations of State Level Expert Appraisal Committee (SEAC). The State Level Expert Appraisal Committee (SEAC) submits the proposal on the basis of the documents submitted by the project propoment such as application form, Conceptual Plans etc.to SEIAA.

Inpursuance to Notification No.S.O. 190 (E) dated 20.01.2016 published by Ministry of Env.Forests & Climate Change, Government of India, District Level Environment Impact Assessment Authority (DEIAA) with Distict Collector as Chairman and District Level Expert Appraisal Committee (DEAC) with Divisional Engineer (Irrigation) as Chairman for four districts of the State of Sikkim was notified vide Notification No.36/Home/2016 dated 25/6/2016.

(4) State Biodiversity Board:

Sikkim State Biodiversity Board was first established under the Chairmanship of Hon'ble Chief Minister vide Sikkim Government Gazette No.65 dated 08/03/2006 for the period of three years. The Board was later reconstituted by Notification Memo No.99/GOS/FEWMD/PCCF-cum-Pr.Secretary dated 25/09/2018 comprising the members from other departments and Minister, Forest as its Chairman.

The main function of SBB

1. To conserve of our biodiversity,
2. Sustainable use of bio-resources
3. Fair and Equitable Sharing of Benefits under an Access and Benefit Sharing (ABS) mechanism.
4. Headquartered in Forest Secretariat, Deorali, Gangtok, its principal mandate is the establishment of grass-root level Biodiversity Management Committees (BMCs) at GPU level, whose priority is documentation of the existing bio-resources including traditional knowledge holders, village elders, etc. in People's Biodiversity Registers (PBRs), among several other activities such as identification of Biodiversity Heritage Sites (BHS).

BRIEF REPORT ON ACTIVITIES OF SIKKIM BIODIVERSITY BOARD

The activities carried out by Sikkim Biodiversity Board are formation of Biodiversity Management Committees (BMC), preparation of People's Biodiversity Register (PBR), conducting training and awareness programmes related to Biodiversity, programs on Access Benefit Sharing (ABS), documentation of various biodiversity related activities, etc. These activities are carried out using the funds received from the following:

1. SBB receives funds from the National Biodiversity Authority (NBA) for carrying out UNEP-GEF project titled "Strengthening the implementation of the Biological Diversity Act and its rules with focus on its ABS provisions". NBA also provides funds for carrying out specific activities like BMC formation, International Biodiversity Day celebration, printing of dissemination material, outsourcing of staff grant, etc.
2. SBB also receives funds as Grant-in-Aid from Ecology Cess for carrying out various activities of the Board.
3. Under the National Mission for Himalayan studies, the SBB is implementing the project "Sustainable use of Sikkim Himalayan Biodiversity for socio-economic development of mountain villages with special reference to *Ophiocordyceps sinensis*, *Hippophae salicifolia*, *Docynia indica* and *Rhus chinensis*: Technology development, alternative livelihood and conservation".

An abstract of the fund received and utilized by SBB for the FY 2017-18 is given below:

SI No	Funding Agency	(Rs.in lakh)	
		Received	Utilized
1	National Biodiversity Authority (UNEP-GEF project)	Rs. 1.70	Rs.1.53
2	National Biodiversity Authority grant for outsourcing staff for SBB	Rs. 9.48	Rs.9.48
3	Grant-in-Aid Ecology Cess	Rs.24.23	Rs.7.74
4	National Mission for Himalayan Studies	Rs. 5.42 (2016-17 & 2017 -18)	Rs 4.79





List of Biodiversity Management Committee as on 31st March 2018

SL. NO	Name of BMC	Distict	Date of constitution	Member's name	Designation/ Category
North District					
1	Singhik-Sentam	North	2.9.2014	Pem Tshering Lepcha	Chairman
				Songkit Lepcha	Women Member
				Marmit Lepcha	Member
				Norzang Lepcha	Member
				Phur Tshering Lepcha	Member
				Tempa Lhendup Lepcha	Member
				Karma Galey Lachungpa	Secretary
2	Toong-Naga	North	21.9.2014	Dorjee Tak Lepcha	Chairman
				Premkit Lepcha	Woman Member
				Passangkit Lepcha	Woman Member
				Sonam Wangchuk Lepcha	Member
				Chodup Lepcha	ST Member
				Dup Tshering Lepcha	Member
				Karma Galey Lachungpa	Secretary
3	Passingdang-Saffu	North	30.9.2014	Ugen Lepcha	Chairman
				Passang Doma Lepcha	Woman Member
				Ninzay Lhamu Lepcha	Woman Member
				Namgyal Lepcha	ST Member
				Nimtso Lepcha	Member
				Dawa Lepcha	Member
				Karma Wongyal Lepcha	Member Secretary
4	Lachung	North		Hishey Lachungpa	Chairman
				Sanak Tenzing Lachungpa	Member
				Dawa Tashi Lachungpa	Member
				Chewang Gyentsen Lachungpa	Member
				Tenzing Ongpo Lachungpa	Member
				Chitup Tenzing Lachungpa	Member
				Pradeep Subba	Member Secretary
5	Hee-Gyathang	North	7.1.2016	Samroo Ugen P. Lepcha	Chairman
				Tshering Doma Lepcha	Women Member
				Lhakit Lepcha	Member
				Norden Tshering Lepcha	Member

				Tenzing Lepcha	Member
				Ugen Palzor Lepcha	Member
				Norden Bhutia	Member Secretary
6	Lingdong Barfok	North	4.8.2017	Norgay Lepcha	Chairman
				Rinjong Lhamu Lepcha	Women Member
				Laxman Lepcha	Member
				Sonam Dupden Lepcha	Member
				Sonam Gyatso Lepcha	Member
				Mikmar Lepcha	Member
				Norden Z. Bhutia	Member Secretary
7	Lum-Gor Santok (Yet to approve)	North	30.8.2017	Thendup Lepcha	Chairman
				Phurmit Lepcha	Women Member
				Phurkit Lepcha	Women Member
				Nimchung Lepcha	ST Member
				Chuzang Lepcha	Member
				Sonam Dzangpu Lepcha	Member
				Norden Z. Bhutia	Member Secretary
8	Lingthem Lingdem	North	24.8.2017	Nimkit Lepcha	Chairman
				Sonam Leda Lepcha	Member
				Sonam Thendup Lepcha	Member
				Zeermu Lepcha	Women Member
				Phurba Lepcha	Member
				Ongda Lepcha	Member
				Norden Z. Bhutia	Member Secretary
9	Lachen	North	18.05.2016	Tamling Chewng Lachenpa	Chairman
				Tashi Chophel Lachenpa	Member
				Chewang Norbu Lachenpa	Member
				Thendup Lachenpa	Member
				Sonam Topgay Lachenpa	Member
				Jorchung Lachenpa	Member
				Dorjee Namgyal Lachenpa	Member
10	Tingvong (Documents pending)				

East District

11	West Pendam	East	11.6.2014	Sonam Tsh. Lepcha	Chairman
				Ambika Dahal	Woman Member
				Puspa Pokhrel	Member
				Krishna Bdr. Biswakarma	SC Member
				Prakash Man Rai	Member
				T. R. Sharma	Member
				Krishna Chandra Dahal	Member Secretary
12	Martam Nazitam	East	1.8.2014	Bandana Chettri	Chairman
				Deepa Rani Chettri	Woman Member
				Nimden Bhutia	Woman Member
				Shanti Rasaily	SC Member
				Norbu Tshering Bhutia	ST Member
				Amber Bahadur Chettri	Member
				Manip chettri	Member Secretary
13	Tumin	East	17.9.2014	Yog Prasad Sapkota	Chairman
				Kesang Doma Lassopa	Woman Member
				Mina Devi Chettri	Woman Member
				Bhanu Bhakta Shanker	SC Member
				Karma Dadul Bhutia	ST Member
				Bhakti Prasad Gautam	Member
				Govind Neopaney	Member Secretary
14	Assam Lingzey	East	12.1.2016	Dawa Tshering Bhutia	Chairman
				Ranjit Rai	Member
				Gau Maya Subba	Woman Member
				Dil Mani Rai	Member
				Am Prasad Rai	Member
				Narendra Rai	Member
				Am Narayan Sharma	Member Secretary
15	Dalapchand	East	28.12.2015	Chandra Maya Rai	Chairman
				Chandra Kumar Chettri	Member
				Bishnu Maya Baraily	SC Member
				Shiv Kumar Rai	Member
				Bikash Rai	Member
				Prithi Man Rai	Member
				Meena Sharma	Member
16	Gnathang	East	20.08.2016	Wangda Sherpa	Chairman
				Nima Lhamu Bhutia	Women Member
				Namgyal Sherpa	Women Member
				Nima Sherpa	ST Member
				Lakpa Tshe. Tamang	Member
				Sarki Sherpa	Member
				Karma Sonam Bhutia	Member Secretary

South District					
17	Lingi-Sokpay	South	11.6.2014	Sonam Pintso Lepcha	Chairman
				Parbati Sharma	Women Member
				Namrata Thapa	Woman member
				Ram Dhoj Rai	Member
				Diwas Rai	Member
				Nava Raj Gurung	Member
				Durga Pd. Sharma	Member Secretary
18	Lingmoo Payong	South	2.6.2015	Dr. Bhoj Kr. Acharya	Chairman
				Tara Devi Adhikari	Women Member
				Nirmala Rai	Women Member
				Sonam Gyatso Lepcha	ST/SC member
				kailash Kumar Adhikari	Member
				Santa Bahadur Rai	Member
				Jigdal Bhutia	Member Secretary
19	Kitam Manpur	South	3.8.2014	Savitri chettri	Chairman
				Ganga Maya Subba	Woman Member
				Shyam Subba	ST Member
				Subash Mangar	Member
				Dev Kumar Nepal	Member
				Yogendra Subba	Member
				Hari Maya Thapa	Secretary
20	Yangang Rangang	South	6.6.2015	Phuchung Bhutia	Chairman
				Meera Devi Basnet	Woman member
				Yahel Namchyo	ST Member
				Dil Kumar Khati	SC Member
				Bir Bahadur Rai	Member
				Som Kumar Rai	Member
				Jigdal Bhutia	Member Secretary
21	Niya Mangzing	South	3.6.2015	D. L. Chettri	Chairman
				Man Maya Gurung	Woman member
				Nar Maya Basnet	Woman Member
				Roshan Chettri	Member
				Phur Temba Sherpa	ST Member
				Lal Bahadur Rai	Member
				Jigdal Bhutia	Member Secretary
22	Rabong Sangmoo	South	10.6.2015	Wang Tashi Bhutia	Chairman
				Bishnu Kumar Chettri	Member
				Hari Maya Gurung	Woman Member
				Robin Gurung	Member
				Tshering Doma Sherpa	ST Member
				Bir Bahadur Rasaily	SC Member
				Jigdal Bhutia	Member Secretary
23	Ralong Namlung	South	8.6.2015	Dak Man Rai	Chairman
				Rinchen Doma Bhutia	Woman member

				Rinchen Ongmu Bhutia	Woman Member
				Lha Tshering Bhutia	SC Member
				Bomdila Bhutia	Member
				Ongyal Bhutia	Member
24	Borong Phamtam	South	4.6.2015	Jigdal Bhutia	Member Secretary
				Tshering Lhaki Bhutia	ST member
				Hari Maya Rai	Woman Member
				Durga Dhan Gurung	Member
				Krishna Bahadur Gurung	Member
				Rudra Bahadur Gurung	Member
				Jigdal Bhutia	Member Secretary
WEST DISTRICT					
25	Gyaten Karmatar	West	5.9.2014	Laxu Man Chettri	Chairman
				Dhan Maya subba	Woman Member
				Termit Lepcha	Woman Member
				Ugen Lepcha	SC/ST Member
				Yuwaraj Rai	Member
				Amrit Bdr. Chettri	Member
				Urmila Subba	Member Secretary
26	Ribdi	West	6.9.2014	Phur Temba Sherpa	Chairman
				Lakpa Diki Sherpa	Woman Member
				Rinchen Doma Sherpa	Woman Member
				Mingma Tenzee Sherpa	ST Member
				Passang Dorjee Sherpa	Member
				Subash Tamang	Member
				Keshab Bahadur Chettri	Member Secretary
27	Yuksom	West	11.9.2014	Dechen D. Wangchuk Bhutia	Chairman Person
				Sunita Subba	Woman Member
				Prem Lall Sharma	Member
				Birkha Man Limboo	ST Member
				Tshering Uden Bhutia	Member
				Indra Bahadur Shanker	SC Member
				Nagendra Rizal	Member Secretary
28	Martam	West	10.6.2015	Diken Chettri	Chairman
				Gauri Maya Chettri	Woman member
				Pabitra Sherpa	Woman Member
				Phur Temba Sherpa	ST Member
				Passang Gyaltzen Sherpa	Member
				Karma Sonam Sherpa	Member
				Urmila Subba	Member Secretary

29	Labing Garethang	West	23.9.2015	Santa Kumar Limboo	Chairman
				Lisha Limboo	Woman Member
				Nelu subba	Woman Member
				Rup Lall Kami	SC Member
				Kumar Limboo	Member
				Shiva Luitel	Member
				Keshab Bahadur Chettri	Member Secretary
30	Bermiok- Berthang	West	10.6.2015	Laxmi Prasad Chettri	Chairman
				Renuka Chettri	Woman member
				Latta Kami	SC Member
				Man Rup Limboo (Subba)	ST Member
				Budhi Raj Limboo (Subba)	Member
				Suk Man Limboo (Subba)	Member
				Rajiv Gurung	Member Secretary
31	Maneybong Sopakha	West	12.6.2015	Maina Kumari Limboo	Chairman
				Bina (Rai) Limboo	Woman Member
				Birbal Chettri	Member
				Nar Bahadur Limbu (Subba)	ST Member
32	Pechrek Hee-Patal			Bhakta Bir Rai	Member
				Deo Kumar Rai	Member
				Rajiv Gurung	Member Secretary
		West	06.06.2015	Denzam Bhutia	Chairman
				Khargeswari Chettri	Woman Member
				Yankeyla Bhutia	Woman Member
				Suk Bir Sarki	SC Member
				Lazong Bhutia	Member
				Tirtha Lall Chettri	Member
		Tashi Wangyal Lachenpa	Member Secretary		

ACTIVITIES OF SBB UNDER NATIONAL MISSION ON HIMALAYAN STUDIES 2017-18

- Trip to Ram Navami Chaite Dasain Mela/Fate at Rani Dhunga, Chage Falls, West Sikkim to interact with the local people and traditional Knowledge holder regarding Mel (*Docynia indica*) and Bhakimlo (*Rhus chinensis*) (4th April 2017).
- Household survey conducted in Upper and lower Tintek, East Sikkim to interact with the local villagers and traditional Knowledge holder for documenting knowledge of various products being prepared by the local community from Mel (*Docynia indica*) and Bhakimlo (*Rhus chinensis*) (16th May 2017 to 19th May 2017).
- Workshop and General Awareness conducted at Biodiversity Management Committee Tumin East Sikkim in regard to Bhakimlo (*Rhus chinensis*) and Mel (*Docynia indica*) (10th June 2017).
- One day Village Level Consultation Meeting in collaboration with the West Pendam BMC and Indrani Self Help Group, with the villagers and traditional knowledge holders of West Pendam and Central Pendam in regard to Bhakimlo (*Rhus chinensis*) and Mel (*Docynia indica*) (26th July 2017)
- Household survey conducted at Lachen, North Sikkim to understand the people's perception regarding Sea buckthorn (*Hippophae salicifolia*) and Yartsa gunbu (*Ophiocordyceps sinensis*) (31st July 2017 – 7th August 2017)
- Educational Tour to Ladhak, India in collaboration with project team Sikkim University and The Mountain Institute India regarding Sea buckthorn (*Hippophae salicifolia*) under MoEF&CC, NMHS Project (26th August- 4th September 2017).
- One Day Village Level Awareness Programme cum Consultation Meeting conducted at Sumbuk, South Sikkim in regard to Bhakimlo (*Rhus chinensis*) and Mel (*Docynia indica*) (26th November 2017)
- Household survey conducted at West & Central Pendam, East Sikkim to interact with the local villagers and traditional knowledge holders for documenting knowledge of local product being prepared from Bhakimlo (*R. chinensis*) (3rd December 2017).
- Documentation of juice making from Sea buckthorn (*Hippophae salicifolia*) in Lachen North Sikkim. (9th January 2018 – 10th January 2108).
- Household survey at Lachung, North Sikkim to understand the people perception regarding Sea buckthorn (*Hippophae salicifolia*) and Yartsa gunbu (*Ophiocordyceps sinensis*) (11th January- 16th January 2108)
- 2nd multi –institutional brainstorming meeting / consultation conducted at Sidkeong Tulku Conference Hall. (Forest, Environment and Wildlife Management Department). (14th March 2108)
- Workshop and General Awareness conducted at Shetathang Yakla East Sikkim regarding awareness of Yartsa gunbu (*Ophiocordyceps sinensis*) (25th June 2018).

(5) SIKKIM STATE WETLAND AUTHORITY (SSWA)

The Wetlands are important aquatic ecosystems, vital parts of the hydrological cycle, highly productive, support large biological diversity, provide a wide range of ecological services, such as water purification, aesthetic enhancement of landscape, source of fresh water in the hills, support many significant recreational, social and cultural activities.

Therefore, Sikkim State Wetland Authority(SSWA) as a Nodal Agency, with Hon'ble Minister, Forest and Environment Department as Chairman was constituted vide Notification No.347/GOS/FEWMD dated 30/03/2016.

1. Regulation:

- (i) to regulate and control all activities detrimental to maintenance of biodiversity and other ecological components, processes and services of wetlands;
- (ii) to ensure compliance with the existing National e.g. Wetland (Conservation) and Management) Rules, 2010 and State level regulatory frameworks related to wetlands.
- (iii) to approach the State Government for enactment of any regulation for achieving conservation and sustainable management of wetlands in the State.

1. Wetland Management:

- i) to coordinate and facilitate implementation of the following activities (within the ambit of site management plants) by organizations, institutions, departments, and local communities, namely:-
 - (a) Restoration of hydrological regimes, including improvement of water quality:
 - (b) Control of silt load from catchments:
 - (c) Management of plant and animal invasives:
 - (d) Ecological restoration and habitat improvement:
 - (e) Sustainable development of capture and culture fisheries:
 - (f) Livelihood improvement and disaster risk reduction with communities living in and around wetlands.
- ii) To work towards resolution of trans boundary, trans catchment and multi-stakeholder conflicts:
 - (a) to develop and maintain a wetland inventory, assessment and monitoring system, based on scientific guidelines, to assess and respond to changes in wetland components, processes of services;
 - (b) to commission strategic environmental assessments for developmental projects likely to create detrimental impacts on wetland biodiversity and ecosystems of services;
 - (c) to collect and disseminate periodic reports on status of wetlands of the State.

(6) STATE MEDICINAL PLANTS BOARD (SMPB):

A National Level Body as Medicinal Plants Board was set up vide resolution No.18020/19/97 dated November 2000 by the Department of Indian System of Medicine & Homeopathy, Ministry of Health and Family Welfare, Government of India to look after formulation of Policy, overall coordination and to ensure sustained availability of medicinal plants, their *in-situ* and *ex-situ* conservation and to harness their export potential.

Subsequently, the State Government of Sikkim constituted the State Medicinal Plants Board vide Notification No. 100/FEWD dated 20/06/2002 under the chairmanship of the Chief Minister and the Minister, Forest and Environment as vice Chairman and members drawn from departments like Health and Family Welfare, Science and Technology, Agriculture, Horticulture, Forest, members from Regional Research Centre (Ayurvedic), Botanical Survey of India and two non official members. The Principal CCF-cum-Secretary, Forests was appointed as the Chief Executive Officer and Member Committee was constituted under the Chairmanship of the principal CCF-cum-Secretary Forests under the State Medicinal Plants Board.

The State Medicinal Plant Board has been constituted to oversee formulation of projects/schemes related to medicinal plants, implementation of such schemes for cultivation of medicinal plants, their collection, storage and marketing research, protocol for cultivation and quality control and protection of Intellectual Property Rights and other issues related to the medicinal plants.

Till date 26 (Twenty six) nos. of projects are undertaken by SMPB with a total estimated cost of Rs. 3113.07 lakhs allocated by National Medicinal Plant Board as Grant-in-aid for the promotion of medicinal plants sector in the state. The Government of Sikkim has banned the commercial exploitation of naturally growing medicinal plants from forest areas except from those areas under plantation through NTFP vide Notification No.376/FEWMD dated 7th August, 2006.

Important activities of SMPB/NTFP includes:

1. Promotion of medicinal plants cultivation
2. Production of quality planting material.
3. *Ex-situ* & *In-situ* conservation of medicinal plants.
4. Support to community on processing, value addition & marketing of medicinal plants
5. Conservation and Resource augmentation of Rare, Endangered and Threatened (RET) medicinal plants species in high demand, especially in high altitude areas.
6. Training, awareness and capacity building of stake holders.
7. Survey, inventorisation and quantification of medicinal plants.
8. Promotional activities viz. home herbal gardens.

Names of some of the concerned species in Sikkim (as per CAMP workshop organized by Non-Timber Forest Produce, Forest Environment and Wildlife Management Department Government of Sikkim in collaboration with FRLHT, Bengaluru) are as follows:

Endangered:

1. *Panax sokpaiyensis*
2. *Allium wallichii* Kunth
3. *Fraxinus floribunda*
4. *Saussurea obvallata*
5. *Swertia chirayita*
- 6.

Vulnerable:

1. *Aconitum ferox*
2. *Bergenia purpurascens*
3. *Dioscorea deltoidea*
4. *Ephedra gerardiana*
5. *Flickingeria fugax*
6. *Fritillaria cirrhosa*
7. *Gymnadenia orchidis*
8. *Hippophae salicifolia*
9. *Hodgsonia heteroclita*
10. *Jurinea macrocephala*
11. *Litsea citrata* Blume
12. *Malaxis acuminata*
13. *Malaxis muscifera*
14. *Nardostachys jatamansi*
15. *Neopicrorhiza scrophulariiflora*
16. *Ophiocordyceps sinensis*
17. *Panax bipinnatifidus*
18. *Paris polyphylla*
19. *Platanthera edgeworthii*
20. *Podophyllum hexandrum*
21. *Polygonatum cirrhifolium*
22. *Polygonatum verticillatum*
23. *Rhododendron anthopogon*
24. *Saussurea gossypiphora*
25. *Valeriana jatamansi*
26. *Zanthoxylum acanthopodium*

The Sikkim Himalaya represents extremely unique eco-system rich in medicinal plant wealth associated with Ayurveda, Folk, Homeopathy, Siddha, Amchi (Tibetan) and Unani system of medicines. It is reported to have more than 1681 species of various medicinal and aromatic plants which have strong traditional system of medicines in Sikkim. As such the medicinal plants have traditionally occupied as important position in the socio-cultural, spiritual and medicinal area of the people in the State.

Work carried out under SMPB/NTFP during 2017-18

Sl.No	Name of CSS's available from concerned line Ministrys/Central agencies	Financial Achievement (Rs. in Lakhs)	Physical Achievement
1	2	3	4
1	<i>In-situ</i> Conservation of rich medicinal Plant Diversity areas and Establishment of Medicinal Plant Conservation Areas (MPCAs) of High Altitude Medicinal Plant species. Project No: CONS/SK-01/2013 100 % CSS Ministry of AYUSH, GOI	118.36	800 Ha
2	Conservation, Development and Sustainable Management of High Altitude selected Rare, Endangered & Threatened (RET) species of Medicinal Plants (Trees, shrubs and herbs) in different altitudinal zones of forest area Project NO: CONS-SK/01-2014 100 % CSS Ministry of AYUSH, GOI	814.16	1000Ha
3	Resource augmentation of selected species of medicinal plants (Tree, shrub and herbs) in Alpine Project No: CONS/SK-01/2015 100 % CSS Ministry of AYUSH, GOI	401.37	500 Ha
4	Financial assistance to Joint Forest Management committee (JFMCs) for value addition, warehousing and marketing Project No: JFMC/SK-01/2015 100 % CSS Ministry of AYUSH, GOI	193.94	30 Units
5	Creation of Home Herbal Garden Project NO: CHH/SK-01/2014 100 % CSS Ministry of AYUSH, GOI	1.50	75 households

SCHEMES / PROJECTS

Chapter-25

SCHEMES:

I. CSS / NEC

1. Development of Eco-Tourism & allied activities at Chauridara, Green Village, South Sikkim (NEC):

Chauridara, a small village with just 62 households with a population of 357 numbers falls in South District in the State of Sikkim. People of Chauridara Village have proposed for declaration of their village as “Green Village “. As a result a new project “Development of Eco-Tourism & allied activities at Chauridara, Green Village”, South at an estimated cost of Rs.363.41 lakhs has been initiated. The project is under progress.

Houses build under the project



House No. 1



House No. 2



House No. 3



House No. 4



House No. 5



House No. 6



House No. 7



House No. 8

2. Establishment of Sidkeong Tulku Bird Park, Rabdentse, West Sikkim (ACS/SPA):

The construction of Sidkeong Tulku Bird Park, Rabdentse, West Sikkim was conceived with an objective to pay homage to the Father of Forestry (the then king of Sikkim) who had first introduced modern forestry in Sikkim.

The Bird Park was constructed at the cost of Rs.603.02 lakhs and was inaugurated on 4th December 2017.

Walkthrough aviary is a large enclosure of arch shape of length 450m and height 10 mtr from the hill side and from the centre of the arch it is 38 mtr which is very necessary to The birds inside the enclosure have been housed with an attached shelter and also the enclosures are constructed in such way that the bird can have sufficient freedom and fly freely.



Walkthrough aviary



Enrichment for Pheasant



Pheasants in its enclosure

3. Development of Ecological Park with reiverside recreation and allied facilities at Kitchu Dumra, South Sikkim.

(Rs.in lakh)

Sl. No.	Financial Year	Source of fund	Work Components	Unit	Amount
			Phase - I		
1	2011-2012	13 th .Finance Commission Sikkim Ecology Fund and Environment Cess	Construction of Reception Block	1	75.26
			Construction of Boundary Wall	1	11.72
			Development of site levelling	1	5.13
			Sub Total-		92.11
			Contingencies – 2%		1.84
			Consultancy fee of PAN Architecture which includes approval of Master Plan, areas programme analysis,requirement analysis & service tax etc.	LS.	6.05
			Total:-		100.00
2	2013-2014	Sikkim Ecology Fund and Environment Cess	Phase-II		
			Landscaping	200m	34.34
			Wooden walkway with hard base		
			Hard paved walkway (Cudappa)	48m	1.46
			Steel framed ramp with deck above circular walkway –tree walk	70m	16.77
			Water Supply	1200m	18.86
			Underground water tank	1	6.75
			Swimming pool with required facilities	1	82.60
			Utility block		
			Resturant food court	1	12.07
			Ladies toilet cum change room,	1	20.03
			Gents toilet cum change room, kitchen, electric room	1	27.17
			Elcetrical	8%	16.47
			Sanitation & plumbing	5%	10.29
			Contingencies	2%	4.65
			Design services & tax		
			Design consultancy	4%	9.30
			Service tax	12.36%	1.15
			Labour cess	1%	2.24
					264.15
Deduct contractor's profit services	7.5%	14.18 (-)			
		249.97			
		250.00			



4. SERICULTURE:

1. CATALYTIC DEVELOPMENT PROGRAMME (CDP)

Sikkim is a non-traditional state with respect to Sericulture in comparison to other North Eastern states of India wherein it is taken up traditionally and is very important source of livelihood. The Sericulture Directorate was established in the year 1977-78 under the umbrella of Forest and Environment Department, Government of Sikkim and is responsible for development of Sericulture in Sikkim. It was only from the Ninth Five Year Plan onwards, with the implementation of Centrally Sponsored Scheme, Catalytic Development Programme (CDP), which was related to Extension and Development of Mulberry, Muga and Eri Sericulture in Sikkim, being sponsored by the Central Silk Board, Government of India on 80:10:10 cost sharing basis between the Central Silk Board, State Government and the stake holders implemented by the department, Sericulture has been taken up in order to explore its potential of becoming the subsidiary source of livelihood.

The state government had sanctioned the project proposal for Rs. 5.00 crore for “Development and Extension of Sericulture in Sikkim” in the Ninth Five Year Plan on 25th June 1998. The activities have been implemented in the three districts viz. East, South and West Sikkim. As part of (CDP) Catalytic Development Project, Schemes and Programme were proposed by the Directorate of Sericulture for the years 2011-12 & 2012-13 in accordance with the fund amounting to Rs. 237.68 lakhs only, inclusive of state share released by the Ministry of Textiles Govt. of India. Being non traditional state and going through the fresh step of learning and adopting sericulture this project took more years than the anticipated project period. However, all the activities under the programme was completed, with better understanding of Sericulture in field.

2. INTENSIVE BIVOLTINE SERICULTURE DEVELOPMENT PROJECT (IBSDP) UNDER NERTPS :

In order to boost the textile sector in the NE region, the Govt of India has approved a project called Intensive Bivoltine Sericulture Development Project (IBSDP) the project is based strategy for the North East Region under an umbrella scheme by name “North East Region Textile Promotion Scheme” Under NERTPS. These projects aim at holistic development of sericulture in all its spheres from plantation development to production of fabrics with value addition at every stage of production chain. These projects is presently under implementation in Sikkim States. The project is basically for the Economic upliftment and encouragement to women. The total cost of project is Rs.29.68 lakhs, In which Rs.26.43 lakhs is the Government of India share rest 10:10 is the state and beneficiaries share respectively. The GOI had sanctioned Rs.550.00 lakhs in the year 2016-2017, and utilized under the project. In the year GOI had sanctioned Rs. 950.00 lakhs in the year 2017 and in 2018 the GOI had released Rs.10.10 lakhs. The project is under process and shall be completed in the year 2020.

Project Village:

District	1 st year (Beneficiaries)	2 nd year (Beneficiaries)	3 rd year (Beneficiaries)	Total
West	100 farmers (Budang, Mulbasey, Pakkigoan)	179 farmers (Tikpur, Chingthang, Tashiding)	120 farmers (Tikpur, Sangadorjee, Peuthang, Mabong)	399
Existing Farmer	107 farmers (CDP)	-	-	107
South Sikkim	100 farmers (Wok, Upper omchu, lower omchu)	159 farmers (Kamrang, Jarong, Suldung Kamling)	60 farmers (Katyang, Borong, Wok)	319
East Sikkim	-	-	60 Farmers (Shaku, Amba/Kaizaley, Kamarey)	60
Total	885 farmers			

Activities and Achievement for the period of 2017-2018 and 2018-2019:

1. Propagation of Mulberry seedlings: In the year 2017-2018 total 8, 50,000 sapling of mulberry plantation has been done giving assistance of Rs.88, 68,900/- directly to the beneficiaries. Similarly in the year 2018-2019 total 6,00,000 nos of mulberry plantation was done worth Rs. 62,60,000/-



Distribution of the saplings/cuttings to the villagers (BC-259 & Kosen mulberry varieties). 500 Nos. (min.) of mulberry plantation per beneficiary under CDP Scheme and 2500 Nos. (min.) per beneficiary under IBSDP Scheme.

2. Providing training, financial assistance, infrastructure and other inputs for silkworm cultivation in the state: The beneficiaries has been provided with the hands on training and all the Irrigation and rearing equipments had been provided to them. Total 538 farmers has been provided with all the assistance and equipments like Training on Rearing of mulberry silkworm, fencing, Vermicompost, Water tank and polypipe, Rearing equipment, Rearing house, Disinfectant materials and equipments etc.

State Production, Price & Value of Forest Product during 2017-18.

Sl.No.	Particulars	Rate	2017-18 (upto 31 st March, 2018)	
			Production	Value
01	Silk (Cocoon)			
A	Mulberry	Rs.210 to Rs.480/- per kg.	400 kgs.	Rs.89,840.00
B	Muga	Rs.1 per cocoon	3609 nos	Rs.3609.00 Though 3609 nos of cocoons were harvested in the year 2017-18 but due to the delay in selling to the buyers at the market, the cocoons shall be sold in the year 2018-19 whose value is mentioned above.
C	Eri	Rs.210/-per kg.	161 kgs(green cocoons) Total 161 kgs	Rs.33,810.00 Though 161kgs of cocoons were harvested in the year 2017-18 but due to the delay in selling to the buyers at the market, the cocoons shall be sold in the year 2018-19 whose value is mentioned above.
			Total:	Rs.1,27,259.00

Training on different components:



Fencing & Vermicompost pit



Irrigation and other Water Conservation & Rearing Appliances:



Door to door disinfection:



Rearing house and mounting hall



Mulberry Silkworm Rearing



Cocoon Production:



Eri Silkworm Rearing:



Muga Silkworm Rearing



II.Externally Aided Project (EAP):

Sikkim State Biodiversity Conservation and Forest Management Project (SBFP)

Sikkim state, located between Bhutan and Nepal, is in the Eastern Himalayan region, that is a natural hot spot of biodiversity; and the number of species of flora per unit area in this region is extremely high. Despite the fact that this area constitutes only 0.2% of the entire geographic region of India, it is the habitat for nearly one-fourth of all plant species found in the country. Sikkim state lies at the foot of the eastern Himalayas and it is topographically isolated and land locked. The environment is difficult for industries to develop and much of population in the rural region continues to live in poverty. As a result, focus has been placed on developing ecotourism that utilizes the state's abundant natural environment and unique culture for serving as a summer vacation destination to escape the heat of the plains. However, the rapid growth in tourists visiting the state in recent years has markedly brought the negative impact on the natural environment.

Thus, providing a means to improve the livelihoods of local residents that comprise the poverty group and to promote the development of a sustainable socio-economy, in harmony with the natural environment, have become urgent issues.

2. Objective and Summary

The purpose of the project in Sikkim State is to conserve biodiversity, strengthen forestry management skills, and improve the income of local residents, by implementing activities such as baseline surveys, establishment of new protected areas, procurement of needed equipment's, promotion of ecotourism, and livelihoods improvement, thereby contributing to balanced socio-economic development and environmental conservation in the region. Reducing the effects of greenhouse gas effects through afforestation activities is also anticipated.

While adopting the Joint Forest Management approach with the active participation of local communities and the State Forest Department, activities to conserve invaluable biodiversity that inhabit this region are also planned in the project. The loan will be applied to biodiversity conservation activities such as baseline surveys, strengthening of the management capacity of protected areas, and promotion of ecotourism. It will also be applied to activities such as regional development and livelihoods improvement, organization and strengthening of basic activities by the State Forest Department, and consulting services.

This project will work in collaboration with the Technical Cooperation Project, "Project for Capacity Building of State Forest Trainings Institutions and State Forest Service Colleges" started in March 2009, aimed at strengthening the skills of field forestry officers in Sikkim state. In addition, it will assist in formulating the state's ecotourism policy in cooperation with external experts.

Planned Implementation Schedule

- (i) Scheduled project completion: March 2020 (the project will be completed with the end of biodiversity conservation and forestry management activities)
- (ii) Consulting services (supervision of works, etc.), tentative period for sending out letters of invitation: July 2010
- (iii) First tender announcement of procurement package based on competitive bidding for this project works: There is no international competitive bidding for the procurement packages of construction in this project, but procurements required for the project implementation will be conducted in order.

Name of Circle	Wildlife Circles – (all forest division)
Division	Territorial Circles – (all forest division)
Directorate	KNP
Other	Working Plan

Function and Objective

- Preparatory work
- Forest and Biodiversity Conservation
- Ecotourism
- Joint Forest Management
- Organizational strengthening

Objective

- To strengthen biodiversity conservation activities and forest management capacity including organizational strengthening of the forest department, and to improve livelihood of the local people by promoting sustainable biodiversity conservation

Plan and non plan allocation in Cr Rs.

	Components	Total
1	C1: Preparatory Works	0.02
2	C2: Biodiversity Conservation	11.56
3	C3: Ecotourism	12.20
4	C4: Joint Forest Management	8.52
5	C5: Organizational Strengthening	8.14
6	Price escalation (for construction works, labour, purchase of equipment etc.)	1.09
7	Physical Contingency	3.20
8	Consulting Services	1.26
9	General Administration	0.32
10	Taxes and Duties	1.00
11	Commitment Charges	-
12	Interest during construction	-
	Total Annual Planned allocation 17-18	47.30

Work implemented at (Location)

Project being implemented in 4 Districts (East, West, North, South) by 9 divisions. The list is given below:

1. East (T)
2. East (WL)
3. West (T)
4. West (WL)
5. South (T)
6. South (WL)
7. North (T)
8. North (WL)
9. KNP

The Main Activities undertaken under JICA assisted Sikkim Biodiversity Conservation and Forest Management Project (SBFP) during the financial year 2017-18.

C1 Preparatory Work

1. Preparation of 8th Annual Plan of Operation (APO) and printing of APO for fiscal year 2017-2018

C2 Forest and Biodiversity Conservation

Forest and Biodiversity Conservation under SBFP.

This component aims to enhance the global, social and economic value of biodiversity and improve livelihoods in and around protected areas (PAs), buffer zones and reserve forests. It seeks to achieve this objective through the establishment and implementation of sound management plans and the dissemination of biodiversity information for promoting public awareness on the significance of biodiversity. Although the component focuses on the management of public lands, it will also support sustainable forest and biodiversity management outside the reserve forests and PAs. This component is designed to strengthen the development and implementation of the management plans for the Khangchendzonga Biosphere Reserve and the seven wildlife sanctuaries and of the working plans for reserve forest management. Effective implementation of the plans will require a well-defined natural resource information base and human and financial resources. The component focuses on the followings:

1. The enhancement of the spatial and resource information base for planning, implementation and monitoring of forest and biodiversity management;
2. The establishment and improvement of zoning plans for the management of reserved forests and protected areas;
3. The promotion of public support for biodiversity conservation through research, ex-situ conservation and extension; and
4. The capacity development of the Forestry Department.

In addition, inter-sectoral linkages will be built among the Forestry Department, State Pollution Control Board, Sikkim University, Wildlife Institute of India, Indian Institute of Remote Sensing, Indian Council of Agricultural Research, Joint Forest Management Committees (JFMCs) and Eco-Development Committees (EDCs) and other related institutions.

The achievements under Biodiversity Conservation for the financial year 2017-18 are briefly outlined below:

a. Enhancement and management for forest and biodiversity information base.

GIS Lab shifted from C block to D block of Forest Secretariat and upgraded. A branch of GIS office has also been set up in East Territorial Division, Gangtok for application and utilization of the spatial information base in the day to day activities of FEWMD.

- Maps prepared for KNP mixed culture and natural heritage for the book publication.
- Maps prepared for the trekking trail of all PAs under ecotourism component based on field data
- Maps prepared for SEVs under JFM component
- Maps prepared for arms possession proximity to the PAs for NBWL clearance
- Maps prepared and Kml file of various user agencies for FCA clearance.
- Maps prepared based on GPS data for NTFP division
- Mapping of Barsey Rhododendron sanctuary and Thangu Lashar Valley for RBS study.
- Mapping of Panch Pokhari Deer Conservation Zone based on field data.

- Site selection based on FSI forest type and density mapping done in the lab for the RBS study and 25 sites were selected under moderate and very dense forest category for field survey.
- LULC for South District Using LISS IV satellite imagery (5.8m).
- Prepared Forest Blocks Maps for field staff.
- Digitization of Drainage layer Using LISS IV satellite imagery (5.8 m)
- Digitization of Contour layer based on 1:50,000 Toposheet.
- Digitization of latest Road layer based on Google Earth.

29th May 2017 to 3rd June 2017

Training of newly appointed **Block Officers** (30 nos.) on "*Theory and application of Geospatial Technologies*" at Forest Secretariat.

01st December 2017 to 06th December 2017

Training of **Forest Guards** (30 nos.) on "*Theory and application of Geospatial Technologies*" at Forest Secretariat

March 2018

Training of **Forest Guards** (30 nos.) on "*Theory and application of Geospatial Technologies*" at Forest Secretariat.

b. Inventory and monitoring of biodiversity.

Rapid Biodiversity Survey conducted in 613 plots. 25 nos of Reserve Forest of East, West and South Districts were taken up to study the variation in biodiversity in moderately dense forest and very dense forest. Rapid Biodiversity Report III and IV were published.



Species enumeration with local guidance

c. Study of impacts of climate change and grazing in the himalayan ecosystem.

Memorandum of Understanding signed with **Sikkim University** on 4th of July 2017 for "*Study of Oak forest ecosystem in Sikkim Himalaya with special reference to climate change, plant species diversity and distribution*". SU has started their fieldworks from Barsey Rhododendron Sanctuary in West Sikkim.

Deed of Agreement signed with **The Mountain Institute, India** for “*Study on Impact of Ban on Grazing in Himalayan Ecosystem in Sikkim*”.

d. Enhancement of the basis for forest management and biodiversity conservation.

WII engaged for imparting training to the PA managers for methodology to follow for updating/upgrading Management Plans of PAs in Sikkim. Management plan of all the PAs being updated/upgraded.

WII was also engaged for evaluating management effectiveness of the protected area at Kitam Bird Sanctuary.

e. Management and conservation of flagship habitats.

Study of Red Panda by WWF – India, Gangtok is in good progress. Annual Progress Report has been submitted.

Study of Musk Deer is being conducted in collaboration with WII, at Panchpokhari (Lungdohnay) Musk Deer Conservation Zone, KNP. Data collected from camera traps were analysed at WII, Dehradun in March 2018.

Study of Rhododendrons is in progress in Shingba Rododendron Sanctuary, Lachung, North Sikkim with technical assistance from Regional Centre of GB PantInstitute of Himalayan Study, Gangtok.

f. Enhancement of working plans and establishment of forest management zones.

The following **Preservation plots** were laid by the Working Plan Circle **during 2017-18**.

- 1ha. Permanent preservation plot (PP) at Tumlabong RF under Singtam Range.
- 1no. exclusive PP (0.1ha) and 2nos. non-exclusive PP (0.1ha) at Samardang RF in South Sikkim.
- 1no. exclusive PP (0.1ha) and 2nos. non-exclusive PP (0.1ha) at Rayaong RF in South Sikkim
- **Tree enumeration** was done in 19 sample plots of 0.1ha each at Rabong, Gyanchung, Jaubari, Katyang, Melli Kerabari, Sumin Khas, Payong, Yangang, Kau, Pathing, Maenam WLS, Sada, Phamtam, Chitre and Sumbuk.

g. Ex-situ conservation and promotion of biodiversity conservation.

- Construction of Butterfly Park at Rangrang, North Sikkim is in progress.
- Propagation nurseries at Rayong, Pangthang, Tikjuk, Okhrey are being maintained.
- Plant Conservatory at Bulbuley also being maintained. Tendering process of sale of entry tickets was completed.
- Construction of Administrative building and animal rescue centre at Himalayan Zoological Park is in progress.

h. Knowledge generation and dissemination of biodiversity and best practice information.

- North East Butterfly Meet organized by BAMOS at Dzongu, North Sikkim with financial support from SBFP
- Proposal for publishing pictorial book on Birds of Sikkim approved.
- Construction of biodiversity centre at Damthang is in progress.

- **Wildlife Populaton Estimation for all Protected Areas of Sikkim** released by the Hon'ble Chief Minister, Sikkim on the auspicious occasion of 15th August 2017 at Paljor Stadium, Gangtok. This book is the compilation of first ever and first phase of population estimation done in Sikkim.

List of photos of works done under Biodiversity Conservation (BC) Component, SBFP during 2017-18

New GIS Lab:



Musk Deer: Direct Sighting



Camera Trap Installation at Bikhmatar, KNP/KBR, North Sikkim.



SAMARDUNG SAMPLE PLOT (0.1hac.)

Tree enumeration



Taking biometric parameters of seedlings.



C3 Ecotourism

C3 Component (Ecotourism), 2017-18.

Forest Rest Houses / Interpretation Centres

1. Forest Rest House at Dentam has been successfully renovated and inaugurated.



2. Forest Rest House at Nayabazar, West Sikkim has also been successfully up graded.
3. Forest Rest House at Hilley, West Sikkim has also been successfully upgraded.
4. Forest Rest House at Hee-Gyathang, North Sikkim has also been successfully upgraded.

Forest Rest House at Hee-Gyathang, North Sikkim



Interpretation Centre at Melli, South Sikkim.



Development of Trekking Trail.

1. Development of Kaluk-Resum Peak trekking trail has been completed (17.2 km) in West Sikkim.



2. Development of Golitar-Tumin trekking trail (17 km) in Fambonglho Wildlife Sanctuary, East Sikkim has been completed
3. Development of Tesenthang-Dechenphu trekking trails (7.5 km) in West Sikkim has been approved and in verge of completion.
4. Development of Bey-Thulong-Kishong trekking trails (22 km) in North Sikkim has been approved.
5. Development of Aritar-Rachela trekking trails (10.77 km) in Pangolakha Wildlife Sanctuary, East Sikkim has been completed
6. Development of Lingee-Sokpay-Bhalaeydunga (17 Km) in South Sikkim has been completed.
7. Development of Singhik-Tosar Lake trekking trails (10 km) in North Sikkim has been completed
8. Uttaray- Singlila – Dzungri-Goechala – Yuksom Trekking Trail under KNP west 42 km Approved and execution initiated.
9. Lachen- Zemu –Green Lake Trekking Trail 16 km under KNP West has been approved.

Festival & Fairs.

1. Participated in Lamphokhari Tourism Festival 3rd April to 5th April, 2017.
2. Organised East Pendam Ecotourism Festival, East Sikkim.



3. Organised follow up festival at Okharey, West Sikkim on 23rd to- 25th March 18.



Development Wildlife Watching Areas.

1. Wildlife watching area -31 kms out of 80 kms have been completed during 2017-18 , 20 km Pangolakha Wildlife Sanctuary, 11 km Meanam Wildlife Sanctuary).

Solid Waste Management

1. Organised workshop on Solid waste Management at Sidkeong Tulku Conference Hall, Gangtok, East Sikkim” on 25th November, 2017.

C4 Joint Forest Management

1. Revised JFM Manual part- I for operationalization of JFM & part II for micro planning has been printed and distributed to all 9 DFUs.
2. Annual General Body Meeting (AGM) has been conducted DFUs wise on the month of May and November. Total 226 JFMCs/EDCs has been participated.



- Administrative & Financial Management training for JFMCs/EDCs has been conducted district wise. Total 226 JFMCs / EDCs has been participated.



- Microplan of IVth Batch of SEV –III started.



- Entry Point Activities for IVth Batch of SEV III is under process.
- Plantation work has been carried out at 42 JFMCs/EDCs. Total 420 ha has been covered under SBFP.
- Maintenance for plantation works continues in JFMCs/EDCs. Continued support of 3 NGOs & 27 Community Organizers for Community mobilization and the strengthening of JFMCs/EDCs.
- Fire Fighting Equipment for IIIrd Batch of SEV II has been distributed and for IVth Batch of SEV III started.

9. Block Grand for IVth Batch of SEV III released.
10. Management of central nurseries of 12 ha.continued.
11. Financial training has been conducted for SHGs.



12. Register for JFMCs//EDCs printed and distribute as per requirement.
13. Skill development training on IGAs is under process for Batch IVth villages for cardamom nursery raising & animal husbandry related Income Generating Activities.
14. Income Generation Activities of SHGs.



15. Loan Distributed to SHGs.



16. Agreement sign SHGs.



17. Loan Repayment by SHGs.

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Damrany Jambui शाखा Branch Nanchi

बचत बैंक / संघर्षी जमा खाता सं. Saving Bank / Cumulative Deposit A/c No. 676902010000962

के नाम जमा /of _____

नकदी / चेक के ब्यारे Details of Cash / Cheque	राशि Amount	
	₹. Rs.	₹. P.
	61,800/-	
₹. शब्दों में Pay in Words Sixty One thousand eight hundred	61,800/-	

बुक Book - 2337 - खजान्ची Cashier

DEPOSIT / PAY IN SLIP / जमा / भुगतान पर्ची

बैंक ऑफ़ इंडिया Bank of India BOI

शाखा / Branch Ceasifolk

दिनांक / Date 03 07 18

एसबी/सीए/ओडी/सीसी/आरडी/डेप्ल/डीएल खाता सं./क्रेडिट कार्ड नं.
SB/CA/OD/CC/RD/TL/DL A/c No./Credit Card No. 02831

नाम/Name Teag Das

टेली नं./Tel. No. 9851520000

रुपये/Amount 20500

राशि अक्षरों में/Rupees in Words Twenty thousand five hundred only

चेक नं./दिनांक/चेक एवं शाखाएं का नाम/Cheque/Date/Name of Branch	₹/₹	₹. P.
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C5-Organisational Strengthening of the Forest Department

1. **Transfer of funds to District Facilitation Units** – During FY 2017-18 on a/c of Operational Expenses funds transferred to nine (9nos.) DFUs viz. DFU,T(North, South, East,West);DFU,WL (North, South, East, West) (WL); and DFU(KNP) amounting to Rs. 37,26,720/- Rupees (Thirty Seven Lakhs Twenty Six Thousand Seven Hundred and Twenty) only.
2. **Procurement of vehicle** – 8 nos. of vehicles (6 Bolero & 2 Tata Hexa) were procured for the Officials of SBFP.
3. **Mid Term Review** – MTR for SBFP was scheduled during the month of March, 2018 (04th to 08th March, 2018). The JICA Mission Team comprising of Mr. Toru Uemachi, Senior Representative and Mr. Vineet Sarin, Addl. Chief Development Specialist from JICA India Office had come to Sikkim for the Mid-Term Review. In order to assess the activities and progress of the Project the JICA mission team along with the officials of the PMU made field visits to East District and South District, where they assessed the activities of Joint Forest Management Committees/Eco-Development Committees, the Self Help Groups and interacted with the members of SHGs & JFMCs.

After the Mid-Term Review Mission, a Letter was received from the Senior Representative, JICA India Office to Chief Secretary, Govt. of Sikkim, wherein it was mentioned that the JICA team was very much encouraged by the strong support to the Project and particularly impressed by the pro-activeness of the Self-Help Groups (SHGs).

4. Governing Body Meeting & Annual Review Meeting

Meeting of the Executive Committee and Governing Body of SBFP was held on 11th of February, 2017 to discuss and finalize the Annual Plan of Operation (APO) for the FY (2017-18).APO of FY (2017-18) was approved for **Rs 47.30 crores** which included the unspent budget of **Rs 34.59 crores** of previous APO (2016-17) and supplementary budget.

5. **Impact Assessment study of the Project** – JICA had appointed M/s All State Financial Services Private Limited in association with the M/s Basix Consulting and Technology Services Limited to conduct an “Impact Assessment of JICA assisted Forestry Projects in the state of Sikkim and West Bengal”.

The inception meeting with the third party evaluation team was scheduled on 9th of February, 2018 in the Forest Secretariat. There was study team of 9 members with experts for each component (Biodiversity Conservation, Eco-tourism, Joint Forest Management) of the Project viz. Team Leader & Forestry, Participatory Forest Management Expert/ Community Development Expert. IGA & Micro Finance Expert, Biodiversity Conservation Expert, co-tourism Expert, Accounting Expert, Statistical Expert, Evaluation (Impact Survey) Expert and MIS/ GIS Expert.

The study team’s evaluation was a comprehensive study of all the activities undertaken by the Project component-wise in the 30nos selected villages of the State.

- 6. Training Institute at Bulbuley:** The foundation stone laying of the first ever State Forest Training Institute at Bulbuley was done on 19th March, 2018 by Hon'ble Minister Forests in presence of Area MLA, PCCF-Pr. Secretary-cum-CPD, APCCF-PD, APD-I, APD-II and other senior officials of the Department.

With particular reference to function of the Department:

All the above activities are being implemented by Forest Environment and Wildlife Management Department (FEWMD).

Financial Progress: **61.91%**

Physical Progress: 68%

Tangible outputs:

Plantation, infrastructure, GIS maps, microplans of JFMs/EDCs

Intangible outputs:

Improved environment, greenery, enhanced capacity of stakeholders, frontline staff and officers of Forest Department.