



Government of India
Ministry of Environment, Forest & Climate Change
(EI Division)

2018-19

Annual Progress Report



Environmental Information System

**WORKING TOWARDS A
SUSTAINABLE ENVIRONMENT**

Sikkim ENVIS Hub



Hosted by

**Forests, Environment & Wildlife Management Department
Government of Sikkim
Gangtok**

SIKKIM STATE ENVIS HUB
On Status of Environment & Related Issues

(STATE GOVERNMENT CENTER)



Government of India
Ministry of Environment, Forests & Climate Change
(EI Division)



ANNUAL PROGRESS REPORT 2018-19

(1st April 2018 – 31st March 2019)

OF

SIKKIM STATE ENVIS HUB

On Status of Environment & Related Issues
(STATE GOVERNMENT CENTER)



Hosted by
Forests, Environment & Wildlife Management Department
Government of Sikkim
Deorali, Gangtok – 737101

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SIKKIM ENVIS HUB ANNUAL PROGRESS REPORT 2018-19

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Government of India
Ministry of Environment, Forest & Climate Change
(EI Division)

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Annual Progress Report 2018-19 on Activities of Sikkim State ENVIS Hub

1	Name of Host Organization:	Forests, Environment and Wildlife Management Department, Government of Sikkim, Gangtok												
2	Assigned Subject Area:	On Status of Environment & its Related Issues												
3	Date/Month/Year of establishment of ENVIS Centre:	MoU dated 23/03/2002 Established vide letter No: 13(1)/WB/2002 – ENVIS dated: 25/06/2002. ENVIS Centre revamped to State ENVIS Hub vide MoC dated 23/03/2018												
4	Name and designation of ENVIS Coordinator:	Shri. B. B. Gurung, SFS Director (Planning/ Environment & Soil Conservation/ River Valley Project/ ENVIS)												
5	Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre?	Yes												
	<p>Composition of the Advisory Committee:</p> <p>(Select YES or NO: if YES kindly fill the right column space; if NO kindly leave it blank)</p> <p><input type="radio"/> YES</p> <p><input checked="" type="radio"/> NO</p>	<table border="0"> <tr> <td>1. PCCF-cum Pr. Secretary</td> <td>Chairperson</td> </tr> <tr> <td>2. CCF (T/HQ)</td> <td>Member</td> </tr> <tr> <td>3. Director (KNP/KBR)</td> <td>Member</td> </tr> <tr> <td>4. Pr. Scientist (SPCB)</td> <td>Member</td> </tr> <tr> <td>5. Director (TT), DST&CC</td> <td>Member</td> </tr> <tr> <td>6. Director (P/ E&SC/ RVP)-cum-Coordinator (ENVIS)</td> <td>Member Secretary</td> </tr> </table> <p>(Office Order No. 1119/ADM/FEWMD dated 21/03/2015)</p>	1. PCCF-cum Pr. Secretary	Chairperson	2. CCF (T/HQ)	Member	3. Director (KNP/KBR)	Member	4. Pr. Scientist (SPCB)	Member	5. Director (TT), DST&CC	Member	6. Director (P/ E&SC/ RVP)-cum-Coordinator (ENVIS)	Member Secretary
1. PCCF-cum Pr. Secretary	Chairperson													
2. CCF (T/HQ)	Member													
3. Director (KNP/KBR)	Member													
4. Pr. Scientist (SPCB)	Member													
5. Director (TT), DST&CC	Member													
6. Director (P/ E&SC/ RVP)-cum-Coordinator (ENVIS)	Member Secretary													

Office Order Constituting Advisory Committee for ENVIS Centre Sikkim



GOVERNMENT OF SIKKIM
DEPARTMENT OF FOREST, ENVIRONMENT & WILDLIFE MANAGEMENT
FOREST SECRETARIAT, DEORALI, GANGTOK 737102

No. 1119...../ADM/FEWMD

Dated: 21/03/2015

OFFICE ORDER

Consequent upon the approval of the Competent Authority, an Advisory Committee comprising of the following officers is hereby constituted for necessary guidance and review of the activities of the ENVIS Centre *on Status of Environment & Its Related Issues* hosted by the Forest, Environment and Wildlife Management Department, Government of Sikkim;

1. Dr. Thomas Chandy, IFS	PCCF-cum Pr. Secretary	Chairperson
2. Shri C.S. Rao, IFS	CCF (T/HQ)	Member
3. Shri J.B. Subba, IFS	Director (KNP/KBR)	Member
4. Dr. Gopal Pradhan	Pr. Scientist (SPCB)	Member
5. Shri. D. T. Bhutia	Additional Director (TT), DST&CC	Member
6. Shri B.B. Gurung	Joint Director (E&SC)	Member Secretary

The above Advisory Committee shall meet at least twice in a year for oversight/review of the activities of the ENVIS Centre including carrying out peer review of its information/ knowledge products, and also formulate Annual Plan of Activities for relevant prospective year.

Sd/

(Dr. Thomas Chandy) IFS

PCCF-cum-Principal Secretary

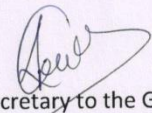
Forest, Environment & Wildlife Management Department

Memo No. 4702-4711...../ADM/FEWMD

Dated: 21/03/2015





Copy to :

- 1) All the officers concerned above
- 2) Principal Secretary to HCM
- 3) Assistant Director, MoEF (EI Division), Government of India
- 4) PS to Hon'ble Minister, FEWMD
- 5) PS to Chief Secretary
- 6) File
- 7) Guard File


Deputy Secretary to the Government

Forest, Environment & Wildlife Management Department

6 Current ENVIS Staff Structure (Full Time):

Name	Position held	Qualification and Experience	Joining Date in ENVIS Centre	Joining Date in current position	2018-19		
					Leaving Date (if applicable)	Emoluments drawn (Rs.)	
						Monthly	Annual
Mr. Rajen Pradhan 	Sr. Programme Officer	B. Tech (Computer Sc.) with 12 years 11 months in ENVIS	17/04/2006	20/03/2009	-	38,586/-	4,63,032/-
Mr. Laxuman Darnal 	Information Officer	PG (Diploma) in Computer Sc. with 12 years 7 months in ENVIS	18/08/2006	20/03/2009	-	32,228/-	3,86,736/-
Ms. Renu Gurung 	IT Officer	BA Graduate with Diploma in computer applications, 7 years 6 months in ENVIS	16/09/2011	01/04/2017	-	26,065/-	3,12,780/-
Ms. Tulsha Gurung 	Data Entry Operator	CI XII pass with Diploma in computer application, 5 years 4 months in ENVIS	02/12/2013	-	-	12,100/-	1,45,200/-

7 Mandate of the Host Organization

The primary mandate of the host department is protection & conservation of Forests, Environment & Wildlife in the State.

Mandate of the ENVIS Hub

To collect, collate, store in retrieval system and disseminate data and information on "Status of Environment & Related Issues". To promote, implement and coordinate new ENVIS initiatives viz Green Skill Development Programme (GSDP), Grid-based Resource Information and Decision Support System (GRIDSS), and Community-driven Environmentally Sustainable Village Programme (CESVP).

8. Databases:

8.1. Catalogue of Non-numeric Databases compiled by the ENVIS Hub till date:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Opportunities and Challenges, Agro-biodiversity of Sikkim Himalaya, Sikkim organic Mission,	Descriptive, graphical	2018	Food Security and Agriculture Development Department,	Yes
Pollution	Air, water, noise, solid waste	Descriptive	Weekly up to March 2019	SPCB	Yes
Biodiversity	Comprehensive database on floral and faunal diversity of Sikkim	Descriptive, geospatial	updated up to 2018	Govt publication	Yes
Climate Change in Sikkim	Daily weather data of Gangtok, district wise rainfall, monthly met data, climate synthesis report, Comprehensive study report on in-depth research by several scholars	Descriptive, geospatial	updated up to March 2019	Govt publication, SPCB, Sikkim Met Deptt	Yes
Demography	Analysis on Population study of Sikkim	Descriptive, graphical	2011 Census	Census of India	Yes
Disaster	History of Earthquakes, landslides, forest fire cases in Sikkim	Descriptive	2018	Disaster Management Department	Yes
Ecotourism	Policy, trek, permits and fees, ecological study, festivals.	Descriptive	March 2019	Forest deptt	Yes
Energy	Electricity and energy consumption	Descriptive	Annual up to 2017	Power and Energy Deptt	Yes
Environment	EIA, EMP, SoE report, carrying capacity study report, ECs, etc.	Descriptive	2018	Forest deptt	Yes
Forest Resources	Forest types, SFRs, JFMCs, EDCs	Descriptive	2018	FSI, State Forest deptt	Yes
Land and Water Resources	Watershed, Wetlands, Wasteland, Rivers, landslide and soil treatment, water quality of river Ratey Chu – Source of Gangtok	Descriptive	2018	SAC, ISRO, Journals, Forest deptt	Yes
Wildlife	PAs, KNP/ KBR, eco-sensitive and conservation zones, Management Plans, compensation guidelines	Descriptive	2018	Forest deptt	Yes
Soils and Minerals	Geology and Mineral Resources of Sikkim, Mineral reserves in Sikkim, Soil resources	Descriptive	2018	Mines Minerals and Geology Deptt	Yes
Sericulture	Mulberry, muga and eri culture practices in Sikkim	Descriptive	2018	Forest deptt	Yes

8.2. Catalogue of Numeric and Time-series Databases compiled till date:

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Area, Production and Productivity of Rice, Wheat, Maize, Finger Millet, Barley, Buckwheat, Pulses, Oilseeds	Annual (2003-04 to 2017-18)	Food Security & Agriculture Development Deptt	Yes
Air Quality of Sikkim (8 locations)	PM ₁₀ , SO _x , NO _x	Annual, Monthly, Weekly till March 2019	SPCB	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly (2011, to 2018)	SPCB	No
Biodiversity	Statistics on species availability	Annual up to 2018	Forest deptt	Yes
Climate	Temperature, rainfall etc	Monthly, Annual 1996-2018	IMD	Yes
Demography	Demography statistics	2001, 2011	Census of India	Yes
Earthquakes	History of Earthquakes	1839 -2018	Disaster Management Deptt	Yes
Forest Fire Cases	Forest fire cases in Sikkim	2004 – 2018	Forest deptt	Yes
Electricity Consumption	Category wise consumption	Annual, 2008-09 to 2016-17	Power & energy deptt	Yes
Energy Consumption	Per capita consumption, Power from National grid, hydel power generation	Annual 2002-03 to 2016-17	Power & energy deptt	Yes
Forest Statistics	Forest cover statistics of Sikkim	1987 to 2017	FSI	Yes
Wetlands of Sikkim	Altitude wise no of lakes and area	2003 and 2018	SAC, ISRO, Ahmedabad	Yes
Mineral Reserves in Sikkim	Status of mineral development in Sikkim	Annual, 2017	Mines, Mineral and Geology Deptt	Yes
Protected Areas of Sikkim	Profile of Wildlife sanctuaries and National Park	2019	Forest deptt	Yes
Disaster	History of Earthquakes, landslides, forest fires	2018	Disaster Mgmt Deptt. Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study	March 2019	Forest deptt	Yes
Energy	Electricity and energy consumption	Annual up to 2017	Power and Energy Deptt	Yes

8.3. New Databases developed during the Financial Year (2018-19)

8.3.1. Non-numeric Databases:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Biodiversity	Floral and Faunal diversity of Sikkim (Updates)	Descriptive	2018	Govt publication	Yes
	Findings of new species and records in Sikkim Himalaya	Descriptive	2018	Journals	Yes
Pollution	Water Quality of Rivers (14 new stations)	Descriptive	2010 – 2018 (till Aug)	SPCB	Yes
	AQI of 8 major town location	Descriptive	2018	SPCB	Yes
	Online consent forms for renewal	Descriptive	2018	SPCB	Yes
	Deepawali Noise Pollution Monitoring	Descriptive	2018	SPCB	Yes
KBR	Inscription of Khangchendzonga Biosphere Reserve in the UNSECO's list of World Network of Biosphere Reserves	Descriptive	2018	PIB	Yes
Ecotourism	Demarcation of 11 ecotourism zones in Sikkim	Descriptive	2018	Ecotourism Directorate	Yes
Water Resource	Water quality of river Ratey Chu (source of Gangtok)	Descriptive	2007 to 2015	PHE Deptt	Yes
Wildlife	Human Animal Conflict (Himalayan Bear attack cases)	Descriptive	2018	Forest Deptt	Yes
Disaster	Landslide- focus of resurgence of tree ferns	Descriptive	2018	Forest Deptt	Yes
Forestry	Heritage Trees of Sikkim	Descriptive	2018	Forest Deptt	Yes
	Mith/ Mithini Trees of Sikkim	Descriptive	2018	Forest Deptt	Yes

8.3.2. Numeric and Time-series Databases:

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Pollution	Industrial Air Pollution	Monthly till 2016	SPCB	Yes
	Air Quality of Major Towns	Weekly till March 2019	SPCB	Yes
	Water Quality of Rivers (14 locations)	Monthly, 2010-2018 (till Aug)	SPCB	Yes
	Hazardous Waste	2015-2017	SPCB	Yes
	Noise Pollution	2014 to 2018	SPCB	Yes
Agriculture	Area, Production and Productivity of Major Crops	2003-04 to 2015-16	Food Security & Agriculture Dev. Deptt	Yes
Climate data	Daily weather report and four days forecast of Gangtok town	Daily basis	IMD	Yes
Rainfall	District wise rainfall data	2009-2018	IMD	Yes (till 2017)
Forestry	53 Heritage Trees of Sikkim	2018	Forest Deptt	Yes

8.4. Status of data entry in ISBEID: (For State ENVIS Hubs) – As in ANNEXURE (Pg 25)

9. Information/ Knowledge Products:

9.1. ENVIS Newsletters published during the Financial Year (2018-19):

Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	2018 Special Newsletter edition title PANDA Vol. 10 92 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 2017-18 of Sikkim State. <i>Released by the Hon'ble Chief Minister of Sikkim on October 4, 2018 on the occasion of International Biodiversity Congress 2018 held at Dehradun</i>	2000 nos (92 Pages) <i>Supported by host organization</i>	http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20Vol%2010%202017-18.pdf
	1 st Qtr (Apr-Jun) Vol. 11, Issue 1 Kalden Singhi Bhutia the only surviving herdsmen of Tibetan highland Sheep from Noth Sikkim, Documentation of ethno-veterinary practices in Sikkim, Ambient air quality of major towns in Sikkim, Observations on the impact of different forest types on hydrology in Sikkim,	500 nos. (12 Pages)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%201%20(Apr-June).pdf
	2 nd Qtr (Jul-Sep) Vol. 11, Issue 2 Khangchendzonga Biosphere Reserve (KBR) listed in UNESCO's World Network of Biosphere Reserves, Key features of KBR, Wildlife Protected Area Network in Sikkim, New ENVIS initiatives, Golitar, Fambonglho Wildlife Sanctuary, <i>Rubus franchetianus</i> an addition to flora of Sikkim	500 nos. (12 Pages)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%202%20(Jul-Sep).pdf
	3 rd Qtr (Oct- Dec) Vol.11, Issue 3 Sikkim Government conferred FAO's Future Policy Gold Award 2018 and 6th JRD Tata Memorial Award, Regional workshop on conservation and management of wetlands for north eastern states, Workshop on forest management certification standard, International symposium on evergreen oak forests of eastern Himalaya, Sikkim participation at International Biodiversity Congress 2018, Regional evaluation workshop and training of ENVIS at Almora, Harit Diwali Swasthh Diwali campaign, Ban on use of polythene bags in forest nurseries, Notes on the occurrence of <i>Gentiana karelinii</i> Griseb (<i>Gentianaceae</i>) in Sikkim.	500 nos. (12 Pages)	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%203%20(Oct-Dec).pdf

9.2. Other publications/ information products brought out during the Financial Year (2018-19):

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<p>State of Environment Report Sikkim 2016</p> <p>This is the only second edition after its first issue in 2007 published by Sikkim State ENVIS Hub. State of Environment Report Sikkim 2016 was released on October 4, 2018 by the Hon'ble Chief Minister of Sikkim on the occasion of International Biodiversity Congress 2018 held at Dehradun.</p>	1000 copies (126 pages)	http://sikenvis.nic.in/WriteReadData/Publication/State%20of%20Environment%20Report%20Sikkim%202016.pdf
	<p>Brochure: Ten Point Agenda to Implement Green Good Deeds</p>	2000 copies (4 fold brochure)	http://sikenvis.nic.in/WriteReadData/Us erFiles/file/Sikkim%20SNA%20GGD%20Brochure.pdf
	<p>Draft GSDP Brochure: Wild Beekeeping and Processing</p>	50 copies (3 fold brochure)	(Not yet published, however draft print copy enclosed)

9.3 Information Products published/ released during last six years (2012-13 to 2017-18):

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
1.	2012-13	Newsletter PANDA Vol 5	Environmental Sustainability Index 2011, State Forest Statistics 2011, Key Statistics, Demography, Climate Change Indicators in Sikkim, Recent sightings and findings, Himalayan Landscape, Man and Macaques	http://sikenvis.nic.in/WriteReadData/Publication/Download%20PANDA%202013.pdf
2.		Environment Consciousness in Sikkim	Study report to assess the environment consciousness of citizens of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/EC%20Report_CDF_IFMR.pdf
3.		Forest for Sustainable Livelihood	A concept note on forest and sustainable livelihoods	http://sikenvis.nic.in/WriteReadData/Publication/Forest%20for%20Sustainable%20Livelihood%20%20NEAC%202012.pdf
4.		Biodiversity - All Creatures Great and Small	Biodiversity - All Creatures Great and Small. Floral and Faunal Wealth of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/DOWNLOAD%20Biodiversity%20-%20All%20Creatures%20Great%20and%20Small.pdf
5.		Study of Ecological, Socio-Economic and Livelihood Dimensions of Grazing exclusion in Protected Forests of West Sikkim	Study of Ecological, Socio-Economic and Livelihood Dimensions of Grazing exclusion in Protected Forests of West Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/Download%20Study%20Report%20on%20Grazing%20Ban%20in%20West%20Sikkim.pdf
6.		National Green Corps – Sikkim	School Eco-Club Success Stories from Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report%202012-web.pdf
7.	2013-14	Quarterly Newsletter Vol 6 Issue 1 (Apr-Jun)	Biodiversity Conservation, Oaks species of Species	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202013-14%20Vol%20VI%20Issue%201.pdf
8.		Quarterly Newsletter Vol 6 Issue 2 (Jul-Sep)	Wastelands of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%202%20v2.pdf
9.		Quarterly Newsletter Vol 6 Issue 3 (Oct-Dec)	Protected Area Network in Sikkim, Gochela trek	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%203%20v2.pdf
10.		Newsletter PANDA Vol 6 Issue 4	Sikkim Fishes, Magnolia taxa, Ratey chu watershed, Green lake expedition, Gangtok windstorm	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%20PANDA%20Vol%206.pdf
11.		Biodiversity Conservation	Concept note on Biodiversity Conservation	http://sikenvis.nic.in/WriteReadData/Publication/NEAC-Biodiversity%20Conservation.pdf
12.		Sidkeong Tulku Bird Park	Pamphlet on Sidkeong Tulku Bird Park, West Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/Sidkeong%20Tulku%20Bird%20Park.pdf
13.	2014-15	Quarterly Newsletter Vol 7 Issue 1 (Apr-Jun)	Paryavaran Mahotsav, State Green Schools Award, CM Rolling Trophy, Green wave, world environment Day	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%201.pdf
14.		Quarterly Newsletter Vol 7 Issue 2 (Jul-Sep)	Eco-Sensitive Zones in Sikkim, Sustainable Environment Initiative at School, Green Roads Mission	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%202.pdf
15.		Quarterly Newsletter Vol	Swachh Bharat Swasthh Sikkim,	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%203.pdf

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
		7 Issue 3 (Oct-Dec)	Solid Waste Profile of Gangtok, Legal Framework for Solid Waste Management, , Healthcare Waste Management	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%203.pdf
16.		Newsletter PANDA Vol 7 Issue 4 <i>Special edition</i>	KNP, Shapi, Yartsa gunbu, polygala arillata, myna, tinjurey ecotourism, important bird area of Sikkim, Lampokhari, gurugongmar, bird bioacoustics	http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Volume%20No%207.pdf
17.		Paryavaran Mahotsav 2013	Pictorial book report on fortnightly environment festival of Sikkim June 15-30, 2013	http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav%202013%20web1.pdf
18.		Environmental Initiatives of Sikkim 1995-2015 <i>Bilingual</i> (English and Nepali)	Booklet on Environmental Initiatives of Sikkim 1995-2015	http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20English%202015.pdf (ENGLISH) http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20Nepali%202015%20web.pdf (NEPALI)
19.		Sikkim State Action Plan on Climate Change	Sikkim State Action Plan on Climate Change	http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20State%20Action%20Plan%20on%20Climate%20Change%20web.pdf
20.		Management Plan of Khangchendzonga National Park	Management Plan of Khangchendzonga National Park (2008-2018) (Online publication)	http://sikenvis.nic.in/WriteReadData/Publication/KNP-Management%20Plan%20-%20WEB.pdf
21.		Eco-Club Handbook	Guidelines for Eco-Club and Green Schools State Awards	http://sikenvis.nic.in/WriteReadData/Publication/NGC%20ECO%20CLUB%20HANDBOOK.pdf
22.		National Green Corps - Sikkim Report	National Green Corps - Sikkim Activity Report	http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report-2015-web.pdf
23.		Rapid Biodiversity Survey Report -I	Rapid Biodiversity Survey Report of Sikkim- First Phase	http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20I.pdf
24.	2015-16	Quarterly Newsletter Vol 8 Issue 1 (Apr-Jun)	International Conference on Conservation of Natural and Cultural values of Khangchendzonga National Park, Reconstitution of SEIAA and SEAC Sikkim, ban on firecrackers, ban on slash burning in Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%201%20(Apr-Jun).pdf
25.		Quarterly Newsletter Vol 8 Issue 2 (Jul-Sep)	Red Panda conservation breeding program in Sikkim, Inception workshop on preparation of 2nd State of Environment Report for Sikkim, Green Teacher's Training for 250 schools of Sikkim, Painting and Essay competition, ozone day, green consumer day	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%202%20(Jul-Sep).pdf
26.		Quarterly Newsletter Vol 8 Issue 3 (Oct-Dec)	Safaigiri awards, Gangtok the cleanest hill station, Okharey ecotourism carnival, Living with wildlife, India's INDC to UNFCCC, Science Express Climate Action special	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%203%20(Oct-Dec).pdf
27.		Newsletter PANDA Vol 8 Issue 4 <i>Special edition</i>	Yartsa gunbu, Sikkim himalayan rhododendron, pleione, oroxylum indicum, pagolakha wildlife	http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
			sanctuary, new lake kip tso, isabelline wheatear	
28.		Paryavaran Mahotsav 2014	Pictorial book report on fortnightly environment festival of Sikkim June 15-30, 2014	http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20Paryavaran%20Mahotsav%202014%20-%20web.pdf
29.		Handbook on Nature based Festivals of Sikkim	Nature based Festivals of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/Hand%20Book%20of%20Nature%20Based%20Festival%20of%20Sikkim%2005-06-15%20web.pdf
30.		Rapid Biodiversity Survey Report -II	Rapid Biodiversity Survey Report of Sikkim- Second Phase	http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20II.pdf
31.		Heritage Trees of Sikkim	Photo album of notified Heritage trees of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/SIKKIM%20STATE%20HERITAGE%20TREES.pdf
32.	2016-17	Newsletter PANDA Vol 9 <i>Special edition</i>	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.	http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20ENVIS%20-%20PANDA%20News%20Magazine%20Vol%209.pdf
33.		Quarterly Newsletter Vol 9 Issue 1 (Apr-Jun)	Paryavaran Mahotsav 2016, Heritage Trees of Sikkim, WIPRO's Earthian School Programme, Ban on Styrofoam, Ban on Packages Drinking Water Bottles in Government Functions and meetings	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%201%20(Apr-Jun).pdf
34.		Quarterly Newsletter Vol 9 Issue 2 (Jul-Sep)	KNP inscribed as UNESCO's World Heritage Site, Khangchendzonga National Park, Gangtok awarded cleanest tourist destination of India, Landslide at Mantam, Dzongu, North Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%202%20(Jul-Sep).pdf
35.		Quarterly Newsletter Vol 9 Issue 3 (Oct-Dec)	Sustainable Development Leadership Award to Shri Pawan Chamling Chief Minister of Sikkim, Wildlife Population Estimation Study in Sikkim, Human Wildlife Conflict in Sikkim, Greater Rangit Ecotourism festival	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%203%20(Oct-Dec).pdf
36.		Environmental Initiatives of Sikkim 1994-2016	Environmental Initiatives of Sikkim 1994-2016	http://sikenvis.nic.in/WriteReadData/Publication/Environmental%20Initiatives%20of%20Sikkim%2015%20Aug%202016.pdf
37.		Nature's Marvel	A Pictorial Pocket Sized Booklet on the Faunal Diversity of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/Natures-Marvel.pdf
38.		Paryavaran Mahotsav 2015	Activity Book on 'Paryavaran Mahotsav 2015'	http://sikenvis.nic.in/WriteReadData/Publication/Final%20Paryavaran%20Mahotsav%202015.pdf
39.	2017-18	Newsletter PANDA Vol 10 <i>Special edition</i>	60 paged special edition ENVIS newsletter on scientific research articles, write-ups, observations and	http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20Vol%2010%202017-18.pdf

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
			notes on flora, fauna, ecotourism, wildlife, climate change and other important environment issues over the year.	
40.		Quarterly Newsletter Vol 10 Issue 1 (Apr-Jun)	<i>Rhododendron abhayae</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,	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%201%20(Apr-Jun).pdf
41.		Quarterly Newsletter Vol 10 Issue 2 (Jul-Sep)	<i>Mucuna laticifera</i> a new species from Sikkim Himalaya, One World Grand Prix Award to Sikkim CM, Organic Sikkim, earthain 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> ,	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%202%20(Jul-Sep).pdf
42.		Quarterly Newsletter Vol 10 Issue 3 (Oct-Dec)	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	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202017-18%20Vol%2010%20Issue%203%20(Oct-Dec).pdf
43.		Pamphlet on State Government's Initiative on Forestry, Environment and Wildlife Management	Bilingual (English and Nepali) pamphlet especially published as awareness material for newly elected panchayats of the State.	http://sikenvis.nic.in/WriteReadData/UserFiles/file/Sikkim%20Environment%20Initiatives%20English.pdf English http://sikenvis.nic.in/WriteReadData/UserFiles/file/Sikkim%20Environment%20Initiatives%20Nepali.pdf Nepali
44.		Paryavaran Mahotsav 2016	Activity Book on 'Paryavaran Mahotsav 2016'	http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav%202016.pdf
45.		White Paper on Forestry, Environment and Wildlife Initiatives of the State Government 1994-95 to 2017-18	ENVIS was assigned to compile and prepare this comprehensive report for submission to the State Legislative Assembly	Restricted Document (Not published online)

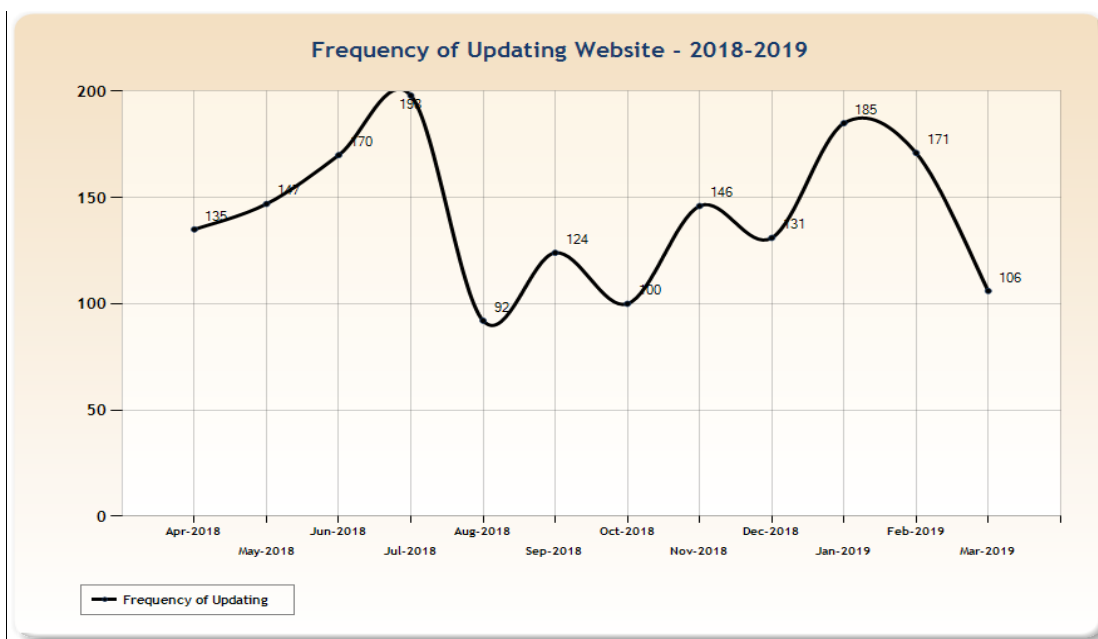
10. ENVIS Website(ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible):

10.1. URL: www.sikenvis.nic.in

10.2. Status of restructuring of Website: Restructured and made live on 26/11/2012

10.3. Frequency of updating Website 2018-19 (as on 31-Mar-2019)

The monthly average frequency of updation for 2018-19 is over **142 updates per month**. Total **1705 updates** have been made during 2018-19 as on 31st of March, 2019. The number of web updates have increased by 22% as compared to previous year.



Months	Publications	Subject Area	Bibliography	Upcoming Events	Latest News	Photo Gallery	Frequency of Updating
Apr-2018	7	20	95	7	5	0	135
May-2018	0	4	132	5	6	0	147
Jun-2018	0	0	140	2	0	28	170
Jul-2018	0	6	123	2	7	60	198
Aug-2018	0	6	70	1	8	0	92
Sep-2018	0	8	110	4	2	0	124
Oct-2018	3	4	80	2	7	0	100
Nov-2018	0	5	129	5	7	0	146
Dec-2018	0	15	100	2	3	11	131
Jan-2019	0	11	121	1	12	35	185
Feb-2019	10	16	123	4	9	8	171
Mar-2019	0	9	63	0	4	29	106
Total	20	104	1286	35	70	171	1705

10.4. Subject-specific database updation (numeric/ others): 104 updates have been made during 2018-19 as on 31-Mar-2019 alone in the subject-specific database.

10.5. Publication uploaded/ updated on Website: 20 updates (including journals, pamphlets, newsletters and book publication)

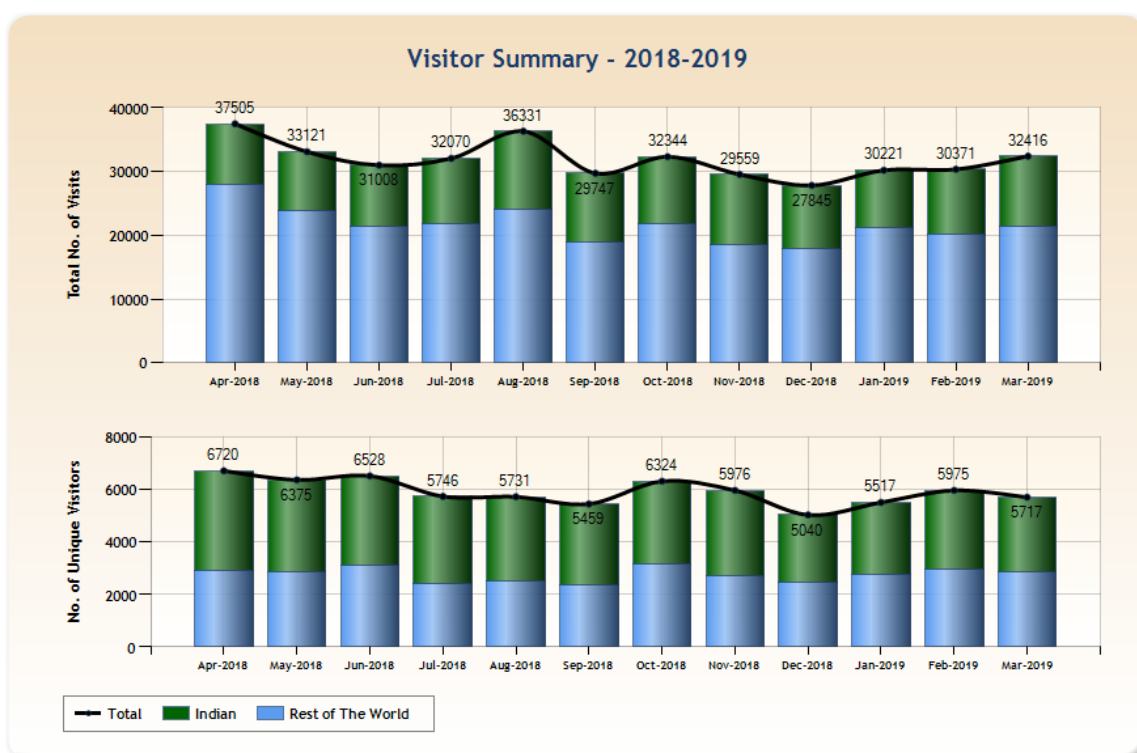
11. User Engagement and Interaction (last three years)

<i>User engagement and interaction</i>		<i>FY 2016-17</i>	<i>FY 2017-18</i>	<i>FY 2018-19</i>
i.	Total number of visits	3,51,826	5,34,217	3,82,427
ii.	Number of unique visits	41,082	52,471	56,900
iii.	Reports Downloaded/Read	1,247	1,011	683
iv.	Total Number of Queries received*	1779	1898	2919
v.	Number of Queries responded*	1779	1898	2918
vi.	Grade received			

* including offline queries. Detail figures for 2018-19 is made available in section 11.4

11.1 Total number of visits on Website (2018-19): 3,82,427 (As on 31-Mar-2019)

11.2 Number of unique visits on Website (2018-19): 56,900 (As on 31-Mar-2019)



Months	Visits			Unique Visitors		
	Indian	Rest of the world	Total	Indian	Rest of the world	Total
Apr-2018	9459	28049	37505	3814	2906	6720
May-2018	9293	23833	33121	3489	2886	6375
Jun-2018	9611	21399	31008	3394	3134	6528
Jul-2018	10166	21909	32070	3321	2425	5746
Aug-2018	12242	24090	36331	3208	2523	5731
Sep-2018	10703	19046	29747	3108	2351	5459
Oct-2018	10495	21853	32344	3161	3163	6324
Nov-2018	10969	18592	29559	3280	2696	5976
Dec-2018	9902	17948	27845	2586	2454	5040
Jan-2019	9093	21133	30221	2768	2749	5517
Feb-2019	10114	20263	30371	3016	2959	5975
Mar-2019	10991	21432	32416	2850	2867	5717

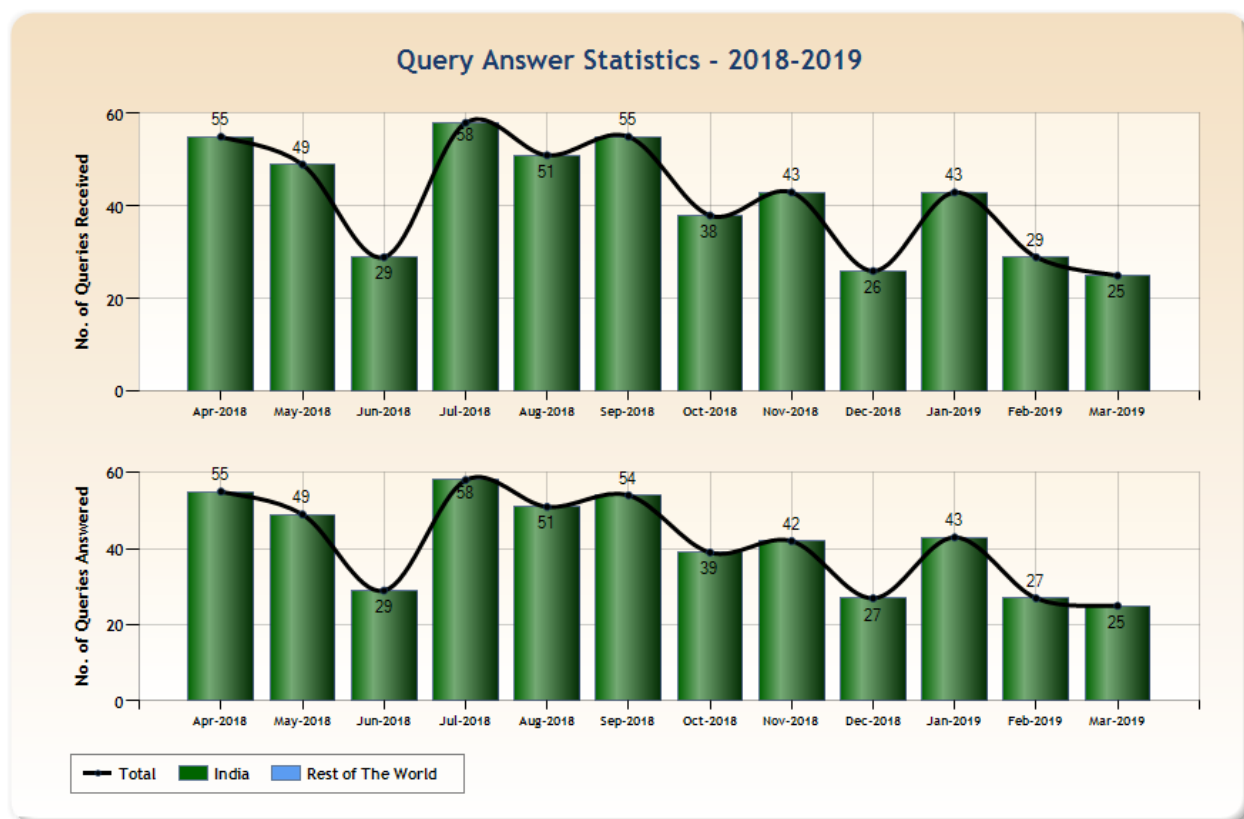
11.3 Number of reports downloaded/ read by stakeholders:

Total 683 downloads (*through user login section only*) have been observed during 2018-19 as in which about 82% of the downloadable items have been accessed from the subject area module and about 18% of the items have been downloaded from the publications 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 80% of the downloadable content of the website especially the frequently visited subject area, latest news, major activities etc have now been uploaded with direct download option due to user demand.

Year	Publications	Subject Area	Report Read/Downloaded
01 Apr 2018 - 31 Mar 2019	124	559	683

11.4 Query-Answer Statistics 2018-19:

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
Online (CMS based website)	501	499	1 query responded in April 2019 i.e post FY 2018-19
Email (official NIC server)	1176	1176	-
Postal/Telephonic (incl. hand post)	461	461	-
Physical (In person visits)	781	781	-
Total	2919	2918	



(Online query response graphical statistics 2018-19)

Source: www.sikenviis.nic.in

12. Implementation of Annual Plan of Activities of the Financial Year (2018-19):

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Centre's Mandated Activities 2018-19		
1. To promote, implement and coordinate Green Skill Development Programme (GSDP).	Successfully conceptualized and formulated a GSDP certificate course on "Nature Conservation & Livelihood: Ecotourism" (200 hr, 2 month) in partnership with Sikkim ENVIS RP on Ecotourism. A batch of 20 candidates trained and 50% are already entrepreneurs/ in job. Another GSDP course on "Wild Beekeeping and Processing" as formulated by Assam ENVIS Hub has been adopted for 2019-20 session for four batches of 25 each.	Sikkim ENVIS Hub did not conduct an GSDP course independently as the Hub was in anticipation of sanction under NMHS project proposal as submitted on direction of ENVIS Secretariat.
2. To implement and coordinate Grid Based Decision Support System (GRIDSS) programme.	East District has been selected for the initial pilot survey. District profile data has been assembled. Base layer 9km x 9km grid maps on forest density, water bodies, village map, reserve forest, PAs etc have been prepared and mapped with spatial data on forest fire cases, human wildlife conflict, pollution parameters etc.	--
3. To participate, implement and coordinate Community-driven Environmentally Sustainable Village Programme (CESVP)	Received funding of Rs 10 lakh under Swachhta Action Plan 2018-19 and successfully implemented various activities such as clean air campaign, awareness on SWM, ODF, hygiene and sanitation, plantation and cleanliness drive, adoption of natural areas, swachhta pakwadhas, awareness and extension at 20 major towns and villages.	--
4. ISBEID data collection and data entry for 2018 year onwards as ongoing activity in all 17 modules. Enriching the Subject-wise database.	Total 630 new updates have been made in ISBEID during 2018-19. Total 1705 updates have been made in the CMS based ENVIS portal www.sikervis.nic.in which includes 104 new updates in the subject area module during 2018-19.	--
5. Publication of Quarterly Newsletters, special edition 60-72 paged PANDA news magazine, and Knowledge products in the form of pocket-sized booklet/ pamphlets/ Short Video Films/ DVDs on Forest Wildlife in Sikkim and Environment Management in Sikkim	Sikkim ENVIS Hub published all proposed and mandated issues of quarterly newsletter and special edition newsletter titled 'PANDA' which due to its popularity was extended to 92 pages in this edition. ENVIS Hub prepared 15 short documentary films on environment initiatives of Sikkim Government for screening at international exhibition participated by ENVIS Hub at New Delhi on June 1-5, 2018 and at Dehradun on October 4-6, 2018. ENVIS Hub also prepared Green Good Deeds brochure highlighting the ten point agenda for implementation of GGD as conceptualized by the Ministry of Environment, Forest and Climate Change, Government of India.	--
6. Extension & Outreach programmes on environmental information	Sikkim ENVIS Hub participated in environment calendar day events, Swachhta Hi Seva, Swachhta Pakwada in June, September, and December;	--

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
sharing, awareness, education and training of youths/ students/ stakeholders/ local people at the ground level (district/ village level).	Conducted Mini Marathon for 3000 students, youths, citizens organised on June 3, 2018 on the theme “Run of beat plastic pollution” ; conducted extensive riverfront cleanup drives along 10 km stretch of river Rani chu; Parayavan Mahotsav June 15-30, 2018; <i>Mithini</i> Reverence Programme on June 21, 2018 at Golitar East Sikkim; Participated in the WED expo at New Delhi on June 1-5,2018 and IBC expo on October 4-6, 2018 at Dehradun; conducted campaign – “Bring back waste from nature trails” organized at all four districts at major nature trails during June – July; Harit Diwali Swasth Diwali Campaign; Partnered with reputed agencies like WIPRO, CSE, UNDP Forest Plus etc.	
7. Ecological Hotspot study of Gangtok, Sikkim as a Sustainable Tourist Destination with relevance to environment impact assessment on the fragile ecosystem and recommendations.	The Project was conceptualized and proposal drafting initiated. However, the proposal was not submitted to MoEFCC.	As the ENVIS Hub was busy in final stage of preparation of SoE Report, the proposed study was withdrawn during 2018-19.
8. Preparation of ‘Brief Document’ on Wetlands of Sikkim in conformity with the Wetlands (Conservation and Management) Rules, 2017.	State ENVIS Hub facilitated the host organization in report preparation with assistance from expert agencies. 30% of the report has been drafted and is expected to be completed during FY 2019-20. This project was taken up in compliance to the directives of Hon’ble NGT to have conformity with Wetlands (Conservation and Management) Rules, 2017.	--
9. Monitoring of key 20+ environment related parameters and reflecting in the spatial form (Pakriti maps, grid based spatial content) as per the directives of the ENVIS secretariat.	Sikkim ENVIS Hub attended 2-days training –cum-workshop on NES/ GRIDSS/ GIS/ Geo-mapping of district level data on November 15-16, 2018 at Almora, Uttarakand. 9x9 km grid based spatial content has been prepared for East District by incorporating several environment layers. The layers will be fed with NES grid level data once the survey is initiated.	--
10. Coordinate National Green Corps (NGC) programmes in Sikkim as a Nodal Resource Agency and collaborate with resource agencies like WIPRO Bangalore, CEE Guwahati and CSE New Delhi in spreading environment and education at the school level.	Eco-club network enhanced from 761 to 856 including schools and colleges during 2018-19. Teachers training programme for 2018 session was organized for 100 schools during August 2018 in partnership with WIPRO. Several other extension and outreach programmes as detailed in SI No 6 above were conducted through the eco-club network supported by ENVIS knowledge products.	--
11. Support the host department in environment awareness programmes in the State with resource	Sikkim ENVIS Hub has provided knowledge products during each extension and outreach programme as detailed in SI No 6 above.	--

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
materials like pamphlets, brochures, handbooks, posters, banners, flyers, signages etc.		
OTHER REGULAR ACTIVITIES IN ACCORDANCE TO ENVIS ONGOING MANDATE : 2018-19		
A. Regular Activities: Web-based Environmental Information		
Collection and Compilation of Information and Data		
1. Development and regular updation of <i>databases</i> (descriptive, numeric, pictorial, geospatial, etc.) on the assigned subject area and regular uploading of the same in the <i>Subject Area</i> section of the ENVIS Website, after due verification/ authentication, with suitable referencing of data sources.	104 number of updates done in the subject area module of the website during 2018-19 as on 31-Mar-2019. The information content of the subject area quoted with authentic sources.	
2. Compilation of <i>Abstracts, Bibliography, News articles, Events, etc.</i> on the subject area and uploading the same in the relevant section of ENVIS Website.	1286 bibliography, 20 journals, abstracts and other publications uploaded in the website.	
3. Identification of data gaps and formulation with implementation of action plan to fill them.	630 new data updates on ISBEID made.	
Maintenance of ENVIS Website and User Engagement		
4. Maintaining the ENVIS Website up-to-date and user-engaging, and as an inventory of authentic and reliable information in the subject area	Centre's website has been kept up-to-date with frequency of updates averaging to 140+ updates per month. The website has now been migrated to NIC cloud server.	-
5. Query-Response/ Referral service to stakeholders.	2918 online, postal, email and in-person queries have been handled by the ENVIS Hub during 2018-19.	-
6. Developing and upgrading a Kids' Corner.	Kids corner has been made interactive by uploading quiz section, video gallery and monthly environmental activity highlights and so on. However this section has not been updated after July 2016.	Kids Sections CMS module has encountered duplicate variable problem since July 2016 and NIC has not corrected the issue despite several reminders.
7. Maintaining a disaggregated record of visitors, including unique visitors, to the Website.	Website is designed to automatically record visitor's log and is reflected in the performance chart.	-
Maintenance of ISBEID and Preparation of State of Environment (SoE) Reports		
8. Development of time series ISBEID databases on 17 parameters (except the ones	Time series data are regularly fed in the ISBEID system. Total 630 number of updates were made during 2018-19 alone.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
that are irrelevant to the State Centre) and complement the numeric/statistical databases with analytical reports and descriptive databases on the website of the Centre.	Till date more than 7500 updates have been made in the ISBEID module since inception	
9. Completing updating ISBEID, notably by resolving the problem of lack of conformity between format of data available with State departments and ISBEID proformas.	Exhaustive exercise undergone by the centre to extract data compatible to ISBEID format from the reports collected from the secondary sources. All the modules relevant to Sikkim have data now.	
10. Devising a mechanism for sourcing for ISBEID data on a continuous basis from State Departments concerned and relevant survey and research institutes country-wide.	Nodal officers from the line departments have been designated. Workshop cum meeting of stakeholders and line departments are organized to exchange of information.	
11. Referencing and indexing of sources data in ISBEID.	Sources of data in ISBEID highlighted.	-
12. Publishing State of Environment (SoE) Reports for the concerned State/UT with a periodicity of two over a five-year period.	SoE Report 2016 Sikkim has been prepared and published. The report is available in ENVIS website.	-
13. Publishing State of Environment (SoE) Reports for metro cities and hotspots.	ENVIS Hub will prepare a proposal for Hotspot Study of Gangtok during 2019-20 and submit to the ministry.	-
Publications and Value-Addition		
14. Publishing 4 Newsletters and uploading the same in the relevant section of ENVIS Website.	Quarterly newsletter published and circulated country wide.	
15. Processing/ analyzing data collected and bringing out value-added information Products	Data collected and analysis report is being regularly published ENVIS newsletter and special publications.	
16. Collecting books, reports and journals on the subject area; Uploading e-versions of books, reports, etc. on the ENVIS Website. Uploading Abstracts of books, reports, journals and articles of those whose e-versions are not available.	More than 500 e-version of the publications relating to status of environment collected from various government sources and published online. ENVIS Hub Sikkim is proudly the official online hosting for all government publications in Sikkim.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Reaching-out/Networking Activities		
17. Liaison and coordination with other relevant ENVIS Centres, both State Centres and Thematic Centres, for providing data/ information links in the relevant part of the ENVIS Website (to avoid duplication and conflicts in uploaded information).	Duplicity of information in the website is carefully being handled. ENVIS Hub is referring to data and information available with other centres and hyperlinks have been placed accordingly.	
18. Build linkages with other information sources in the country and abroad. Providing hyperlinks to the information sources in the relevant part of the ENVIS Website.	Hyperlinks to other information sources have been placed in relevant web contents.	
19. Maintaining a list of Experts in the subject area and uploading the same, along with updated C.V., in the relevant section of ENVIS Website.	List of experts updated in the website	
20. Coordination with the Ministry for timely dissemination of relevant and adequate information to stakeholders.	Centre is in frequent communication with the ENVIS Secretariat and other divisions in the ministry for upkeep of information and dissemination.	
21. Formulate strategic plans to generate sources of funds from corporate sector and/ or through subscriptions of Newsletters/ other publications	Sikkim ENVIS Hub was supported by WIRPO Bengaluru for promoting environment education in about 100 schools during 2018.	
B. SPECIAL ACTIVITIES		
22. Focus on database development (numeric and descriptive), with due authentication in consultation with Line Departments/ research institutes, etc.	Sikkim ENVIS Hub is already in sync with more than 50 line departments/ agencies/ stakeholders for collection and collation of data and information.	
23. Network and undertake outreach activities with Universities/ Research bodies/ researchers in the State, so that the ENVIS collections/ repositories can be enriched.	Sikkim ENVIS Hub is working in several research based activities with expert institutions such as IORA Ecological Solutions New Delhi, Centre for Science and Environment New Delhi, Earthian WIPRO Bengakurui and so on.	
24. Circulate Newsletters and knowledge products to as many stakeholders as	Around 1500 copies of quarterly newsletters and other publications have been circulated to ENVIS partners, Sikkim schools, line departments,	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
possible in the State, especially policy makers/ planners.	stakeholders, etc.	
25. Link its Website to other Government Websites; develop the vernacular Website; and undertake other awareness enhancing activities within the State.	Linkages developed with line department websites and other government websites as mandatory activity of the centre.	
26. Maintain a Register for keeping track of queries received and transferred/ answered.	A separate log register is kept at the centre to record visitors, queries and feedback.	
27. Build institutional repositories of various types of media related to environmental issues.	Sikkim ENVIS Hub has a library that houses more than 3000 reports and publications including DVD and media collection on environment issues.	
28. Bring out a Brochure on environmental issues to spread awareness about World Environment Day, focusing on forestry/ mining/ Climate Change/ disasters/ etc.	Sikkim ENVIS Hub has published several pamphlets, brochures on events and places for quick information for the users. Visitors to the ENVIS Hub are always gifted with such items.	

<p>13.</p>	<p>New initiatives taken during the Financial Year (2018-19):</p>	<ul style="list-style-type: none"> ✓ Facilitated GSDP course on “Nature Conservation & Livelihood: Ecotourism” (200 hr, 2 month, NSQF-4) in partnership with Sikkim ENVIS RP on Ecotourism. A batch of 20 candidates trained and 50% are already entrepreneurs/ in job. ✓ Base layer 9km x 9km grid maps on forest density, water bodies, village map, reserve forest, PAs etc have been prepared and mapped with spatial data on forest fire cases, human wildlife conflict, pollution parameters etc ✓ State of Environment Report 2016 Sikkim, the second edition published. ✓ Swachhata Action Plan 2018-19 implemented by taking up activities such as clean air campaign, awareness on SWM, ODF, hygiene and sanitation, plantation and cleanliness drive, adoption of natural areas, swachhta pakwadass, awareness and extension at 20 major towns and villages. ✓ Extensive cleanup drive taken up at 17 riverfront locations in of river Rani Chu in and around Gangtok. Mini marathon organized at Gangtok on the theme “Run to Beat Plastic Pollution”. ✓ Prepared 15 short documentary films on State’s environment initiative for screening at international exhibitions participated by ENVIS Hub during WED at New Delhi and IBC 2018 at Dehradun. ✓ State level stakeholder’s meet chaired by the Chief Secretary of Sikkim and Principal Adviser, MoEFCC organized at Gangtok to brief new initiatives of ENVIS scheme.
<p>14.</p>	<p>Date of most recent physical verification by the Ministry:</p>	<p>Date: August 7-8, 2018 by Dr. Anandi Subramanian, Principal Adviser and Mr. Kumar Rajnish, National Programme Coordinator of ENVIS Secretariat, MoEF&CC, GoI (<i>during the State level stakeholder’s meeting and inauguration of GSDP course on Ecotourism.</i>)</p>

15. Status of existing hardware:

	Hardware item	Specification	Sanction Order with Date	Date of procurement
Procured from ENVIS Grant 2013-14	Desktop Computer – 1 No	HP AIO Intel Core i5, 2.90 GHz, 1 TB HDD, 8 GB DDR3 RAM, DVR Writer, 22” display	Sanction No: 11/68/2004 – EI Dated:27/12/2013	17/02/2014
	Multifunction printer-cum-scanner-cum-copier - 1 No.	HP AIO (printer, copier, scanner) Color Laser Jet Pro MFP M176n	-do-	-do-
	UPS – 1 No	600 VA UPS for desktop computer	-do-	-do-

Hardware Procured from ENVIS grant during 2002-03	Hardware provided by the host department, Forests, Environment & Wildlife Management Department, Government of Sikkim
1. Desktop Computer – 2 Nos(P-IV, 1 GB RAM, 80 GB HDD) 2. Printer - 1 No (Laserjet black printer) 3. Scanner – 1 (600 dpi flat bed)	1. Desktop Computer – 1 Nos 2. Printer – 1 Nos 3. Scanner (Flat bed) – 1 Nos 4. All in one printer/ copier/ scanner – 1 No 5. 3 KVA inverter with battery 6. Telephone (landline 03592-280381)

16. Status of utilization of grant during the financial year 2018-19 as on 31-Mar-2019 and reasons for shortfalls, if any:

	Head of Expenditure	Sanctioned amount (Rs.)	Actual Expenditure (Rs.)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower	13,07,776	13,07,776	-
	Others	4,65,300	4,65,300	-
	Travel	3,00,000	3,00,000	-
Non-Recurring (2014-15)	Preparation of State of Environment Report 2016-Sikkim	30,97,500	30,97,500	-

17. Issues/ hurdles faced in undertaking ENVIS activities:

17.1.	State ENVIS portal hosted at NIC in recent times has been reporting server errors. There is a need to revamp the website and fix the errors with proper backup.
17.2.	With ENVIS activities enhanced to many folds with new initiatives like GSDP, GRIDSS and, CESVP, there is urgency in strengthening the manpower with good emoluments and trainings/ capacity building on trending technical issues.

18. Proposed Annual Action Plan of Activities for 2019-20

The annual plan of activities for 2019-20 in summative is enumerated below;

A. ENVIS activities as per new mandate:

- i. **Green Skill Development Programme (GSDP):** To promote, implement, coordinate and facilitate GSDP certificate course titled “**Wild Beekeeping and Processing**” -Value addition and marketing of NTFPs (animal origin). The course will be conducted for one month (125 hr) for a batch of 25 candidates. Total number of batches for a year will be four batches which will be trained on quarterly basis.
- ii. **National Environment Survey (NES) / Grid Based Decision Support System (GRIDSS):** District level NES at East and North District and preparation of 9km x 9km grid based maps on standard environmental parameters.
- iii. **Community-driven Environmentally Sustainable Village Programme (CESVP):** To participate, implement and coordinate with local stakeholders for generating mass awareness and green action on environmental issues which will help in attainment of the Nationally Determined Contribution (NDCs), Sustainable Development Goals (SDGs), National Biodiversity Targets (NBTs) as well as Waste Management Rules, 2016.

B. Ongoing/ Regular ENVIS Activities:

- i. ISBEID data collection and data entry for 2019 year onwards as ongoing activity in all 17 modules. Enriching the subject-area database with climate change related information on wetlands, glaciers, forestry, wildlife, biodiversity and so on.
- ii. Publication of Quarterly Newsletters, special edition 60-72 paged PANDA news magazine, and Knowledge products in the form of pocket-sized booklet/ pamphlets/ Short Video Films/ DVDs on status of environment and its related issues pertaining to State of Sikkim with analytical content based on PAN India database.
- iii. Preparation of ‘Brief Document’ on Wetlands of Sikkim in conformity with the Wetlands (Conservation and Management) Rules, 2017.
- iv. Ecological Hotspot study of Gangtok, Sikkim as a Sustainable Tourist Destination with relevance to environment impact assessment on the fragile ecosystem and recommendations. (Subject to approval of the Statistical Cell, MoEF&CC)
- v. Extension & Outreach programmes on environmental information sharing, awareness, education and training of youths/ students/ teachers/ stakeholders at the ground level.
- vi. Coordination and propagation of Green Good Deeds and Swachhata Action Plan as a Nodal Resource Agency in the State of Sikkim through a network of eco-clubs at schools/ colleges, and in collaboration with reputed resource agencies like WIPRO Bengaluru, CSE New Delhi etc.
- vii. Support the host department in environment awareness programmes in the State with resource materials/ knowledge products like brochures, handbooks, posters, flyers, signages etc.

ANNEXURE**19. Status of data entry in ISBEID: (Sikkim State ENVIS Hub): As on 31-Mar-2019**

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
I. Administrative	1. General	Name				
		No. of Districts (with name)			✓	
		No. of Mandals/ Tahsils/ Taluks (with name)	✓			✓
		No. of Blocks (with name)	✓			✓
		No. of Municipalities (with name)	✓			✓
		No. of Panchayats	✓			✓
		No. of Cities with million plus population (with name)	✓			✓
		No. of Tribal Settlements				
		Elevation above mean sea level (Maximum)	✓		✓	✓
		Elevation above mean sea level (Minimum)	✓		✓	✓
		Total geographical area	✓		✓	✓
		GDP of the state (Sector wise)				
		- Primary	2000, 2005-2012			2000, 2005-2012
		- Secondary	2000,2005-2012			2000,2005-2012
	- Tertiary	2000,2005-2012			2000,2005-2012	
	2. Socio Economics	No. of BPL household in millions	2006		2006	
		% of Household below poverty line	2006		2006	
	3. Climate	Average mean monthly temperature (Max.)		1990-2000, 2004-2013		1990-2000, 2006, 2008-2014
		Average mean monthly temperature (Min.)		1990-2000, 2004-2013		1990-2000, 2006, 2008-2014
		Total annual Rainfall		1990-2000, 2004-2013		1990- 2000, 2006, 2008-2014
		Relative Humidity				2006 (E)
	4. Demography	Population (for last 4 decades - 1961 - 71 - 81- 91- 2001)	1961- 2011		1991- 2011	
		Total Population	1961- 2011		1991-2011	
		Males Population	1961- 2011		1991-2011	
		Females Population	1961-2011		1991- 2011	
		Density	1961- 2011		1991- 2011	
		Area in	1961 - 2011		1981- 2011	
		No. of females/thousand males (sex ratio)	1961- 2011		1991-2011	
		% of Literacy	1961- 2011		1981- 2011	
		% of population attending school	2001			
	Crude Birth Rate (Nos. per 1000 population)	2001, 2011				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Crude Death Rate (Nos. per 1000 population)	2001, 2011			
II. Infra-structure	1. Housing	Permanent	2001, 2005, 2011		2001, 2005, 2011	
		Semi- Permanent	2001, 2005, 2011		2001, 2005, 2011	
		Temporary	2001, 2005, 2011		2001, 2005, 2011	
		Average Household Size (Persons per HH)	2005		2005	
	2. Medical and Health Service	No. of Government Hospitals	1990-2018		1990-2018	
		No. of Registered private hospitals/ nursing homes	1961 - 2018		1981- 2018	
	3. Transport	No. of Railway Stations				
		Length of Railway Lines				
		Length of National Highways	1998-2018			
		Length of State Highways	1990-2018		1990- 2018	
		Length of other roads	1998-2001			
		No. of Domestic Airports				
	III. Energy	1. Non-Renewable	Coal power generation			
Installed Capacity						
Gas Power generation						
Installed Capacity						
Oil based power generation						
Installed Capacity						
Atomic power generation						
Installed Capacity						
2. Renewable		Power from National Grid	2003-2016			
		Installed Capacity	2003-2016			
		Hydel power generation	1992, 1995, 2000-2012			
		Installed Capacity	1992, 1995, 2000-2012			
		Windmill power generation				
		Installed Capacity				
		Solar photovoltaic power generation				
		Installed Capacity				
		Biogas power generation				
		Installed Capacity				
3. Electricity Consumption		Other biomass power generation				
		Installed Capacity				
		Industrial and Commercial	2008- 2016			
		Agriculture	1990-2016			
4. Energy Consumption		Domestic	2008- 2016			
	Others	1998- 2012				
	LPG	2010- 2014				
	Other Petroleum Products					
IV. Agri-culture	1. Agriculture Area Classification	Coal				
		Natural Gas				
		Other				
IV. Agri-culture	1. Agriculture Area Classification	Total agricultural area				
		Area under non-agriculture use	2001-2013			
		Barren and uncultivable land	1996-2012			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Permanent pasture / grazing land	1996- 2015		1996-2013	
		Net irrigated land	1996-2013			
		New Sown area	1991, 1996-1999, 2002-2013			
		Plantation crops				
		Fallow	1991, 1996, 2005-2012			
		Area under organic farming thereof				
	2. Agriculture Production	Total production of crops	2000-2002, 2004-2015		2004- 2015	
		Yield of Kharif Crops %	2000-2002, 2004-2015		2004-2015	
		Yield of Rabi Crops %	2000-2002, 2004-2015		2004-2015	
		Yield of other crops %				
	3. Crop Production (plantation crops) (in million tons per annum)	Name				
		Production				
		Rice	1990-2017		1991- 2017	
		Sowing Area	1990-1997, 2000- 2017		1991-1998, 2000-2017	
		Production	1990-2017		1991-2017	
		Wheat	1992-2017		1992, 1998-2017	
		Sowing Area	1992, 2000-2017		1992, 2000-2017	
		Production	1992- 2017		1992, 1998-2017	
		Pulses	1992- 2017		1992, 1998-2017	
		Sowing Area	1992, 2000-2017		1992, 2001-2017	
		Production	1992-2017		1992, 1998-2017	
		Total food grains				
		Sowing Area				
		Production				
		Cotton				
		Sowing Area				
		Production				
		Jute &mesta				
		Sowing Area				
		Production				
		Sugarcane				
		Sowing Area				
		Production				
		Tobacco				
		Sowing Area				
		Production				
		Oil Seeds	1992-2017		1992-2017	
		Sowing Area	1992-2017		1992-2017	
	Production	1992- 2017		1992-2017		
	Cereals	1993- 2017		2004- 2017		
	Sowing	2000-2017		2004-2017		
	Production	1993-2017		2004-2017		

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Others	1996- 2011		1998-2011		
		Sowing Area	1996, 1998, 2005-2011		1996, 1998, 2005-2011		
		Production	1996, 1998, 2005-2011		1996, 1998, 2005-2011		
	4. Fertilizer Consumption	Nitrogen					
		Phosphate					
		Potash					
		Others					
	5. Pesticide Consumption	Insecticides					
		Fungicides					
		Weedicides					
		Rodenticide					
		Fumigants					
	V. Industries	1. Category of Industry	Total No. of Large Scale Industries	2012			
			Total No. of Medium Scale Industries	2001, 2004, 2012			
Total No. of Small scale Industries			2001- 2012				
Total No. of Red Category Industries							
Total No. of Orange Category Industries							
Total No. of Green Category Industries							
2. Mining & Quarrying		Iron					
		Copper	1998- 2002				
		Lead	1998- 2002				
		Zinc	1998- 2002				
		Nickel					
		Manganese					
		Bauxite					
	Coal						
Other (Chromite)							
Name of the Mineral Resources							
VI. Tourism & Heritage	1. Tourism & Heritage	Name and location of Heritage sites			✓		
		Name and location of Religious places/centres			✓		
		Name and location Archaeological monuments/sites			✓		
		Name and location of Scenic Areas			✓		
		Name and location of Tourist Resorts					
VII. Natural Resources	1. Land Use Classification	Total Geographical Area	1990-2018		1990- 2018		
		Forest	1996 -1997, 2005-2013				
		Non-Agriculture use	1996- 1997, 2001-2013				
		Barren and uncultivable land	1996 -2012				
		Permanent pastures and other grazing land	1996- 2013		1996- 2013		
		Miscellaneous tree crops and	1996-2011				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		groves				
		Cultivable wasteland	1996- 1997, 2001- 2011			
		Fallow land other than current fallow	1996- 1997, 2001- 2011			
		Current fallow Net area sown	1996- 1997, 2005-2011			
		Gross cropped area				
		Area sown more than once	2001-2011			
		Net irrigated area				
		Gross irrigated area				
		Others	2001- 2002, 2005-2011			
	2. Land Degradation	Degraded land area	2005- 2016		2006-2016	
		Degraded Irrigated land				
		Area affected by shifting cultivation	2000- 2016		2000-2016	
		Deforestation rate				
		Total salt affected land				
		Salinization rate	2000- 2009, 2016		2000-2009, 2016	
		Area effected by desertification				
	3. Waste Land	Gullied & or Ravenous Land %	1990-2016		1990-2016	
		Upland with or without Scrub %	2000- 2011		2000- 2011	
		Water Logged & marshy Land %	1990-2016		1990-2016	
		land affected by Salinity/Alkalinity Coastal/ Inland %	1990-2016		1990-2016	
		Underutilized Degraded Notified Forest Land %	2000- 2011		2000- 2011	
		Shifting Cultivation Area %	1990-2016		1990-2016	
		Degraded Land under Plantation Crops %	1990-2016		1990-2016	
		Degraded Pastures/Grazing Land %	1990-2016		1990-2016	
		Mining Industrial Wastelands %	1990-2016		1990-2016	
		Sands - Deserted Coastal %				
		Steep Slopping Area %	2001- 2004		2001-2004	
		Barren Rocky/Stony Waste/Sheet Rocky Area %	2001- 2011		2000- 2011	
		Snow Covered and/or Glacial Area %	2000- 2011		2000- 2011	
	4. Types of Wetlands	Names of wetlands of national importance	2000- 2016		2000- 2016	
		Names of wetlands of international importance (Ramsar site etc.)				
		Coastal /Estuaries				
		Fresh water Lakes	2005-2015		2005-2015	
		Tanks/Ponds/Reservoirs/Dams	1997-2015		1997-2015	
		Marshes (Tidal/Non-Tidal)				
		Swamps				
		Mangroves				
	Flood Plains					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Total Area of Wetland	1997- 2011		1997- 2011	
		Others				
	5. Soil Types	Black Soil				
		Red Soil				
		Desert Soil				
		Grey and Brown Soil				
		Saline & Alkaline Soil				
		Laterite Soil				
		Alluvial Soil				
		Mountain Soil	1990- 2018		1990- 2018	
		Mix Red & Black Soil				
		Peaty Soil				
VIII. Forest Resource	1. Distribution of Forest Cover	Dense Forest	1990- 2017		1998- 2017	
		Open Forests	1990- 2017		1988- 2017	
		Mangroves				
		Trees outside forests	2010- 2014			
		Numbers				
		Area in				
	Non Forest	1995- 2015		2013- 2015		
	2. Recorded Forest	Reserved Forest	1990- 2015		2002- 2015	
		Protected Forest	1990- 2015		2002- 2015	
		Unclassed Forest	1990- 2001		2002- 2001	
	3. Mining in Forests	Bauxite				
		Chromite				
		Copper				
		Iron				
		Manganese				
		Others				
	4. Actual Forest Cover by Density Class	Dense Forest (Crown density Cover Area above 40%) (in ha)	1990- 2017		1998- 2014	
		Open Forest (Crown density 10- 40% (in ha)	1990- 2017		1998- 2014	
		Mangrove (in ha)				
	5. Forest Produce	Timber poles	2002, 2005- 2007, 2010- 2011			
		Fuel wood	1997- 2001, 2010-2011			
		Pulp & match Wood				
		Sal seeds				
		Kandu/Bedi leaves				
		Gums & Resins				
		Cane/Rattan & Bamboo				
		Grass /Fodder				
		Drugs/Tannins				
		Spices	1990, 1995, 1988-1999			
		Lac				
	Others	2002- 2007				
	6. Joint Forest Management Committee	Name of District			2002- 2013	
		No. of JFMC	1998- 2013		2002- 2013	
IX. Water Resource	1. Source of Water	Name of River	1990- 2016			
		Total Length	1990-2016			
		Catchment Area				
		Seasonality	1990-2017			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		(Perennial/Seasonal)				
		Canals (Length)				
		Reservoirs				
		Tanks, Lakes & Ponds				
		Brackish Water				
		Government Owned Canals				
		Private Canals				
		Tanks				
		Wells				
		Tube Wells				
X. Ground Water Resource	1. Status of Ground Water	Total Replenishable Ground Water Resource	2008-2010			
		Provision for industrial/ domestic/ other uses	2008-2011			
		Available Ground Water Resource				
		Net Draft				
		Balance Ground Water				
		Level of Ground Water Development (%)				
		Utilization Ground Water Resource for irrigation in Net terms	2008-2011			
		Over Exploited	2008-2011		2008-2011	
		Critical Area	2008- 2011		2008- 2011	
	Gross Draft Estimated on Pro- rata basis	NA		NA		
	2. Categorization of Water Level	Pre-Monsoon average depth to water level				
		Post Monsoon average depth to water level				
		No. of Over Exploited Area total Ground Water Resource	2010- 2016		2010- 2016	
	3. Use of Ground Water	Quantity of ground water for irrigation				
		Available ground water for irrigation				
		Utilizable ground water for irrigation	2008-2011		2008- 2011	
Net ground water draft		2008- 2011		2008-2011		
XI. Ecology	1. Ecological Areas	Name of Biogeographical Zones	✓			
	2.Ecology Type	Name of National Parks	2006- 2018			
		Name of Wildlife Sanctuaries	1990- 2018			
		Name of Bird Sanctuaries	2005-2018			
		Name of Tiger Reserves				
		Name of Elephant Reserves				
		Name of Biosphere Reserves	1998- 2018			
	3. Botanical Gardens	Name of Protected Mangroves area (Private & Public)				
		Name of Botanical Garden				
		Area of Botanical Garden	1998- 2018			
		Location	1998- 2018			
	4. Zoological Parks	Uniqueness				
		Name of Zoological Park	1998- 2018			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Area of Zoological Park	1998- 2018			
		Location				
		Uniqueness				
	5. Physiographical Features	Mountain Name	1994- 2018			
		Height (Meter)	1994- 2018			
XII. Sanitation	1. Hygiene & Sanitation	No. of Town covered	2010-2013			
		No. of Town not covered				
		Total No. of treatment plants	2010-2013			
	2. Air Borne Disease	Type of Disease	2005-2014		2005-2014	
		Name of Disease	2005-2014		2005-2014	
		No. of Deaths	2005-2014		2005-2014	
	3. Water Borne Disease	Type of Disease	2005-2014		2005-2014	
		Name of Disease	2005-2014		2005-2014	
		No. of Deaths	2005-2014		2005-2014	
XIII. Water Pollution	1.	River Name	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		Location	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		BOD				
		COD	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		Ph	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		Total Coliform	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		Conductivity	2001, 2006, 2008, 2010-2017	2010-2013	2001, 2006, 2008, 2010-2017	2010-2013
		Lake Name	2001		2001	
		Location	2001		2001	
		BOD	2001		2001	
		COD	2001		2001	
		Ph	2001		2001	
		Total Coliform				
Conductivity						
XIV. Air Pollution	1. Industrial	SO ₂				
		NO _x				2010-2013
		Suspended Particulate Matter (SPM)				2010-2013
	2. Residential	Respirable Suspended Particulate Matter (RSPM)				2013
		SO ₂				2013
		NO _x				2001, 2003-2004
		Suspended Particulate Matter (SPM)				2001, 2003-2004
Respirable Suspended				2001, 2003-		

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Particulate Matter (RSPM)				2004	
	3. Vehicular Pollution	No. of Vehicles	1995, 1998-2001, 2003, 2007, 2009		1995, 1998-2001, 2003, 2007, 2009	2009-2012	
		Type of Vehicles	1995, 1998-2001, 2003, 2007, 2009		1995, 1998-2001, 2003, 2007, 2009	2009-2012	
XV. Bio-diversity	1. Flora	Total Species (RET)	1990, 2007, 2013-2014				
		Redbook species No.					
	2. Fauna	Total Species (RET)	2012				
		Redbook species No.					
XVI. Waste	1. Type of Waste	Hazardous waste (HW) in t/a					
		E-waste thereof in t/a					
		Biomedical waste (BMW)	2006, 2008-2009, 2011-2013		2006		
		Municipal Solid Waste (MSW)	2005, 2011, 2012		2005, 2011		
		Plastic Waste					
		Waste Water					
			Treatment/Disposal (for all 5)				
	2. Clean Technology	Type of Industries					
		Name of technology used					
	3. Effluent Treatment Plant/CEPT	Name of District					
		No. of Plants					
XVII. Disaster	1. Disaster	Type of Disaster	1990-2016		1990-2016		
		Year	1990-2016		1990-2016		
		Affected districts in nos.	1990-2016		1990-2016		
		Population affected (in millions)					
		Damage in crore INR					

Annex- II

Other Activities

**Training, Extension,
Awareness and
Outreach Activities
during 2018-19**

(A Brief Report)

1. Riverfront Cleaning Programme Organised #BeatPlasticPollution



Sikkim State ENVIS Hub on status of environment and its related issues hosted by Department of Forest, Environment and Wildlife Management Department with the support of Ministry of Environment, Forest and Climate Change, Government of India conducted 16 days riverfront cleaning programme at river Rani chu and its tributaries from 15th May to 2nd June, 2018 at different venues in and around Gangtok and Ranipool. With active participation. The 16 days riverfront cleanup of Rani chu and its adjoining tributaries was implemented and monitored by the State Nodal Agency and also by officials from the central government. Shri A. K. Das, Deputy Secretary and Shri A. N Singh, Joint Director from Ministry of Forest, Environment and Climate Change, Government of India closely followed up the pre-event, during the event and post event activities. The monitoring officials also actively took part in the cleanup drive. Almost 200 kg to 300 kg of plastic waste mostly packaged water bottle, soft drink bottles, chips wrappers, cement bags, plastic cans etc were collected on a daily basis of the cleanup drive and were safely disposed to the landfill site at Marchak, East Sikkim.

2. Mini Marathon – Run to Beat Plastic Pollution held at Gangtok #BeatPlasticPollution



In the run up to World Environment Day 2018 celebration on the theme ‘Beat Plastic Pollution,’ a 3.5 km mini marathon on the theme ‘Run to Beat Plastic Pollution’ was organized in the capital city Gangtok on 3rd June 2018 (Sunday) with the support from Ministry of

Environment, Forest and Climate Change, Government of India.

3. Participation at the World Environment Day Exhibition at New Delhi #BeatPlasticPollution



A contingent of Sikkim Forest Department led by the Pr. Secretary cum PCCF Dr. Thomas Chandy and participated by Pr. Scientist (SPCB) Dr. Gopal Pradhan, Additional Director Shri B B Gurung in a company of State ENVIS team and State Medicinal Plants Board team exhibited the environmental initiatives of the State Government in the World Environment Day #Beat Plastic Pollution exhibition at Vigyan Bhawan premises, New Delhi from June 2 to June 5, 2018. Visitors in numbers to the Sikkim stall appreciated the efforts of the State Government for its clean, green and organic image. The exhibits featured eco-policies and green achievements through video walls, posters, kiosk, models and publications in a 57 sq meter stall allotted to Sikkim. The exhibition was hosted on an international platform for India being the host country for World Environment Day 2018 celebration and Sikkim was the only other state besides Assam from the Northeast India to be given the opportunity on this international forum.

4. Coordination and implementation of Chief Minister’s Green School Rolling Trophy and State Green Schools Awards 2018



ENVIS Sikkim actively played a role of the resource agency in scrutinizing and screening the reports from about 180 schools for the State’s most prestigious award scheme, the Chief Minister’s Green School Rolling Trophy and State Green Schools Award 2018. ENVIS Centre has been playing the role of nodal agency in implementing this award scheme in the State since its inception in 2011. The 2018 awards were presented to nine schools on the occasion of Mithini Reverence cum Awards and Felicitation Programme organized by the Forest, Environment and Wildlife Management Department on June 21, 2018 at Golitar, East Sikkim.

5. Paryavaran Mahotsav 2018: Swachh Bharat Pakhwada June 15-30



ENVIS Hub played active role in coordinating the 6th successive Paryavaran Mahotsav in Sikkim duly celebrating Swachh Bharat Pakhwada from June 15 to June 30, 2018. This fortnightly event which included the 13th phase State Green Mission and 10th 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.

6. State level stakeholders meet on new ENVIS Initiatives held



A state level stakeholder's meeting for briefing new initiatives of ENVIS Scheme under the chairmanship of the Chief Secretary, Government of Sikkim was held on the 7th of August, 2018 at the conference hall of the Secretariat, Manan Bhawan, Gangtok, Sikkim.

The meeting organized by Sikkim State ENVIS Hub at Forest, Environment & Wildlife Management Department in collaboration with ENVIS RP on 'Ecotourism' at Science & Technology and Climate Change Department was attended by Sr. Economic Adviser and National Programme Coordinator (ENVIS

Secretariat, MoEFC&CC), HoDs and senior representatives of the line departments, DC/ DM, representatives from Universities, Colleges and local NGOs.

7. Green Skill Development Programme: Launching of certificate course on “Nature Conservation & Livelihood: Ecotourism”



In Sikkim, GSDP course on “Nature Conservation & Livelihood: Ecotourism” for a batch of 20 candidates was launched by Dr. Anandi Subramanian, Principal Adviser, MoEFCC on 9th of August, 2018. The course of 200 hrs duration was covered in 2 months. State ENVIS Hub collaborated with ENVIP RP on “Ecotourism” to facilitate the course with subject experts from ECOSS, WWF, Sikkim University, retired foresters etc. It is first of its kind initiative of the Ministry of Environment, Forest & Climate Change for skill development in the environment and forest sector to enable India’s youth to get gainful employment and /or self-employment.

8. Green Teacher’s Orientation on WIPRO’s Earthian Schools Programme 2018



Sikkim State ENVIS, Forest Environment & Wildlife Management Department in collaboration with WIPRO Bengaluru conducted green teacher’s training programme focusing on sustainability of water and biodiversity for 100 schools across of the State on 21st August 2018 at Forest Conference Hall, Gangtok.

9. Swachhta Hi Seva campaign organized at the office premises of Forest Secretariat, Gangtok, Sikkim on September 15, 2018 by taking up Green Pledge and cleanliness drive of the offices and its premises.



10. Participation at International Biodiversity Congress 2018



Sikkim state ENVIS Hub also represented by distinguished State Forest and State Agriculture contingent participated in the **International Biodiversity Congress (IBC 2018) at Forest Research Institute, Dehradun during 4-6th October 2018**. At the IBC expo beautifully set up at the back lawns of the Forest Research Institute, Sikkim ENVIS and Forest team accommodated in three stalls exhibited the achievements of the State Government highlighting biodiversity conservation through forest protection, expansion of Protected Areas (PAs), medicinal plant diversity, livelihood & health care, traditional and local healing practices etc. through AV LED wall, posters,

backdrops, book publications and sample displays.

11. Regional Evaluation Workshop and Training of ENVIS Hubs and Resource Partners (RPs) of Himalayan Region



Sikkim State ENVIS Hub participated in the Regional Evaluation Workshop and Training of ENVIS Hubs/RPs for Himalayan Region on 15th and 16th of November, 2018 at G.B. Pant National Institute of Himalayan Environment & Sustainable Development in Kosi-Almora, Uttarakhand.

12. Harit Diwali Swasth Diwali Campaign *Promoting eco-friendly Diwali*



State ENVIS Hub on *Status of Environment and its Related Issues* in collaboration with school eco-clubs and media production firms organized awareness programmes during November 2-6, 2018 with the theme “*Harit Diwali Swasth Diwali*” in line with Swachh Bharat Abhiyanto promote environment friendly Diwali celebration across the State. Several activities at the school level, at open public places and media awareness campaign were organized.

13. Official Release of ENVIS Publication 2018-19

	<p>Release of ‘State of Environment Report 2016’ on the occasion of International Biodiversity Congress 2018 at Dehradun by the chief guest Shri Pawan Chamling, Chief Minister of Sikkim on October 4, 2018</p>
	<p>Release of 92 paged special edition newsletter ‘PANDA’ vol 10 on the occasion of International Biodiversity Congress 2018 at Dehradun by the chief guest Shri Pawan Chamling, Chief Minister of Sikkim on October 4, 2018</p>

ENVIS SIKKIM PUBLICATION 2018-19

<p>92 paged special edition Newsletter Vol 10</p>	<p>12 paged quarterly newsletter Vol 11, Issue 1</p>	<p>12 paged quarterly newsletter Vol 11, Issue 2</p>	<p>12 paged quarterly newsletter Vol 11, Issue 3</p>
<p>126 pages – State of Environment Report 2016 Sikkim</p>	<p>Brochure – Ten point agenda to implement Green Good Deeds</p>	<p>Brochure – GSDP Course on Wild Beekeeping and Processing</p>	