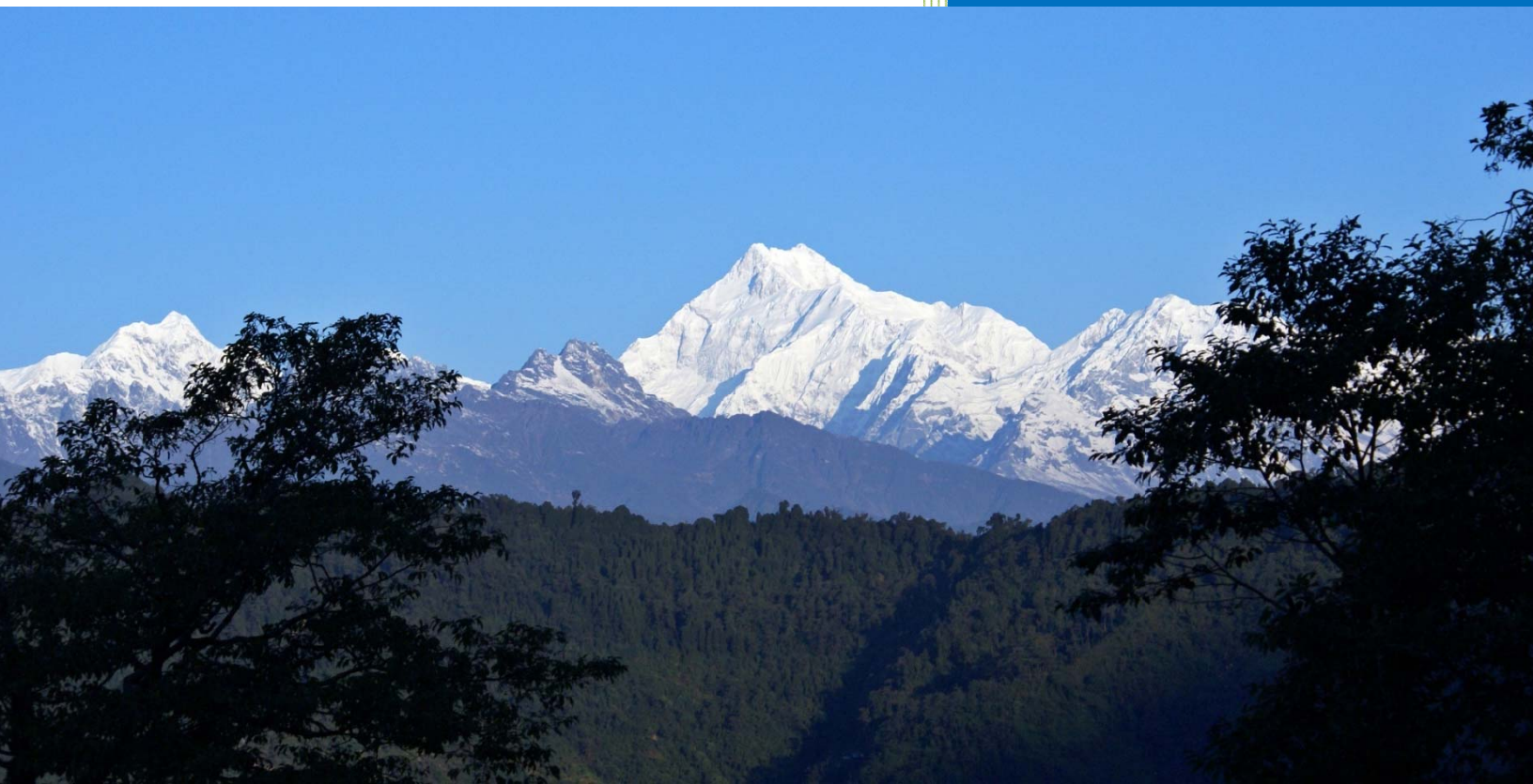




Government of India  
 Ministry of Environment, Forest & Climate Change  
 (EI Division)

2016-17

# Annual Progress Report



*Hosted by*

Forests, Environment & Wildlife Management Department  
 Government of Sikkim  
 Gangtok

**ENVIS CENTER SIKKIM**  
*On Status of Environment &  
 Related Issues*

(STATE GOVERNMENT CENTER)



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



# ANNUAL PROGRESS REPORT 2016-17

(1<sup>st</sup> April 2016 – 31<sup>st</sup> March 2017)

OF

## ENVIS CENTER SIKKIM

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

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**Annual Progress Report 2016-17 on Activities of Sikkim State ENVIS Centre**

<b>1 Name of Host Organization:</b>	Forests, Environment and Wildlife Management Department, Government of Sikkim, Gangtok												
<b>2 Assigned Subject Area:</b>	On Status of Environment & its Related Issues												
<b>3 Date/Month/Year of establishment of ENVIS Centre:</b>	MoU dated 23/03/2002 Established vide letter No: 13(1)/WB/2002 – ENVIS dated: 25/06/2002.												
<b>4 Name and designation of ENVIS Coordinator (2015-16):</b>	B. B. Gurung, Additional Director (Planning/ Environment & Soil Conservation)												
<b>5 Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre?</b>	Yes												
<p><b>Composition of the Advisory Committee:</b></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> <tr> <td>1. Dr. Thomas Chandy, IFS PCCF-cum Pr. Secretary</td> <td>Chairperson</td> </tr> <tr> <td>2. Shri C.S. Rao, IFS CCF (T/HQ)</td> <td>Member</td> </tr> <tr> <td>3. Shri J.B. Subba, IFS Director (KNP/KBR)</td> <td>Member</td> </tr> <tr> <td>4. Dr. Gopal Pradhan Pr. Scientist (SPCB)</td> <td>Member</td> </tr> <tr> <td>5. Shri. D. T. Bhutia Addl. Director (TT), DST&amp;CC</td> <td>Member</td> </tr> <tr> <td>6. Shri B.B. Gurung Addl. Director (P/ E&amp;SC)-cum- Programme Coordinator (ENVIS)</td> <td>Member Secretary</td> </tr> </table>	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 Addl. Director (TT), DST&CC	Member	6. Shri B.B. Gurung Addl. Director (P/ E&SC)-cum- Programme Coordinator (ENVIS)	Member Secretary
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 Addl. Director (TT), DST&CC	Member												
6. Shri B.B. Gurung Addl. Director (P/ E&SC)-cum- Programme 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

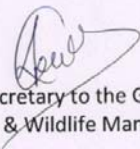
Forest, Environment & Wildlife Management Department

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:							
Name	Position held	Qualification and Experience	Joining Date in ENVIS Centre	Joining Date in current position	2016-17		
					Leaving Date (if applicable)	Emoluments drawn (Rs.)	
						Monthly	Annual
Mr. Rajen Pradhan 	Sr. Programme Officer	B. Tech (Computer Sc.) with ten years experience in environment information technology	17/04/2006	20/03/2009	-	31,890/-	3,82,680/-
Mr. Laxuman Darnal 	Information Officer cum Programme Assistant	PG (Diploma) in Computer Sc. with ten years experience in ENVIS	18/08/2006	20/03/2009	-	26,635/-	3,19,620/-
Ms. Renu Gurung 	IT Assistant	BA Graduate with Diploma in computer applications	16/09/2011	1/04/2013	-	21,542/-	2,58,504/-
Ms. Tulsha Gurung 	Data Entry Operator  <i>(Additional manpower attached to ENVIS by the host department)</i>	CI XII pass with Diploma in computer application	02/12/2013	02/12/2013	-	8,500/-	1,02,000/-  <i>Supported by the host department for 2015-16</i>

7	Mandate of the Host Organization	Mandate of the ENVIS Centre
	The primary mandate of the host department is protection & conservation of Forests, Environment & Wildlife in the State.	To collect, collate, store in retrieval system and disseminate data and information on "Status of Environment & Related Issues"

## 8. Databases:

### 8.1. Catalogue of Non-numeric Databases compiled by the ENVIS Centre 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, Soil Health Card Scheme	Descriptive	2015	Food Security and Agriculture Development Department, journals, Govt. publications	Yes
Pollution	Air, water, noise, solid waste	Descriptive	Monthly up to 2016	SPCB	Yes
Biodiversity	Comprehensive database on floral and faunal diversity of Sikkim	Descriptive, geospatial	Book published in 2012, updated up to 2017	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	Book published in 2012, data updated up to 2017	Govt publication	Yes
Demography	Analysis on Population study of Sikkim	Descriptive, graphical	2011 Census	Census of India	Yes
Disaster	History of Earthquakes, landslides, forest fires	Descriptive	2017	Disaster Management Department, Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study, festivals.	Descriptive	2017	Forest deptt	Yes
Energy	Electricity and energy consumption	Descriptive	Annual up to 2015	Power and Energy Deptt	Yes
Environment	EIA, EMP, SoE report, carrying capacity study report, ECs, etc.	Descriptive	2017	Forest deptt	Yes
Forest Resources	Forest types, SFRs, JFMCs, EDCs	Descriptive	2016	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	2016	SAC, ISRO, Journals, Forest deptt	Yes
Wildlife	PAs, KNP, eco-sensitive and conservation zones, Management Plans, Nomination dossier of KNP for world heritage site, compensation guidelines	Descriptive	2016	Forest deptt	Yes
Soils and Minerals	Geology and Mineral Resources of Sikkim,	Descriptive	2016	Mines Minerals and Geology	Yes

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)
	Mineral reserves in Sikkim, Soil resources			Deptt	
Sericulture	Mulberry, muga and eri culture practices in Sikkim	Descriptive	2016	Forest deptt	Yes

### 8.2. Catalogue of Numeric and Time-series Databases compiled by the Centre 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 2014-15)	Food Security & Agriculture Development Deptt	Yes
Air Quality of Gangtok	SPM, SOx, NOx	Annual, Monthly, Daily (2016)	SPCB	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly (2011, 2012, 2013, 2014, 2015)	SPCB	No
Biodiversity	Statistics on species availability	Annual up to 2016	Forest deptt	Yes
Climate	Temperature, rainfall etc	Monthly, Annual 1996-2016	IMD	Yes
Demography	Demography statistics	2001, 2011	Census of India	Yes
Earthquakes	History of Earthquakes	1839 -2015	Disaster Management Deptt	Yes
Forest Fire Cases	Forest fire cases in Sikkim	2004 – 2017	Forest deptt	Yes
Electricity Consumption	Category wise consumption	Annual, 2008-09 to 2014-15	Power & energy deptt	Yes
Energy Consumption	Per capita consumption, Power from National grid, hydel power generation	Annual 2002-03 to 2014-15	Power & energy deptt	Yes
Forest Statistics	Forest cover statistics of Sikkim	1987 to 2015	FSI	Yes
Wetlands of Sikkim	Altitude wise no of lakes and area	2003 and 2011	SAC, ISRO, Ahmedabad	Yes
Mineral Reserves in Sikkim	Status of mineral development in Sikkim	Annual, 2016	Mines, Mineral and Geology Deptt	Yes
Protected Areas of Sikkim	Profile of Wildlife sanctuaries and National Park	2017	Forest deptt	Yes
Disaster	History of Earthquakes, landslides, forest fires	2017	Disaster Mgmt Deptt. Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study	2017	Forest deptt	Yes
Energy	Electricity and energy consumption	Annual up to 2016	Power and Energy Deptt	Yes



### 8.3. New Databases developed during the Financial Year (2016-17)

#### 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	Fishes, Lizards, Snakes, Birds, Butterflies, Bees, Carnivorous animals of KBR, Amphibians, Insects and Beetle diversity	Descriptive	2016	Govt publication	Yes
Pollution	Water Quality of Rivers	Descriptive	2016	Forest Deptt	Yes
	Industrial Air Quality	Descriptive	2016	SPCB	Yes
	Air Quality of Major Towns	Descriptive	2017	SPCB	Yes
	Hazardous Waste of Sikkim	Descriptive	2017	SPCB	Yes
	Consent Forms	Descriptive	2017	SPCB	Yes
	Noise Pollution	Descriptive	2017	SPCB	Yes
KNP	Inscription of Khangchendzonga National Park as World Heritage Site	Descriptive	2016	Forest Deptt	Yes
Ecotourism	Ecotourism zones of Sikkim	Descriptive	2017	Forest Deptt	Yes
	Organizational manual	Descriptive	2017	Forest Deptt	Yes
Solid Waste	Management Rules, Municipal Bodies and Nagar Panchayat	Descriptive	2016	Forest Deptt	Yes
ORS	Online Research Permit System	Descriptive	2016	Forest Deptt	Yes
Wildlife	Human Animal Conflict	Descriptive	2016	Forest Deptt	Yes
Disaster	Dzongu Landslide	Descriptive	2016	Forest Deptt	Yes
Forestry	Heritage Trees of Sikkim	Descriptive	2016	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 2015	SPCB	Yes
	Air Quality of Major Towns	2016	SPCB	Yes
	Water Quality of Rivers	2010-2015	SPCB	Yes
	Hazardous Waste	2015-2017	SPCB	Yes
	Noise Pollution	2014, 2015, 2016	SPCB	Yes
Agriculture	Area, Production and Productivity of Major Crops	2003-04 to 2014-15	Food Security & Agriculture Dev. Deptt	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly	SPCB	No
Climate data	Daily weather report and four days forecast of Gangtok town	Daily basis	IMD	Yes
Rainfall	District wise rainfall data	2009-2014	IMD	Yes
Forestry	53 Heritage Trees of Sikkim	2016	Forest Deptt	Yes

#### 8.4. Status of data entry in ISBEID: (For State/ UT ENVIS Centres) – As in ANNEX.

## 9. Information/ Knowledge Products:

### 9.1. ENVIS Newsletters published during the Financial Year (2016-17):

Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<p>2016 Special Newsletter edition title <b>PANDA Vo. 8</b></p> <p>56 pages bi-lingual special edition highlights scientific research articles, write-ups, observations and notes on flora, fauna, ecotourism, wildlife, climate change and other important environment issues over the year 2015-16 of Sikkim State. The newsletter is a compilation of articles received from foresters, environmentalists, scientists, scholars, students and volunteers.</p>	<p>1500 nos</p> <p><i>Supported by host organization</i></p> <p><i>Released by the Hon'ble Chief Minister of Sikkim on June 5, 2016</i></p>	<p><a href="http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf</a></p>
	<p>1<sup>st</sup> Qtr (Apr-Jun) Vol. 9, Issue 1</p> <p>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</p>	500 nos.	<p><a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%201%20(Apr-Jun).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%201%20(Apr-Jun).pdf</a></p>
	<p>2<sup>nd</sup> Qtr (Jul-Sep) Vol. 9, Issue 2</p> <p>KNP inscribed as UNESCO's World Heritage Site, Khangchendzonga National Park, Gangtok awarded cleanest tourist destination of India, Landslide at Mantam, Dzongu, North Sikkim</p>	500 nos.	<p><a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%202%20(Jul-Sep).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%202%20(Jul-Sep).pdf</a></p>
	<p>3<sup>rd</sup> Qtr (Oct- Dec) Vol.9, Issue 3</p> <p>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</p>	500 nos.	<p><a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%203%20(Oct-Dec).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%203%20(Oct-Dec).pdf</a></p>

## 9.2. Other publications/ information products brought out during the Financial Year (2016-17):

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<b>Environmental Initiatives of Sikkim 1994-2016</b>  Special book publication on environmental initiatives of Sikkim	500 Copies  <i>Released by the Hon'ble Chief Minister of Sikkim on 15<sup>th</sup> of August 2016</i>	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Environmental%20Initiatives%20of%20Sikkim%2015%20Aug%202016.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Environmental%20Initiatives%20of%20Sikkim%2015%20Aug%202016.pdf</a>
	<b>Nature's Marvel</b>  A Pictorial Pocket Sized Booklet on the Faunal Diversity of Sikkim	2000 nos  <i>Printing costs supported by host organization Released by the Pr. Secretary –cum- PCCF on 29<sup>th</sup> September 2016</i>	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Natures-Marvel.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Natures-Marvel.pdf</a>
	<b>Activity Book on 'Paryavaran Mahotsav 2015'</b>  Sikkim celebrated the 3 <sup>rd</sup> successive Paryavaran Mahotsav 2015. This 76 paged book highlights activities carried out throughout the State though mass public participation. The activities such as plantation drives, cleanliness drives, signature campaigns, Greenathon events and various other activities are highlighted in this publication.	1000 nos  <i>Printing costs supported by host organization  Released by the Hon'ble Governor and the Hon'ble Chief Minister of Sikkim on June 25, 2016</i>	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Final%20Paryavaran%20Mahotsav%202015.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Final%20Paryavaran%20Mahotsav%202015.pdf</a>
	<b>Bilingual Booklet on Environmental Initiatives of Sikkim 1995-2016 for general public</b>	500 each in English and Nepali	Printed and distributed to general public on the occasion of World Environment Day June 5, 2016.

**9.3 Information Products published/ released during last five years (2011-12 to 2015-16):**

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
1.	2011-12	Newsletter PANDA Vol 4  <i>Bilingual</i> (English and Nepali)	Sikkim earthquake 18 Sep, edible mushrooms, Proposed Ramsar sites in Sikkim, blue wing ruppi, chief minister's green school rolling trophy	<a href="http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20English%202011-12%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20English%202011-12%20web.pdf</a> (ENGLISH)  <a href="http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20Nepali%202011-12%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20Nepali%202011-12%20web.pdf</a> (NEPALI)
2.		Environmental Initiatives of Sikkim 1995-2012	Environmental Initiatives of the Hon'ble Chief Minister of Sikkim Shri Pawan Chamling	<a href="http://sikenvis.nic.in/WriteReadData/Publication/CM_Env_initiative%202012.pdf">http://sikenvis.nic.in/WriteReadData/Publication/CM_Env_initiative%202012.pdf</a>
3.		Sikkim Biodiversity Action Plan	Sikkim Biodiversity Action Plan	<a href="http://sikenvis.nic.in/WriteReadData/Publication/SIKKIM%20BIODIVERSITY%20ACTION%20PLAN%20Aug%202012%20FINALWEB.pdf">http://sikenvis.nic.in/WriteReadData/Publication/SIKKIM%20BIODIVERSITY%20ACTION%20PLAN%20Aug%202012%20FINALWEB.pdf</a>
4.		Climate Change in Sikkim	Patterns, Impacts and Initiatives	<a href="http://sikenvis.nic.in/PublicationDetails.aspx?SubLinkId=136&amp;LinkId=2662&amp;Year=2014">http://sikenvis.nic.in/PublicationDetails.aspx?SubLinkId=136&amp;LinkId=2662&amp;Year=2014</a>
5.	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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Download%20PANDA%202013.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Download%20PANDA%202013.pdf</a>
6.		Environment Consciousness in Sikkim	Study report to assess the environment consciousness of citizens of Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/EC%20Report_CDF_IFMR.pdf">http://sikenvis.nic.in/WriteReadData/Publication/EC%20Report_CDF_IFMR.pdf</a>
7.		Forest for Sustainable Livelihood	A concept note on forest and sustainable livelihoods	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Forest%20for%20Sustainable%20Livelihood%200%20NEAC%202012.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Forest%20for%20Sustainable%20Livelihood%200%20NEAC%202012.pdf</a>
8.		Biodiversity - All Creatures Great and Small	Biodiversity - All Creatures Great and Small. Floral and Faunal Wealth of Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Download%20Biodiversity%20-%20All%20Creatures%20Great%20and%20Small.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Download%20Biodiversity%20-%20All%20Creatures%20Great%20and%20Small.pdf</a>
9.		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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Download%20Study%20Report%20on%20Grazing%20Ban%20in%20West%20Sikkim.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Download%20Study%20Report%20on%20Grazing%20Ban%20in%20West%20Sikkim.pdf</a>
10.		National Green Corps – Sikkim	School Eco-Club Success Stories from Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report%202012-web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report%202012-web.pdf</a>
11.	2013-14	Quarterly Newsletter Vol 6 Issue 1 (Apr-Jun)	Biodiversity Conservation, Oaks species of Species	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202013-14%20Vol%20VI%20Issue%201.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202013-14%20Vol%20VI%20Issue%201.pdf</a>
12.		Quarterly Newsletter Vol 6 Issue 2 (Jul-Sep)	Wastelands of Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%202%20">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%202%20</a>

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
				<a href="#">v2.pdf</a>
13.		Quarterly Newsletter Vol 6 Issue 3 (Oct-Dec)	Protected Area Network in Sikkim, Gochela trek	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%203%20v2.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%202013-14%20Vol%20VI%20Issue%203%20v2.pdf</a>
14.		Newsletter PANDA Vol 6 Issue 4	Sikkim Fishes, Magnolia taxa, Ratey chu watershed, Green lake expedition, Gangtok windstorm	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%20PANDA%20Vol%206.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Sikkim%20Newsletter%20PANDA%20Vol%206.pdf</a>
15.		Biodiversity Conservation	Concept note on Biodiversity Conservation	<a href="http://sikenvis.nic.in/WriteReadData/Publication/NEAC-Biodiversity%20Conservation.pdf">http://sikenvis.nic.in/WriteReadData/Publication/NEAC-Biodiversity%20Conservation.pdf</a>
16.		Sidkeong Tulku Bird Park	Pamphlet on Sidkeong Tulku Bird Park, West Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Sidkeong%20Tulku%20Bird%20Park.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Sidkeong%20Tulku%20Bird%20Park.pdf</a>
17.	<b>2014-15</b>	Quarterly Newsletter Vol 7 Issue 1 (Apr-Jun)	Paryavaran Mahotsav, State Green Schools Award, CM Rolling Trophy, Green wave, world environment Day	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%201.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%201.pdf</a>
18.		Quarterly Newsletter Vol 7 Issue 2 (Jul-Sep)	Eco-Sensitive Zones in Sikkim, Sustainable Environment Initiative at School, Green Roads Mission	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%202.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%202.pdf</a>
19.		Quarterly Newsletter Vol 7 Issue 3 (Oct-Dec)	Swachh Bharat Swasthh Sikkim, Solid Waste Profile of Gangtok, Legal Framework for Solid Waste Management, , Healthcare Waste Management	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%203.pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%203.pdf</a>
20.		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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Volume%20No%207.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Volume%20No%207.pdf</a>
21.		Paryavaran Mahotsav 2013	Pictorial book report on fortnightly environment festival of Sikkim June 15-30, 2013	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav%202013%20web1.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav%202013%20web1.pdf</a>
22.		Environmental Initiatives of Sikkim 1995-2015 <i>Bilingual</i> (English and Nepali)	Booklet on Environmental Initiatives of Sikkim 1995-2015	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20English%202015.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20English%202015.pdf</a> (ENGLISH) <a href="http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20Nepali%202015%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Env%20Initiatives%20of%20Shri%20Pawan%20Chamling%20Nepali%202015%20web.pdf</a> (NEPALI)
23.		Sikkim State Action Plan on Climate Change	Sikkim State Action Plan on Climate Change	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20State%20Action%20Plan%20on%20Climate%20Change%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20State%20Action%20Plan%20on%20Climate%20Change%20web.pdf</a>
24.		Management Plan of Khangchendzonga National Park	Management Plan of Khangchendzonga National Park (2008-2018) (Online publication)	<a href="http://sikenvis.nic.in/WriteReadData/Publication/KNP-Management%20Plan%20-%20WEB.pdf">http://sikenvis.nic.in/WriteReadData/Publication/KNP-Management%20Plan%20-%20WEB.pdf</a>
25.		Eco-Club Handbook	Guidelines for Eco-Club and Green Schools State Awards	<a href="http://sikenvis.nic.in/WriteReadData/Publication/NGC%20ECO%20CLUB%20HANDBOOK.pdf">http://sikenvis.nic.in/WriteReadData/Publication/NGC%20ECO%20CLUB%20HANDBOOK.pdf</a>
26.		National Green Corps -	National Green Corps - Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/P">http://sikenvis.nic.in/WriteReadData/P</a>



SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
		Sikkim Report	Activity Report	<a href="http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report-2015-web.pdf">ublication/NGC-Sikkim-Report-2015-web.pdf</a>
27.		Rapid Biodiversity Survey Report -I	Rapid Biodiversity Survey Report of Sikkim- First Phase	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20I.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20I.pdf</a>
28.	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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%201%20(Apr-Jun).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%201%20(Apr-Jun).pdf</a>
29.		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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%202%20(Jul-Sep).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%202%20(Jul-Sep).pdf</a>
30.		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	<a href="http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%203%20(Oct-Dec).pdf">http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%203%20(Oct-Dec).pdf</a>
31.		Newsletter PANDA Vol 8 Issue 4 <i>Special edition</i>	Yartsa gunbu, Sikkim himalayan rhododendron, pleione, oroxylum indicum, pagolakha wildlife sanctuary, new lake kip tso, isabelline wheatear	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf</a>
32.		Paryavaran Mahotsav 2014	Pictorial book report on fortnightly environment festival of Sikkim June 15-30, 2014	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20Paryavaran%20Mahotsav%202014%20-%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Sikkim%20Paryavaran%20Mahotsav%202014%20-%20web.pdf</a>
33.		Handbook on Nature based Festivals of Sikkim	Nature based Festivals of Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Hand%20Book%20of%20Nature%20Based%20Festival%20of%20Sikkim%2005-06-15%20web.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Hand%20Book%20of%20Nature%20Based%20Festival%20of%20Sikkim%2005-06-15%20web.pdf</a>
34.		Rapid Biodiversity Survey Report -II	Rapid Biodiversity Survey Report of Sikkim- Second Phase	<a href="http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20II.pdf">http://sikenvis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20II.pdf</a>
35.		Heritage Trees of Sikkim	Photo album of notified Heritage trees of Sikkim	<a href="http://sikenvis.nic.in/WriteReadData/Publication/SIKKIM%20STATE%20HERITAGE%20TREES.pdf">http://sikenvis.nic.in/WriteReadData/Publication/SIKKIM%20STATE%20HERITAGE%20TREES.pdf</a>

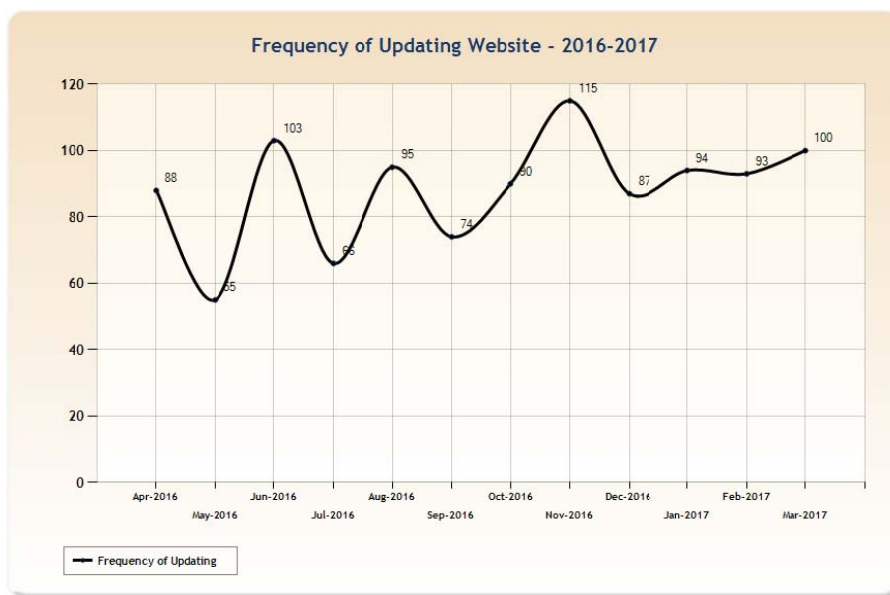
**10. ENVIS Website(ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible):**

**10.1. URL:** [www.sikenvis.nic.in](http://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 2016-17 (as on 31-Mar-2017)**

The monthly average frequency of updation for 2016-17 is **88** updates **per month**. Total **1060** updates have been made during 2016-17 as on 31<sup>st</sup> of March, 2017.



(as on 31-Mar-2017)

Months	Publications	Subject Area	Glossary	Bibliography	Major Activity	Kids Centre	Upcoming Events	Latest News	Photo Gallery	Frequency of Updating
Apr-2016	7	21	0	41	0	1	8	10	0	88
May-2016	0	13	0	19	0	2	5	5	11	55
Jun-2016	7	21	0	18	0	0	10	16	31	103
Jul-2016	4	16	0	30	0	1	1	14	0	66
Aug-2016	5	17	0	38	13	0	11	8	3	95
Sep-2016	4	25	0	32	3	0	4	6	0	74
Oct-2016	4	14	0	41	5	0	11	6	9	90
Nov-2016	2	18	0	61	2	0	20	12	0	115
Dec-2016	3	16	0	55	6	0	3	4	0	87
Jan-2017	2	16	0	60	3	0	5	8	0	94
Feb-2017	0	15	0	58	2	0	5	11	0	93
Mar-2017	0	20	0	60	6	0	6	8	0	100
<b>Total</b>	<b>38</b>	<b>212</b>	<b>0</b>	<b>513</b>	<b>40</b>	<b>4</b>	<b>89</b>	<b>108</b>	<b>54</b>	<b>1060</b>

**10.4. Subject-specific database updation (numeric/ others):** 212 updates have been made during 2016-17 as on 31-Mar-2017 alone in the subject-specific database.

**10.5. Publication uploaded/ updated on Website:** 38 updates (including journals, pamphlets, newsletters and book publication)

### 11. User Engagement and Interaction

<i>User engagement and interaction</i>		<i>FY 2014-15</i>	<i>FY 2015-16</i>	<i>FY 2016-17</i>
i.	Total number of visits	1,78,575	2,53,172	3,51,826
ii.	Number of unique visits	17,527	48,924	41,082
iii.	Reports Downloaded/Read	730	994	1,247
iv.	Total Number of Queries received	1200	1400	1779
v.	Number of Queries responded	1200	1400	1779
vi.	Grade received	80 'A'	81 'A'	

**11.1 Total number of visits on Website (2016-17): 3,51,826 (As on 31-Mar-2017)**

**11.2 Number of unique visits on Website (2016-17): 41,082 (As on 31-Mar-2017)**



Months	Visits			Unique Visitors		
	Indian	Rest of the world	Total	Indian	Rest of the world	Total
Apr-2016	10316	14429	24735	2587	1013	3600
May-2016	9628	15689	25313	2316	1017	3333
Jun-2016	7419	17250	24662	2054	1059	3113
Jul-2016	8130	15096	23223	1676	990	2666
Aug-2016	8706	17619	26324	2249	1160	3409
Sep-2016	7397	21358	28755	1874	1279	3153
Oct-2016	6111	25578	31689	1762	1494	3256
Nov-2016	7108	22004	29111	1994	1531	3525
Dec-2016	8193	19216	27407	1536	1397	2933
Jan-2017	7164	18448	25611	1622	1599	3221
Feb-2017	9795	23884	33679	2076	1935	4011
Mar-2017	14126	37192	51317	2534	2328	4862

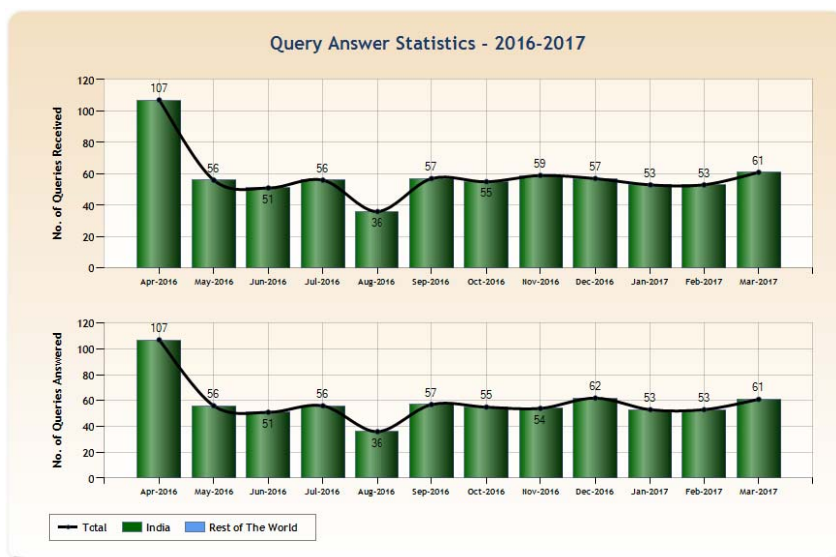
### 11.3 Number of reports downloaded/ read by stakeholders:

Total 1,247 downloads have been observed during 2016-17 as on 31-Mar-2017 in which about 60% of the downloadable items have been accessed from the Publications module and about 30% 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.

Months	Latest News			Major Activity			Kids Centre			Publications			Subject Area			Report Read/Downloaded		
	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total	India	Rest of the world	Total
Apr-2016	1	0	1	0	0	0	1	0	1	75	0	75	43	0	43	120	0	120
May-2016	0	0	0	0	0	0	2	0	2	79	0	79	23	0	25	104	0	106
Jun-2016	0	0	0	0	0	0	3	0	3	89	0	89	39	0	39	132	0	132
Jul-2016	0	0	0	0	0	0	0	0	0	38	0	38	58	0	58	96	0	96
Aug-2016	0	0	0	0	0	0	1	0	1	46	0	46	46	0	46	93	0	93
Sep-2016	0	0	0	0	0	0	2	0	2	56	0	56	35	0	35	93	0	93
Oct-2016	0	0	0	1	0	1	1	0	1	67	0	67	19	0	19	88	0	88
Nov-2016	0	0	0	0	0	0	0	0	0	72	0	72	58	0	58	130	0	130
Dec-2016	2	0	2	0	0	0	0	0	0	25	0	25	42	0	42	69	0	69
Jan-2017	0	0	0	0	0	0	0	0	0	84	0	84	25	0	25	109	0	109
Feb-2017	0	0	0	0	0	0	0	0	0	85	0	85	44	0	44	129	0	129
Mar-2017	0	0	0	0	0	0	0	0	0	43	0	43	39	0	39	82	0	82

### 11.4 Query-Answer Statistics 2016-17: As on 31-Mar-2017

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
<b>Online</b> (CMS based website)	701	701	-
<b>Email</b> (official NIC server)	315	315	-
<b>Postal/Telephonic</b> (incl. hand post)	151	151	-
<b>Physical</b>	612	612	-
<b>Total</b>	1779	1779	



(As on 31-Mar-2017)

**12. Implementation of Annual Plan of Activities of the Financial Year (2016-17):**

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
<b>Centre's proposed activities 2016-17</b>		
1. ISBEID: Addressing the data gap on modules (Biodiversity, Air Pollution, Waste); data collection and updation for 2015-16 onwards on all 17 modules.	Total 856 nos of updates have been made during 2016-17 as on 31-Mar-2017	--
2. Publication State of Environment Report (SoER) 2016: <i>This comprehensive report will serve as a driving tool for policy and decision making of many stakeholders and planners.</i>	Drafting of the report has been completed and final stakeholder's consultation workshop need to be convened. The report will be befittingly released during World Environment Day June 5, 2017	--
3. Searchable database application development on list of floral and faunal species of Sikkim	Comprehensive list of flora and fauna have been updated in the Biodiversity section of the Subject area module of the website.	--
4. Enriching the Subject-wise database with climate change related information on glacial study, and vegetation carbon pool assessment study. 5. Updation of Subject-wise databases modules of the website (www.sikenvis.nic.in).	212 updates have been made in the subject area module during 2016-17 as on 31-Mar-2017.  Updates have been made on pollution statistics, heritage trees of Sikkim, ecotourism zones of Sikkim and other important climate change relation information.	--
6. Application development for facilitating online research permits in Sikkim. This application will reduce the paper work and facilitate the research scholars as well as to track their application status	Application developed and hosted in NIC domain during September 2016 and linked with ENVIS portal under major activities module. Till date about 15 online applications for research permits have been processed.	
7. Publication of Quarterly Newsletters on regular basis 8. Publication of special edition of PANDA newsletter	Three quarterly issues of Sikkim ENVIS newsletter have been published and e-copies have been distributed widely.  Special edition annual newsletter 'PANDA Vol 8' was published and released on 5 <sup>th</sup> June 2016 by the Chief Minister of Sikkim	--
9. Publication of Knowledge based products on "Forest Wildlife in Sikkim" and "Environment Management in Sikkim"	Special publications such as Environment Initiatives of Sikkim, Narvel's Marvel – A pocket pictorial handbook on flora diversity of Sikkim have been published and distributed widely..	--



Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
10. Integration of Bhuvan based thematic/ spatial data and information in the existing CMS based website.	Customized hands-on training by ISRO attended at Shillong. Spatial data (point, polygons, shape files) prepared on wetlands, earthquakes, water quality etc prepared and sent to Bhuvan team through ENVIS Secretariat.	Hosting awaited from Bhuvan team, NRSC, ISRO, Hyderabad
11. Serve as the nodal in-charge for online updation of data and information on Status of Environment and its related issues pertaining to Sikkim.	Updation and upkeep of online content in ENVIS website is a regular and ongoing activity.	--
12. 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.	Training programmes organized for 100 schools during March 2016 and for 200 schools during September 2016 in partnership with WIPRO and CSE, New Delhi respectively. 761 School eco-clubs strengthened by provision of environment kits and resource materials.	--
13. Support the host department in environment awareness programmes in the State with resource materials like pamphlets, brochures, handbooks, posters, banners, flyers, signages etc.	Bilingual booklet in English and Nepali prepared, DVDS etc on environment initiatives and policies as awareness material and distributed widely during environment calendar days.	--
14. To play the role of Lead ENVIS Centre of Eastern and North-Eastern Region for facilitating quarterly brainstorming sessions and Regional evaluation workshop during 2016-17 and to provide one point access to ENVIS Secretariat on regional issues and developments	Successfully hosted and organized 1 <sup>st</sup> quarter brainstorming session for Eastern and North Eastern ENVIS Centers during May 2016.	--
<b>ENVIS National Workshop – New Delhi, February 2016 (Post-workshop follow-up)</b>		
<b>Suggestions for improvement by Processing Division, MoEF &amp;CC</b>		
<b>A. Regular Activities: Web-based Environmental Information</b>		
<b>Collection and Compilation of Information and Data</b>		
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.	212 number of updates done in the subject area module of the website during 2016-17 as on 31-Mar-2017. The information content of the subject area quoted with authentic sources.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
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.	513 bibliography, about 38 journals, abstracts and other publications uploaded in the website.	
3. Identification of data gaps and formulation with implementation of action plan to fill them.	About 856 data updates on ISBEID made.	
<b>Maintenance of ENVIS Website and User Engagement through it</b>		
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 88 updates per month.	-
5. Query-Response/ Referral service to stakeholders.	About 1800 online, postal, email and in-person queries have been handled by the centre during 2016-17.	-
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.	-
<b>Maintenance of ISBEID and Preparation of State of Environment (SoE) Reports</b>		
8. Development of time series ISBEID databases on 17 parameters (except the ones 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.	Time series data are regularly fed in the ISBEID system. Total 856 number of updates were made during 2016-17 alone. Till date more than 6500 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.	Line departments have been sensitized about the ISBEID application and the host department has issued letters for coordination. A workshop cum meeting of stakeholders and line departments was organized.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
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.	Final draft of the SoE Report 2016 has been prepared and the report will be published and released during June 2017 after final consultation workshop with stakeholders.	-
13. Publishing State of Environment (SoE) Reports for metro cities and hotspots.	ENVIS Centre will prepare a proposal for preparation of SoE Report for Gangtok hotspot during 2017-18 and submit to the ministry.	-
<b>Publications and Value-Addition</b>		
14. Publishing 4 <i>Newsletters</i> 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 to be incorporated in the upcoming SoE report.	
16. Collecting books, reports and journals on the subject area; Uploading e-versions of books, reports, etc. on the ENVIS Website. Uploading <i>Abstracts</i> of books, reports, journals and articles of those whose e-versions are not available.	About 200 e-version of the publications relating to status of environment collected from various government sources and published online. <b>ENVIS Sikkim is proudly the official online hosting for all government publications in Sikkim.</b>	
<b>Reaching-out/Networking Activities</b>		
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. Centre is referring to data and information available with other centres and hyperlinks have been placed accordingly. This centre coordinated with CPREEC ENVIS for compilation of Sacred Grooves of India.	
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	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
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	ENVIS center was supported by WIRPO or organizing a training programme for 100 schools and for implementing earthians school programme 2016.	
<b>B. SPECIAL ACTIVITIES</b>		
22. Focus on database development (numeric and descriptive), with due authentication in consultation with Line Departments/ research institutes, etc.	Centre is already in sync with 41 line departments for collection 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.	Centre is working in several research based activities with expert institutions such as Development Alternatives New Delhi, IFRM-CDF Chennai	
24. Circulate Newsletters and knowledge products to as many stakeholders as possible in the State, especially policy makers/ planners.	Around 1500 copies of quarterly newsletters and other publications have been circulated to ENVIS partners, Sikkim schools, line departments, 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.	Centre has a library that houses more than 2000 reports and publications including DVD and media collection on environment issues. ENVIS centre has collected about 20 international award winning documentary films from CMS VATAVARAN.	
28. Bring out a Brochure on environmental issues to spread awareness about World Environment Day, focusing on forestry/ mining/ Climate Change/ disasters/ etc.	Centre has published several pamphlets, brochures on events and places for quick information for the users. Visitors to the centre are always gifted with such items by the centre.	

13.	<b>New initiatives taken during the Financial Year (2016-17):</b>	<ul style="list-style-type: none"> <li>✓ Prepared a pocket-sized pictorial handbook “Nature’s Marvel” on floral diversity of Sikkim.</li> <li>✓ Developed an Online Research Permit System, an application for enabling research scholars and research institutions for getting permits from Forest Department and submit the reports online.</li> <li>✓ Centre partnered with 100 new schools in collecting climate change related information through ‘SeasonWatch’ programme under the support of WIPRO Earthian school programme.</li> <li>✓ Conducted Green school environment auditing through online media in about 200 schools in partnership with Centre for Science and Environment, New Delhi. Three Sikkim Schools awarded Top 10 Green Schools recently on Feb 2017.</li> <li>✓ ENVIS Centre formulated Green Credit Accreditation standards for Sikkim State Military Units, PSUs and Non-educational and Non-Industrial units as per the direction of the Sikkim Government.</li> <li>✓ Played a lead role in coordination amongst ENVIS partners in conducting brainstorming session of ENVIS Centres of Eastern and Northeastern States.</li> </ul>
14.	<b>Date of most recent physical verification by the Ministry:</b>	Date: 06/05/2016 by Mr. Abhay Kumar, Deputy Economic Adviser, and Mr. Amit Vashishtha, Deputy Director, MoEF, GoI ( <i>during Brain Storming Session for North Eastern ENVIS Centre, Gangtok, Sikkim</i> )

**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 i7, 3.40 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
<ol style="list-style-type: none"> <li>1. Desktop Computer – 2 Nos(P-IV, 1 GB RAM, 80 GB HDD)</li> <li>2. Printer - 1 No (Laserjet black printer)</li> <li>3. Scanner – 1 (600 dpi flat bed)</li> </ol>	<ol style="list-style-type: none"> <li>1. Desktop Computer – 1 Nos</li> <li>2. Printer – 1 Nos</li> <li>3. Scanner (Flat bed) – 1 Nos</li> <li>4. All in one printer/ copier/ scanner – 1 No</li> <li>5. 3 KVA inverter with battery</li> <li>6. Telephone (landline 03592-280381)</li> </ol>



**16. Status of utilization of grant during the financial year 2016-17 as on 31-Mar-2017 and reasons for shortfalls, if any:**

	Head of Expenditure	Sanctioned amount (Rs.)	Actual Expenditure (Rs.)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower	9,60,804	9,60,804	-
	Databases, etc.	3,63,000	3,63,000	-
	Travel & Training	50,000	50,000	-
Non-Recurring	Preparation of State of Environment Report 2016-Sikkim	30,97,500	12,50,916	In Progress

**17. Issues/ hurdles faced in undertaking ENVIS activities:**

17.1.	Many users have been complaining about user login failures in our system. The password recovered after login failure is complicated and difficult to remember. The password reset facility is not available for the users. Request sent to NIC several times but action on this remains pending till date.
17.2.	Data collection for ISBEID platform is challenging and painstaking due to non-availability of readymade data. At most instances, data is retrieved through rigorous and in-depth study of reports from secondary sources which is time taking and hinders timely activity.
17.2	The temporary nature of ENVIS incumbent is highly risky in nature. Job insecurity hinders the effective implementation of the centre. Annual increments or incentives can boost the morale of the hardworking personnel engaged in the centre.

**18. Proposed Action Plan of Activities for next three years i.e 2017-18 to 2019-20**

1. Management Information System (MIS) for Action towards Combating Climate Change - *Goal 13 of Sustainable Development Goal (SDG)*
  - Deployment and implementation of e-portal for ease of proposal submission, report submission, online monitoring, query response system; and enrolling with e-taal or e-Gov services of the Government of India to reflect the e-transactions of ENVIS information on the national portal.
  - Implementation and facilitation of Direct Benefit Transfer (DBT) through enrollment with Public Financial Management System (PFMS) for Centrally Sponsored Schemes (CSS) such as ENVIS, NGC, NEAC, R&D projects etc.
  - Environmental Information System (ENVIS) portal to be strengthened with convergence with GIS based ISBEID for dynamic State of Environment reporting.
  - Facilitation of research based studies and other R&D activities through implementation of online research permit system.
  - Facilitating Ease of Doing Business (EoDB) through deployment of online consent management of small industrial units for establishing, operating or renewing trade licenses.
2. Extension & Outreach programmes on environmental information sharing, awareness, education and training of youths/ students/ stakeholders/ local people at the ground level (district/ village level).
3. Ecological Hotspot study of Gangtok, Sikkim as a Sustainable Tourist Destination with relevance to environment impact assessment on the fragile ecosystem and recommendations.
4. Preparation of State of Environment Report 2019-20 for Sikkim State.
5. Development of thematic web based and mobile based application for Crisis Management with incorporation of dynamic alert system in events like forest fire, floods, flashfloods, earthquakes, windstorms etc.

## 19. Proposed Annual Action Plan of Activities for 2017-18

The annual plan of activities of our centre in summative is enumerated below;

1. ISBEID data collection and data entry for 2017 year onwards as ongoing activity in all 17 modules.
2. Publication State of Environment Report (SoER) 2016: *This comprehensive report will serve as a driving tool for policy and decision making of many stakeholders and planners. The report will be released on the occasion of World Environment Day June 5, 2017.*
3. 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.
4. Enriching the Subject-wise database with climate change related information on glacial study, and vegetation carbon pool assessment study. Updation of Subject-wise databases modules of the website ([www.sikenvis.nic.in](http://www.sikenvis.nic.in)) as an ongoing activity.
5. Extension and Outreach programmes at district and village level including awareness programmes at SECAS platform, Village Sensitization on the occasion of environment calendar days, cleanliness drives etc.
6. Facilitation of online research permits in Sikkim. This application will reduce the paper work and facilitate the research scholars as well as to track their application status.
7. Integration of ENVIS Services (query response, website visits) into etaal platform and mapping of ENVIS scheme on the PFMS platform.
8. Publication of Quarterly Newsletters, special edition 52 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.
9. Integration of Bhuvan/ Bharat Maps/ Google Maps based thematic/ spatial data and information in the existing CMS based website.
10. Serve as the nodal in-charge for online updation of data and information on Status of Environment and its related issues pertaining to Sikkim.
11. 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.
12. Support the host department in environment awareness programmes in the State with resource materials like pamphlets, brochures, handbooks, posters, banners, flyers, signages etc.

**20. ANNEX**

Status of data entry in ISBEID: (For State/ UT ENVIS Centres): updated on 21-Feb-2017

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
I. Adminis- trative	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	

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		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			
		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	1990-2017		1990-2017	
		No. of Registered private hospitals/ nursing homes	1961 - 2017		1981-2017	
	3. Transport	No. of Railway Stations				
		Length of Railway Lines				
		Length of National Highways	1998-2017			
		Length of State Highways	1990-2017		1990-2017	
		Length of other roads	1998-2001			
		No. of Domestic Airports				
		No. of international 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				
		Power from National Grid	2003-2015			
		Installed Capacity	2003-2015			
	2. Renewable	Hydel power generation	1992, 1995,			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
			2000-2012			
		Installed Capacity	1992, 1995, 2000-2012			
		Windmill power generation				
		Installed Capacity				
		Solar photovoltaic power generation				
		Installed Capacity				
		Biogas power generation				
		Installed Capacity				
		Other biomass power generation				
		Installed Capacity				
	3. Electricity Consumption	Industrial and Commercial	2008-2015			
		Agriculture	1990-2015			
		Domestic	2008-2015			
		Others	1998-2012			
	4. Energy Consumption	LPG	2010-2014			
		Other Petroleum Products				
		Coal				
		Natural Gas				
		Other				
IV. Agriculture	1. Agriculture Area Classification	Total agricultural area				
		Area under non-agriculture use	2001-2013			
		Barren and uncultivable land	1996-2012			
		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-		2004-2015	

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
			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	1990-2016		1991-2016	
		Sowing Area	1990-1997, 2000-2016		1991-1998, 2000-2016	
		Production	1990-2016		1991-2016	
		Wheat	1992-2016		1992, 1998-2016	
		Sowing Area	1992, 2000-2016		1992, 2000-2016	
		Production	1992-2016		1992, 1998-2016	
		Pulses	1992-2016		1992, 1998-2016	
		Sowing Area	1992, 2000-2016		1992, 2001-2016	
		Production	1992-2016		1992, 1998-2016	
		Total food grains				
		Sowing Area				
		Production				
		Cotton				
		Sowing Area				
		Production				
		Jute & mesta				
		Sowing Area				
		Production				
		Sugarcane				
		Sowing Area				
		Production				



Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		Tobacco					
		Sowing Area					
		Production					
		Oil Seeds	1992-2016		1992-2016		
		Sowing Area	1992-2016		1992-2016		
		Production	1992-2016		1992-2016		
		Cereals	1993-2016		2004-2016		
		Sowing	2000-2016		2004-2016		
		Production	1993-2016		2004-2016		
		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					
		Others					
	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				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		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	1990-2017		1990-2017	
		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 groves	1996-2011			
		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-			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
			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	1990-2017		1990-2017	
		Mix Red & Black Soil				
	Peaty Soil					
	VIII. Forest Resource	1. Distribution of Forest Cover	Dense Forest	1990-2015		1998-2015
Open Forests			1990-2015		1988-2015	
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)	1990-2015		1998-2014	
		Open Forest (Crown density 10- 40% (in ha)	1990-2015		1998-2014	
		Mangrove (in ha)				
5. Forest Produce		Timber poles	2002, 2005-2007, 2010-2011			
		Fuel wood	1997-			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
			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 (Perennial/Seasonal)	1990- 2017			
		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			

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		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	2010-2016		2010-2016		
		total Ground Water Resource					
	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	2006-2017			
Name of Wildlife Sanctuaries			1990-2016				
Name of Bird Sanctuaries			2005-2017				
Name of Tiger Reserves							
Name of Elephant Reserves							
Name of Biosphere Reserves			1998-2017				
Name of Protected Mangroves area (Private & Public)							
3. Botanical Gardens		Name of Botanical Garden					
		Area of Botanical Garden	1998-2017				
		Location	1998-2017				
		Uniqueness					
4. Zoological Parks		Name of Zoological Park	1998-2017				
		Area of Zoological Park	1998-2017				
		Location					
		Uniqueness					
5. Physiographic Features		Mountain Name	1994-2017				
		Height (Meter)	1994-2017				



Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
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, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		Location	2001, 2006, 2008, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		BOD				
		COD	2001, 2006, 2008, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		Ph	2001, 2006, 2008, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		Total Coliform	2001, 2006, 2008, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		Conductivity	2001, 2006, 2008, 2010-2016	2010-2013	2001, 2006, 2008, 2010-2016	2010-2013
		Lake Name	2001		2001	
		Location	2001		2001	
		BOD	2001		2001	
		COD	2001		2001	
	Ph	2001		2001		

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
XIV. Air Pollution		Total Coliform				
		Conductivity				
	1. Industrial	SO <sub>2</sub>				
		NO <sub>x</sub>				2010-2013
		Suspended Particulate Matter (SPM)				2010-2013
		Respirable Suspended Particulate Matter (RSPM)				2013
	2. Residential	SO <sub>2</sub>				2013
		NO <sub>x</sub>				2001, 2003-2004
		Suspended Particulate Matter (SPM)				2001, 2003-2004
		Respirable Suspended Particulate Matter (RSPM)				2001, 2003-2004
	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)				

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
	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				

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Annex- II

**Other Activities**

**Training, Extension  
and Awareness  
Activities by ENVIS  
during 2016-17**

## 1. Brain Storming Session for North Eastern ENVIS Centres at Gangtok



ENVIS Sikkim at Forests, Environment & Wildlife Management Department, Government of Sikkim, Deorali Gangtok hosted the 1<sup>st</sup> Quarter Brainstorming Session for 15 Eastern and North- Easter ENVIS Centres of India on 6<sup>th</sup> May 2016 at Sidkeong Tulku Forest Conference Hall, Deorali, Gangtok.

## 2. Chief Minister’s Green School Rolling Trophy and State Green Schools Awards 2016



ENVIS Centre actively played a role of the resource agency in scrutinizing and screening the reports from about 200 schools for the State’s most prestigious award scheme, the Chief Minister’s Green School Rolling Trophy and State Green Schools Award 2016. ENVIS Centre has been playing the role of nodal agency in implementing this award scheme in the State since its inception in 2011.

The 2016 awards were presented to eight schools during the State level celebration of World Environment Day on 5<sup>th</sup> June 2016 at Government Sr. Secondary School Mangan, North Sikkim.

2016		
SN.	SCHOOLS NAME	AWARDS
1.	Sonam Choda Lepcha Memorial, Government Sec. School, Lingdong, North Sikkim	CM Rolling Trophy/ Certificate/ Cash prize- Rs. 5.00 lakhs
2.	Government Senior Secondary School, Hee Yangthang, West Sikkim	CM Rolling Trophy/ Certificate/ Cash prize- Rs. 5.00 lakhs
3.	Government Secondary School, Bongten, West Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
4.	Government Girls Sr. Sec. School, Gyalshing, West Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
5.	Government Secondary School, Aho Shanti, East Sikkim	Trophy/ Certificate/ Cash prize- Rs. 1.00 lakhs
6.	Government Junior High School, Mangzing, South Sikkim	Trophy/ Certificate/ Cash prize- Rs. 50,000/-
7.	Government Primary School, Som Busty, West Sikkim	Trophy/ Certificate/ Cash prize- Rs. 50,000/-
8.	Greenvale Academy, Machong, East Sikkim (Pvt.)	Trophy/ Certificate/ Cash prize- Rs. 50,000/-





State on 20<sup>th</sup> may 2016 at Sidkeong Tulku Forest Conference Hall, Deorali Gangtok.

### 3. Teacher's Orientation on WIPRO's Earthian Schools Programme 2016

ENVIS Centre, Forest Environment & Wildlife Management Department in collaboration with WIPRO Bengaluru conducted a one day green teacher's training programme for 80 schools of the

### 4. Swacch Bharat Pakhwada June 15-30 in line with Paryavaran Mahotsav 2016 Celebration



ENVIS Centre played active role in coordinating the 4<sup>th</sup> successive Paryavaran Mahotsav in Sikkim duly celebrating Swacch Bharat Pakhwada from June 15 to June 30, 2016 . This fortnightly event which included the 11<sup>th</sup> phase State Green Mission and 8<sup>th</sup> 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. ENVIS Center Sikkim in collaboration with Centre for Environment Education (CEE) for the general public, tourist and drivers through schools students on various days with different schools from Gangtok. 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. Eco- Clubs schools participated for green walk and street play at Mg Marg. The centre coordinated eco-competitions (debate, seminar, paintings, quiz) at various school eco- clubs and publicized the event report online and print media in the form of newsletter.

### 5. Pre-proposal NEAC Workshop with Stakeholder 2016-17



ENVIS Centre at Forest, Environment and Wildlife Management Department, Government of Sikkim organized a short orientation programme at Forest Conference Hall for the environmental NGOs to enable them to participate in the National Environment Awareness Campaign 2016-17 with the theme Swachh Bharat Mission. The programme chaired by Mr. Suraj Kumar Thatal, Additional Director of Forests was



attended by 23 NGOs across the State.

## 6. Green Teacher’s Training for 250 schools of Sikkim



ENVIS Centre at Forests, Environment & Wildlife Management Department, Government of Sikkim in collaboration with Centre for Science and Environment, New Delhi organized two- days green teacher’s training programme on 29<sup>th</sup> and 30<sup>th</sup> September, 2016 at Forest Conference Hall, Gangtok for 200

schools of the State. The training programme is an ongoing effort for strengthening the implementation of the National Green Corps (NGC) School Eco- Club programme being implemented in Sikkim since the year 2000. During the training Dr. Thomas Chandy, Principal Secretary cum PCCF released a short film “MUSKAN” themed on Swachh Bharat Abhiyan prepared by Eco- Club of Government Girls’ Sr. Secondary School, West Sikkim.

## 7. Release of ENVIS Publication 2016-17



Release of ‘PANDA’ Newsletter by Hon’ble Chief Minister of Sikkim Shri Pawan Chamling, Hon’ble Minister (Forest) Shri T.W. Lepcha and Principal Secretary cum PCCF Dr. Thomas Chandy during the World Environment Day on June 05, 2016 at Mangan, North Sikkim.



Release of ‘Paryavaran Mahotsav 2015’ pictorial activity booklet by the Hon’ble Governor, Hon’ble Chief Minister and honorary dignitaries during the Ten Minutes to Earth on the 25<sup>th</sup> of June, 2016 at Himalayan Zoological Park Bulbulay, Gangtok.



Release of ‘Natural Marvel’ by Principal Secretary cum PCCF Dr. Thomas Chandy during the Green Teacher’s Training programme on 29<sup>th</sup> of September 2016.

**ENVIS SIKKIM PUBLICATION 2016-17**

 <p>56 paged special edition Newsletter Vol 8</p>	 <p>8 paged quarterly newsletter Vol 9, Issue 1</p>	 <p>8 paged quarterly newsletter Vol 9, Issue 2</p>	 <p>8 paged quarterly newsletter Vol 9, Issue 3</p>
 <p>76 paged pictorial activity booklet on Paryavaran Mahotsav 2015</p>	 <p>120 paged on Environmental Initiatives of Sikkim State government from 1994- 2016</p>	 <p>84 paged a pictorial Booklet on the Faunal Diversity of Sikkim</p>	 <p>16 paged bilingual (English and Nepali) booklet on Environment Initiatives of Sikkim State government from 1995 to 2016</p>

**8. Participation at the National Evaluation Workshop of ENVIS Centres at Gujarat on March 17-18, 2017**

Sikkim State ENVIS Centre at Forests, Environment & Wildlife Management Department, Government of Sikkim was represented by Shri. B.B. Gurung, Additional Director of Forests cum ENVIS Sikkim Coordinator, Shri. Rajen Pradhan, Sr. Programme Officer and Shri Laxuman Darnal, Information Officer at the National Evaluation Workshop of ENVIS Centres held at Gujarat from 17-18<sup>th</sup> of March, 2017.



Sikkim ENVIS team displaying its value added products during the exhibition at Mahatma Mandir Convention & Exhibition Centre, Gandhinagar, Gujarat