



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

2019-20

Annual Progress Report



Hosted by

Forest and Environment Department
 (Formerly Forest and 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
(Economic Division)



ANNUAL PROGRESS REPORT 2019-20

(1st April 2019 – 31st March 2020)

OF

SIKKIM STATE ENVIS HUB

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



Hosted by

Forest and Environment Department
(Formerly Forest and Environment & Wildlife Management Department)

Government of Sikkim
Deorali, Gangtok – 737102

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SIKKIM ENVIS HUB
ANNUAL PROGRESS REPORT 2019-20

SN	INDEX	Page No
1.	Name of Host Organization	1-3
2.	Assigned Subject Area	
3.	Date/Moth/Year of establishment of ENVIS Centre	
4.	Name and designation of ENVIS Coordinator (2019-20)	
5.	Composition of an Advisory Committee	
6.	Current ENVIS Staff Structure	
7.	Mandate of the Host Organization and Mandate of the ENVIS centre	
8.	Databases 8.1 Catalogue of Non- numeric Databases compiled by the ENVIS Centre till date 8.2 Catalogue of Numeric and Time- series Database compiled by the Centre till date 8.3 New Databases developed during the Financial Year (2019-20) 8.3.1 Non- numeric Databases 8.3.2 Numeric and Time- series Databases 8.4 Status of data entry in ISBEID: (For State/UT ENVIS Centres)- <i>in Annexure - I</i>	4-6
9.	Information/ Knowledge Products 9.1 ENVIS Newsletters published during 2019-20 9.2 Other Publications/ information products brought out during 2019-20 9.3 Information Products published/ released so far	7-14
10.	ENVIS Website 10.1 URL 10.2 Status of restructuring of Website 10.3 Frequency of updating Website 2019-20 10.4 Subject-specific database updation (numeric/ others) 10.5 Publication uploaded/ updated on Website	15-16
11.	User Engagement and Interaction 2019-20 11.1 Total number of visits on Website 11.2 Number of unique visits on Website 11.3 Number of reports downloaded/ read by stakeholders 11.4 Query Answer Statistics	17-18
12.	Quarter-wise Output-Outcome Indicators – NITI Aayog Monitoring Dashboard	19-22
13.	Implementation of Annual Plan of Activities of the FY 2019-20	23-28
14.	New Initiatives taken during 2019-20	29-30
15.	Date of most recent physical verification by the Ministry	
16.	Status of Existing Hardware, Inventory/ Register Registers	31-34
17.	Status of Utilization of grant in 2019-20 and reasons for shortfalls, if any	
18.	Gist of Other Activities [Awareness/ Training/ Outreach Activities] 2019-20	35-43
19.	ENVIS Output-Outcome Details and its Impact over past five (5) years	44
20.	Proposed Annual Action Plan of Activities for FY 2020-21	45-46
21.	Annexure I - Status of Data Entry in ISBEID during 2019-20	47-56
22.	Annexure II – Status of Data Compiled for NES-GRIDSS during 2019-20	57-58
23.	Annexure III – Report on GSDP certificate courses conducted during 2019-20 - Value Addition and Marketing of NTFP Product (Animal Origin): Wild Beekeeping and Processing - Value Addition and Marketing of NTFP Product (Plant Origin): Bamboo Crafts - Forest fire Management - Sustain and Enhance Technical Knowledge in Solar Energy Systems	59-100



Government of India
Ministry of Environment, Forest & Climate Change
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Annual Progress Report 2019-20 on Activities of Sikkim State ENVIS Hub

1	Name of Host Organization: Forest and Environment Department <i>(Formerly Forests, Environment and Wildlife Management Department),</i> Government of Sikkim, Deorali, Gangtok - 737102												
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/ HoD etc: ENVIS Hub Coordinator: Shri. B. B. Gurung, Director (E & SC, Planning and ENVIS) Mob: 9733003990 Email: bbgurunglegai@yahoo.in Smt. Kusum Gurung, Joint Director (ENVIS) Mob: 7872891719 Email: khusdee2005@yahoo.com Head of the Organization: Shri. M.L. Srivastava, IFS Principal Secretary –cum- PCCF Tel (O): 03592-281877 Email: pccf-fewd@sikkim.gov.in												
5	Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre? Yes												
Composition of the Advisory Committee: (Select YES or NO: if YES kindly fill the right column space; if NO kindly leave it blank) <input type="radio"/> YES <input checked="" type="radio"/> NO	<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 (Plng, E&SC)-cum-Coordinator (ENVIS)</td> <td>Member Secretary</td> </tr> </table> (Office Order No. 1119/ADM/FEWMD dated 21/03/2015)	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 (Plng, E&SC)-cum-Coordinator (ENVIS)	Member Secretary
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2. CCF (T/HQ)	Member												
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4. Pr. Scientist (SPCB)	Member												
5. Director (TT), DST&CC	Member												
6. Director (Plng, E&SC)-cum-Coordinator (ENVIS)	Member Secretary												

6. Current ENVIS Staff Structure (Full Time):

SN	Name, Gender & DOB	Position Held (Full Time) and Monthly Emoluments drawn during 2019-20 (Rs.)	Date of Joining ENVIS	Education Qualification	Experience in ENVIS as on 31 st March 2020	Detailed Job description
1.	Mr. Rajen Pradhan (Male) DOB: 20-07-1982 	Sr. Programme Officer Rs. 42,446/- per month	17 th of April 2006 as Programme Officer Re-designated as Sr. Programme Officer on 20/03/2009	B. Tech (Computer Sc.)	13 years 11 months in ENVIS	Data compilation, collation, analysis and reporting; Preparation of knowledge products like quarterly newsletters, SoE Reports and other ENVIS publications; Updation of subject area database and ENVIS web portal; Facilitation and coordination of ENVIS schemes viz. GSDP, NES-GRIDSS and CESVP; Networking, liaison with line departments, subject experts, stakeholders, beneficiaries and ENVIS network for exchange of information, identifying data/ knowledge/skill gaps, awareness and training.
2.	Mr. Laxuman Darnal (Male) DOB: 25-12-1976 	Information Officer Rs. 35,452/- per month	18 th of August 2006 as Programme/ IT Assistant Re-designated as Information Officer on 20/03/2009	PG (Diploma) in Computer Sc.	13 years 7 months in ENVIS	Coordination with line departments for data and information collection from secondary sources; Archiving of data and information like gazette notifications, annual reports etc.; Collection of news articles, journals and reports for updation of database and web content; Maintaining book of records, stock registers, cash books etc and accounting in PFMS platform;

SN	Name, Gender & DOB	Position Held (Full Time) and Monthly Emoluments drawn during 2019-20 (Rs.)	Date of Joining ENVIS	Education Qualification	Experience in ENVIS as on 31 st March 2020	Detailed Job description
3.	Ms. Renu Gurung (Female) DOB: 02-10-1988 	IT Officer Rs. 28,672/- per month	16 th of September 2011 as Data Entry Operator Re-designated as IT Officer on 20/03/2009	BA Graduate with Diploma in computer application	8 years 6 months in ENVIS	Data and information compilation for abstracting and updation in ISBEID/ NES platform; Management of online query response system; Coordination with stakeholders, eco-clubs for knowledge product and information dissemination; content management of subject area database.
4.	Ms. Tulsha Gurung (Female) DOB: 09-12-1992 	Data Entry Operator Rs. 13,310/- per month	02 nd of December 2013 as Data Entry Operator	CI XII pass with Diploma in computer application,	6 years 4 months in ENVIS	Iterative data entry services like updation of bibliography, glossary, forest fire statistics, library inventory etc; Record keeping of publications and reports from secondary sources; ENVIS library management; Maintaining of log books, registers and office consumables;

7. Mandate of the Host Organization and Mandate of the ENVIS Hub

Mandate of the Host Organization	Mandate of the ENVIS Hub
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”. 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	2019	Food Security and Agriculture Development Department,	Yes
Pollution	Air, water, noise, solid waste, hazardous waste, consent forms	Descriptive	Weekly up to February 2020	SPCB	Yes
Biodiversity	Comprehensive database on floral and faunal diversity of Sikkim	Descriptive, geospatial	updated up to 2019	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 2020	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	2019	Disaster Management Department	Yes
Ecotourism	Policy, trek, permits and fees, ecological study, festivals.	Descriptive	March 2020	Forest deptt	Yes
Energy	Electricity and energy consumption	Descriptive	Annual up to 2018	Power and Energy Deptt	Yes
Environment	EIA, EMP, SoE report, carrying capacity study report, ECs, etc.	Descriptive	2019	Forest deptt	Yes
Forest Resources	Forest types, SFRs, JFMCs, EDCs	Descriptive	2019	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	2019	SAC, ISRO, Journals, Forest deptt	Yes
Wildlife	PAs, KNP/ KBR, eco-sensitive and conservation zones, Management Plans, compensation guidelines	Descriptive	2019	Forest deptt	Yes
Soils and Minerals	Geology and Mineral Resources of Sikkim, Mineral reserves in Sikkim, Soil resources	Descriptive	2019	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 February 2020	SPCB	Yes
River Water Quality	pH, BOD, T Coliform etc	Monthly (2011, to 2019)	SPCB	No
Biodiversity	Statistics on species availability	Annual up to 2019	Forest deptt	Yes
Climate	Temperature, rainfall etc	Monthly, Annual 1996-2019	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 – 2019	Forest deptt	Yes
Electricity Consumption	Category wise consumption	Annual, 2008-09 to 2017-18	Power & energy deptt	Yes
Energy Consumption	Per capita consumption, Power from National grid, hydel power generation	Annual 2002-03 to 2017-18	Power & energy deptt	Yes
Forest Statistics	Forest cover statistics of Sikkim	1987 to 2019	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, 2018	Mines, Mineral and Geology Deptt	Yes
Protected Areas of Sikkim	Profile of Wildlife sanctuaries and National Park	2020	Forest deptt	Yes
Disaster	History of Earthquakes, landslides, forest fires	2019	Disaster Mgmt Deptt. Newspapers	Yes
Ecotourism	Policy, trek, permits and fees, ecological study	2020	Forest deptt	Yes
Energy	Electricity and energy consumption	Annual up to 2018	Power and Energy Deptt	Yes

8.3. New Databases developed during the Financial Year (2019-20)

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)
Environment	EIAs/EMPs of developmental projects in Sikkim	Descriptive	2020	SPCB	Yes
Wildlife	First ever sighting of Royal Bengal Tiger in Sikkim, Wildlife Population Estimation Study Phase II	Descriptive	2019	Wildlife Division	Yes
Biodiversity	Challenges of Biodiversity Conservation through Human Wildlife Conflict Management	Descriptive	2019	National Workshop proceeding	Yes
	Floral and Faunal diversity of Sikkim (Updates)	Descriptive	2019	Govt publication	Yes
	Findings of new species and records/ Journals on Sikkim Himalaya	Descriptive	2019	Scientific Journals	Yes
Pollution	New consent forms for renewal (Bio-Medical Waste Management, etc)	Descriptive	2019	SPCB	Yes
	AQI of 8 major town location	Descriptive	2019, 2020 till Feb	SPCB	Yes
	Water Quality of Rivers (14 new stations)	Descriptive	2019	SPCB	Yes
	Deepawali Noise Pollution Monitoring	Descriptive	2019	SPCB	Yes
Forest Resources	State Forest Statistics 2019, State Gazettes	Descriptive	2019	ISFR and Govt Gazette	Yes

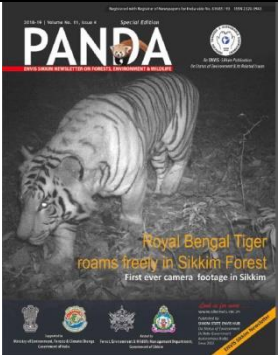
8.3.2. Numeric and Time-series Databases:

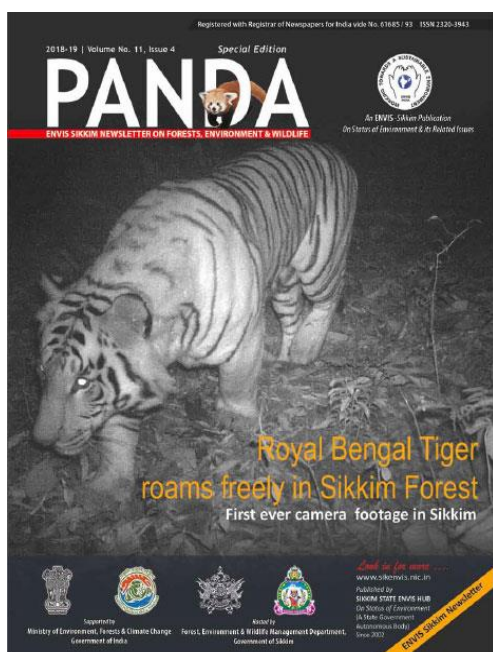
Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Pollution	AQI of 8 major towns	Weekly till Feb 2020	SPCB	Yes
	Water Quality of Rivers (14 locations)	Monthly, 2019 (till June)	SPCB	Yes
	Noise Pollution	2014 to 2018	SPCB	Yes
Agriculture	Area, Production and Productivity of Major Crops	2017-18	Agriculture Deptt	Yes
Climate data	Daily weather report and four days forecast of Gangtok town	Daily basis	IMD	Yes
Rainfall	District wise rainfall data	2018	IMD	Yes
Wildlife	Wildlife Population Estimation Study in Sikkim Phase II	2019	Wildlife Division	No
NES	National Environment Survey- Secondary data on 24 modules	2000-2018	Govt Publications	No

8.4. Status of data entry in ISBEID: (For State ENVIS Hubs) – At ANNEXURE -I

9. Information/ Knowledge Products:

9.1. ENVIS Newsletters published during the Financial Year (2019-20):

Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	2019 Special Newsletter edition title PANDA Vol. 11 88 paged special edition ENVIS newsletter on scientific research articles on flora and fauna of Sikkim Himalaya, first ever sighting of Royal Bengal Tiger in Sikkim, exclusive write-ups on Lhonak valley, Lashar valley, Domung gora complex, Green lake and Muguthang expeditions carried out by foresters and scientist for rapid assessment of biodiversity.	2000 nos (88 Pages) <i>Supported by host organization</i>	http://sikennis.nic.in/WriteReadData/Publication/PANDA%20Vol%2011%202019%20(2018-19).pdf



ENVIS Publication 'PANDA' Vol 11 2019 edition being released by the Honorable Chief Minister of Sikkim Shri Prem Singh Tamang on the occasion of 73rd Independence Day Celebration on August 15, 2019 at Palzor Stadium, Gangtok


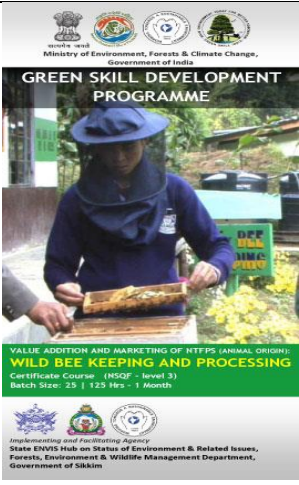
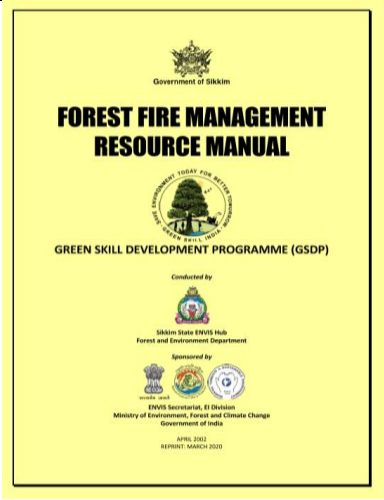
Sikkim, a tiny Himalayan State in the North Eastern part of India has always been an explorer's paradise. The State flaunts with rich inheritance of diverse floral and faunal species fascinating researchers across the globe. The research expeditions here in Sikkim are nonpareil and conducive to new findings and discoveries, an indication of a healthy forest eco-system flourishing in our State.

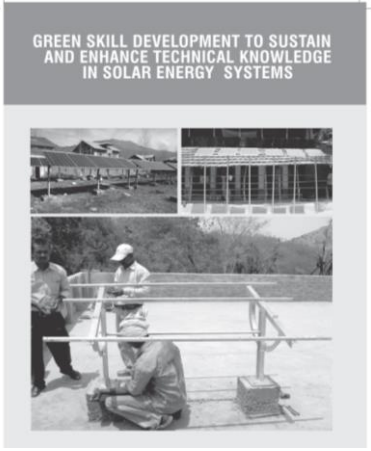
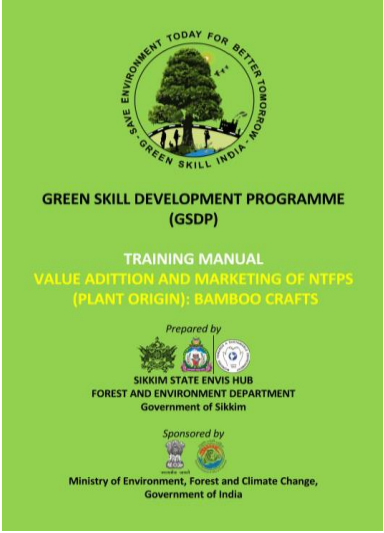
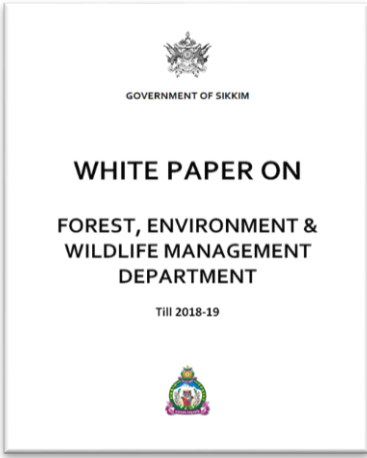
The first ever sighting of Royal Bengal Tiger through camera trap installations at Sikkim forests during December 2018 is a major breakthrough amidst stories murmuring of its presence for centuries. The venture to estimate the wildlife population in the State has bred fruitful results. The wary and majestic predator of the high mountains, the Snow Leopard has been found in packs. Red Panda, the State animal has been estimated to be around 380. The wildlife Protected Areas in the State have good habitats for flourishing the native and endangered species.

This edition of PANDA news magazine provides insights to such research and scholarly adventures of the mountain eco-system. The State has diverse cultural communities living in harmony with nature which is the basis for holistic and sustainable development amidst global threat of climate change and hardships of mountain life. The people of this peaceful Mountain State are endowed with immense responsibility to sustain the eco-friendly practices for safeguarding future generations. This edition intends to reflect and learn more of our own natural environment for wider and deeper understanding.

Cover snapshot	Quarter/ Volume/ Issue/ Theme Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<p>1st Qtr (Apr-Jun) Vol. 12, Issue 1</p> <p>Opportunities for Reaping the Benefits of REDD plus in Sikkim Himalaya for Conservation and Enhancement of Carbon Stock, Beat Air Pollution, World Environment Day, Chief Ministers Green School Rolling Trophy, Ambient Air Quality of Sikkim, Green Schools Audit, Plastic Freedom Challenge, Single use plastics, Green Good Deeds, Swachhata Pakwada,</p>	<p>500 nos. (12 Pages)</p>	<p>http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202019-20%20Vol%2012%20Issue%201%20(Apr-June).pdf</p>
	<p>2nd Qtr (Jul-Sep) Vol. 12, Issue 2</p> <p>A New Green Initiative - A day for Mother Earth, Floral traits determine pollinator visitation in Rhododendron species across an elevation gradient in the Sikkim Himalaya, Most Exclusive Leisure Product Award (Ecotourism) to Sikkim, Wards Trogon <i>Harpactes wardi</i> in Taal-Kharka East Sikkim, WIPRO Earthian schools programme, 32 years and healing, world ozone day, Swachhata abhiyan, Jal Shakti Abhiyan</p>	<p>500 nos. (12 Pages)</p>	<p>http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202019-20%20Vol%2012%20Issue%202%20(Jul-Sep).pdf</p>
	<p>3rd Qtr (Oct- Dec) Vol.12, Issue 3</p> <p>Challenges for biodiversity conservation, human wildlife conflict, student solar ambassador workshop, Karyanjali - Gandhi Global Solar Yatra, Wildlife conservation and emerging conflicts in Sikkim, Green Skill Development Programmes in Sikkim State, Forest and Tree Cover statistics of Sikkim (Excerpt of State of Forest Report 2019)</p>	<p>500 nos. (12 Pages)</p>	<p>http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202019-20%20Vol%2012%20Issue%203%20(Oct-Dec).pdf</p>

9.2. Other publications/ information products brought out during the Financial Year (2019-20):

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	Brochure: Ten Point Agenda to Implement Green Good Deeds (Reprint)	1000 copies (4 fold brochure)	http://sikenvis.nic.in/WriteReadData/Us erFiles/file/Sikkim%20SNA%20GGD%20Brochure.pdf
	GSDP Brochure: Value Addition and Marketing of NTFP Products (Animal Origin) – Wild Beekeeping and Processing	50 copies (3 fold brochure)	Not published online. Print copies used as reference material for GSDP candidates and trainers/ subject experts.
	GSDP Training Manual: Forest Fire Management Resource Manual	30 copies (148 pages)	Not published online. Print copies used as reference material for GSDP candidates and trainers/ subject experts.

Cover snapshot	Publication/ Product Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF file in ENVIS website
	<p>GSDP Training Manual: Sustain and Enhance Technical Knowledge in Solar Energy System</p>	<p>30 copies (225 pages)</p>	<p>Not published online. Print copies used as reference material for GSDP candidates and trainers/ subject experts.</p>
	<p>GSDP Training Manual: Value Addition and Marketing of NTFP Products (Plant Origin) – Bamboo Crafts</p>	<p>30 copies (22 pages)</p>	<p>Not published online. Print copies used as reference material for GSDP candidates and trainers/ subject experts.</p>
	<p>White Paper of Forest, Environment & Wildlife Management Department 2018-19 (updated edition)</p> <p>Sikkim ENVIS Hub was assigned the task to compile the white paper of the host department for 2018-19. Similar assignment was accomplished by Sikkim ENVIS Hub for 1994-95 to 2017-18</p>	<p>100 copies (489 pages)</p>	<p>RESTRICTED PUBLICATION</p> <p>Not published online.</p> <p>Print copies were submitted to Sikkim State Legislative Assembly and Chief Minister's Office and the office of the Chief Secretary</p>

9.3 Information Products published/ released during last five years (2014-15 to 2018-19) excluding 2019-20:

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
1.	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
2.		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
3.		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	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202014-15%20Vol%207%20Issue%203.pdf
4.		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
5.		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
6.		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)
7.		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
8.		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
9.		Eco-Club Handbook	Guidelines for Eco-Club and Green Schools State Awards	http://sikenvis.nic.in/WriteReadData/Publication/NGC%20ECO%20CLUB%20HANDBOOK.pdf
10.		National Green Corps - Sikkim Report	National Green Corps - Sikkim Activity Report	http://sikenvis.nic.in/WriteReadData/Publication/NGC-Sikkim-Report-2015-web.pdf
11.		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
12.	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
13.		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	http://sikenvis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%202%20(Jul-Sep).pdf

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
			and Essay competition, ozone day, green consumer day	
14.		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://sikervis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202015-16%20Vol%208%20Issue%203%20(Oct-Dec).pdf
15.		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	http://sikervis.nic.in/WriteReadData/Publication/Panda%20Vol%208%20Final%202016.pdf
16.		Paryavarán Mahotsav 2014	Pictorial book report on fortnightly environment festival of Sikkim June 15-30, 2014	http://sikervis.nic.in/WriteReadData/Publication/Sikkim%20Paryavarán%20Mahotsav%202014%20-%20web.pdf
17.		Handbook on Nature based Festivals of Sikkim	Nature based Festivals of Sikkim	http://sikervis.nic.in/WriteReadData/Publication/Hand%20Book%20of%20Nature%20Based%20Festival%20of%20Sikkim%2005-06-15%20web.pdf
18.		Rapid Biodiversity Survey Report -II	Rapid Biodiversity Survey Report of Sikkim- Second Phase	http://sikervis.nic.in/WriteReadData/Publication/Rapid%20Biodiversity%20Survey%20Report%20-%20II.pdf
19.		Heritage Trees of Sikkim	Photo album of notified Heritage trees of Sikkim	http://sikervis.nic.in/WriteReadData/Publication/SIKKIM%20STATE%20HERITAGE%20TREES.pdf
20.	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://sikervis.nic.in/WriteReadData/Publication/Sikkim%20ENVIS%20-%20PANDA%20News%20Magazine%20Vol%209.pdf
21.		Quarterly Newsletter Vol 9 Issue 1 (Apr-Jun)	Paryavarán 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://sikervis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%201%20(Apr-Jun).pdf
22.		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://sikervis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%202%20(Jul-Sep).pdf
23.		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://sikervis.nic.in/WriteReadData/Publication/ENVIS%20Newsletter%202016-17%20Vol%209%20Issue%203%20(Oct-Dec).pdf

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
24.		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
25.		Nature's Marvel	A Pictorial Pocket Sized Booklet on the Faunal Diversity of Sikkim	http://sikenvis.nic.in/WriteReadData/Publication/Natures-Marvel.pdf
26.		Paryavaran Mahotsav 2015	Activity Book on 'Paryavaran Mahotsav 2015'	http://sikenvis.nic.in/WriteReadData/Publication/Final%20Paryavaran%20Mahotsav%202015.pdf
27.	2017-18	Newsletter PANDA Vol 10 <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.	http://sikenvis.nic.in/WriteReadData/Publication/PANDA%20Vol%2010%202017-18.pdf
28.		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
29.		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
30.		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
31.		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 <i>English</i> http://sikenvis.nic.in/WriteReadData/UserFiles/file/Sikkim%20Environment%20Initiatives%20Nepali.pdf <i>Nepali</i>
32.		Paryavaran Mahotsav 2016	Activity Book on 'Paryavaran Mahotsav 2016'	http://sikenvis.nic.in/WriteReadData/Publication/Paryavaran%20Mahotsav

SN	Year	Publication Title	Theme(s)/ Subject Area(s)	URL of the PDF file in ENVIS website
				%202016.pdf
33.		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)
34.	2018-19	Newsletter PANDA Vol 11 <i>Special edition</i>	2019 Special Newsletter edition title PANDA Vol. 11 88 paged special edition ENVIS newsletter on scientific research articles on flora and fauna of Sikkim Himalaya, first ever sighting of Royal Bengal Tiger in Sikkim, exclusive write-ups on Lhonak valley, Lashar valley, Domung gora complex, Green lake and Muguthang expeditions carried out by foresters and scientist for rapid assessment of biodiversity.	http://sikenvi.sic.in/WriteReadData/Publication/PANDA%20Vol%2011%202019%20(2018-19).pdf
35.		Quarterly Newsletter Vol 11 Issue 1 (Apr-Jun)	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,	http://sikenvi.sic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%201%20(Apr-June).pdf
36.		Quarterly Newsletter Vol 11 Issue 2 (Jul-Sep)	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	http://sikenvi.sic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%202%20(Jul-Sep).pdf
37.		Quarterly Newsletter Vol 11 Issue 3 (Oct-Dec)	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 (Gentianaceae) in Sikkim.	http://sikenvi.sic.in/WriteReadData/Publication/ENVIS%20Newsletter%202018-19%20Vol%2011%20Issue%203%20(Oct-Dec).pdf

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 2019-20 (as on 31-Mar-2020)
 The monthly average frequency of updation for 2019-20 is over **187 updates per month**. Total **2246 updates** have been made during 2019-20 as on 31st of March, 2020. The number of web updates has increased by 32% as compared to previous year.

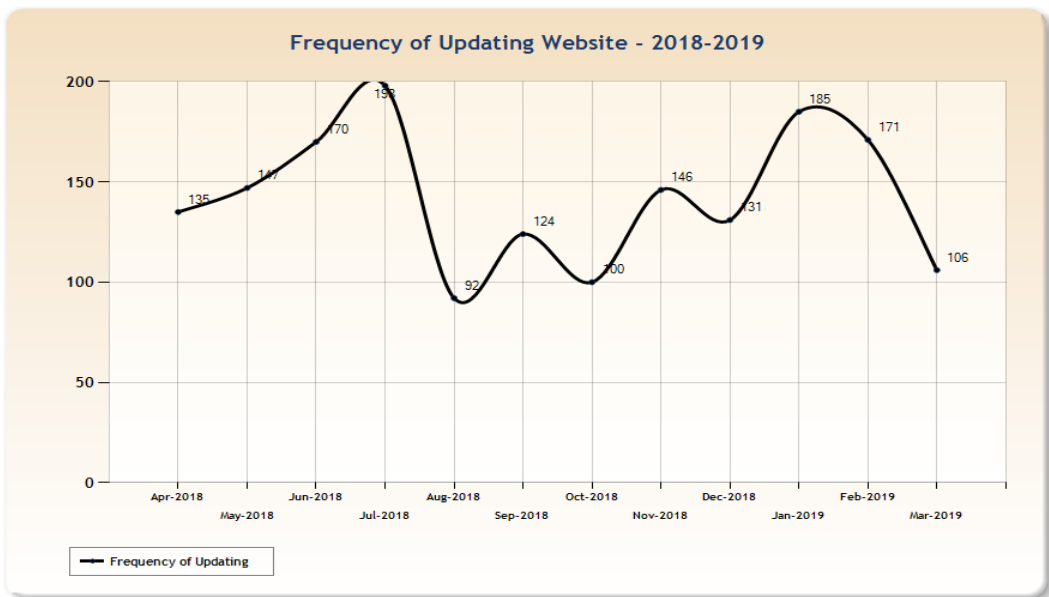


Chart showing frequency of updates quarter-wise during 2019-20

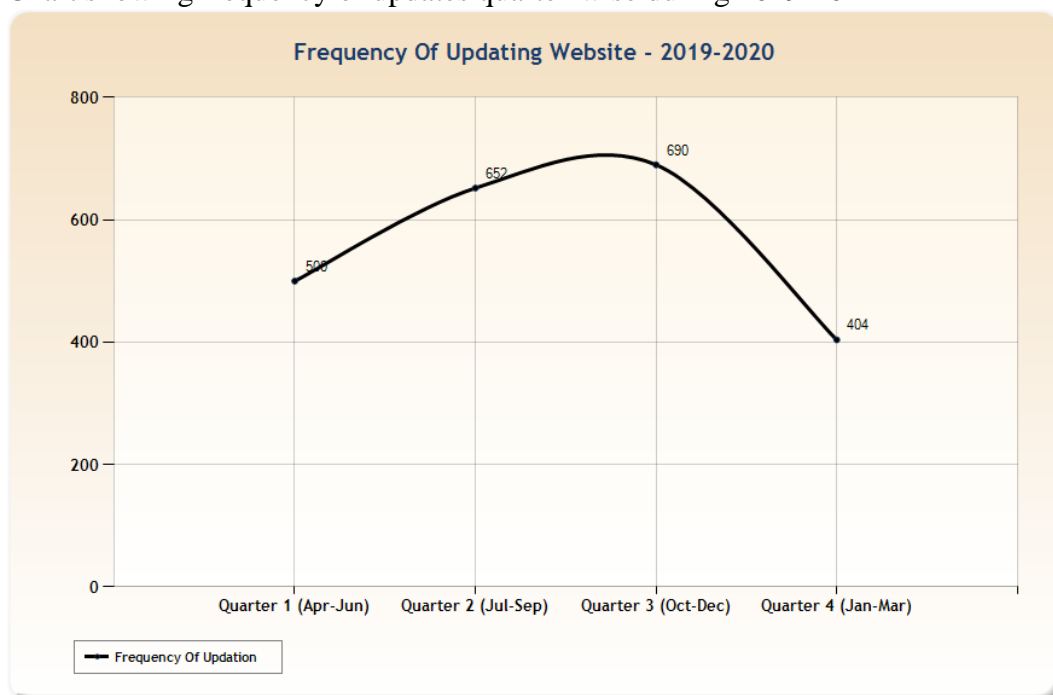


Table showing number of web updates module-wise and quarter-wise during 2019-20

Quarters	Publications	Subject Area	Bibliography	Major Activity	Upcoming Events	Latest News	Photo Gallery	Frequency of Updating
Quarter 1 (Apr-Jun)	4	54	405	0	5	17	12	500
Quarter 2 (Jul-Sep)	7	86	503	2	18	20	15	652
Quarter 3 (Oct-Dec)	7	91	560	1	10	21	0	690
Quarter 4 (Jan-Mar)	4	30	343	1	3	23	0	404
Total	22	261	1811	4	36	81	27	2246

10.4. Subject-specific database updation (numeric/ others): 261 updates have been made during 2019-20 as on 31-Mar-2020 alone in the subject-specific database.

10.5. Publication uploaded/ updated on Website: 22 updates (*including journals, pamphlets, newsletters and book publication*)

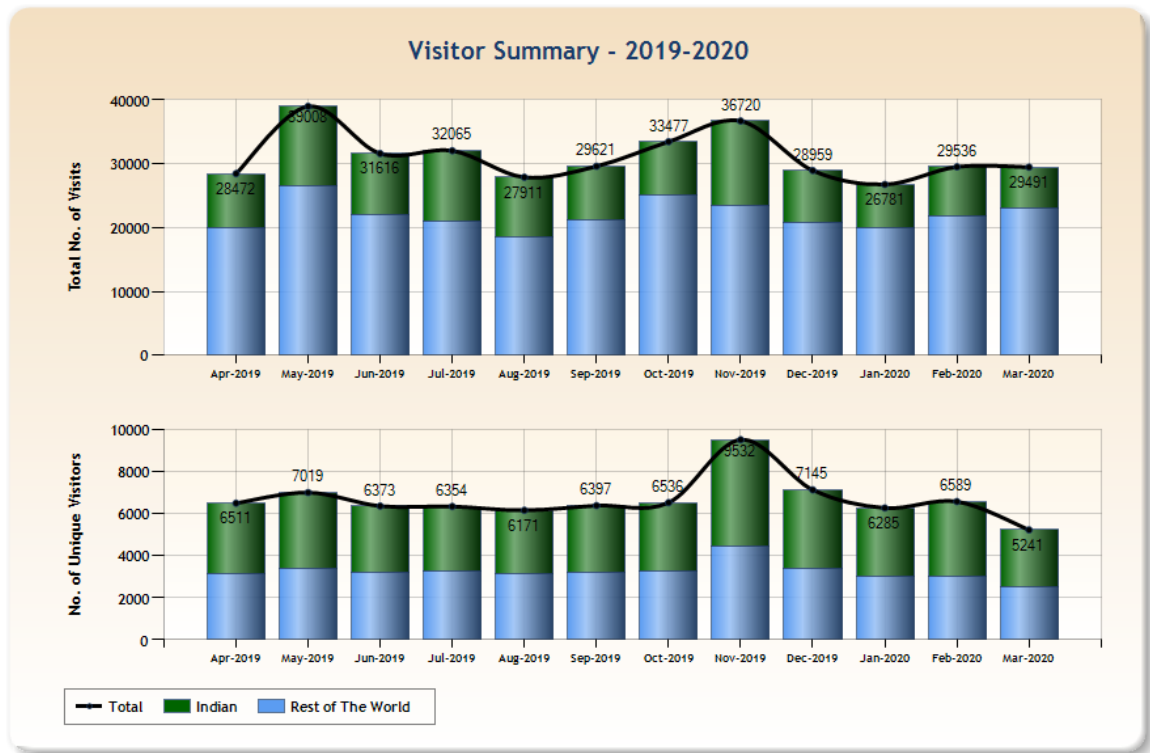
11. User Engagement and Interaction (last three years)

<i>User engagement and interaction</i>		<i>FY 2019-20</i>	<i>FY 2018-19</i>	<i>FY 2017-18</i>
i.	Total number of visits	3,73,476	3,82,427	5,34,217
ii.	Number of unique visits	61,810	56,900	52,471
iii.	Reports Downloaded/Read	1,514	683	1,011
iv.	Total Number of Queries received*	3632	2919	1898
v.	Number of Queries responded*	3634	2918	1898

* including offline queries. Detail figures for 2019-20 is made available in section 11.4

11.1 Total number of visits on Website (2019-20): 3,73,476 (As on 31-Mar-2020)

11.2 Number of unique visits on Website (2019-20): 61,810 (As on 31-Mar-2020)



Months	Visits			Unique Visitors		
	Indian	Rest of the world	Total	Indian	Rest of the world	Total
Apr-2019	8461	20019	28472	3341	3170	6511
May-2019	12445	26575	39008	3591	3428	7019
Jun-2019	9670	21949	31616	3178	3195	6373
Jul-2019	11057	21012	32065	3083	3271	6354
Aug-2019	9405	18516	27911	3031	3140	6171
Sep-2019	8439	21189	29621	3198	3199	6397
Oct-2019	8469	25015	33477	3257	3279	6536
Nov-2019	13338	23387	36720	5055	4477	9532
Dec-2019	8173	20787	28959	3758	3387	7145
Jan-2020	6711	20074	26781	3246	3039	6285
Feb-2020	7816	21725	29536	3536	3053	6589
Mar-2020	6366	23129	29491	2745	2496	5241
01 Apr 2019 – 31 Mar 2020	110237	263311	373476	35531	26279	61810

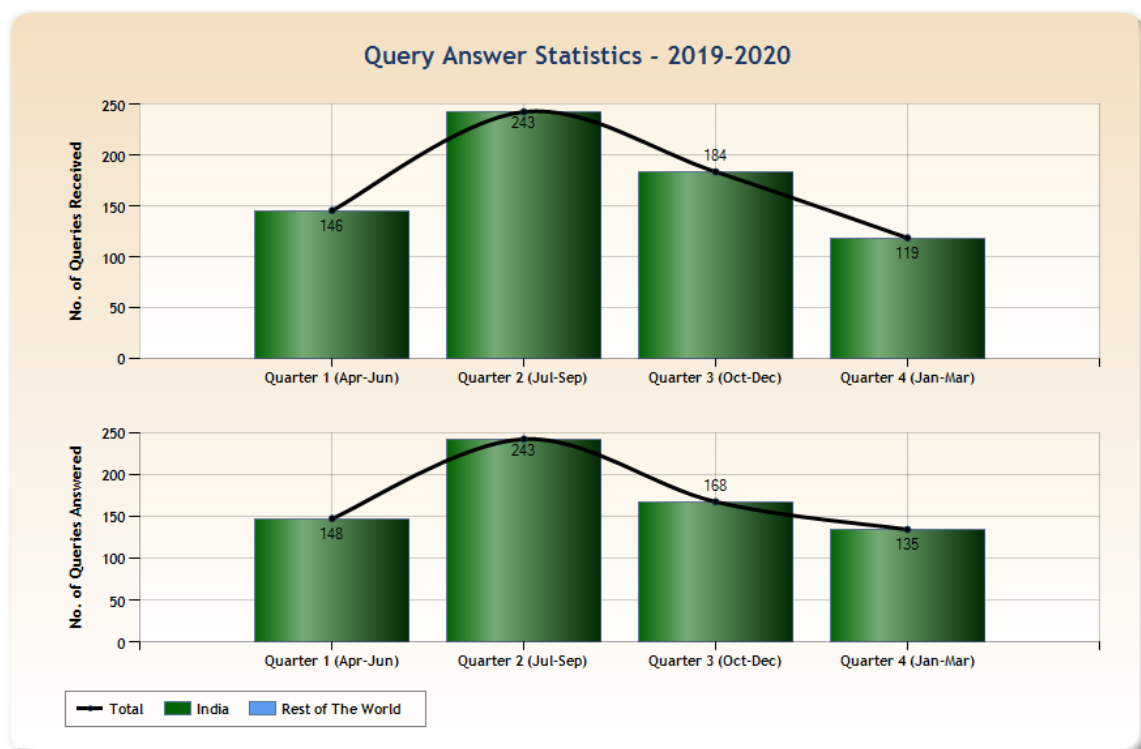
11.3 Number of reports downloaded/ read by stakeholders:

Total 1514 downloads (*through user login section only*) have been observed during 2019-20 as in which over 58% of the downloadable items have been accessed from the subject area module and over 41% 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 been uploaded with direct download option for enhancing the user accessibility.

Year	Publications	Subject Area	Others	Report Read/Downloaded
01 Apr 2019 - 31 Mar 2020	630	880	4	1514

11.4 Query-Answer Statistics 2019-20:

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)	692	694	2 backlog queries of previous FY have been responded during FY 2019-20
Email (official NIC server)	1800+	1800+	-
Postal/Telephonic (incl. hand post)	350	350	-
Physical (In person visits)	790	790	-
Total	3632+	3634+	



(Online query response graphical statistics 2019-20 – Quarter-wise)

12. Quarter-wise Output-Outcome Indicator Report submitted for NITI Aayog Monitoring Dashboard

ENVIS HUB SIKKIM STATE 2019-20: 1st QTR Report (April-June)

Total Outlay : Rs. 20,53,854.00

Expenditure : Rs. 3,59,640.00

Q1

Q2

Q3

Q4

Sr. No.	Indicator Name	Target	Achieved YTD:
1	Number of information/ knowledge products developed.	1	1
2	Number of thematic maps developed.	1	1
3	Number of Mobile Apps developed.	0	0
4	Number of ENVIS Hubs/Resource Partners (RPs) established.	NA	NA
5	Time series descriptive /numerical environmental information database for district/state/ country developed along with the analysis for policy implications.	200	288
6	Number of youth skilled under various green skilling programmes.	25	0
7	Number of districts surveyed.	2	2
8	Number of Aadarsh Grams covered for providing technical expertise for implementing the environmental development activities.	4	4 (Districts)
9	Number of SoER and SoE Atlases published.	0	0
10	Increase in number of downloads of mobile apps from the websites of individual ENVIS Centres, over previous year, by all stakeholders - students, researchers, policy makers, general public etc	0	0
11	Number of Hubs and Resource Partners set up vis-a-vis the targets, over and above the existing number.	NA	NA
12	Increase in number of analytical reports generated from the MIS database by ENVIS Hubs over previous year.	NA	NA
13	Number of skilled youth employed after completing the certificate programmes	0	0
14	Number of layers mapped of various environmental parameters in the selected districts.	10	12
15	Bringing out district SoERs based on information/data gathered on modules/ sub-modules not available earlier.	0	0
16	Number of households reached through awareness generation for adopting environmentally sustainable practices	200	200+
17	Number of States for which SoER would be available.	1	1 (Sikkim)
18	Increase in number of downloads of environmental information products, kits and maps.	116	335

ENVIS HUB SIKKIM STATE 2019-20: 2nd QTR Report (July-September)

Total Outlay : Rs. 20,53,854.00

Expenditure : Rs. 7,19,280.00

Q1 Q2 Q3 Q4

Sr. No.	Indicator Name	Target	Achieved YTD:
1	Number of information/ knowledge products developed.	1	1
2	Number of thematic maps developed.	2	2
3	Number of Mobile Apps developed.	0	0
4	Number of ENVIS Hubs/Resource Partners (RPs) established.	0	0
5	Time series descriptive /numerical environmental information database for district/state/ country developed along with the analysis for policy implications.	200	151
6	Number of youth skilled under various green skilling programmes.	25	0
7	Number of districts surveyed.	2	2
8	Number of Aadarsh Grams covered for providing technical expertise for implementing the environmental development activities.	4	4 (Districts)
9	Number of SoER and SoE Atlases published.	0	0
10	Increase in number of downloads of mobile apps from the websites of individual ENVIS Centres, over previous year, by all stakeholders - students, researchers, policy makers, general public etc	0	0
11	Number of Hubs and Resource Partners set up vis-a-vis the targets, over and above the existing number.	0	0
12	Increase in number of analytical reports generated from the MIS database by ENVIS Hubs over previous year.	0	1
13	Number of skilled youth employed after completing the certificate programmes	0	0
14	Number of layers mapped of various environmental parameters in the selected districts.	10	15
15	Bringing out district SoERs based on information/data gathered on modules/ sub-modules not available earlier.	0	0
16	Number of households reached through awareness generation for adopting environmentally sustainable practices	200	300
17	Number of States for which SoER would be available.	1	1 (Sikkim)
18	Increase in number of downloads of environmental information products, kits and maps.	146	421

ENVIS HUB SIKKIM STATE 2019-20: 3rd QTR Report (October-December)

Total Outlay : Rs. 20,53,854.00

Expenditure : Rs. 14,34,202.00

Q1 Rs. 3,59,640

Q2 Rs. 3,59,640

Q3 Rs. 7,14,922

Q4 0

Sr. No.	Indicator Name	Target	Achieved YTD:
1	Number of information/ knowledge products developed.	1	1
2	Number of thematic maps developed.	2	2
3	Number of Mobile Apps developed.	0	0
4	Number of ENVIS Hubs/Resource Partners (RPs) established.	0	0
5	Time series descriptive /numerical environmental information database for district/state/ country developed along with the analysis for policy implications.	50	53
6	Number of youth skilled under various green skilling programmes.	25	25
7	Number of districts surveyed.	2	2
8	Number of Aadarsh Grams covered for providing technical expertise for implementing the environmental development activities.	4	4 (Districts)
9	Number of SoER and SoE Atlases published.	0	0
10	Increase in number of downloads of mobile apps from the websites of individual ENVIS Centres, over previous year, by all stakeholders - students, researchers, policy makers, general public etc	0	0
11	Number of Hubs and Resource Partners set up vis-a-vis the targets, over and above the existing number.	0	0
12	Increase in number of analytical reports generated from the MIS database by ENVIS Hubs over previous year.	0	1
13	Number of skilled youth employed after completing the certificate programmes	25	25
14	Number of layers mapped of various environmental parameters in the selected districts.	15	15
15	Bringing out district SoERs based on information/data gathered on modules/ sub-modules not available earlier.	0	0
16	Number of households reached through awareness generation for adopting environmentally sustainable practices	300	300
17	Number of States for which SoER would be available.	1	1 (Sikkim)
18	Increase in number of downloads of environmental information products, kits and maps.	300	472

ENVIS HUB SIKKIM STATE 2019-20: 4th QTR Report (January-March)

Total Outlay : Rs. 20,53,854.00

Total Expenditure : Rs. 19,65,218.00

Q1 Rs. 3,59,640

Q2 Rs. 3,59,640

Q3 Rs. 7,14,922

Q4 Rs. 5,31,016

Sr. No.	Indicator Name	Target	Achieved YTD:
1	Number of information/ knowledge products developed.	1	1
2	Number of thematic maps developed.	3	3
3	Number of Mobile Apps developed.	0	0
4	Number of ENVIS Hubs/Resource Partners (RPs) established.	0	0
5	Time series descriptive /numerical environmental information database for district/state/ country developed along with the analysis for policy implications.	50	55
6	Number of youth skilled under various green skilling programmes.	60	65
7	Number of districts surveyed.	2	2
8	Number of Aadarsh Grams covered for providing technical expertise for implementing the environmental development activities.	4	4 (Districts)
9	Number of SoER and SoE Atlases published.	0	0
10	Increase in number of downloads of mobile apps from the websites of individual ENVIS Centres, over previous year, by all stakeholders - students, researchers, policy makers, general public etc	0	0
11	Number of Hubs and Resource Partners set up vis-a-vis the targets, over and above the existing number.	0	0
12	Increase in number of analytical reports generated from the MIS database by ENVIS Hubs over previous year.	0	1
13	Number of skilled youth employed after completing the certificate programmes	65	55
14	Number of layers mapped of various environmental parameters in the selected districts.	10	10
15	Bringing out district SoERs based on information/data gathered on modules/ sub-modules not available earlier.	0	0
16	Number of households reached through awareness generation for adopting environmentally sustainable practices	240	240
17	Number of States for which SoER would be available.	1	1 (Sikkim)
18	Increase in number of downloads of environmental information products, kits and maps.	300	284

13. Implementation of Annual Plan of Activities of the Financial Year (2019-20):

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
A. ENVIS activities as per new mandate:		
i. Green Skill Development Programme (GSDP): To promote, implement, coordinate and facilitate GSDP certificate courses in Sikkim State.	Successfully conducted four (4) GSDP certificate courses with NSQF level 5 during 2019-20: <ol style="list-style-type: none"> 1. Wild Beekeeping and Processing – 200Hrs, 25 candidates 2. Bamboo Crafts – 400 Hrs, 20 candidates 3. Forest Fire Management – 300 Hrs, 20 candidates 4. Sustain and Enhance Technical Knowledge in Solar Energy System – 240 Hrs, 25 candidates Detailed Report on GSDP Activities is at Annexure - III	--
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.	Two Districts namely East Sikkim and North Sikkim has been selected. Secondary data on 24 modules of the NES-GRIDSS have been collected and compiled. 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. Detailed Report on NES Module is at Annexure - II.	--
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.	Sikkim ENVIS Hub has mobilized the external aided funding (besides ENVIS grant) received from other State/ Central/ CSR schemes for generating environmental awareness with action based activities at the mass through engagement of schools students, local stakeholders and general public at urban and rural areas of the State. Activities such as clean air campaign, awareness on SWM, ODF, hygiene and sanitation, plantation and cleanliness drive, adoption of natural areas, swachhta pakwadas, awareness, training and extension at 20 major towns and villages were conducted with convergence of other schemes/ programmes such as Swachhta Action Plan, State Green School Programme, Capacity Building Awareness Programme, National Green Corps Eco-Club Programme 2018-19, World Environment Day celebration, A Day for Mother Earth and so on. and successfully implemented various activities. Detailed report on gist of activities on awareness, education, training and outreach activities is given at Section 18.	--

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
B. Ongoing/ Regular ENVIS Activities:		
<p>i. ISBEID data collection and data entry for 2019 year onwards as ongoing activity in all 17 modules. Enriching the Subject-wise database.</p>	<p>Total 641 new updates have been made in ISBEID during 2019-20. Detailed Report on ISBEID is at Annexure - I</p> <p>Total 2246 updates have been made in the CMS based ENVIS portal www.sikenvi.sic.in which includes 261 new updates in the subject area module during 2019-20.</p>	--
<p>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 of the State.</p>	<p>Sikkim ENVIS Hub published all proposed and mandated issues of quarterly newsletter (Vol 12) and special edition newsletter titled 'PANDA' (Vol 11) containing 88 pages.</p> <p>ENVIS Hub prepared a short documentary film titled 'Mith' in Nepali vernacular language to spread awareness on conservation and protection of trees by forging <i>Mithini/ Mith</i> (friendship) with trees, an age-old traditional practice of the State.</p> <p>ENVIS Hub also reprinted and disseminated Green Good Deed (GGD) brochure highlighting the ten point agenda for implementation of GGD as conceptualized by the Ministry of Environment, Forest and Climate Change, Government of India.</p>	--
<p>iii. Preparation of 'Brief Document' on Wetlands of Sikkim in conformity with the Wetlands (Conservation and Management) Rules, 2017.</p>	<p>State ENVIS Hub facilitated the host organization in report preparation with assistance from expert agencies. The final draft report has been submitted to the concerned authority for examination. This project was taken up in compliance to the directives of Hon'ble NGT to have conformity with Wetlands (Conservation and Management) Rules, 2017.</p>	
<p>iv. Ecological Hotspot study of Gangtok, Sikkim as a Sustainable Tourist Destination with relevance to environment impact assessment on the fragile ecosystem and recommendations.</p>	<p>The Project has been deferred. The proposal was not submitted to MoEF&CC.</p>	<p>As the ENVIS Hub was busy in conducting GSDP in four certificate courses, the project proposal was deferred.</p>
<p>v. Extension & Outreach programmes on environmental information sharing, awareness, education and training of youths/ students/ stakeholders/ local people at the ground level (district/ village level).</p>	<p>Sikkim ENVIS Hub conducted several outreach activities during environment calendar day events, Swachhta Hi Seva, Swachhta Pakwada in June, September, and December; Coordinated and conducted social awareness drive on the occasion of A Day of Mother Earth programme, a new eco-friendly initiative of the State Government; Conducted capacity building activities for 240 teachers and students;</p> <p>Detailed report on gist of activities on awareness, education, training and outreach activities is given at Section 18.</p>	--

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
<p>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.</p>	<p>Coordinated with 856 Eco-club network of schools and colleges in the State; Conducted teacher's training programme for 200 schools on Green Schools Environment Auditing in partnership with CSE, New Delhi; Organized students and teachers' orientation for 200 schools on sustainability of water, biodiversity and waste at schools and community in partnership with WIPRO, Bengaluru. Conducted Students Solar Ambassador Workshop in partnership with IIT Bombay for 100 students across the State and so on.</p> <p>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.</p> <p>Detailed report on gist of activities on awareness, education, training and outreach activities is given at Section 18.</p>	--
<p>vii. Support the host department in environment awareness programmes in the State with resource materials like pamphlets, brochures, handbooks, posters, banners, flyers, signages etc.</p>	<p>Sikkim ENVIS Hub has provided knowledge products during each extension and outreach programme as detailed in SI No v and vi above.</p>	--
OTHER REGULAR ACTIVITIES IN ACCORDANCE TO ENVIS ONGOING MANDATE : 2019-20		
A. Regular Activities: Web-based Environmental Information		
Collection and Compilation of Information and Data		
<p>i. 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.</p>	<p>261 number of updates done in the subject area module of the website during 2019-20 as on 31-Mar-2020. The information content of the subject area is quoted with authentic sources.</p>	
<p>ii. 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.</p>	<p>1811 bibliography, 22 journals, abstracts and other publications uploaded in the website.</p>	
<p>iii. Identification of data gaps and formulation with implementation of action plan to fill them.</p>	<p>641 new data updates on ISBEID made.</p>	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Maintenance of ENVIS Website and User Engagement		
iv. 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 187+ updates per month. The website has now been migrated to NIC cloud server.	-
v. Query-Response/ Referral service to stakeholders.	3634 online, postal, email and in-person queries have been handled by the ENVIS Hub during 2019-20.	-
vi. 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.	-
vii. 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		
viii. Development of time series ISBEID databases on 17 parameters (except the ones that are irrelevant to the State Centre	Time series data are regularly fed in the ISBEID system. Total 641 number of updates were made during 2019-20 alone. Till date more than 8000 updates have been made in the ISBEID module since inception	
ix. 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.	
x. 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 on regular basis..	
xi. Referencing and indexing of sources data in ISBEID.	Sources of data in ISBEID are mentioned appropriately.	-
xii. 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 www.sikenvis.nic.in	-
xiii. Publishing State of Environment (SoE) Reports for metro cities and hotspots.	Proposal for Ecological Hotspot Study of Gangtok City is in consideration and will be duly submitted to the ministry.	-

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
Publications and Value-Addition		
xiv. Publishing 4 <i>Newsletters</i> and uploading the same in the relevant section of ENVIS Website.	Quarterly newsletter published and circulated country wide.	
xv. 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.	
xvi. Collecting books, reports and journals on the subject area; Uploading e-versions of books, reports, journals etc. on the ENVIS Website.	More than 600 e-version of the publications relating to status of environment collected from various government sources and published online. ENVIS Hub Sikkim has been hosting environment related government publications of the State.	
Reaching-out/Networking Activities		
xvii. 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.	
xviii. 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.	
xix. Maintaining a list of Experts in the subject area and uploading the same	List of experts updated in the website	
xx. 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.	
xxi. 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 during 2019-20 as well for promoting environment education in about 120 schools.	

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefore
B. SPECIAL ACTIVITIES		
xxii. 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.	
xxiii. 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 a State Nodal Agency for promoting environment education with a network of 856 Eco-Clubs at 838 schools and 18 colleges. ENVIS Hub has been networking with local stakeholders, NGOs, Universities and line departments, subject experts in several research based activities.	
xxiv. 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.	
xxv. 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.	
xxvi. 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.	
xxvii. Build institutional repositories of various types of media related to environmental issues.	Sikkim ENVIS Hub has a library that houses more than 3500 reports and publications including DVD and media collection on environment issues.	
xxviii. 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.	

14. New Initiatives taken during the Financial Year (2019-20):

- ✓ Facilitated and Conducted Green Skill Development Programme (GSDP) on four certificate courses viz. Wild Beekeeping and Processing, Forest Fire Management, Sustain and Enhance Technical Knowledge in Solar Energy Systems and Bamboo Crafts. A total of 90 candidates trained and 80 are already entrepreneurs/ self-employed /in job.

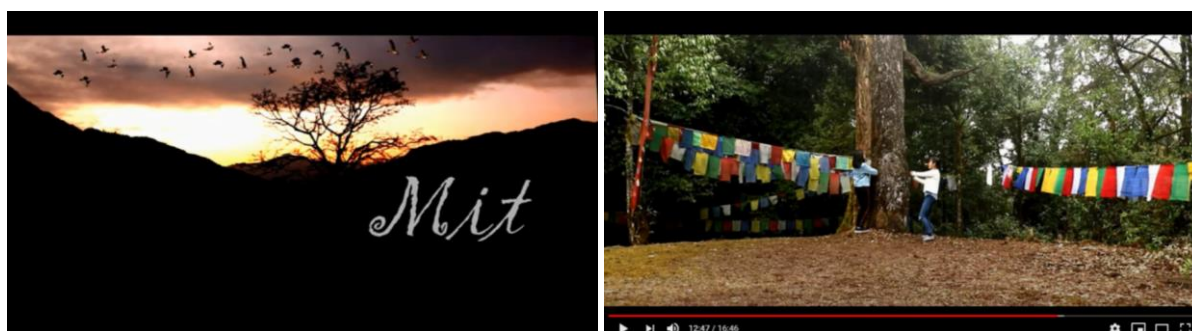


Detailed Report on GSDP Activities is at Annexure - III

- ✓ Participated and conducted a global level event ‘Global Gandhi Solar Yatra – Students Solar Ambassador Workshop’ in coordination of IIT Bombay to commemorate 150th birth anniversary of Mahatma Gandhi at 20 schools engaging 100 students across the State in assembly of solar study lamps. IIT Bombay felicitated Sikkim ENVIS Hub with a Certificate of Appreciation.



- ✓ Prepared a short documentary film titled “Mith” in Nepali vernacular language to spread awareness on conservation and protection of trees by forging *Mithini/ Mith* (friendship) with trees, an age-old traditional practice of the State.



- ✓ Single-use Plastic Free Initiative #PlasticFreedomChallenge: Sikkim ENVIS Hub took a two-month (May-June 2019) long initiative to phase out single use plastics at schools and neighborhood. At least 28 government schools successfully adopted eco-friendly alternatives and declared their schools as ‘single-use plastic free’ in these two months.



Picture (left to right): No Dustbin Policy to curb single-use plastics; Students using bamboo made mugs instead of plastic cups.

15. Date of most recent physical verification by the Ministry:

- Date: August 7-8, 2018 by Dr. Anandi Subramanian, Principal Adviser and Mr. Kumar Rajnish, National Programme Coordinator of ENVIS Secretariat, MoEF&CC, GoI (*during the State level stakeholder’s meeting and inauguration of GSDP course on Ecotourism.*)
- Third party evaluation of Sikkim ENVIS Hub was conducted by M/s CS Datamation Research Services Pvt. Ltd. during the month of February 2020.

16. Status of Existing Hardware/ Inventory/ Record Registers:**i. Current Hardware Details**

Currently, Sikkim has four desktop systems, out of which three are functional and one old system is to be condemned. Details are as under:

	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, 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
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)

Condemnation: One of the computer systems (PIV, 1 GB RAM, 80 GB HDD, 14” CRT Monitor) procured under ENVIS scheme during 2002-03 is not functional and is proposed to be disposed to the authorized e-waste cell after verification by the State IT cell as per standard disposal procedures.

ii. Labelling of each of Hardware and other equipment purchased under ENVIS Budget

Labelling of Hardware procured from ENVIS	Issued to
ENVIS #1 (C) – Compaq PIV Desktop	Sr. Programme Officer
ENVIS # 2 (C) – HP AIO Core i5 Desktop	Sr. Programme Officer
ENVIS #3 (C) – Dell PC	Information Officer
ENVIS #4 (P) – Laserjet Printer (All in one)	Sr. Programme Officer
ENVIS #5 (P) – HP Colour Laser Jet Pro MFP Printer M176n	IT. Officer
ENVIS #6 (UPS)	Sr. Programme Officer

Labelling of Hardware provided by Host	Issued to
HOST #1 (C) – HP (All in one) Desktop	IT. Officer
HOST #2 (C) – Lenova	DEO
HOST #3 (P) – HP Laser jet1200	Information Officer
HOST #4 (P) – HP Laserjet P1106	IT. Officer
HOST #5 (P) – EPSON	DEO
HOST #6 (P) – A3 laser jet photocopier	DEO
HOST #7 (UPS)	Information Officer
HOST #8 (UPS)	IT. Officer
HOST #9 (UPS)	DEO

Office Infrastructure including tables, chairs, inverter, telephone etc all has been provided by the host organization.



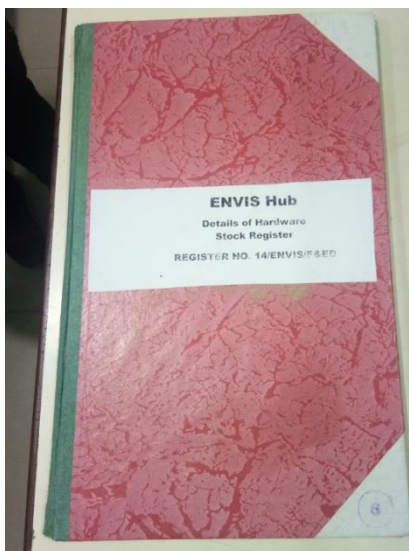
Sikkim ENVIS HUB Office



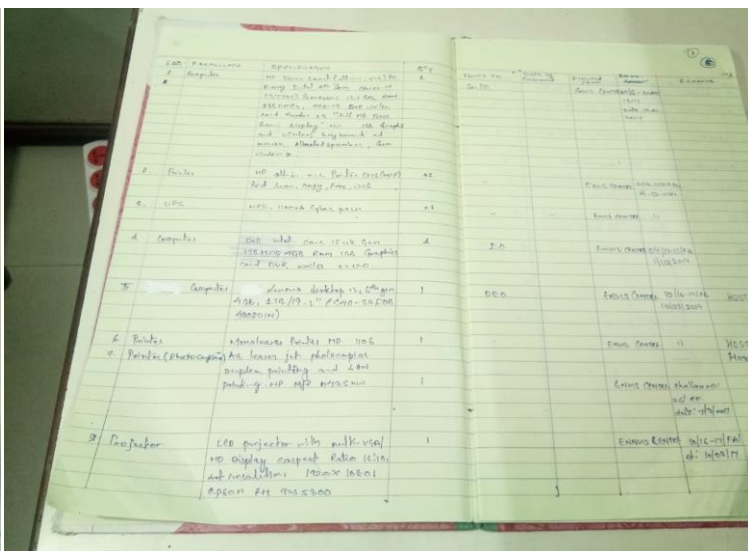
Labelling of hardware (sample photo)

iii. Updation of Asset Register/Stock Register

All the procurements including stock and its inventory are maintained in Register No 14/ENVIS (Hardware) and 54/ENVIS (Stationeries) kept in the office.



Stock Register No. 14/ENVIS (Sample photo)

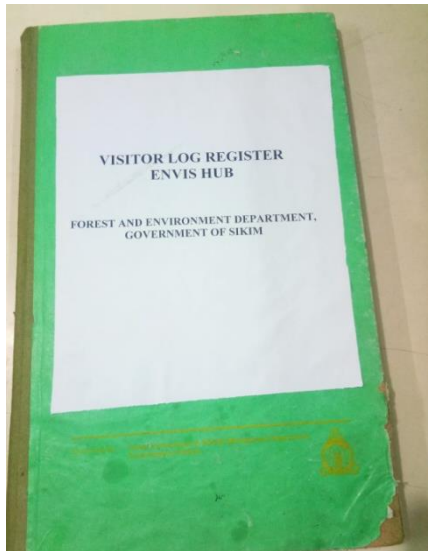


Stock Register (Inside) -

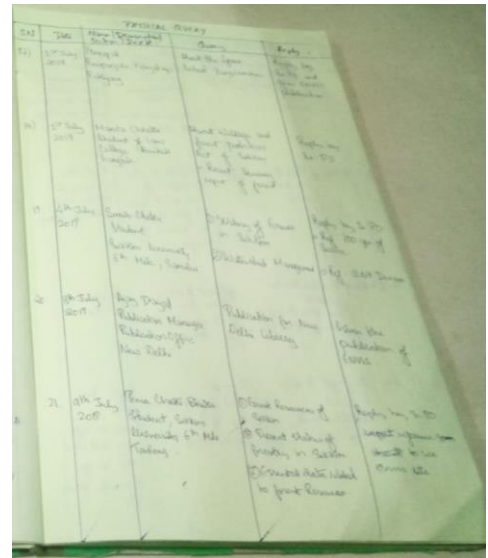
iv. Visitors Register (physical/telephonic/online)

Sikkim ENVIS Hub records visitor's feedback in Visitor Log Book/ Register maintained by the center.


Visitor's seeking data and information are to fill up a Query Form separately as well. A sample copy of the filled-in query is show below.




Visitor Log Register (Sample photo)



Visitor Log Register (Inside)



ENVIS Centre SIKKIM
(On Status of Environment & its Related Issues)
Forest, Environment & Wildlife Management Department,
Government of Sikkim, Gangtok



Sponsored by
The Ministry of Environment & Forests, Government of India

जहाँ है पर्यावरण !
वहाँ है अग्रगण्यता !!

QUERY FORM

Name : Sanyasatam Bharati Devi

Designation : Assistant Professor

Organization : SNM University Sikkim

Address : Ranipool
Sikkim

Phone No : 7598368934

Email ID : sbharatidewi@gmail.com

Your Queries

I have visited the ENVIS centre to get assessed to some of the books published by forest Department regarding the Biodiversity of Sikkim as it will be helpful in the PBR project which our biogeographical department will conduct.

Date of Submission: 6/1/2020

Visit Us At
Website URL: www.sikennis.nic.in
Email ID: sik@ennis.nic.in

Received on 06/1/2020

Snapshot of filled-in query form (sample)

17. Status of utilization of grant during the financial year 2019-20 as on 31-Mar-2020 and reasons for shortfalls, if any:

ENVIS RECURRING GRANT

SN.	Sanctioned Object Head	Amount Sanctioned (in Rs.)	Expenditure incurred (in Rs.)	Available Balance (in Rs.)
1	Manpower	14,38,554	14,38,554	0
2.	Others (Database development, website maintenance, printing of Newsletters & Prakriti Map, contingency, stationery, consumables, AMC, Internet charges, training, inter-centre interaction workshops, expenses on monitoring, ISBEID Database development, Mobile App Development etc.)	4,65,300	4,65,300	0
3.	Travel etc.	1,50,000	61,364	88,636
Total		20,53,854	19,65,218	88,636

GSDP COURSES

SN.	Sanctioned Object Head	Sanction Details (in Rs.)	Expenditure incurred (in Rs.)	Balance (in Rs.)
1	Value Addition and Marketing of NTFPs (Animal Origin): Wild Beekeeping and Processing – NSQF level 5, 200 Hrs (25 says), 25 candidates	Sanction No. 11/7/2019-EI (Vol-III) dated 18/11/2019 Rs.9,58,500/-	9,58,500	0
2.	GSDP Course: Value Addition and Marketing of NTFPs (Plant Origin)- Bamboo Crafts 400Hrs (45 days) 20 candidates NSQF level 5	Sanction No. 11/7/2019-EI (Vol-III) dated 24/12/2019 Rs.14,70,080/-	14,70,080	0
3.	GSDP Course: Forest Fire Managment 300Hrs (36 days) 20 candidates NSQF level 5	Sanction No. 11/7/2019-EI (Vol-III) dated 24/12/2019 Rs.13,38,480/-	13,38,480	0
4.	GSDP Course: Sustain and Enhance Technical Knowledge in Solar Energy Systems 240Hrs (30 days) 20 candidates NSQF level 5	Sanction No. 11/7/2019-EI (Vol-III) dated 24/12/2019 Rs.12,33,200/-	12,33,200	0

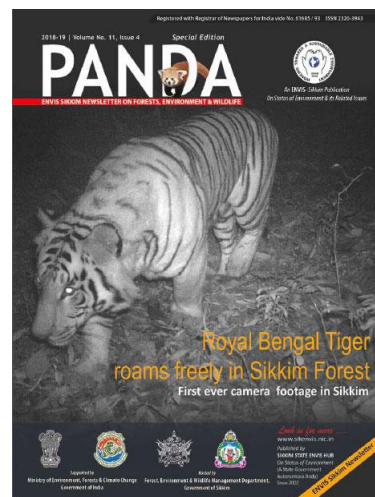
18. Gist of Other Activities [Awareness/ Training/ Outreach Activities] Conducted by Sikkim ENVIS Hub during 2019-10

(Titles of Programmes, content and coverage of topics, Relevance of the theme, number of participants)
Date/ Month -wise

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
1.	May 9-10	Green Teachers Training on Environment Auditing	Green Schools environment auditing for 200 schools of the State in partnership with Centre for Science and Environment, New Delhi	About 150 schools certified as green school by CSE, New Delhi till date.
2.	June 1-15	Swachhata Pakwada on single-use plastic free campaign #plasticfreedomchallenge	Plastic freedom challenge; Single-use plastic free campaign	About 2000 persons participated. 28 schools of the State eventually ships to ban single-use plastics during the fortnightly event.

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
3.	June 5	World Environment Day celebration at the State level	Felicitation of 9 schools with Chief Minister's Green School Rolling Trophy; plantation and cleanup drives, street rallies, exhibition and eco-competitions at schools. Sikkim ENVIS hub served as the nodal agency for effective implementation of the programme.	About 3000 persons including students/teachers participated. 9 schools were awarded with cash incentives from State Government up to Rs 12 lakh as prize money. Sensitization on WED theme Beat Air Pollution achieved.
				
4.	July 7	A Day for Mother Earth, a new green environment friendly initiative of the State Government	7 minutes (11-11.07 am) of no vehicular emission, plantation and clean up drives across the State. Sikkim ENVIS hub prepared and disseminated vehicle stickers and encouraged public participation.	Action to reduce vehicular emission achieved. More than 5000 people participated.
				

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
5.	Aug 15	Release of special edition ENVIS publication “PANDA” Vol 11 on the occasion of 73rd National Independence Day at Gangtok	The Hon’ble Chief Minister of Sikkim Shri P.S. Tamang pleasantly released the pride publication of ENVIS hub in presence of about 20,000 spectators.	About 1000 copies of ENVIS Publication was distributed to political dignitaries, senior officers and public attending the programme.



6.	Sep 2-3	Green Orientation of Earthian programme of Teacher’s WIPRO schools	Action projects on sustainability of water, biodiversity and waste management at schools. Sikkim ENVIS Hub has been partnering with WIPRO (IT giant) based at Bengaluru since 2015 to promote environment education amongst school children through action based projects. The programme is sponsored by WIPRO as a part of its CSR activity.	140 teachers participated. Based on the training conducted, WIPRO feted one of the Sikkim School namely Bojoghari Government Sr. Secondary School with National Earthian Schools Award 2019 carrying cash prize of rupees one lakh. Earlier in 2015, one Sikkim school had received similar award.
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S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
7.	Sep 16	World Ozone Day Celebration	World Ozone Day on the theme '32 Years and healing' observed with activities like quiz, seminar, painting competitions and demonstrations.	More than 500 students, teachers and public participated.
				
8.	Sep 17	Swachhata Abhiyan	State-wide cleanliness drive was coordinated by ENVIS Hub to commemorate the birthday of the Hon'ble Prime Minister Shri Narendra Modi.	More than 2000 persons participated in an event coordinated by ENVIS Hub.
				

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
9.	Oct 2	<p>Solar Ambassador Workshop as a part of Karyanjali to mark 150th birth anniversary of Mahatma Gandhi</p> <p>Contributed to achieving Two Guinness World Record</p> <p>‘Largest Environmental Sustainability Lesson’ and ‘Most People Assembling Solar-Powered Lamps simultaneously’</p>	<p>Students Solar Ambassador Workshop in 20 schools for 100 students was organized in collaboration with IIT Bombay. ENVIS conducted Master Trainer's Training of assembling Solar Study Lamps - Students Solar Ambassador Workshop as a part of 150th Birth Anniversary Celebration of Mahatma Gandhi.</p>	<p>100 students were provided hands-on training on solar study assembly kit. IIT Bombay felicitated ENVIS with Certificate of Appreciation for encouraging 100 students in a global event.</p> <p>IIT Bombay felicitated Sikkim ENVIS Hub with Certificate of Appreciation</p>



S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
10.	Oct 15	Inter-Center Visit and Interactive Meeting to share experiences	ENVIS team from Nagaland visited Sikkim ENVIS Hub on October 15, 2019 at Gangtok for	A day long interaction was conducted to assist the newly setup ENVIS Hub of Nagaland State on implementing activities of ENVIS.
				
11.	Nov 15-17	Technical Support in coordinating National Workshop organised by Host Organization on 'Challenges for Biodiversity Conservation and Human Wildlife Conflict' at Gangtok	Sikkim ENVIS Hub was directed to provide technical support, publicity support during the national workshop attended by delegates and experts across the State along with delegates from Japan.	ENVIS knowledge products were distributed to around 350 delegates. A post workshop report was compiled by ENVIS.
				

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
12.	Nov 20	Pre-Training Sensitization on GSDP – Wild Beekeeping on potential site at South District.	Interaction with panchayat and public of Rong Ward, South Sikkim for Beekeeping GSDP course	53 farmers registered their application of intent for beekeeping.
				
13.	Jan 9- 28 25	GSDP course – “Wild Beekeeping and Processing” Detailed Report on GSDP Activities is at Annexure III	A month long (200 hrs) certificate course on value addition and marketing of NTFP products (Animal Origin) – Wild Beekeeping and Processing for 25 candidates. The Hon’ble Minister Forest Shri Karma Loday Bhutia inaugurated the training programme on Jan 9. The valediction was convened on Jan 28.	25 candidates were provided comprehensive training on beekeeping to uplift rural livelihood opportunities through sustainable means duly amalgamating traditional and scientific approaches.
				

S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
14.	Feb 27, 29	Capacity Building Activities of Students and Teachers	Two day Capacity Building activities for 240 students and teachers were conducted on sustainability of water, biodiversity and waste at the school, household and neighborhood. The programme was conducted in partnership with WIPRO Bengaluru at Gangtok for North and East Districts and at Namchi for West and South Districts.	240 students and teachers of 120 schools across the state were oriented on activities for contributing to SDG.



S N	Date	Programme Title	Content and coverage	Impact and Outcomes/ No. of participants and Method of dissemination
15.	March 5 - 25	GSDP course on - Forest Management - Bamboo Crafts - Solar Energy Systems Detailed Report on GSDP Activities is at Annexure III	GSDP certificate courses as indicated were conducted for a total of 65 candidates simultaneously at different locations. The programme was jointly inaugurated on March 5 by the Hon'ble Minister Forest Shri Karma Loday Bhutia. The GSDP training on Bamboo Crafts was conducted at Bermiok, West Sikkim, GSDP on Forest Fire Management was conducted at Salghari and Sumbuk of South Sikkim and Solar Energy System was conducted at Gangtok, East Sikkim.	65 candidates were provided comprehensive training. Out of these candidates 45 candidates have potential to be entrepreneurs or self-employed. 10 candidates have been employed as temporary in government autonomous body.



19. ENVIS Output-Outcome Details and its Impact over past five (5) years:

Major Achievements of Sikkim State ENVIS Hub

1. Received National Award as 'Best State ENVIS Centre 2014-15' from the Ministry of Environment, Forest & Climate Change. The award certificate was presented by Shri Prakash Javadekar, the then Minister of State (Independent Charge) for Environment, Forest and Climate Change at New Delhi on 17th February, 2016. Sikkim ENVIS was tagged as 'GURU CENTRE' during 2012-13 by the Ministry to take a lead role in providing assistance to other ENVIS network of the country.
2. Sikkim ENVIS Website hosts major publications of the government such as State of Environment Report, Climate Change of Sikkim, Biodiversity of Sikkim, Rapid Biodiversity Surveys, collection of Journals and Scientific Papers, Environment Initiatives of the State Government, etc.
3. The implementation of Environment Education, Awareness and Training amongst school eco-clubs have brought several national awards to Sikkim Schools conferred by reputed agencies like CSE, CEE and WIPRO on annual basis since 2002.
4. Active coordination and implementation of 'Chief Minister's Green School Rolling Trophy and State Green School Awards' since 2011. The award carrying cash prizes up to Rs 12 lakh (funded by the State Government) is being presented to eight schools annually on the occasion of World Environment Day on 5th of June.
5. Sikkim ENVIS Hub has been partnering with other reputed agencies like WIPRO, IIT Bombay, CSE, New Delhi for pooling of resources including funds for supporting and promoting environment information, education, awareness and training in the State.
6. Sikkim ENVIS special publication titled 'PANDA' has gained popularity for its resourceful content and is wide disseminated across the country, national library and son.
7. Sikkim ENVIS Hub is a resource agency for several research programmes in the State and has aided in drafting State Action Plan for Climate Change.
8. GSDP courses aligned with Sikkim ENVIS Hub has empowered the centre to reach rural populace of the State with livelihood schemes such as Beekeeping, Bamboo Crafts, Forest Fire Management and Solar Energy Systems.
9. Owing to being a vast repository of State's environmental information, Sikkim ENVIS HUB has been assigned to prepare White Paper of the host department in 2017-18 and 2018-19 for submission to the State Legislative Assembly.



File Photo: SIKKIM ENVIS HUB receiving National Award as 'Best State ENVIS Centre 2014-15' from the Ministry of Environment, Forest & Climate Change. The award certificate was presented by Shri Prakash Javadekar, the then Minister of State (Independent Charge) for Environment, Forest and Climate Change at New Delhi on 17th February, 2016.

20. Proposed Annual Action Plan of Activities for 2020-21

The annual plan of activities for next financial year 2020-21 in summative is enumerated below;

1. National Environment Survey - Grid Based Decision Support System (NES-GRIDSS) and ISBEID:

- a. Secondary data collection and District level National Environment Survey at two districts namely East Sikkim and North Sikkim.
- b. Preparation of 9x9 km and 5x5 km grid based maps on standard environmental parameters. Incorporation of layered maps on forest fires, human wildlife conflicts, AQI stations, flora and fauna hotspots based on the wildlife population estimation census data and so on.
- c. ISBEID data collection and data entry updates 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.

2. Green Skill Development Programme (GSDP): To promote, implement, coordinate and facilitate following GSDP certificate courses in the State of Sikkim:

SN	GSDP Certificate Course	Course Details	Month of Implementation during 2020-21
a.	Value addition and marketing of NTFPs (animal origin) -Wild Beekeeping and Processing	200 Hrs, Batch Size- 20, No of Batches - 1	Oct-Nov
b.	Value addition and marketing of NTFPs (animal origin) – Bamboo Crafts	400 Hrs, Batch Size- 20 No. of Batches - 1	Aug-Sep
c.	Forest Fire Management	300 Hrs, Batch Size- 20 No. of Batches - 3	Sep-Oct, Dec-Jan, Jan-Feb
d.	Pollution Monitors: Air and Water Pollution	260 Hrs, Batch Size- 20 No. of Batches – 2	Oct-Nov, Jan-Feb
e.	Peoples Biodiversity Register (PDR)	200 Hrs, Batch Size- 20 No. of Batches - 2	June-July, Oct-Nov

3. Community-driven Environmentally Sustainable Village Programme (CESVP):

- a. 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. Activities to include are Swachhata Pakhwada, capacity building activities, propagation and implementation of Green Good Deeds, Karyanjali activities, and so on. Targeted areas are villages of East and North Sikkim and villages under MPLAD Scheme.

4. Publications of Knowledge Products:

- a. Publication of 12 paged multicolor Quarterly Newsletters.
- b. Special edition 72-92 paged PANDA news magazine.
- c. Knowledge products in the form of pocket-sized booklet/ pamphlets/ brochures/ flyers, Short Video Films/ DVDs on status of environment and its related issues pertaining to State of Sikkim.
- d. 'Brief Document' on Wetlands of Sikkim in conformity with the Wetlands (Conservation and Management) Rules, 2017.
- e. GSDP training manuals on certificate courses as proposed to be implemented at SI No 2 above.
- f. Documentation of Indigenous Traditional Knowledge on Ecological Traditions of Sikkim.

5. Research and Development Activities:

- a. Conduct State-level Seminar on “**Ecological Traditions of Sikkim**” at Gangtok in partnership with ENVIS Resource Partner at C.P.R. Environmental Education Centre (CPREEC), Chennai. The main focus of the seminar will be ecological traditions and practices followed in the State like traditional water harvesting system, conservation of sacred groves, tree worship, traditional agricultural practices and so on. The seminar will bring in state experts in one platform to share and further document best sustainable indigenous traditional practices.
- b. Ecological Hotspot study of Gangtok, Sikkim as a Sustainable Tourist Destination with relevance to environment impact assessment on the fragile ecosystem and recommendations. This is in relevance to preparing State of Environment Report for Cities. (Subject to approval of the Statistical Cell, MoEF&CC)

6. Extension & Outreach programmes: on environmental information sharing, awareness, education and training of youths/ students/ teachers/ stakeholders at the ground level.

- a. 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 856 eco-clubs at schools/ colleges, and in collaboration with reputed resource agencies like WIPRO Bengaluru, CSE New Delhi, IIT Bombay etc.
- b. Support the host department in environment awareness programmes in the State like World Environment Day, A day for Mother Earth, World Ozone Day and so on with resource materials and knowledge products like brochures, handbooks, posters, flyers, signages etc.

ANNEXURE - I

Status of Data Entry in ISBEID

(Indian State-level Basic Environmental Information Database)

SIKKIM STATE ENVIS HUB

2019-20

As on 31-Mar-2020

Annexure – I:**Status of Data Entry in ISBEID: (Sikkim State ENVIS Hub): As on 31-Mar-2020**

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- 2016
		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				

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		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	1990-2019		1990-2019		
		No. of Registered private hospitals/ nursing homes	1961 - 2019		1981- 2019		
	3. Transport	No. of Railway Stations					
		Length of Railway Lines					
		Length of National Highways	1998-2019				
		Length of State Highways	1990-2019		1990- 2019		
		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			2003-2017				
Installed Capacity		2003-2017					
2. Renewable		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					
		Other biomass power generation					
Installed Capacity							
3. Electricity Consumption		Industrial and Commercial	2008- 2016				
		Agriculture	1990-2016				
		Domestic	2008- 2016				
		Others	1998- 2012				
4. Energy Consumption		LPG	2010- 2014				
		Other Petroleum Products					
		Coal					
	Natural Gas						
		Other					
IV.	1. Agriculture	Total agricultural area					

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
Agriculture	Area Classification	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, 2004-2015		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			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Sowing	2000-2017		2004-2017	
		Production	1993-2017		2004-2017	
		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			
		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-			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
			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, 2005-2011			
	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	
	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- 2019		2000- 2019	

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		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				
		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- 2019		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				
	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						

Module	Sub-Module	Fields	Period for which data updated				
			State-level		District-level		
			Annual	Monthly	Annual	Monthly	
		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				
		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- 2019			
			Name of Wildlife Sanctuaries	1990- 2019			

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
		Name of Bird Sanctuaries	2005-2019			
		Name of Tiger Reserves				
		Name of Elephant Reserves				
		Name of Biosphere Reserves	1998- 2019			
		Name of Protected Mangroves area (Private & Public)				
	3. Botanical Gardens	Name of Botanical Garden				
		Area of Botanical Garden	1998- 2019			
		Location	1998- 2019			
		Uniqueness				
	4. Zoological Parks	Name of Zoological Park	1998- 2019			
		Area of Zoological Park	1998- 2019			
		Location				
		Uniqueness				
5. Physiographical Features	Mountain Name	1994- 2019				
	Height (Meter)	1994- 2019				
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	2005-2017		2005-2017	
		Name of Disease	2005-2017		2005-2017	
		No. of Deaths	2005-2017		2005-2017	
	3. Water Borne Disease	Type of Disease	2005-2017		2005-2017	
		Name of Disease	2005-2017		2005-2017	
		No. of Deaths	2005-2017		2005-2017	
XIII. Water Pollution		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
		Respirable Suspended				2013

Module	Sub-Module	Fields	Period for which data updated			
			State-level		District-level	
			Annual	Monthly	Annual	Monthly
	2. Residential	Particulate Matter (RSPM)				
		SO ₂				2013
		NO _x				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				
	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						

ANNEXURE - II

National Environment Survey (NES) – A Grid based Decision Support System for Sustainable Management of Natural Resources (NES-GRIDSS)

Sikkim State
Bio-Geographic Region: Himalayan

STATUS OF DATA COMPILED

2019-20

As on 31-Mar-2020

Annexure – II:**Status of Data Compiled for NES-GRIDSS: (Sikkim State ENVIS Hub): As on 31-Mar-2020**

SN	NES-GRIDSS Module	Data Compiled for Year
1.	Module – I- Administrative	2011-2018
2.	Module – II- Demographic	2011
3.	Module – III – Economic Sub Module -1 Sub Module – 2	2011 Data in process
4.	Module – IV – Climate and Disaster Occurrence Sub Module – 1 – (i) Field- Rainfall (ii) Filed - Others Sub Module – 2 – (i) Field- Earthquake (ii) Filed - Others	2009-2018 Data in process 2011-2016 Data in process
5.	Module- V- Natural Resource Sub Module	Data in process
6.	Module – VI- Water Resource Sub Module	Data in process
7.	Module – VII – Ecology Sub Module	Data in process
8.	Module – VIII – Infrastructure Sub Module -1 Sub Module – 2 Sub Module – 3 Sub Module – 4 Sub Module - 5	2011 2011 2011, 2014-2018 2017 Data in process
9.	Module – IX – Agriculture Sub Module	Data – 2003-18 (for sub module 2,3,5,12) For Sub module (1,4,6,7,9,10,11) Data in process
10.	Module – X – Animal Husbandry and fisheries Submodule – 1 – (i) Field Submodule - 2 & 3	Data – 2012,2014-2015 and other filed data in process. Data in process
11.	Module – XI – Industries and Mining	Data in process
12.	Module – XII - Energy	Data in process
13.	Module – XIII – Pollution Sub Module -1 Sub Module – 2 and 3	2010-2018 Data in process
14.	Module – XIV – Waste Sub Module -1 Sub Module – 2, 3 and 4	2011-13 Data in process
15.	Module – XV – Health Sub Module -1 Sub Module – 2, 3	2011-2014 Data in process
16.	Module – XVI – Heritage and Tourism	2011 Onwards
17.	Module – XVII – Funds allocated for environmental protection, resource management and engagement.	Data in process

ANNEXURE - III



Report on

**Green Skill Development Programme
(GSDP)
certificate courses conducted by Sikkim
State ENVIS Hub during 2019-20**

As on 31-Mar-2020

Annexure – III:**Report on Green Skill Development Programme (GSDP) certificate courses conducted by Sikkim State ENVIS Hub during 2019-20: As on 31-Mar-2020**

Sikkim ENVIS Hub started implementing GSDP from December 2019 (2019-20) only after the receipt of sanctions from the Ministry. Total four (4) GSDP certificate courses as listed under were implemented during 2019-20:

SN	GSDP Courses Offered	Eligibility criteria	Min. Age of candidate	No. of candidates per batch	Duration of the course	Course Date	No. of Candidates Employed/ Self-Employed post training
1.	Value Addition and Marketing of NTFP Products (Animal Origin): Wild Beekeeping and Processing	No minimum qualification	18 years and above	25 candidates	200 hrs, Up to 25 days	January 9-28, 2020	25 candidates self-employed as entrepreneurs
2.	Value Addition and Marketing of NTFP Products (Plant Origin): Bamboo Crafts	No minimum qualification	18 years and above	20 candidates	400 hrs, Up to 45 days	March 5-25, 2020	20 candidates self-employed as entrepreneurs
3.	Forest Fire Management	Class X / School Dropout	18 years and above	20 candidates	300 hrs, Up to 40 days	March 5-20, 2020	20 candidates engaged in JFMC/ EDC, and self-employed
4.	Sustain and Enhance Technical Knowledge in Solar Energy Systems	Class X / School Dropout	18 years and above	25 candidates	240 hrs, Up to 36 days	March 5-20, 2020	10 candidates employed in government autonomous body and 5 candidates self-employed. Remaining 10 candidates to set on entrepreneurship soon.

All the above courses above are in line with National Skill Qualification Framework (NSQF) Level 5





Government of India
Ministry of Environment, Forest & Climate Change

Would you like to work for the Environment today? Enroll, to create a Better Tomorrow!!

GREEN SKILL DEVELOPMENT PROGRAMME (GSDP)

In line with the Skill India Mission of the Hon'ble Prime Minister, Ministry of Environment, Forest and Climate Change (MoEF&CC) has launched Green Skill Development Programme (GSDP) under which different certificate courses/ training programmes are being offered to skill unemployed youths/ school dropouts/ enthusiast above 18 years to create a green workforce in Environment Sector with sustainable livelihood opportunities.

HURRY UP!!! GRAB THIS OPPURTUNITY TO AVAIL GREEN SKILL TRAINING IN SIKKIM ABSOLUTELY FREE !!!

Government of Sikkim
Forest and Environment Department
Sikkim ENVIS Hub




GSDP Course offered : "Wild Beekeeping and Processing"
[This course is in line with National Skill Qualification Framework (NSQF) - Level 5]

Sikkim ENVIS Hub at Forest and Environment Department, Government of Sikkim is conducting GSDP certificate course on "Wild Beekeeping and Processing".

Eligibility criteria	Age of candidate	No. of candidates per batch	Duration of the course	Last date to apply
No minimum qualification to Class X Pass/ School drop-outs/ Unemployed youths/ Farmers/ Enthusiasts etc.	18 years and above	25 candidates	1 month / 200 hrs	29 th November, 2019

This GSDP certificate course will provide hands-on knowledge and understanding about wild beekeeping and processing vis-à-vis ways of conversation so that it can diversify livelihood opportunities at the grassroots level through means of conservation and better understanding as an important component of farming system. This course is **free of cost** and can be applied by Indian Nationals only. Selection of candidates per batch will be done by screening through interviews.

Apply Online at <http://www.gsdp-envis.gov.in> OR Download Application Form at <http://www.sikennis.nic.in>

For more information, contact Sikkim ENVIS Hub at:
Tel(O): 03592-280381 | E-mail: sik@envis.nic.in
Sr. Programme Officer: 8927956177 | Information Officer: 9635878286
Collaborating Agencies: Sikkim Khadi and Village Industries Board, WWF Sikkim, ECOSS etc.

Note: Dates for Interview and Subsequent Training shall be notified separately. The GSDP courses offered are as per the National Skill Qualification Framework (NSQF) of NSDA, Ministry of Skill Development & Entrepreneurship. Certificates will be awarded to candidates on successful completion of the course.

Advertisement#1 circulated for GSDP – Wild Beekeeping and Processing





Government of India
Ministry of Environment, Forest & Climate Change

Would you like to work for the Environment today? Enroll, to create a Better Tomorrow!!

GREEN SKILL DEVELOPMENT PROGRAMME (GSDP)

In line with the Skill India Mission of the Hon'ble Prime Minister, Ministry of Environment, Forest and Climate Change (MoEF&CC) has launched Green Skill Development Programme (GSDP) under which different certificate courses/ training programmes are being offered to skill unemployed youths/ school dropouts/ enthusiast above 18 years to create a green workforce in Environment Sector with sustainable livelihood opportunities.

HURRY UP!!! GRAB THIS OPPURTUNITY TO AVAIL GREEN SKILL TRAINING IN SIKKIM ABSOLUTELY FREE !!!

Government of Sikkim
Forest and Environment Department
Sikkim ENVIS Hub




Sikkim ENVIS Hub at Forest and Environment Department, Government of Sikkim is conducting following GSDP certificate course:

GSDP Offered	Courses	Eligibility criteria	Age of candidate	No. of candidates per batch	Duration of the course	Last date to apply
1.	Bamboo Crafts	No minimum qualification	18 years and above	20 candidates	400 hrs, Up to 45 days	24 th January 2020
2.	Forest Fire Management	Class X / School Dropout	18 years and above	20 candidates	300 hrs, Up to 40 days	24 th January 2020
3.	Solar Energy Systems	Class X / School Dropout	18 years and above	20 candidates	240 hrs, Up to 36 days	24 th January 2020

All the above courses are in line with National Skill Qualification Framework (NSQF) - Level 5.
All the above courses are **free of cost** and can be applied by Indian Nationals only. Selection of candidates per batch will be done by screening through interviews.

Apply Online at <http://www.gsdp-envis.gov.in> OR Download Application Form at <http://www.sikennis.nic.in>

For more information, contact Sikkim ENVIS Hub at:
Tel(O): 03592-280381 | E-mail: sik@envis.nic.in
Sr. Programme Officer: 8927956177 | Information Officer: 9635878286

Note: Dates and Venues for Interview and Subsequent Training shall be notified separately. The GSDP courses offered are as per the National Skill Qualification Framework (NSQF) of NSDA, Ministry of Skill Development & Entrepreneurship. Certificates will be awarded to candidates on successful completion of the course.

Advertisement#2 circulated for three GSDP courses

1. Implementation of GSDP Course : Value Addition and Marketing of NTFP Products (Animal Origin): Wild Beekeeping and Processing

The Green Skill Development Programme on “Value Addition and Marketing of NTFP Products (Animal Origin): Wild Beekeeping and Processing” is a certificate course under National Skill Qualification Framework (NSQF) level 5 and was implemented in the State of Sikkim under the aegis of the Ministry of Environment, Forest and Climate Change, Government of India to develop green skilled workers duly amalgamating scientific and traditional approach for sustainable development of rural economy.

The basic aim of this GSDP course was to impart green skill training to youths and local people who have not been able to continue education due to different financial or social constraints but have an urge to learn new things and do something fruitful. The training provided hands-on knowledge and understanding about the wild beekeeping and processing vis-à-vis ways of conversation and effective farming system in order to diversify rural livelihood opportunities through marketing of honey and its products in a sustainable manner. The course aimed to green skill the grassroots to maintain honey bee health, its productivity and explore the possibilities and considerations of how one can both profit from and contribute to the success of these amazing pollinators with a sustainable approach.



The first batch training on this course inducted 25 aspiring candidates basically unemployed youths/ unskilled farmers having urged for bee farming. Common native species of bees such as *Apis cerana* subsp. *cerana*, *A. cerana* subsp. *himalayana*, *A. dorsata*, and *A. laboriosa* were the primary bee species handled during a month-long training programme. Along with the hands-on training, each candidate was provided with basic tools and scientific wooden bee boxes, clave hives along with bee colonies. This pool of GSDP trainees are now skilled **beekeepers/ honey farmers, apiarists or apiculturist**. The green skilled certified beneficiaries will be further tracked for three years with support by the coordinating agencies. On the marketing front, the honey fetches about a minimum of 800 to 1000 rupees per litre and this brings enough incentive to a beekeeper. Honeybee finds easy passage in the local market where the demand has always been higher than the supply.

GSDP Offered	Courses	Eligibility criteria	Min. Age of candidate	No. of candidates per batch	Duration of the course	Course Date	No. of Candidates Employed/ Self-employed post training
Value Addition and Marketing of NTFP Products (Animal Origin): Wild Beekeeping and Processing		No minimum qualification	18 years and above	25 candidates	200 hrs, Up to 25 days	January 9-28, 2020	25 candidates self-employed as entrepreneurs



Hon'ble Minister Forest Shri Karma Loday Bhutia inaugurated GSDP Course 'Wild Beekeeping and Processing' on January 9, 2020

Resource Persons engaged for 'Wild Beekeeping and Processing' GSDP course:

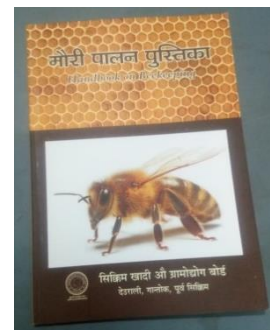
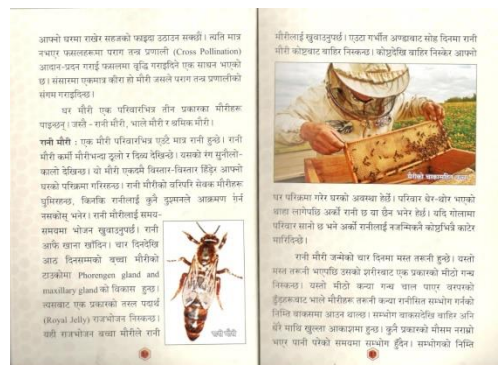
1. Mr. Gyurmie Yousal, Chief Executive Director, Sikkim Khadi and Village Industries Board
2. Mr. Shiva Sharma, Beekeeping Expert, Sikkim Khadi and Village Industries Board
3. Dr. Bharat Kumar Pradhan, Scientific Associate, Sikkim Biodiversity Board
4. Dr. Shiva Kr. Sharma, Conservation Biologist
5. Mr. Jiwan Sharma, General Manager, Sikkim State Co-operative Supply and Marketing Federation Ltd. (SIMFED)
6. Mr. Jeevan Chettri, Bee Expert and Bee Farmer, Melli Kerabari, South Sikkim

Training Centres/ Hubs Infrastructure used for Training:

1. Forest Conference Hall, Gangtok (Theoretical)
2. Aho Apiary, East Sikkim (Practical)
3. Melli Dara Apiary, South Sikkim (Practical)
4. Melli-Kerabari Apiary, South Sikkim (Practical)
5. Rong Apiary, South Sikkim (Practical)
6. Salghari Apiary, South Sikkim (Practical)

Tools/ Study Materials Used:

1. GSDP Course Materials in the form of pamphlet and training manual in local vernacular language (Nepali) were provided to the candidates. Beekeeping training video tutorials were also screened.
2. Beekeeping tools such as bee veil, extractor, towel, knife, smoker, uniform, stationeries etc.
3. One scientific bee box (two layered) each along with bee colonies retrieved from the wild was provided during the course of the training. After the training was completed, the host department provided additional five boxes each to the candidates on recommendation of the Hon'ble Minister Forests



Evaluation of Trainees: Candidates were continuously evaluated on weekly basis by a set by 15 questions taken through in-person interaction and hands-on/ practical demonstration.

Photographs



Theory classes and interaction indoors



Theory classes and interaction outdoors



Trainees at the field with bee boxes at Rong village, South Sikkim

Photographs



GREEN SKILL DEVELOPMENT PROGRAMME
On “Wild Beekeeping and Processing” (NSQF-5, 200 Hrs)
9th – 28th January, 2020 | Forest Conference Hall, Gangtok

Organised by
Sikkim ENVIS Hub
Forest and Environment Department
Government of Sikkim

In Collaboration with
Sikkim Khadi & Village Industries Board
Government of Sikkim

PROGRAMME SCHEDULE

DAY 1 | Date : January 09, 2020 (Thursday)

Inaugural Session (MC : Shri Rajen Pradhan, SrPO-ENVIS)

Time	Programme
11.00 AM	Arrival and Registration of Participants
11.20 AM	Arrival of Resource Persons and Senior Officers of F&ED, GoS
11.30 AM	Arrival of the Chief Guest, Hon’ble Minister Forests
11.30 – 11.35AM	Welcome Address by Director (E&SC/ENVIS)
11.35-11.40 AM	Felicitation of Experts
11.40 – 11.50AM	Key Note Address by Shri Gyurmie Yousal, Chief Executive Officer, Sikkim Khadi and Village Industries Board, Government of Sikkim
11.50 – 12.00PM	Inaugural Address by Shri M.L. Srivastava, IFS PCCF-cum- Pr. Secretary
12.00 – 12.30PM	Blessings by the Chief Guest Shri Karma Loday Bhutia, Hon’ble Minister Forests
12.30 – 12.35PM	Vote of Thanks by Smt. Kusum Gurung, Joint Director (ENVIS)
	Group Photo

LUNCH BREAK 12.35 - 01.30 PM

Technical Session

01.30 - 02.30 PM	Introduction of the GSDP Candidates and Basic orientation of the Green Skill Development Programme on “Wild Beekeeping and Processing “ - Dr. Bharat Kumar Pradhan, SBB - Shri Rajen Pradhan Sr. Programme Officer, ENVIS
02.30 - 02.45 PM	Tea Break
02.45 - 03.30 PM	Video Screening
03.30 - 04.00 PM	Group Discussion and Day Summarisation

*** End of Day 1 ***

GREEN SKILL DEVELOPMENT PROGRAMME
On “Wild Beekeeping and Processing” (NSQF-5, 200 Hrs)
January 9-28, 2020
Sikkim ENVIS Hub, Forest and Environment Department






DAY-WISE PROGRAMME SCHEDULE






Chief Collaborating Partner: Sikkim Khadi & Village Industries Board (SKVIB)

Co-Partner Agencies for Subject Experts: SBB, SOCA, SIMFED, NABARD






DAY	DATE	Venue	PROGRAMME
Day 2	10/01/2020	Forest Conference Hall, Gangtok	10.00AM- 01.00 PM Introduction to Beekeeping; Understanding honey bee species, life cycle and morphology; Bee products (Theory) - Shri Shiva Prasad Sharma, SKVIB 02.00-04.00 PM Bees and food security; Biodiversity Conservation (Theory)- Dr. Bharat Kumar Pradhan, SBB
Day 3	11/01/2020	Aho, East Sikkim	Site visit for basic orientation of apiary and bee box manufacturing unit
Day 4	12/01/2020	Assignment work for candidates	
Day 5	13/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Bee Box Handling
Day 6	14/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Bee colonisation
Day 7	16/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Grafting
Day 8	17/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Extraction and Processing
Day 9	18/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Apiary Management
Day 10	19/01/2020	Assignment work for candidates	
Day 11	20/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Seasonal Management
Day 12	21/01/2020	Paiyong & Rong, South Sikkim	Theory & Practical – Disease Management
Day 13	22/01/2020	Salghari, South Sikkim	Exposure Visit
Day 14	23/01/2020	Kerabari, South Sikkim	Exposure Visit
Day 15	24/01/2020	Paiyong & Rong, South Sikkim	Cleaner Production and Waste Minimization
Day 16	25/01/2020	Assignment work for candidates	
Day 17	27/01/2020	Gangtok	Enterprises Management & Marketing and Evaluation
Day 18	28/01/2020	Gangtok	Valediction

List of GSDP Participants for the Certificate course "Wild Beekeeping and Processing"

S.N	NAME OF CANDIDATE	GENDE R	CATEGORY	DATE OF BIRTH	UNIQUE ID	MOBILE NO.	AADHAR NO.	ADDRESS	PHOTO	Major Occupation and Status after Training
1	Mr. Saroj Gurung	M	OBC	9/10/1988	Saro09101988	9749725203	804329184713	Singtam Busty P.O Rong South Sikkim		Farmer. Successfully set up bee apiary
2	Mr. Dill Kumar Mangar	M	OBC	1/1/1981	Dil01011981	8348132841	370903303484	Khani Gaon Rong South Sikkim		Farmer. Successfully set up bee apiary
3	Mr. Bir Bdr. Moktan	M	ST	10/10/1965	Bir10101965	6297834085	769936848446	Upper Paiyong South Sikkim		Farmer. Successfully set up bee apiary
4	Mr. Prem Tshering Tamang	M	ST	5/5/1968	Prem05051968	9832538609	714618005646	Upper Paiyong Busty, P.O. Paiyong Busty, South Sikkim		Farmer. Successfully set up bee apiary
5	Mr. Tilak Prasad Sharma	M	OBC	10/1/1966	Tila01011966	9593717047	845060329070	Upper Paiyong Busty, P.O. Paiyong South Sikkim		Farmer. Successfully set up bee apiary

S.N	NAME OF CANDIDATE	GENDE R	CATEGORY	DATE OF BIRTH	UNIQUE ID	MOBILE NO.	AADHAR NO.	ADDRESS	PHOTO	Major Occupation and Status after Training
6	Mr. Purna Lall Sharma	M	OBC	10/2/1967	Purn10021967	7076268158	671077463632	Upper Paiyong Busty, P.O. Paiyong Busty, South Sikkim		Farmer. Successfully set up bee apiary
7	Mr. Naina Bahadur Darjee	M	SC	1/1/1971	Nain01011971	7679368651	251126082420	Paiyong Busty Near Agriculture Building, South Sikkim		Farmer. Successfully set up bee apiary
8	Ms. Shanti Darjee	F	SC	14/10/1987	Shan14101987	9749850583	948736528049	Central Pendum,, Bhurung, East Sikkim		Educated Employed. Successfully set up bee apiary
9	Mr. Yogesh Pradhan	M	OBC	3/12/1990	Yoge13121990	8337836076	847109824804	Melli Paiyong South Sikkim Near Lower Paiyong ICDS Centre		Farmer. Successfully set up bee apiary
10	Mr. Bijay Kumar Pradhan	M	OBC	27/10/1998	Bija27101998	6295038529	569824734197	Lower Paiyong Busty, P.O. Paiyong Busty, P.O. Melli Bazar, South Sikkim		Educated Employed. Successfully set up bee apiary

S.N	NAME OF CANDIDATE	GENDE R	CATEGORY	DATE OF BIRTH	UNIQUE ID	MOBILE NO.	AADHAR NO.	ADDRESS	PHOTO	Major Occupation and Status after Training
11	Mr. Bhim Kumar Rai	M	OBC	15/05/1982	Bhim15051982	9593265253	570257872490	Lower Paiyong Busty, P.O. Paiyong Bazar, South Sikkim		Farmer. Successfully set up bee apiary
12	Mr. Bhim Kumar Darjee	M	SC	9/11/1972	Bhim09111972	9635001982	537734799880	Lower Paiyong Busty, P.O. Paiyong Bazar, South Sikkim		Farmer. Successfully set up bee apiary
13	Mr. Suman Subba	M	ST	23/04/1999	Suma23041999	7384639171	868880613748	Upper Aho, PO Changey Santi, East Sikkim		Educated Employed. Successfully set up bee apiary
14	Mr. Bijay Subba	M	ST	14/10/1997	BIJA14101997	7586836467	773706236303	Aho Near Manghim, P.O. Changey Santi, East Sikkim		Educated Employed. Successfully set up bee apiary
15	Mr. Dhan Kumar Rai	M	OBC	2/7/1993	Dhan02071973	9775866162	602343683790	Upper Dorop Salghari, GPU South Sikkim		Farmer and traditional beekeeper. Successfully set up bee apiary with 10 colonies.

S.N	NAME OF CANDIDATE	GENDE R	CATEGORY	DATE OF BIRTH	UNIQUE ID	MOBILE NO.	AADHAR NO.	ADDRESS	PHOTO	Major Occupation and Status after Training
16	Mr. Budha Raj Rai	M	OBC	5/10/1985	Budh05101985	9733365069	388495011993	Lower Salghari, PW, Salghari GPU, South Sikkim		Farmer. Successfully set up bee apiary
17	Jagat Bahadur Chettri	M	OBC	26/02/1967	Jaga26021967	6296926572	360312244292	Sumbuk Village, Near BAC Via-Melli South Sikkim P O : 737128		Farmer. Successfully set up bee apiary
18	Subash Rai	M	OBC	12/2/1975	Sub12021975	6296188219	255614892012	9th Mile, Sumbuk South Sikkim Near Sumbuk Sr. Sec School Dist. Namchi		Farmer. Successfully set up bee apiary
19	Ganga Kapil	F	OBC	9/6/1981	Gang09061981	8348195755	960146947332	Sumbuk Syham Das Ward South Sikkim		Farmer. Successfully set up bee apiary
20	Nil Kamal Rai	M	OBC	30/04/1985	Nil30041985	7063292964		9th Mile, Sumbuk South Sikkim Near Sumbuk Sr. Sec School Dist. Namchi		Employed. Successfully set up bee apiary

S.N	NAME OF CANDIDATE	GENDE R	CATEGORY	DATE OF BIRTH	UNIQUE ID	MOBILE NO.	AADHAR NO.	ADDRESS	PHOTO	Major Occupation and Status after Training
21	Deep Jiwan Chettri	M	OBC	18/10/1999	Deep18101999	8597194223		9th Mile, Sumbuk South Sikkim Near Sumbuk Sr. Sec School Dist. Namchi		Employed. Successfully set up bee apiary
22	Shiva Kumar Sharma	M	GEN	8/7/1975	Shiv08071975	8967954880	248244221073	Sumbuk Village, Near BAC Via-Melli South Sikkim		Self-employed. Successfully set up bee apiary
23	Sandesh Sharma	M	GEN	5/3/2000	SAND05032000	8016236211	280845253970	Sumbuk PW Sumbuk GPU Kartikey South Sikkim		Employed. Successfully set up bee apiary
24	Heman Subba	M	ST	18/03/1998	HEMA18031998	9734556701	271693414929	Upper Aho, Near Manghimee Aho Yangtam GPU East Sikkim		Educated Employed. Successfully set up bee apiary.
25	Bishal Limboo	M	ST	25/08/1996	BISH25081996	8167790149	294657918981	Upper Aho, Near Manghimee Aho Yangtam GPU East Sikkim		Edicauted Employed. Successfully set up bee apiary

2. Implementation of GSDP Course : Value Addition and Marketing of NTFP Products (Plant Origin): Bamboo Crafts



The Green Skill Development Programme on “Value Addition and Marketing of NTFP Products (Animal Origin): Bamboo Crafts” is a 400 Hrs certificate course under National Skill Qualification Framework (NSQF) level 5 and was implemented in the State of Sikkim under the aegis of the Ministry of Environment, Forest and Climate Change, Government of India.

The GSDP course on Bamboo Crafts broadly covered aspects such as species and products range of bamboo, operation of processing machine, conversion of bamboo, product making & product design, roof design, furniture making etc. The programme aimed to develop skillful youths in a batch of 20 candidates to sustainably use local natural resources to generate income for sustaining livelihood and will boost rural economy. Sikkim ENVIS Hub and the host organization have established collaboration with local agencies and experts to ensure proper marketing of the products so that the returns benefit the hard work of the skilled youths.

GSDP Courses Offered	Eligibility criteria	Min. Age of candidate	No. of candidates per batch	Duration of the course	Course Date	No. of Candidates Employed/ Self-employed as entrepreneurs
Value Addition and Marketing of NTFP Products (Plant Origin): Bamboo Crafts	No minimum qualification	18 years and above	20 candidates	400 hrs, Up to 45 days	March 5-25, 2020	20 candidates self-employed as entrepreneurs



Hon'ble Minister Forest Shri Karma Loday Bhutia inaugurated GSDP Course on Bamboo Crafts, Forest Fire Management and Solar Energy Systems on March 5, 2020

Resource Persons engaged for 'Bamboo Crafts' GSDP course:

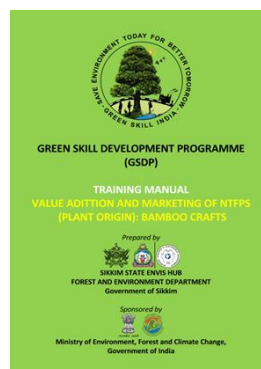
1. Dr. Tika Prasad Sharma, Bamboo Expert, Himalayan Science Society (HSS)
2. Shri. Anwar Hussain, Bamboo Artisan/ Master Trainer, Cane and Bamboo Training Centre (CBTC), Guwahati, Assam
3. Shri K. B. Limboo, Bamboo Artisan/ Master Trainer, HSS
4. Dr. Bharat Kumar Pradhan, Scientific Associate, Sikkim Biodiversity Board

Training Centres/ Hubs Infrastructure used for Training:

1. Forest Conference Hall, Gangtok (Theoretical)
2. Directorate of Handicraft & Handloom, Gangtok (exposure visit)
3. Cane & Bamboo Training Centre, Bermiok, West Sikkim

Tools/ Study Materials Used:

1. GSDP Course training manual in the form of booklet.
2. Bamboo crafting complete tool set, bamboo culms, kit bag, uniform etc.



Evaluation of Trainees: Candidates were continuously evaluated on daily basis based on the progress of hand skills developed and understanding of the course.

GREEN SKILL DEVELOPMENT PROGRAMME
On “Value Addition and Marketing of NTFPs (Plant Origin): Bamboo Crafts” (NSQF-5, 400 Hrs)
March 05 – April 13, 2020
Sikkim ENVIS Hub, Forest and Environment Department

DAY-WISE PROGRAMME SCHEDULE

Chief Collaborating Partner:

Himalayan Science Society (HSS), Cane and Bamboo Technology Centre (CBTC), Assam

DATE	VENUE	PROGRAMME
05/03/2020	Forest Conference Hall Gangtok, East Sikkim	10.00AM- 01.00 PM - Inaugural Session 2.00 PM- 5.00 PM Basic Orientation, Technical Session on Biodiversity Conservations and Climate Change – opportunities for Green Skilling - Dr. Bharat Pradhan, SBB
06/03/2020	Directorate of Handicraft & Handloom (DHH), Gangtok, East Sikkim	10.00AM- 01.00 PM Exposure visit cum Demonstration of bamboo handicrafts at Handicrafts, Zero Point , Gangtok - Dr. Tika Prasad Sharma, Bamboo Expert, HSS Candidates travel to Bermiok West Sikkim after lunch
07/03/2020 to 24/03/2020	Training Centre, Bermiok, West Sikkim	Theory & Practical – Bamboo Crafts
25/03/2020	Forest Conference Hall, Gangtok, East Sikkim	Training Valedictory
26/03/2020 to 13/04/2020	Training Centre, Bermiok, West Sikkim	Product Making and Finishing – Phase 1

COURSE CONTENT

Sl. No	Course	Time (in hrs)
01	Introduction about Bamboo: (Important of bamboo, distribution & Identification of species used for handicrafts making).	10 Hrs (Theory)
02	Bamboo culm harvesting and handling: (Age, harvesting technique, season & storage of culm/bamboo).	40 Hrs (Theory & Practical)
03	Bamboo preservation techniques: (Traditional & Chemicals methods)	50 Hrs (Theory & Practical)
04	Bamboo Handicrafts making: a) Training on tools operation and maintenance. b) Training on bamboo utility products (Tray, dustbin, basket, pen stained, etc.). c) Training on bamboo weaving products.(Lamp set, food basket etc.)	280 Hrs (Practical)
05	Marketing of bamboo handicrafts (Theory & Practical/ Exposure visits) (Challenges & Potential).	20 Hrs (Theory & Practical/ Exposure visits)
	Total	400 Hrs

Photographs



Exposure Visits to BSI, Gangtok and DHH, Gangtok



Bamboo culm harvesting and processing













Training on bamboo crafts






Photographs on Training








List of GSDP Participants for the Certificate course "Value Addition & Marketing of NTFPs (plant origin): Bamboo Crafts"

SN	Name of Candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Occupation and Status after Training
1	Mr. Ratan Limboo	M	ST	6/13/1998	RATA13061998	9083161943	1234567891000	Sumbuk 13th mile West Sikkim		Unemployed. Now trained bamboo artisan.
2	Mr. Sancha Man Limboo	M	ST	1/14/1985	SANC14011985	8372836575	408968059202	Sumbuk 13th mile West Sikkim		Unemployed. Now trained bamboo artisan.
3	Mr. Deepak Limboo	M	ST	10/6/1985	DEEP06101985	9083161943	222706838301	Sumbuk 13th mile West Sikkim		Farmer. Now trained bamboo artisan.
4	Mr. Tek Nath Sharma	M	OBC	8/2/1984	TEK 02081984	9735005552	912052975074	Rungdu Berthang West Sikkim		Unemployed. Now trained bamboo artisan.
5	Mr. Tek Bahadur Chettri	M	GEN	11/4/1985	TEK 04111985	7872128225	378297978280	Rungdu Berthang West Sikkim		Farmer. Now trained bamboo artisan.

SN	Name of Candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Occupation and Status after Training
6	Ms. Januka Sharma	F	GEN	4/14/1988	JANU14041988	7872982917	638137047821	Rungdu Berthang West Sikkim		Unemployed. Now trained bamboo artisan.
7	Ms. Pabitra Sharma	F	GEN	7/8/1988	PABI08071988	9735977120	853813185738	Thangshing West Sikkim		Unemployed. Now trained bamboo artisan.
8	Ms. Chandra Maya Chettri	F	GEN	3/29/1977	CHAN29031977	8436251204		Rungdu Berthang West Sikkim		Farmer. Now trained bamboo artisan.
9	Ms. Devi Maya Sharma	F	GEN	7/10/1972	DEVI10071972	8167496690	498049432718	Rungdu Berthang West Sikkim		Farmer. Now trained bamboo artisan.
10	Ms. Goma Sharma	F	GEN	6/9/1995	GOMA09061995	7872096470	385782588805	Rungdu Berthang West Sikkim		Farmer. Now trained bamboo artisan.

SN	Name of Candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Occupation and Status after Training
11	Ms. Kumari Limboo	F	ST	11/18/1984	KUMA18111984	9083103808	995674224986	Sumbuk 13th mile West Sikkim		Farmer. Now trained bamboo artisan.
12	Mr. Partiman Sharma	M	OBC	2/1/2002	Part01022002	8348142813	521890286247	Bermiok Berthang Ratomatey Thangsing 737113		Unemployed. Now trained bamboo artisan.
13	Mr. Lok Nath Sharma	M	OBC	4/16/1991	Lok_16041991	7363896791	855819487091	Bermiok Berthang Ratomatey Thangsing 737113		Unemployed. Now trained bamboo artisan.
14	Mr. Man Kumar Khati	M	SC	12/10/1996	Man_10121996	7427991533	631463885013	Bermiok Berthang Ratomatey Thangsing 737113		Unemployed. Now trained bamboo artisan.
15	Mr. Krishna Lall Limboo	M	ST	10/16/1976	Kris16101976	9800320919	530623720107	Sumbuk 13th mile West Sikkim		Unemployed. Now trained bamboo artisan.

SN	Name of Candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Occupation and Status after Training
16	Mr. Mani Kumar Subba	M	ST	9/8/1997	Mani08091997	7076800301	868239444707	Bermiok Berthang Ratomatey Thangsing 737113		Unemployed. Now trained bamboo artisan.
17	Mr. Dhan Bahadur Rai	M	OBC	4/2/1980	Dhan02041980	9593884746	362580613837	Bermiok Berthang Ratomatey Thangsing 737113		Unemployed. Now trained bamboo artisan.
18	Mr. Abhishek Limboo	M	ST	7/12/1986	Abhi12071986	9800320919	507914263728	Sumbuk 13th mile West Sikkim		Unemployed. Now trained bamboo artisan.
19	Ms. Bindya Limboo	F	ST	8/23/2001	Bind23082001	9083161943	702794709807	Sumbuk 13th mile West Sikkim		Unemployed. Now trained bamboo artisan.
20	Ms. Ambika Sharma	F	GEN	7/22/1980	AMBI22071980	7076538789	698276587462	Rungdu Berthang West Sikkim		Farmer. Now trained bamboo artisan.

3. Implementation of GSDP Course : Forest Fire Management



The Green Skill Development Programme on “Forest Fire Management” is a 300 Hrs certificate course under National Skill Qualification Framework (NSQF) level 5 and was implemented in the State of Sikkim under the aegis of the Ministry of Environment, Forest and Climate Change, Government of India.

The GSDP course on Forest Fire Management broadly aimed to provide a comprehensive understanding and basic skill in handling of forest fires with modern techniques/equipment in the pursuit. It course was imparted to explain the causes and the effects, impacts of forest fires, forest degradation and its impact on ecosystem, forest fire safety tips, forest fire monitoring, application of remote sensing and GIS in forest fire, etc. The course facilitated development of forest disaster preparedness, mitigation & management, leadership among individuals at the ground. The candidates are now able to contribute in generating awareness and up-gradation for sustainable development in the community.

The area of interest for the training was South District due to the fact that South District is relatively dryer district and most prone to forest fires. The Reserve Forest here are prone to forest fires due to its proximity to the district highways and the inter-linking roads. It was felt imperative to target these areas for creating a pool of forest fire fighters, trainers and ambassadors to save the natural forest of the State.

All the 20 candidates successfully completed the training and have been enrolled in local bodies such as Joint Forest Management Committees (JFMCs), Eco-Development Committees (EDCs) that are local bodies of State Forest and Environment Department and under Disaster Management entities.

GSDP Courses Offered	Eligibility criteria	Min. Age of candidate	No. of candidates per batch	Duration of the course	Course Date	No. of Candidates Employed/ Employed training	Self-post
Forest Fire Management	Class X / School Dropout	18 years and above	20 candidates	300 hrs, Up to 40 days	March 5-20, 2020	20 candidates engaged in JFMC/ EDC, and self-employed	



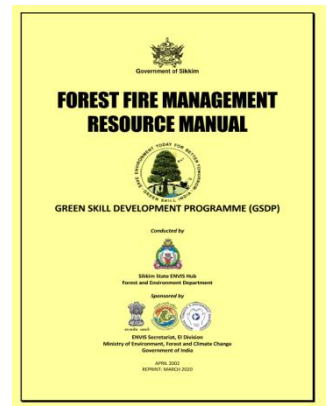
Candidates with subject expert (in the center) Shri Jigme S. Tsewang, DFO (Survey & Demarcation) during the inaugural theoretical session at Forest Conference Hall, Gangtok on March 6, 2020

Resource Persons engaged for ‘Bamboo Crafts’ GSDP course:

1. Shri Jigme S. Tsewang, DFO (Survey & Demarcation),
2. Shri. Tsheten Tashi Lepcha, ACF (T), Namchi, South Sikkim
3. Smt. Bindya Subba, ACT (T), Soreng, West Sikkim
4. Dr. Bharat Kumar Pradhan, Scientific Associate, Sikkim Biodiversity Board

Training Centres/ Hubs Infrastructure used for Training:

1. Forest Conference Hall, Gangtok (Theoretical)
2. Block Administrative Centre, Salghari, South Sikkim
3. Panchayat Bhawan, Rong, South Sikkim
4. Sumbuk, South Sikkim



Tools/ Study Materials Used:

1. Comprehensive GSDP Course training manual in the form of booklet consisting of 148 pages.
2. Forest fire fighting tools, equipment, kit bag, uniform etc.



Evaluation of Trainees: Candidates were continuously evaluated on daily basis and viva-voce was held as a part of evaluation exercise. .

GREEN SKILL DEVELOPMENT PROGRAMME
On “Forest Fire Management” (NSQF-5, 300 Hrs)
March 05 – 25, 2020
Sikkim ENVIS Hub, Forest and Environment Department

DAY-WISE PROGRAMME SCHEDULE

Chief Collaborating Partner: Territorial Division, Forest and Environment Department, Government of Sikkim

Circles/ Divisions for Subject Experts: SBB, Environment & Soil Conservation, Working Plan, Survey & Demarcation, Wildlife, GIS Cell

Field/ Hand-on Training Experts:

1. Shri. Tsheten Tashi Lepcha, ACF (T), Namchi, South Sikkim
2. Smt. Bindya Subba, ACT (T), Soreng, West Sikkim

DATE	VENUE	PROGRAMME
05/03/2020	Forest Conference Hall Gangtok, East Sikkim	10.00AM- 01.00 PM - Inaugural Session graced by Hon’ble Minister Forest Shri Karma Loday Bhutia 2.00 PM- 5.00 PM Basic Orientation, Technical Session on Biodiversity Conservations and Climate Change – opportunities for Green Skilling - Dr. Bharat Pradhan, SBB
06/03/2020 to 11/03/2020	Forest Conference Hall, Gangtok, East Sikkim	9.30AM- 04.30 PM Introduction of Forest/ Forest Cover and Socio Economic Significance of the Forests, Types of Forest fire /Forest degradation and its Impact on Ecosystem, Forest Ecology Forest Fire – The Global/ Indian/ State Scenario, State specific Forest Fire Management - Shri Jigme Tsewang, DFO - Dr. Bharat Pradhan, SBB
11/03/2020 to 24/03/2020	BAC, Sumbuk, Rong, Salghari, South Sikkim	Theory & Practical – Forest Fire Management
25/03/2020	Rong, South Sikkim	Valedictory





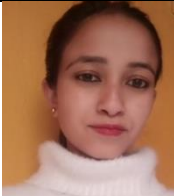







Photographs












Training activity involved the participants to prepare compost from sal leaves using cowdung and using organic waste decomposer; all male participants actively participated in preparing the compost pit and the female participants collected the sal leaves. Two number of compost pit of size 10' X 5' each was prepared at Salghari and Sumbuk. The natural manure is expected in two months. The manure will be marketed by the candidates.

List of GSDP Participants for the Certificate course "Forest Fire Management"

S N	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Pass Photo	Occupation and Status after training
1	Kailash Rai	M	OBC	1/1/1977	KAIL29012020	7407380677	686705449261	Khanigoan Busty P.O Rong South Sikkim		Farmer. Now part of EDC.
2	Pabitra Chettri	F	OBC	1/1/1977	PAB1011977	8372003202	352020147667	Melli Paiyong South Sikkim - 737128		Unemployed. Now part of JFMC.
3	Samten Lamu Tamang	F	ST	1/10/1979	SAMT01101979	8145310707	423145219900	Melli Kerabari South Sikkim		Unemployed. Now part of JFMC.
4	Arjun Rai	M	OBC	12/9/1997	ARJU12091997	8076981107	975555061776	Lower Salghari GPU Salghari South Sikkim		Unemployed. Now part of JFMC.
5	Sharmila Kami	F	SC	11/10/1997	SHAR11101997	8116650432	756876567906	Sumbuk Kartikey South Sikkim		Unemployed. Now part of JFMC.

S N	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Pass Photo	Occupation and Status after training
6	Dhamanta Darjee	F	SC	3/6/1992	DHAM030611992	8348530870	651899117106	Sumbuk South Sikkim		Unemployed. Now part of JFMC.
7	Ganga Bdr Chettri	M	OBC	6/6/1951	GANG06061951	9733078712	741002455108	Sumbuk South Sikkim		Farmer. Now part of JFMC.
8	Damber Kumar Pradhan	M	OBC	4/3/1964	DAMB04031964	9002870016	335370533944	Sumbuk Kartikey South Sikkim		Farmer. Now part of JFMC.
9	Narjit Rai	M	OBC	1/1/1951	NARJ01011951	8158833101	720881659975	Upper Dorop Salghari South Sikkim		Farmer. Now part of JFMC.
10	Anil Rai	M	OBC	25/08/1990	ANIL25081990	9775388808	895249549720	Upper Dorop Salghari South Sikkim		Unemployed. Now part of JFMC.

S N	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Pass Photo	Occupation and Status after training
11	Hukam Chandra Rai	M	OBC	17/05/1977	HUKU29012020	8967596841	530427508484	Rong Lungkhyia South Sikkim		Farmer. Now part of EDC.
12	Noel Mangar	M	OBC	1/1/1983	NOEL29012020	8768133839	581920092451	Rong Busty P/O Rong South Sikkim		Farmer. Now part of EDC.
13	Santosh Rai	M	OBC	9/9/1966	SANT09091966	9775832241	829281454126	Lower Darop Salghari GPU South Sikkim		Farmer. Now part of JFMC.
14	Susan Mangar	M	OBC	4/6/1996	SUSA09081996	5897086128	409041619887	Namchi Dhargoan South Sikkim		Unemployed. Now part of JFMC.
15	Kailash Das Mangar	M	OBC	15/15/1984	KAIL15051984	9647877454	641057019369	Namchi Dhargoan South Sikkim		Unemployed. Now part of JFMC.

S N	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Pass Photo	Occupation and Status after training
16	Archana Chettri	F	OBC	7/2/1997	ARCH07021997	9593710381	957538382901	Aritar Kuitar Near Khamdong JHS Aritar East Sikkim		Unemployed. Now part of JFMC.
17	Chandra Kumar Subba	M	ST	1/1/1957	CHAN01011957	9593984662	283737643229	Namchi Salghari South Sikkim		Farmer. Now part of JFMC.
18	Rajesh Mangar	M	OBC	6/8/1991	RAJE06081991	8158049758	542746145489	Namchi Daragaon South Sikkim		Unemployed. Now part of JFMC.
19	Kiran Rai	M	OBC	0/01/1982	KIRA09011982	8101763905	292557115014	Lower Salghari Near Panchyat Bhawan South Sikkim		Farmer. Now part of JFMC.
20	Surash Kumar Rai	M	OBC	20/05/1980	SURE20051980	9735990277	664368315124	Lower Dorop Salghari South Sikkim		Unemployed. Now part of JFMC.

4. Implementation of GSDP Course : Sustain and Enhance Technical Knowledge in Solar Energy Systems



The Green Skill Development Programme on “Sustain and Enhance Technical Knowledge in Solar Energy Systems” is a 240 Hrs certificate course under National Skill Qualification Framework (NSQF) level 5 and was implemented in the State of Sikkim under the aegis of the Ministry of Environment, Forest and Climate Change, Government of India.

The course meticulously covered solar energy concepts, basic electrical principles and their usage, solar PV modules, practical knowledge of types, sizes and specifications of modules/panels and their handling, functioning of solar photo voltaic power plant and its components.

The training programme aimed to bridge the gap between theoretical learning and implementation of knowledge with requisite technical expertise for taking on detailed Solar PV plant designing, installation and maintenance. The course aimed to promote entrepreneurship and served as base for livelihood development.

Total 25 candidates were enrolled for this GSDP course. Sikkim ENVIS Hub collaborated with Sikkim Renewable Energy Development Agency (SREDA), an autonomous government body of the State Power and Energy Department. The core part of the training was conducted by two experts from Global Sustainable Energy Solution (GSES), New Delhi on recommendation of SREDA. The training was successfully completed with 15 candidates being inducted into temporary services and entrepreneurship.

GSDP Courses Offered	Eligibility criteria	Min. Age of candidate	No. of candidates per batch	Duration of the course	Course Date	No. of Candidates Employed/ Self-employed	Candidates Self-post training
Sustain and Enhance Technical Knowledge in Solar Energy Systems	Class X / School Dropout	18 years and above	25 candidates	240 hrs, Up to 36 days	March 5-20, 2020	10 candidates employed in government autonomous body and 5 candidates self-employed. Remaining 10 candidates to set on entrepreneurship soon.	



Orientation classes being conducted by Shri Dilip Kr. Sharma, Chief Engineer (SREDA), at Forest Secretariat Block C.

Resource Persons engaged for ‘Bamboo Crafts’ GSDP course:

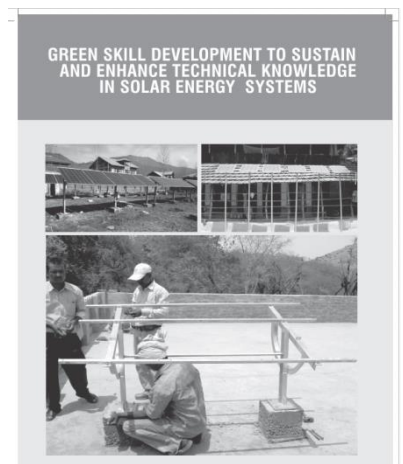
1. Shri. Dilip Kumar Sharma, Addl. Chief Engineer, SREDA
2. Shri Pranab Nath, Global Sustainable Energy Solution, New Delhi
3. Shri Ajay Sahoo, Global Sustainable Energy Solution, New Delhi
4. Dr. Bharat Kumar Pradhan, Scientific Associate, Sikkim Biodiversity Board

Training Centres/ Hubs Infrastructure used for Training:

1. SPCB-Forest Conference Hall, (Orientation classes)
2. Gangtok Forest Conference Hall, Gangtok (Theoretical)
3. Solar PV plant, Forest Secretariat ‘D’ Block

Tools/ Study Materials Used:

1. Comprehensive GSDP Course training manual in the form of booklet consisting of 225 pages.
2. Solar PV tool kit set, equipment, kit bag, uniform etc.
3. Solar PV 1 KW off grid plant



Evaluation of Trainees: Candidates were continuously evaluated based on written assignments and theory exams.

GREEN SKILL DEVELOPMENT PROGRAMME
On “Sustain and Enhance Technical Knowledge in Solar Energy Systems” (NSQF-5, 240 Hrs)
March 05 – 25, 2020
Sikkim ENVIS Hub, Forest and Environment Department

DAY-WISE PROGRAMME SCHEDULE

Chief Collaborating Partner: SREDA, Power and Energy Department, Government of Sikkim

Co-Partner Agencies for Subject Experts: Global Sustainable Energy Solution (GSES), New Delhi, India

Core Training Experts:

1. Shri. Dilip Kumar Sharma, Addl. Chief Engineer, SREDA
2. Shri Pranab Nath, GSES, New Delhi
3. Shri Ajay Sahoo, GSES, New Delhi






DATE	VENUE	PROGRAMME
05/03/2020	Forest Conference Hall Gangtok, East Sikkim	10.00AM- 01.00 PM - Inaugural Session graced by Hon'ble Minister Forest Shri Karma Loday Bhutia 2.00 PM- 5.00 PM Basic Orientation, Technical Session on Biodiversity Conservations and Climate Change – opportunities for Green Skilling - Dr. Bharat Pradhan, SBB
06/03/2020 to 10/03/2020	Forest Conference Hall, Gangtok, East Sikkim	9.30.00AM- 04.30 PM Introduction to Renewable Energy and Solar Energy, Solar Energy and Climate Change, Current Regulations, Prospects of Solar Energy in Sikkim - Shri. Dilip Kumar Sharma, Addl. Chief Engineer, SREDA
11/03/2020 to 21/03/2020	Forest Conference Hall, Gangtok, East Sikkim Forest Secretariat Premise, Deorali, Gangtok	Theory & Practical – Solar PV Systems - Shri Pranab Nath, GSES, New Delhi - Shri Ajay Sahoo, GSES, New Delhi Evaluation
21/03/2020	Forest Conference Hall, Gangtok, East Sikkim	Valedictory
Deferred due to Nation-wide Lockdown owing to COVID-19 pandemic		Installation, testing and examination of 1 KW off grid solar PV plant (Venue to be decided)













Photographs













List of GSDP Participants for the Certificate course "Sustain and Enhance Technical Knowledge in Solar Energy Systems"

SN	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Status post training
1	Ms. Tenzing Zangmu Bhutia	F	ST	12/10/1997	Tenz10121997	7431068310	533548591881	Syari Tathangchen East Sikkim		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
2	Mr. Pema Wangyal Bhutia	M	ST	5/9/1990	Pema09051990	7318789450	982375807009	Gangtok Arithang, East Sikkim-737101		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
3	Ms. Nisha Biswakarma	F	SC	2/15/1995	Nish15021995	7029380448	725445156354	D.P.H Road Gangtok East Sikkim		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
4	Ms. Srijana Chettri	F	OBC	1/10/1996	Srij10011996	8116390401	998577614353	6th mile tadong, Gangtok East Sikkim 737102		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
5	Mr. Nor Tshering Lepcha	M	ST	4/19/1995	Nor_19041995	9635411636	806027070542	Rey Mindu Gangtok East Sikkim 737135		Temporarily Employed as Jr. Engineer at Power and Energy Deptt

SN	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Status post training
6	Mr. Rakesh Barailly	M	SC	12/21/1991	Rake21121991	9593776820	886033911926	Upper Sichey MW, U/Sichey Road, Below Tamang Gumpa Gangtok East Sikkim 737101		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
7	Ms. Nonita Khulal	F	OBC	9/30/1991	Noni30091991	8389976271	441662372675	Upper Sumin Panchayat Bhawan Lingzey East Sikkim		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
8	Mr. Mohan Kumar Basnett	M	OBC	7/21/1985	Moha21071985	9002301211	889183942268	Martam Nazitam, Martam Near BAC Martam U/Martam Gangtok, East Sikkim		Temporarily Employed as Lineman at Power and Energy Deptt
9	Mr. Pawan Gajmer	M	SC	12/15/1995	Pawa15121995	8278770409	381715039217	Gangtok, Municipal Corporation Upper Burtuk, Chawtaradara u/burtuk Gangtok East Sikkim - 737101		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
10	Mr. Nitesh Pradhan	M	OBC	4/17/1989	Nite17041989	9641437580	673007316246	West Pendam, Ralong East Sikkim- 737134		Temporarily Employed as Jr. Engineer at Power and Energy Deptt

SN	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Status post training
11	Ms. Ugen Yangchen Bhutia	F	ST	1/15/1997	Ugen15011997	7432045442	266070142572	Kabi- Rongpa, Near Kabi Gumpa, Kabi Rongpa, Kabi North Sikkim, Mangan Sikkim 737117		Temporarily Employed as Jr. Engineer at Power and Energy Deptt
12	Mr. Kushal Rai	M	OBC	7/3/2000	Kush03072000	8167733415	272639745602	Rong bull, Khanigaon Singtam, Namchi South Sikkim - 737126		Unemployed
13	Mr. Kamal Bishwarma	M	SC	11/18/1989	Kama18111989	8327224790	926732060675	Burung PW Sajong Road Central Pendam GPU Near Sajong Diary Central Pendam Upper Pendam E- Sikkim 737132		Technician
14	Ms. Lha Tshering Tamang	F	ST	1/27/1999	Lha_27011999	8782866367	895685168255	Salghari South Sikkim		Unemployed Solar ambassador of Salghari village
15	Ms. Saroja Darjee	F	SC	5/5/1998	Saro05051998	8159959769	691743431442	Sunteley PW Sumbuk Kartikey GPU Sumbuk S. Sikkim 737128		Unemployed Solar ambassador of Sumbuk village

SN	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Status post training
16	Mr. Saphal Rai	M	OBC	7/3/2001	Saph03072001	8768810127	641863864065	Khanigaon, PW, Rong Bull GPU Rong South Sikkim 737126		Unemployed
17	Ms. Rajni Chettri	F	OBC	6/20/1997	Rajn20061997	7076855972	918869645425	Arithang, Chongrang West Sikkim 737111		Unemployed Solar ambassador of Chongrang village
18	Ms. Safira Rai	F	OBC	10/3/1988	Safi03101988	9593267556	938143478807	Upper Salghari Near Panchyat Bhawan Namchi South Sikkim		Unemployed Solar ambassador of Salghari village
19	Mr. James Rai	M	OBC	6/22/1996	Jame21022020	7076391258	483660375431	Rong PW, Rong Bull GPU Rong, South Sikkim		Unemployed Solar ambassador of Rong village
20	Ms. Rabina Rai	F	OBC	11/26/1996	Rabi26111996	7063756391	359728600663	Salghari South Sikkim		Unemployed Solar ambassador of Salghari village

SN	Name of candidate	Gender	Category	Date of birth	Unique ID	Mobile no.	Aadhar No.	Address	Photo	Status post training
21	Mr. Bidhan Rai	M	OBC	11/21/2001	Bidh21112001	9002868819	406413670330	Upper Dorop Salghari		Unemployed
22	Mr. Bhoj Raj Rai	M	ST	16/08/2001	Bhoj16082001	6294860953	559154972593	Upper Salghari Near Panchyat Bhawan Namchi South Sikkim		Unemployed
23	Mr. Sanjay Darjee	M	SC	9/20/1993	Sanj20091993	7479374216	641226309800	Melli Payong South Sikkim 737128		Technician at Electronic/Mobile Shop
24	Mr. Khus Narayan Adhikhari	M	OBC	10/12/1990	Khus12101990	9679190691	250560613485	Central Pendam Duga Below Sajong JHS Central Pendam Upper Pendam Gangtok East Sikkim 737132		Technician
25	Mr. Birendra Chettri	M	OBC	2/25/1988	Bire25021988	8348131910	Voter Identity card No.IRZ0045641 AAadhar Card No. under process	Kartikey, Sumbuk/Jorethang Police Station South Sikkim		Technician Solar ambassador of Sumbik village

SIKKIM ENVIS HUB TEAM



From Left: Mr Laxuman Darnal, Information Officer; Ms Kusum Gurung, Joint Director; Mr B B Gurung, Director; Ms Renu Gurung, IT Officer; Mr. Rajen Pradhan, Sr Programme Officer



Third From Left: Ms Tulsha Gurung, Data Entry Operator;

ENVIS Support Staff provided by the host organization:

1. Ms. Hem Maya Gautam, Office Attendant
2. Mr. Buddhbir Rai, Office Attendant
3. Mr. Agam Singh Subba, Office Attendant
4. Ms. Angelina Rai, Data Entry Operator
5. Ms. Kavita Tamang, Environmental Assistant
6. Mr. Heman Subba, Environmental Assistant

SIKKIM ENVIS HUB OFFICE

