# Report

# **State Level Workshop**

on

# "National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity"

(19<sup>th</sup> February, 2018)

at

Regency Hall, Hotel Holiday Home, Shimla, Himachal Pradesh



# **Himachal Pradesh State Biodiversity Board**

O/o H.P. Council for Science Technology and Environment, H.P Vigyan Bhawan, Bemloe, Shimla – 171 001 (Phone 0177-2656489, Fax 0177-2620998)

#### **Background:**

Article 6 of CBD enjoins upon all Parties to prepare national strategies, plans or programmes for conservation and sustainable use of biodiversity, and to integrate conservation and sustainable use of biodiversity into relevant sectoral and cross-sectoral plans, programmes and policies. In pursuance to CBD, India enacted the Biological Diversity Act in 2002. Section 36 of the Act empowers the Central Government to develop national strategies, plans or programmes for conservation and sustainable use of biodiversity, and to integrate biodiversity concerns into relevant sectors.

Pursuant to ratification of CBD, following an extensive consultative process with various stakeholders an action plan Strategy on Biodiversity was developed, and approved by Committee of Secretaries in 1999, which was submitted to the CBD Secretariat. Thereafter, the Ministry of Environment and Forests implemented an externally-aided project on National Biodiversity Strategy and Action Plan (NBSAP) from 2000-2004, under which 33 state level, 10 eco-region level, 18 local level and 13 thematic action plans were prepared. On the basis of these action plans, a final technical report of NBSAP project was prepared. While this report was accepted in 2005, it was decided that preparation of the NBAP could be taken up only after approval of the National Environment Policy. The Cabinet approved the National Environment Policy in 2006. Thereafter, preparation of National Biodiversity Action Plan (NBAP) was taken up, by revising and updating the National Policy and action strategy on Biodiversity developed in 1999, and by using the final technical report of the NBSAP project, so that the NBAP is in consonance with the National Environment Policy. The revised NBAP incorporating the comments received has been approved by the Cabinet on 6th Nov 2008. The NBAP document has been printed and formally released by the Minister of State, MoEFCC on 24<sup>th</sup> Feb, 2009.

The NBAP draws from the principle in the National Environment Policy that human beings are at the centre of concerns for sustainable development and they are entitled to a healthy and productive life in harmony with nature. This Action Plan identifies threats and constraints in biodiversity conservation taking into cognizance the existing legislations, implementation mechanisms, strategies, plans and programmes, based on which action points have been designed.

Himachal Pradesh State Biodiversity Board organise one day State Level Workshop on "National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity" on 19<sup>th</sup> February, 2018 at Regency Hall, Hotel Holiday Home, Shimla, Himachal Pradesh for the representatives of various line departments, indigenous peoples, local communities, as well as representatives from relevant sectors, business, civil society organizations and non-governmental organizations NGO's for the preparation of the national report.

One day State Level Workshop on "National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity" was organised as per the technical schedule (Annexure-I).

#### **Inaugural Session**

Before the start of the workshop, the participants from the representatives of various line departments (such as Agriculture, Ayurveda, Forests, Health, Education, Industry, Tourism, Planning, Horticulture, Fisheries, Animal Husbandry, etc.), indigenous peoples, local communities, as well as representatives from relevant sectors, business, civil society organizations and non-governmental organizations (NGO's) were registered from 9.30 am to 10.15 am by the H.P. State Biodiversity Board at Regency Hall, Hotel Holiday Home, Shimla, Himachal Pradesh.

The brief information and list of participants who attended the workshop has been given in the table as follows:-

S. N.	Name	Complete Address	Contact No.
1.	Dr. Arun Chauhan	Regional Director (RCFC) Regional-cum- Facilitation Center, Joginder Nagar-175045 HP	7018001026
2.	Sh. Om Prakash	Senior Project Fellow G.B. Pant National Institute of Himalayan Environment & Sustainable Development Regional Centre, HP Unit, Mohal, Kullu – 175126, Himachal Pradesh, India	94186-48706
3.	Sh Vijay Kumar	G.B. Pant National Institute of Himalayan Environment & Sustainable Development Regional Centre, HP Unit Mohal, Kullu – 175126, Himachal Pradesh, India	98170-96542
4.	Sh. Abhiraj Thakur	Career Point University Hamirpur Campus : Bhoranj (Tikker - Kharwarian), Hamirpur, [H.P] - 176041	94184-01708
5.	Sh. M.L Azad	Addi Director (S) Dept of HR H.P	94184-55013

6.	Ms. Arti Jamwal	Assistant Prof. Career Point University Hamirpur Campus : Bhoranj (Tikker - Kharwarian), Hamirpur, H.P.	8988079030
7.	Sh. Pankaj Kumar Mishra	Sr. Programmer Directorate of Land Record, B-28 SDA Complex Kasumpti Shimla	95825-97592
8.	Sh. Pana Lal Shrama	APRO, HIMURJA, Shimla-9	-
9.	Sh. Ujjwal Deep Sharma,	Distt Officer, RIISM Jogindernagar, Distt Mandi, HP	94180-84187
10.	Sh. Narender Kumar	Scientist, ICAR-NBPGR RS Shimla, HP	94183-17331
11.	Sh. Dinesh Agarwal	Yugmarg News Paper, Shimla, HP	94180-68287
12.	Dr. KK Parmanick	Head & PsICAR-IARI REG STN Amartara Cottage Shimla-4	98170-75535
13.	Sh. Raman Sharma	Himachal Dastak Shimla	-
14.	Sh. Hitender Sharma	Joint Director, FTI Chail, Solan HP	94184-59858
15.	Sh. Atul Chaudhary	Dy. Director, FTI Chail, Solan HP	94180-96909
16.	Sh Dinesh Kumar	AIR Shimla, HP	94186-25697
17.	Dr. Sunil K. Baniyal	Directorate of Hr. Education, Science Consultant, Himachal Pradesh	98165-96300
18.	Sh. Manoj Chauhan	HPSEB, Shimla-9	94180-44033
19.	Sh. Pushpender	MH one News	94598-02846
20.	Sh. Parveen Kumar	Directorate of Land Records B-28 SDA Complex Kasumpti Shimla-9	94184-61187
21.	Smt. Arti Gupta	WWF-India State Office Gate No-2 BCS New Shimla-9	94183-42479
22.	Prof. N.S Chauhan	Pharma, Sr. Consultant NBPGR GoI, Ex. Prof & Head UHF, Nauni Solan, H.P.	98050-25350
23.	Sh. Anil Kumar Shrma	Apka Fainsla, New Paper, Shimla	94187-61185
24.	Dr. Sushit Gupta	CCF Wildlife Shimla, HP	
25.	Dr. B.D. Sharma	Ex. PS & Head NBPGR Reg. Phagli Shimla	941888-00350
26.	Dr. L.C. Bandana	DFO (Research) at Karnody, Sundernagar, Distt Mandi, HP	-
27.	Sh. Rajender kaith	City Chennal, Shimla	94184-25887
28.	Sh. S.S. Kanwar	Prof. Biotechnology, HPU Shimla, HP	-
29.	Ms. Anjana Thakur	PRO IIRD, Shimla, HP	-
30.	Sh. Kalyan Parimata	Channel 9 Shimla, HP	-
31.	Sh. Ajay Bhatiya	Danik Bhaskar, Shimla	-
32.	Sh. Bhupender Sharma	Ajit Samachar, shimla	94180-11644
33.	Dr. Vishal S. Rana	Principal Scientist, Dr. YS Parmar University Nauni Solan, HP	94184-57401
34.	Ms. Sujata	Himvani Shimla	-
35.	Sh. J.S. Chauhan	Public Welfare & National Intergtion Society Jhokhad Tehsil Chopal Distt Shimla	-
36.	Ms. Archana Phull	The Statesman Shimla	94180-28111
37.	Sh. Sanjay Sharma	Dy Director, Industries, Shimla-1	94184-81174

38.	Sh. Suresh Rajta	Divya line Media Shimla, HP	98170-70905
39.	Sh. Lam porle	Himachal News, Shimla	88945-55050
40.	Sh. Ranbir Singh	News 18, Shimla, Hp	98171-71976
41.	Sh Deepak Rana	News 18 Shimla, HP	89884-40899
42.	Sh. V.D. Sharma	NDTV Shimla, HP	93185-27027
43.	Sh. Dolap	Kawasaki, Shimla, HP	88948-56814
44.	Sh. P.L. Gautam	Vice Chanceller Career Point University Hamirpur	9459376233
45.	Dr. Hemant Sood	Associate Professor JUIT, Waknaghat Solan,	9418689098
46.	Sh. Sanjay Sood	A P R P Shimla	9418065293
47.	Dr. Sanjay Uniyal	CSIR- IHBT, Palampur - 176061	9418070321
48.	Sh. Deepak Kumar	AIR Shimla	7018146558
49.	Sh. M. S. Kashyap	DPRO Shimla	-
50.	Sh. Balbir Chauhan	ANI News Shimla	-
51.	Sh. Lekh Ra	Himachal Abhi Abhi	-
52.	Sh. Abhinaya	Himachal Media (Hill Post)	-
53.	Sh. Tara Chand Thakur	Directorate of Higher Education, HP Shimla	9418006220
54.	Sh. Chuni Lal	Top Floor P.O. Building Banjar 175123 Kullu, HP	9418133427
55.	Sh. Tapash Chauha	Assistant Director FisheriesShimla	9418464184
56.	Sh. Shyam	Asst Prof. SBS IIT Mandi -175005	86280-88505
57.	Ms. Bandana Kumari	Project Fellow, IIT Mandi Medicinal Plant Lab	98170-81034
58.	Sh. Badal Singh	Scientist ICAR-NBPGR RS Shimla	99116-34202
59.	Dr. S.P Bhardwaj	Expert Group Member. H,N 8 IAS Colony Panthghati Shimla	-
60.	Dr. Hemant Gupta	CES HPPCL Shimla, HP	-
61.	Dr. P. Sharma	Prof UHF Nauni, Solan HP	94181-48202
62.	Sh. DP Sharma	UHF Nauni, Solan, HP	94184-64081
63.	Sh. C.L Thakur	UHF Nauni, Solan, HP	94188-28456
64.	Dr. Lal Singh	Himalayan Research Group Umesh Bhawan Chotta Shiml-171002 HP	98160-26820
65.	Dr. Ashok Chauhan	Assit. Director, O/o Deputy Director Animal Health breeding Shimla	94180-76324
66.	Sh Kamal Thakur	TV 100 News Shimla	94183-00279
67.	Dr. Anil Kant	Dept of Biotechnology, Jaypee University Waknaghat Solan	98163-05931
68.	Dr. GL Panday	Dy Director Dept of Health Directrate, Shimla	94184-57856
69.	Suresh Sharma	SMS (Placement cell) Directorate of Agriculture, HP Shimla	9805740341
70.	Dr Uvi tyagi Barwal	OSD to DH, D/O Health and Family Welfare Kusumpti, Shimla HP	-
71.	Dr Rakesh R Bhardwaj	OSD to DHSR, D/O Health, Safety and Regulation, Shimla HP	-
72.	Dr Shushma Sharma	Deptt. of Bio Sciences, HPU Shimla	-

73.	Rajender Thakur	APO, HPVHA New Shimla	-				
74.	B R Thakur	Team Member, HPUHA childline	-				
75.	Dr Mahender S Thakur	Serve Himalaya Society, Gupta Cottage, Near Central School Lakkar Bazar, Shimla	-				
76.	Dr Jai Dev	Professor, Deptt of Seed Sci and Technology, CSK HPKV Palampur	9418054450				
77.	Shishu Sharma	DD/ AIR	9418013038				
78.	Deepak	AIR Shimla	9418119496				
79.	Gauri Das	Arya Samaj, Shimla	-				
80.	Om Prakash Thakur	Reporter	9625932530				
81.	Meenakshi Sharma	Himvani, Reporter, Shimla	8626846079				
82.	Jai Singh	Asst Director, Fisheries, Bilaspur	9418800458				
83.	Kuldeep Singh	Aapka Faisla, Reporter, Shimla	9418877115				
84.	Lalit Kumar	The Statesman, Reporter, Shimla	9418588653				
85.	Devender Hetta	Punjab Kesari, Reporter, Shimla	9817006350				
86.	Rakesh Kumar	DD news,Reporter, Shimla	9816586722				
87.	Ujwal Sharma	Hinsustan Samachar, Reporter Shimla	9418187690				
88.	Tina Thakur	Adartsh Himachal, Reporter, Shimla	9418694594				
89.	Surjeet Singh	Deputy Director/ Project Director, SHNA PMKSY-WDC R.D.D. HP	9418042680				
	Officials and S	Staff of H.P. State Biodiversity Board, Shiml	a				
90.	Sh. Kunal Satyarthi	Member Secretary	9410394349				
91.	Dr. M.L. Thakur	State Project Coordinator	-				
92.	Mrs. Priyanka Sharma	Sr. Scientific Assistant	-				
93.	Dr. Pankaj Sharma	Sr. Scientific Professional	9418776534				
94.	Dr. Navjot Kaler	Scientific Professional	-				
95.	Mr. Vineet Negi	Scientific Assistant	-				
96.	Sh. Amit Rana	DEO	9418800179				
97.	Ms. Monika Thakur	Computer Assistant	-				
98.	Mrs. Poonam Dharma	Junior Account Assitant	-				
99.	Sh. Surender	Driver	-				
100.	Sh. Durgesh	Driver	-				
101.	Sh. Pritam	Driver	-				

The function started by lighting of the Lamp by Chief Guest Smt. Manisha Nanda Addl. Chief Secretary, Environment Science & Technology Govt. of Himachal Pradesh. Sh. Kunal Satyarthi, Member Secretary, Himachal Pradesh State Biodiversity Board welcomed the participants and other dignitaries on the Dias and representatives of various line departments (such as Agriculture, Ayurveda, Forests, Health, Education, Industry, Tourism, Planning, Horticulture, Fisheries, Animal Husbandry, etc.), indigenous peoples, local communities, as well as representatives from relevant sectors, business, civil society organizations and non-governmental organizations (NGO's).

Smt. Manisha Nanda Addl. Chief Secretary, Environment Science & Technology Govt. of Himachal Pradesh was requested to share her wisdom and bless all the participants from her words of encouragement. In her address she pointed out the role and importance of biodiversity and need for its conservation. She also briefed about the rich and varied biodiversity of Himachal Pradesh. She also talked about the importance of the current event and how critical and fruitful the feedbacks would be from this event. She briefed about the forest wealth of the state and educated about the role and responsibilities of the communities that are living very closely with the forest land and in relation to the rich biological wealth of the State. In her valuable talk she also mentioned that rural people of interior areas rely heavily on medicinal plants with around 500 medicinal plants used by local for curing the ailments, a number medicinal plants are also in heavy demand in industries hence accounting for a very high annual trade of medicinal plants in addition it was also noted that horticulture sector of the state alone generates around 4000 crores annually. So in her speech after pointing out the importance and scope of biodiversity she laid stress on how and why this valuable biodiversity should be conserved. She also informed everyone about the indegenious communities of Himachal Pradesh and TK that is with held within these communities.

Sh. Kunal Satyarthi briefed the participating about the historical background and purpose of organising one day State Level Workshop on "National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity". He informed the participants about the activities of the Himachal Pradesh State Biodiversity Board (HPSBB) and various steps being taken up by HPSBB for implementation of the Biological Diversity Act, 2002 in the State.

Dr. Ishwar C. Poojar, Project Manager, UNEP GEF MoEFCC ABS Project, NBA, Chennai briefed about CBD history, NBAP, NBT importance and preparation of India's sixth National Report to CBD and its relevance.

Prof. P.L. Gautam, Former Chairman, National Biodiversity Authority, Chennai in his special address made participants aware about important provisions of Biological Diversity Act, 2002 and its importance in conservation and sustainable use of precious biological Resources of the State.

Dr. Pankaj Sharma, Sr. Scientific Professional, HPSBB thanked all the participants from the representatives of various line departments (such as Agriculture, Ayurveda, Forests, Health, Education, Industry, Tourism, Planning, Horticulture, Fisheries, Animal Husbandry, etc.), indigenous peoples, local communities, as well as representatives from relevant sectors, business, civil society organizations and non-governmental organizations (NGO's) be presented in One day State Level Workshop on *"National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity"* on the behalf of Himachal Pradesh State Biodiversity Board, Shimla.

#### **Technical Session**

After tea break Sh. Kunal Satyarthi, Member secretary, HP State Biodiversity Board in his presentation/talk described the objectives of CBD mentioning that the Convention is legally binding and Parties are obliged to implement its provisions and it addresses issues relating to research and training, public education and awareness, and technical and scientific cooperation. Seven thematic programmes of CoP namely Agricultural biodiversity, Dry and sub-humid lands biodiversity, Island biodiversity, Marine and coastal biodiversity, Forest biodiversity, Mountain biodiversity, and Inland waters biodiversity were also mentioned. He said that National Biodiversity Strategy and Action Plans (NBSAPs) as per Article 6 of CBD and National Reports as per Article 26 are two mandatory obligations of CBD on all parties. Aichi Biodiversity Targets were also elaborated and in his talk Mr. Satyarthi indicated ministries and departments of Government of India (GoI) who are actively participating towards NBP and combined allocation of funds of MoEFCC and 23 ministries/department of GoI that contribute towards biodiversity conservation and NBT. In addition activities of Board were briefed mentioning approaches in BMC constitution, BMC activities, Peoples Biodiversity Register (PBR) Documentation and Technical Support Group (TSG) formation, PBR process, PBR constituted so far, Digitization of PBR, Online ABS platform, ABS Mechanism and activities that board is performing towards identification and notification of Sacred Grooves of HP were also elaborated.

Mr. Ishwar C. Poojar, Project Manager, UNEP GEF MoEFCC ABS Project, NBA, Chennai briefed about CBD history, NBAP, NBT importance and preparation of India's sixth National Report to CBD and its relevance. Biogeographic zones of India were described and importance of Biodiversity and need for its conservation and sustainable use of its components were also highlighted. Aichi Biodiversity 20 targets were briefed and 12 targets that India took up as national targets were also described. CBD and its protocols were described followed by UNDP and strategic plan for biodiversity conservation. Next Mr. Poojar Briefed about 5 National Reports its outcome and what was expected from the present reporting. NBSAP (Strategy and Action plans) since 1999 were also told. India's 12 National Biodiversity targets were elaborated and explained. After explaining the key features of NBAP, Aichi Biodiversity Targets and merger of 20 to 12 targets of National Biodiversity Targets were also discussed. In the end 17 sustainable goals of Niti Ayog sustainable development goals (SDGs) were discussed and their relevance with National Biodiversity Targets were also discussed. In the end reporting requirements under article 26 of CBD were discussed and explained.

Dr. M.L. Thakur, State Project Coordinator, UNEP-GEF-MoEF ABS Project gave presentation on worksheet for National Biodiversity Action Plan (NBAP) and National Biodiversity Targets (NBTs).

Dr. Pankaj Sharma, Sr. Scientific Professional, HPSBB gave presentation on worksheet for Mobilizing resources and mainstreaming biodiversity into sectoral plans and programmes.

Thereafter, group activities on initiatives/activities/ programmes at state level for achieving NBTs and mapping of schemes for assessing their contribution towards biodiversity were held regarding inputs from the representatives of various line departments to fill the Worksheet-I and Worksheet-II. After that, each Group leader gives his/her presentation about the various activities/plans/projects on going in their departments/organization/universities which are helpful in the preparation of National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity. The one day State Level Workshop on "National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and Sixth National Report to Convention on Biological Diversity" ended with a vote of thanks by Dr. M.L. Thakur State Project Coordinator UNEP-GEF, Himachal Pradesh State Biodiversity Board, Shimla.

### **TECHNICAL SESSION 1**:

### National Biodiversity Action Plan (NBAP) and National Biodiversity Targets (NBTs)

	<ul> <li>Department of Health and Family welfare, HP</li> <li>Career Point University, Hamirpur</li> </ul>
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### WORKSHEET

#### A. Integration of biodiversity concerns into state level policies, plans and programmes

- **1.** Please indicate the departments that you are aware, wherein activities directly relevant to biodiversity conservation are underway.
  - HP State Biodiversity Board
  - Department of Fruit Science, Forest product, Vegetable, Floriculture& landscape, Silviculture, Seed Science, Agroforestry, Entomology, Pathology, Environmental Science, Soil Science, Basic Science; Dr YS Parmar UHF Nauni, Solan.
  - HP Forest Department
  - Himalayan Forest Research Institute Shimla
  - Department of Biotechnology, Biosciences & Chemistry, Centre for Environmental Studies, HPU Shimla
  - HIMURJA, Kasumpti, Shimla
  - HP Power corporation
  - NBPGR, Regional Station, Shimla (NAIP (GEF) project)
  - Medicinal plant lab, Indian Institute of Technology Mandi
  - CSIR-Institute of Himalayan Bioresources, Palampur
  - GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu
  - NSS, NCC, Eco club, Bharat scout & guide; Department of Higher Education
  - Research Institute in Indian system of Medicine, Jogindernagar
  - Department of Fisheries, HP
  - Ayurveda, National AYUSH Mission Medicinal Plant Sector, NMPB-Centre Sector Scheme; Ayurveda NMPB, Jogindernagar
  - ICAR-IARI regional Station, Shimla
  - CSKHPKV, Palampur
  - Department of Agriculture, HP
  - Department of Biotechnology, Jaypee University, Solan
  - Department of Health and Family welfare, HP
  - Department of Biosciences, Career Point University, Hamirpur
- 2. Please list documents/reports related to implementation of CBD, or other multilateral environmental agreements such as in the area of Climate Change, Hazardous Waste Management etc. prepared in your state that could contribute to NBTs such as 'State Action Plan on Climate Change'.
  - State Strategy and Action Plan on Climate Change

- Biotechnology in Himachal Pradesh
- Response assessment & processing of knowledge base to serve long term management and use of biodiversity in the Himalaya-focus on representative protected sites
- Conservation and sustainable use of medicinal plants in Himachal Pradesh, North West Himalaya
- Up-scaling applicability of ex-situ mechanism for conservation and utilization of high value plant species-focusing on promotion of conservation education & capacity buildings
- Studies on Diversity and Conservation Status of Plants in a Proposed Cold Desert Biosphere Reserve of Trans and North West Himalaya
- Study on the assessment and conservation prioritization of plant diversity along an altitudinal gradient in Himachal Pradesh, North Western Himalaya
- Expanding Outreach through Participation of Youth in Real time/Field observation to Benefit the Education (PROBE) in the Indian Himalayan Region
- Preparation of a management plant for Medicinal plants in the Catchment Area of Parbati Hydro Electrical Project
- Improvement of infrastructural facilities in the Botanical Garden for conservation of rare endangered and threatened plants in the Arboretum at Mohal and Herbal Garden at Doharanala Kullu, Himachal Pradesh
- Ecological Evaluation Mapping and Conservation Prioritization of Floristic Diversity of the Spiti Valley in a Proposed Cold Desert Biosphere Reserved in Trans Himalaya
- Understanding biodiversity patterns and processes under changing resource use and climate scenario in Indian Himalaya ecological and social implications
- Promoting conservation and sustainable utilization of Himalayan Biodiversity Elements using biotechnological and physiological approaches
- Ecological evaluation, mapping and conservation prioritization of floristic diversity of the Spiti Valley in the Cold Desert Biosphere Reserve
- Conservation and Management of Pollinators for Sustainable Agriculture through Ecosystem based Approach
- Himalayan Ecosystems Research Project: Assessment and quantification of forest ecosystem services with special emphasis on pollination in the Indian Himalayan agro-ecosystems
- Community perceptions and vulnerability assessment of Biodiversity in the selected sites of Kullu district, Himachal Pradesh
- Study on the impact of Sainj Hydro-Electric Project on the Great Himalayan National Park (GHNP) in general and flora and fauna of the local area in particular
- All India Coordinated Research Project "Sacred Grove Ecosystem Service Assessment: Assessment of Ecosystem Services in Sacred Groves of Himachal Pradesh, North Western Himalaya"

- All India Coordinated Research Project "Preventing extinction and improving conservation status of threatened plants through applications of biotechnological tools"
- Population Assessment, Standardization of Propagation Protocols and Establishment (ex situ & in situ) of Selected Species as a Part of Biodiversity Conservation Plan under Sainj Hydro-Electric Project in Himachal Pradesh
- Scientific Research on Changing Climate and its impact on Floral Diversity and Ecosystem Services (Pollination) at Kullu region of IHR a Citizen Science initiative
- Promoting Pollinators using Community based Conservation Approach at Kullu, Himachal Pradesh
- National Mission for Sustaining the Himalayan Ecosystem (NMSHE): Task Force-3, Forest and Plant Resources
- National Mission for Sustaining the Himalayan Ecosystem (NMSHE) Task Force
   5: Network Programme on Convergence of Traditional Knowledge Systems for Sustainable Development in the Indian Himalayan Region
- Vulnerability assessment of mountain ecosystems due to climate change: Ecosystem structure and function.
- Standardization of post-harvest technology for Wild Rose Hips and promotion as sustainable livelihood option among poor self-help women groups in Kullu Valley, Himachal Pradesh.
- Assessment of floristic diversity and microbial association of the Birch Rhododendron forest in Himachal Pradesh, North Western Himalaya, India
- Establishment and Maintenance of Rural Technology Park for the Capacity Building and Socio-economic Upliftment of Rural Communities and Other Stakeholders in Himachal Pradesh
- Preparation of Peoples' Biodiversity Register in selected Panchayats of Kullu District, Himachal Pradesh
- Community driven solid waste management in Himachal Pradesh: A step towards Swachh Bharat Mission
- 3. Please list the state specific legislations, strategies, policies, action plans etc. adopted in your state in areas relevant to biodiversity conservation and sustainable use (directly or indirectly) such as those relating to wetlands, forestry, fisheries, agriculture, etc.
  - State Strategy and Action Plan on Climate Change
  - Environment Master Plan Himachal Pradesh
  - Carbon Intensity, Himachal Pradesh
  - Forests or Carbon Sinks?
  - Himachal Pradesh Forest Department revised Policy on Eco-tourism, 2017

# **B.** Mapping of NBAP Action points with activities of Ministries/Departments/ Institutions of the State Government.

SI. No.	Name of Scheme / Programme	Implementing Agency / Department	((	ne	Contribu tion to total no.									
			TA 1	TA 2	TA 3	TA 4	TA 5	TA 6	TA 7	TA 8	TA 9	TA 10	TA 11	of thematic areas.
1	• Implementatio n of Biological Diversity Act, 2002 and its provisions.	HP State Biodiversity Board												8
2	<ul> <li>Working in the field of research and conservation of Horticulture, Forestry and allied branches with advancement of basic and applied research pertaining to Horticulture, Forestry and other allied sciences.</li> <li>Extension and dissemination of Scientific information among rural masses of the state and developing linkages with the State/Central/I nternational Institutions, NGOs, Orchardists, Farmers and Industrialists for ensuring economic and ecological</li> </ul>	Dr YS Parmar UHF Nauni, Solan.												9

	security in the							
	State.							
	• Strategic, need							
	based and							
	farmer oriented							
	development							
	of horticulture							
	and forestry in							
	Himachal							
	Pradesh							
	through							
	excellence in							
	education and							
	research for							
	food and							
	ecological							
	security,							
	improved							
	livelihood							
	opportunities							
	and economic							
	prosperity of							
	farming							
	communities							
	covers the							
	mission of							
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3	• CSS on	HP Forest						10
	Medicinal plant	Department						
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	egular plantation Scheme La ntana Eradication Programme Pr otected area network management Ec otourism site management Monkey sterilization programme Working plan/ Management							
	egular plantation Scheme La ntana Eradication Programme Pr otected area network management Ec otourism site management M onkey sterilization programme W orking plan/							

	id Himalayan project • SWAN Project							
4	<ul> <li>Survey and Evaluation of Silvi-Pastoral Systems in Himachal Pradesh and Its Role in Sustaining Community Livelihood</li> <li>Carbon sequestration potential of existing land</li> </ul>	Himalayan Forest Research Institute Shimla						7
	use system in Lahaul Valley, Himachal Pradesh.							
	<ul> <li>Identification, Ecological Assessment for Selection and Screening of Superior and Insect Pest Resistant Clones</li> </ul>							
	• Ecological studies in Alpine pastures of District Shimla, Himachal Pradesh.							
	<ul> <li>Awareness Training for Conservation of Pinus gerardiana (Chilgoza) through Scientific Intervention in Moorang Forest Range of District Kinnaur, Himachal</li> </ul>							
	<ul><li>Pradesh</li><li>Assessment of</li></ul>							

	<ul> <li>Floristic</li> <li>Diversity in</li> <li>Tundah</li> <li>Wildlife</li> <li>Sanctuary of</li> <li>District</li> <li>Chamba,</li> <li>Himachal</li> <li>Pradesh for Its</li> <li>Long Term</li> <li>Ecological</li> <li>Monitoring.</li> <li>5- Innovative</li> <li>Technologies</li> <li>for Climate</li> <li>change</li> <li>mitigation and</li> <li>Biodiversity</li> <li>Conservation</li> <li>with Alternate</li> <li>Livelihood</li> <li>opportunities</li> <li>for Mountain</li> <li>Communities.</li> </ul>							
5	<ul> <li>Centre of Environmental Studies and the Institute of Integrated Himalayan Studies (IIHS), Human Geography, Remote Sensing, Population Studies, Environment, Integrated Himalayan Studies, application of Biotechnology in Forestry, Agriculture and Horticulture, Mycorrhizal Technology, Ecology, Taxonomy, Ethno Botany, Biodiversity, Wood Science, Honeybees, Cytogenetics,</li> </ul>	HPU Shimla						6

	<ul> <li>and Plant etc.</li> <li>are dedicated</li> <li>departments</li> <li>and institutes</li> <li>under HPU</li> <li>concerned with</li> <li>the</li> <li>development</li> <li>of conservation</li> <li>activities and</li> <li>sustainable</li> <li>practices.</li> <li>Sustainable</li> <li>Development,</li> <li>Poverty, Tribal</li> <li>Studies,</li> <li>Human</li> <li>Resource</li> <li>Development</li> <li>and Cultural</li> <li>Studies, Folk</li> <li>Literature,</li> <li>Handicrafts are</li> <li>working</li> <li>towards study</li> <li>of Traditional</li> <li>Knowledge</li> <li>and</li> <li>conservation of</li> <li>such valuable</li> <li>knowledge</li> <li>present in the</li> <li>state.</li> </ul>							
6		HIMURJA, Kasumpti,						1
7	Conservation and management of plant genetic resources of western Himalayas comprising Himachal Pradesh and Jammu and Kashmir (now referred to as Northwest sub- Himalayan and high attitude Himalayan Region, Zone	Shimla NBPGR, Regional Station, Shimla						8

VI under NATP-PB). • A field genebank of temperate fruits and newly introduced fruit plants, and largest germplasm collection of french bean, amaranth, buckwheat is being maintained at the station. The station has also a facility of medium-term storage for conserving orthodox seeds where seeds can be stored up 12-15 years without losing viability. • This station also acts as National Active Germplasm Site (NAGs) for amaranth, french bean, buckwheat and													
Site (NAGs) for amaranth, french bean, buckwheat and temperate													
fruits.      Study of flora of Kamand region     Establish a Botanical Garden with collection of local flora     Develop and maintain Herbarium     In-situ conservation,	Medicinal plant lab, Indian Institute of Technology Mandi												5
	<ul> <li>NATP-PB).</li> <li>A field genebank of temperate fruits and newly introduced fruit plants, and largest germplasm collection of french bean, amaranth, buckwheat is being maintained at the station. The station has also a facility of medium-term storage for conserving orthodox seeds where seeds can be stored up 12-15 years without losing viability.</li> <li>This station also acts as National Active Germplasm Site (NAGs) for amaranth, french bean, buckwheat and temperate fruits.</li> <li>Study of flora of Kamand region</li> <li>Establish a Botanical Garden with collection of local flora</li> <li>Develop and maintain Herbarium</li> <li>In-situ</li> </ul>	NATP-PB).A field• A fieldgenebank oftemperatefruits andnewlyintroducedfruit plants,and largestgermplasmcollection offrench bean,amaranth,buckwheat isbeingmaintained atthe station. 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The       initial         station has also       a facility of         medium-term       storage for         conserving       orthodx seeds         without losing       viability.         This station       also acts as         National       Active         Germplasm       Site (NAGs)         for amaranth,       initiute         they stabilish a       maranth         Botanical       initiute         Study of flora       Medicinal plant         of Kamand       initiute         region       institute         Study of flora       Technology         Mandi       initial         In-situ       initial         In-situ       initial<	NATP-PB).       A field         genebank of       inticode         fruits and       inticoduced         fruits and       inticoduced         fruit plants,       inticoduced         germplasm       inticoduced         collection of       introduced         french bean,       inticoduced         amaranth,       inticoduced         buckwheat is       inticoduced         being       inticoduced         maintained at       inticoduced         the station The       inticoduced         storage for       inticoduced         conserving       inticoduced         orthootox seeds       inticoduced         where seeds       inticoduced         can be stored       inticoduced         up 12-15 years       inticoduced         viability.       inticoduced         This station       inticoduced         also acts as       inticoduced         National       inticoduced         Active       inticoduced         Germplasm       inticute         Site (NAGs)       inticute         for amaranth,       inticute         buckwheat and       inticute	NATP-PB). A field genebank of temperate fruits and newly introduced fruit plants, and largest germplasm collection of french bean, amaranth, buckwheat is being maintained at the station. The station has also a facility of medium-term storage for conserving orthodox seeds where seeds can be stored up 12-15 years without losing viability. This station also acts as National Active Germplasm Site (NAGs) for amaranth, buckwheat and temperate fruits. Study of flora of Kamand region Establish a Botanical Garden with collection of local flora Develop and maintain Herbarium. In-situ Conserving, Mandii Mathered Study of flora of Label Conserving, Mandii Medicinal plant of Label L	NATP-PB). A field genebank of temperate fruits and newly introduced fruit plants, and largest germplasm collection of french bean, amranth, buckwheat is being maintained at the station. The statol has also a facility of medium-term storage for conserving orthodox seeds where seeds can be stored up 12-15 years without losing viability. This station also acts as National Active Germplasm Site (NAGs) for amaranth, french bean, buckwheat and temperate fruits. Medicinal plant of Kamand region Statolish a Study of flora of Kamand region Distublish Batabish a Statolish	NATP-PB). A field genebank of temperate fruits and newly introduced fruit plants, and largest germplasm collection of french bean, amaranth, buckwheat is being maintained at the station. The station has also a facility of medium-term storage for conserving orthodox seeds without losing viability. This station also acts as National Active Germplasm Site (NAGs) for amaranth, french bean, amaranth, buckwheat and temperate fruits. 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	<ul> <li>maintenance of medicinal plants</li> <li>Documentation , digitization and dissemination of the related information</li> <li>Undertake R&amp;D in the related area (Phytochemica l profiling of selected plants, understanding the local edible plants, Bioengineering plants etc)</li> </ul>							
9	<ul> <li>Advanced research aspects focused on bioresources for catalysizing bioeconomy in a sustainable manner</li> <li>Remote sensing and mapping facilities; internationally recognized herbarium; animal house facility; pilot plants in nutraceuticals, essential oil and herbals; farms and polyhouses</li> <li>Promoting industrial growth through technological interventions is a constant endeavor and several technologies developed by</li> </ul>	CSIR-Institute of Himalayan Bioresources, Palampur						8

	<ul> <li>the institute are transferred to industries.</li> <li>For socio-economic upliftment, reg ular training programmes and advisory services are rendered to farmers, floric ulturists, tea planters and small entrepreneurs involved in food processing sector.</li> </ul>							
10	<ul> <li>L and and Water Resource management</li> <li>C onservation of Biological diversity</li> <li>E nvironment Impact Analysis</li> <li>A wareness programme about Biodiversity conservation</li> </ul>	GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu						5
11	<ul> <li>Promotion of medicinal plants, conservation, multiplication &amp; awareness for cultivation</li> <li>Emphasis on medicinal plants in Herbal garden of</li> </ul>	Research Institute in Indian system of Medicine, Jogindernagar						3

				[	[				
12	<ul> <li>Welfare Schemes for farmers and fishermans under Blue Revolution Scheme.</li> <li>Establishment of Fish seed hatcheries for Indian Major Carps and other specific cultivable fin fish.</li> <li>freshwater fish culture</li> <li>Trout Hatcheries</li> </ul>	Department of Fisheries, HP							7
13	National AYUSH Mission, NMPB- Centre Sector Scheme; Ayurveda NMPB	Ayurveda Department, Himachal Pradesh.							3
14	<ul> <li>Improvement of Wheat for Northern Hills</li> <li>Improvement of Barley for Northern Hills</li> <li>To collect, maintain and evaluate native and exotic germplasm of temperate fruit crops.</li> <li>Utilize the temperate fruit germplasm in the improvement of temperate fruit crops.</li> <li>To identify research gaps in improving productivity of temperate fruit crops in different agro-</li> </ul>	ICAR-IARI regional Station, Shimla							6

	<ul> <li>climatic regions of the country.</li> <li>To develop cost effective methods for controlling pests and diseases of temperate fruit crops.</li> </ul>							
15	<ul> <li>Specific research in fundamental and applied aspects of crop improvement, natural resource management, plant protection, animal health, animal production and livestock and product technology</li> <li>Growth and development of various disciplines of agriculture and animal husbandary.</li> <li>Socio- economic studies on various aspects of research and development so as to advise the policy makers in these fields in devising their policies.</li> </ul>	CSKHPKV, Palampur						6
16	<ul> <li>Japan International Cooperative agency (JICA) contact mission</li> <li>Dr. Y. S.</li> </ul>	Department of Agriculture, HP						6

	Parmar Kisan Swarozgar Yojna. • Rajiv Gandhi micro- irrigation scheme • Uttam Chaara Utpadan Yojna • Lift irrigation and borewell scheme							
17	Department of Biotechnology, working on in- situ (Tissue culturing) conservation of various commercially important medicinal plant species of HP	Jaypee University, Solan						5
18	<ul> <li>MOU signed with CSIR, Palampur to promote eco- friendly and pollution free environment.</li> <li>MOU signed with IIT Bombay to promote latest IT knowledge amongst rural population by training students and other youths of the region.</li> <li>MOU signed with Global Crop Diversity Trust, Bonn, Germany to support the conservation and rural development programmes to ensure food security in</li> </ul>	Career Point University, Hamirpur						5

	developing							
	countries.							
19	<ul> <li>Planning, promotion, co- ordination and overseeing the implementatio n of environmental programs.</li> <li>Prevention &amp; control of pollution, protection of environment, in the framework of these legislations: Water (Prevention &amp; Control of Pollution) Act, 1974, Water (Prevention &amp; Control of Pollution) Cess Act, 1977, Air (Prevention &amp; Control of Pollution) Act, 1981, Environment (Protection) Act, 1986.</li> </ul>	Pollution Control Board, Shimla						4
20	<ul> <li>Assessment of Snow covers in various parts of Himachal.</li> <li>Spacio- Temporal Assessment of the tree species.</li> <li>Impact of Climate change on cereals, fruit crops and cropping</li> </ul>	State Centre on Climate Change, HIMCOSTE, Shimla						4

systems •Vulnerability assessment of the State. NBAP Thematic	Description of NBAP Thematic Area <sup>1</sup>					
Area						
	Strengthening and integration of <i>in situ</i> , on-farm and <i>ex situ</i> conservation					
	Augmentation of natural resource base and its sustainable utilization: Ensuring inter- and intra- generational equity					
TA-3	Regulation of introduction of invasive alien species and their management					
TA-4	Assessment of vulnerability and adaptation to climate change, and desertification					
TA-5	Integration of biodiversity concerns in economic and social development					
TA-6	Pollution impacts					
TA-7	Development and integration of biodiversity databases					
	Strengthening implementation of policy, legislative and administrative measures for biodiversity conservation and management					
	Building of national capacities for biodiversity conservation and appropriate use of new technologies					
	Valuation of goods and services provided by biodiversity, and use of economic instruments in decision making processes					
TA-11	International cooperation					

# C. Update on activities undertaken in your state, in line with Biological Diversity Act (BDA), 2002

- 1. State Biodiversity Boards (Section 22 of BDA):
  - a) Establishment of State Biodiversity Board (SBB) (Yes/No): Yes
  - b) What is the composition of the SBB? \_\_\_\_\_
  - c) What is the frequency of meetings of the SBB? \_\_\_\_\_
- 2. Notification of State Biodiversity Rules as per Section 63 of BDA (Yes/No): No
- 3. Biodiversity Management Committees (Section 41 of the BDA):
  - a) Number of Biodiversity Management Committees (BMCs) constituted in your State: 416
  - b) Challenges being faced:
- Has your state constituted a State Biodiversity Fund as stipulated in Section 32 of BDA? No
- 5. People's Biodiversity Registers (PBRs) [Refer to Section 41; Rule 22(6)]
  - a) How many PBRs have been prepared in your state in last 5 years? 06
  - b) Please list them year-wise.
  - 1. Narwana Khas BMC, Districh Kangra, Himachal Pradesh (2016)

<sup>&</sup>lt;sup>1</sup> See Annexure for 175 Action Points of National Biodiversity Action Plan, 2008

- 2. Jana BMC, District Kullu, Himachal Pradesh (2017)
- 3. Sainj BMC, District Shimla, Himachal Pradesh (2017)
- 4. Shakrori BMC, Disrtict Shimla, Himachal Pradesh (2017)
- 5. Batal BMC, District Solan, HimachalPradesh (2017)
- 6. Tandi BMC, District Kullu, Himachal Pradesh (2017)
- c) How many PBRs have been posted online? In the process of digitizing PBRs
- d) What are the problems being faced for the preparation of PBRs?
- e) What is the level of technical support received from various agencies for the preparation of PBRs?
   TSGs are all from reputed Government academic Institutes/Universities.
- Does your state have an updated State Biodiversity Strategy and Action Plan (SBSAP)? If not, has the process been initiated? No, Till date.
- 7. Biodiversity Heritage Sites (Section 37 of the BDA)
  - a) Have Biodiversity Heritage Sites been notified by your state? No, But work has been given to WWF India, Shimla for Identification and documentation of Sacred Grooves of HP.
  - b) If so, list them

Documentation of Sacred Grooves of Kullu and Shimla Districts in Himachal Pradesh is in progress.

- c) Have rules/guidelines been framed for the management of the above sites?
- d) No, Till date.
- 8. Threatened species (Section 38 of the BDA)
  - b) Have any specific species (plant/ animal/ microbe, etc.) endemic to your state have been notified as threatened species by the Central Government?
     List of 38 species i.e., 22 Plant species and 16 Animal species has been sent to the GoHP to MoEF&CC (GoI) to be declared them as threatened species of H.P.
  - c) Has any action been for rehabilitation of the notified species?

#### **City Biodiversity Index**

City Biodiversity Index (CBI) is a self-assessment tool for evaluating and monitoring the progress of biodiversity conservation efforts by cities against their own individual baselines. A list of indicators of CBI has been provided below. Some of these indicators are also reflected in features for smart cities under the Smart Cities Mission launched by the Government of India.

Please indicate if the information related to following indicators is available for any of the cities in your state and the agencies who could be contacted for the information.

Names of cities: \_\_\_\_\_

Indicators		Availability of information (Yes/No)	Relevant departments/ agencies in the state
Native Biodive	ersity in the City		
1. Proportion of	f Natural Areas in the		
City			
2. Connectivity	/ Measures		
3. Native Biod	iversity in Built Up		
Areas (Bird	Species)		
4. Change in N	lumber of Vascular		
Plant Specie	S		
5. Change in N	lumber of Bird Species		
6. Change in N	lumber of Butterfly		
Species			
7. Change in N	lumber of Species (any		
other taxono	mic group selected by		
the city)			
8. Change in N	lumber of Species (any		
other taxono	mic group selected by		
the city)			
9. Proportion of	f Protected Natural		
Areas			
10. Proportion of	f Invasive Alien		
Species			
Ecosystem Serv	vices provided by		
Biodiversity			
11. Regulation of	of Quantity of Water		
12. Climate Reg	ulation: Carbon Storage		
and Cooling	Effect of Vegetation		
13. Recreation a	nd Education: Area of		
Parks with N	Vatural Areas		
14. Recreation a	nd Education: Number		

of Formal Education Visits per	
Child Below 16 Years to Parks with	
Natural Areas per Year	
Governance and Management of	
Biodiversity	
15. Budget Allocated to Biodiversity	
16. Number of Biodiversity Projects	
Implemented by the City Annually	
17. Existence of Local Biodiversity	
Strategy and Action Plan	
18. Institutional Capacity: Number of	
<b>Biodiversity Related Functions</b>	
19. Institutional Capacity: Number of	
City or Local Government Agencies	
Involved in Inter-agency Co-	
operation Pertaining to Biodiversity	
Matters	
20. Participation and Partnership:	
Existence of Formal or Informal	
Public Consultation Process	
21. Participation and Partnership:	
Number of Agencies/Private	
Companies/NGOs/Academic	
Institutions/International	
Organisations with which the City	
is Partnering in Biodiversity	
Activities, Projects and Programmes	
22. Education and Awareness: Is	
Biodiversity or Nature Awareness	
Included in the School Curriculum	
23. Education and Awareness: Number	
of Outreach or Public Awareness	
Events Held in the City per Year	

#### **TECHNICAL SESSION 2:**

#### Mobilizing resources and mainstreaming biodiversity into sectoral plans and programmes

#### Worksheet

**A.** This exercise is for mapping of programmes/activities and resource allocation by various state level departments and agencies for contribution to biodiversity conservation and achievement of NBTs.

1. Is there a separate budget head for activities related to biodiversity conservation in your state?

- 2. Are there specific programmes/schemes for biodiversity conservation in your state? Yes
- 3. Is impact (positive/negative) on biodiversity considered a parameter while allocating funds for other developmental programmes/schemes? Yes
- 4. Are experts familiar with biodiversity issues included in Committees reviewing various schemes/ proposals for sanctioning of funds by relevant Ministries? Yes
- 5. Please list departments and their programmes/schemes with any relevance to biodiversity. Also please indicate whether the funds allocated under the scheme are spent for direct or indirect contribution to biodiversity. If indirect, the same may also be classified as Indirect high, Indirect medium and Indirect low as per the attached criteria and examples.

Department	Programmes/ schemes	Direct/ indirect contribution to biodiversity conservation
Crop Improvement,	Courses at UG and PG level	Direct as well as
Seed Science & Technology		Indirect
Research Institute in	Promotion of medicinal plants, conservation,	Emphasis on
Indian System of	multiplication & awareness for cultivation	medicinal plants in
Medicine, Jogindernagar		Herbal garden of
		Department of
		Ayurveda
GBPNIHESD, Mohal,	Land and Water Resource management,	Direct
Kullu	Conservation of Biological diversity,	
	Environment Impact Analysis, Awareness	
	programme about Biodiversity conservation	

AYUSH/Forest	CSS on Medicinal plant conservation	Direct
Department	ess on wedeniar plant conservation	Direct
HP Forest Department	High Altitude Transition zone project	Direct
Ministry of Agriculture	CSS National Bamboo Mission	Direct
/Forest		
Ministry of	CSS Agroforestry Mission	Indirect
Agriculture/Forest		
HP Forest Department	Regular plantation Scheme	Direct & Indirect
	Lantana Eradication Programme	Direct
	Protected area network management	Direct
	Ecotourism site management	Indirect
	Monkey sterilization programme	Indirect
	Working plan/ Management Plans	Indirect
	Mid Himalayan project	Direct
	SWAN Project	Direct
Department of Fisheries	Blue Revolution, RKVY Scheme	In Situ conservation
Department of	National AYUSH Mission, NMPB Centre	Direct
Ayurveda	Sector Scheme, AHCs network in state, Drug	
	purchase for Health	
DST	SERB Bowl scheme	Indirect
MoEF	Environment Programme	Indirect
ICAR-IARI, Regional	Mandate	Survey, Collection,
Station, Shimla		Conservation,
		Evaluation,
		Utilization of
		temperate fruit species
		and wheat and barley
		in breeding
		programme
Directorate of Land	Digital India Land records Modernization	Indirect
Records	Programme, Agricultural Census	

- 6. Are any of the above programmes being undertaken in a collaborative model/ partnership with public/ private organizations/ CSOs, etc? If yes, please list the organizations that work in collaboration for implementation of the above programmes.
- 7. Are biodiversity-related indicators considered as part of monitoring and evaluation framework to review the progress of schemes/programmes in various Departments?. If yes, please list them.
- 8. While formulating schemes and programmes, are conservation measures defined and funds allocated accordingly?
- 9. Is there a role for your department in implementation of NBAP/SBSAP?. If so, please elaborate.

**B.** Biodiversity related activities are being undertaken by various institutions in different states. Please list the major institutions engaged in biodiversity related programmes, whose activities may be linked to achievement of NBTs

S. No.	NBT	Institutions/organizations engaged in relevant activities in your state
1.	Biodiversity Awareness (Incorporating awareness and attitudes towards environmental conservation through communication and mainstream education)	<ol> <li>HP State Biodiversity Board</li> <li>Dr YS Parmar UHF Nauni, Solan.</li> <li>HP Forest Department</li> <li>Himalayan Forest Research Institute Shimla</li> <li>NBPGR, Regional Station, Shimla</li> <li>Medicinal plant lab, Indian Institute of Technology Mandi</li> <li>CSIR-Institute of Himalayan Bioresources, Palampur</li> <li>GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu</li> <li>ICAR-IARI regional Station, Shimla</li> <li>CSKHPKV, Palampur</li> <li>Department of Agriculture, HP</li> </ol>
2.	<b>Biodiversity Valuation and Poverty Alleviation</b> (Incorporating natural resource /biodiversity/ ecosystem service values in national and state planning processes and development programmes)	<ol> <li>HP State Biodiversity Board</li> <li>HP Forest Department</li> <li>Himalayan Forest Research Institute Shimla</li> <li>NBPGR, Regional Station, Shimla</li> <li>Ayurveda, National AYUSH Mission Medicinal Plant Sector, NMPB-Centre Sector Scheme; Ayurveda NMPB, Jogindernagar</li> <li>CSIR-Institute of Himalayan Bioresources, Palampur</li> </ol>
3.	Safeguarding Natural Habitats(Forest, Aquatic ecosystems, mangrove cover and	<ol> <li>HP State Biodiversity Board</li> <li>HP Forest Department</li> <li>Himalayan Forest Research</li> </ol>

			Institute Shimla
	coastal area etc.)	4.	NBPGR, Regional Station, Shimla
		5.	Ayurveda, National AYUSH
			Mission Medicinal Plant
			Sector, NMPB-Centre Sector
			Scheme; Ayurveda NMPB,
		6	Jogindernagar CSIR-Institute of Himalayan
		0.	Bioresources, Palampur
		7.	NBPGR, Regional Station,
			Shimla
		8.	Medicinal plant lab, Indian
			Institute of Technology
		0	Mandi
		9.	ICAR-IARI regional Station, Shimla
		10.	. CSKHPKV, Palampur
11.	Managing Invasive Species		CSIR-Institute of Himalayan
	(Invasive alien species and pathways are identified and		Bioresources, Palampur
	strategies to manage them developed so that populations	2.	NBPGR, Regional Station,
	of prioritized invasive alien species are managed)		Shimla
		3.	Medicinal plant lab, Indian Institute of Technology
			Institute of Technology Mandi
		4.	ICAR-IARI regional Station,
			Shimla
			CSKHPKV, Palampur
			HP Forest Department
		7.	Himalayan Forest Research Institute Shimla
		8	NBPGR, Regional Station,
		0.	Shimla
9.	Sustainable Landscapes	1.	Himalayan Forest Research
	(Measures are adopted for sustainable management of	_	Institute Shimla
	agriculture, forestry and fisheries)	2.	NBPGR, Regional Station,
		3.	Shimla ICAR-IARI regional Station,
		5.	Shimla
		4.	CSKHPKV, Palampur
		5.	- · · · · · · · · · · · · · · · · · · ·
		-	Bioresources, Palampur
		6.	NBPGR, Regional Station, Shimla
		7.	Department of Fisheries, HP
8.	Protected Areas	1.	HP Forest Department
			Himalayan Forest Research
	(Ecologically representative areas under terrestrial and inland water, and also coastal and marine zones,		Institute Shimla
	especially those of particular importance for species,	3. 4.	HP State Biodiversity Board
	biodiversity and ecosystem services)		CSIR-Institute of Himalayan Bioresources, Palampur
			Bioresources, raiampui

5.	Maintaining Genetic Diversity	1.	CSIR-Institute of Himalayan
	(Genetic diversity of cultivated plants, farm livestock, and their wild relatives)	5. 6.	Bioresources, Palampur Dr YS Parmar UHF Nauni, Solan. Himalayan Forest Research Institute Shimla NBPGR, Regional Station, Shimla Medicinal plant lab, Indian Institute of Technology Mandi GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu ICAR-IARI regional Station, Shimla Department of Biotechnology, Jaypee University, Solan
6.	Ecosystem Services (Ecosystem services, especially those relating to water, human health, livelihoods and well-being and measures to safeguard them are identified)	1. 2.	HP State Biodiversity Board HP Forest Department
3.	Access and Benefit Sharing (Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization as per the Nagoya Protocol are operational, consistent with national legislations)	1.	HP State Biodiversity Board
2.	Inclusive Governance		
	(An effective, participatory and updated national biodiversity action plan is made operational at different levels of governance).		
3.	Protecting Traditional Knowledge (National initiatives using communities' traditional knowledge relating to biodiversity are strengthened, with the view to protecting this knowledge)	1. 2. 3.	HP State Biodiversity Board CSIR-Institute of Himalayan Bioresources, Palampur Dr YS Parmar UHF Nauni, Solan.
		<ol> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	Himalayan Forest Research Institute Shimla GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu Himachal Pradesh University,
7.	Resource Mobilization	5.	Himalayan Forest Research Institute Shimla GB Pant National Institute of Himalayan Environment and Sustainable development, Himachal Unit, Mohal, Kullu

human and technical resources to facilitate effective implementation of the Strategic Plan for Biodiversity 2011–2020 and the national targets are identified and the	
Strategy.	

#### Annexure I



### **State Level Workshop**





"National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBT) and India's Sixth National Report to Convention on Biological Diversity"

**Organized by:** 

### Himachal Pradesh State Biodiversity Board (HPSBB)

Venue: Regency Hall, Hotel Holiday Home, Shimla

Date: 19<sup>th</sup> February, 2018

### **Programme Schedule**

9.30am - 10.00am	Registration		
10.00am - 10.10am	Lighting of Lamp		
10.10am - 10.20am	Welcome address & objectives of the	Sh. Kunal Satyarthi	
	workshop	Member Secretary, HPSBB	
10.20am - 10.25am	Felicitation of Guests		
10.25am - 10.35am	Special Guest	Dr. Ishwar C. Poojar	
		Project Manager	
		UNEP-GEF-MoEF ABS Project National	
		Biodiversity Authority, Chennai	
10.35am - 10.45am	Guest of Honour	Prof. P.L. Gautam	
		Former Chairman	
		National Biodiversity Authority, Chennai	
10.45am - 10.55am	Address by the Chief Guest	Smt. Manisha Nanda	
		Addl. Chief Secretary	
		Environment Science & Technology Govt.	
		of Himachal Pradesh	
10.55am - 11.00am	Vote of Thanks	Dr. Pankaj Sharma	
		Sr. Scientific Professional, HPSBB	
11.00am -11.15am	Tea Break		
	TECHNICAL SESSION	-	
11.15 am - 11.55am	National Biodiversity Action Plan	Sh. Kunal Satyarthi	
	(NBAP), National Biodiversity	Member Secretary, HPSBB	
	Targets (NBT); Reporting and		
	requirements for Sixth National		
	Report to CBD		
11.55 am - 12.15pm	Convention on Biological Diversity	Dr. Ishwar C. Poojar	
	(CBD) and implementation of	Project Manager	
	Biological Diversity Act, 2002 &	UNEP-GEF-MoEF ABS Project National	
	Rules 2004 in India	Biodiversity Authority, Chennai	

	Presentation on worksheet for	Dr. M.L. Thakur		
12.15pm -12.25pm	National Biodiversity Action Plan	State Project Coordinator		
12.15pm -12.25pm	(NBAP) and National Biodiversity	UNEP-GEF-MoEF ABS Project		
	Targets (NBTs)			
	Presentation on worksheet for	Dr. Pankaj Sharma		
12.25pm -12.35pm	Mobilizing resources and	Sr. Scientific Professional, HPSBB		
12.25pm -12.55pm	mainstreaming biodiversity into			
	sectoral plans and programmes			
12.35pm -2.00pm	Group Activity:			
	a. Initiatives/activities/ programmes at state level for achieving NBTs.			
	b.Mapping of schemes for assessing their contribution towards biodiversity			
2.00pm – 2.25pm	Presentation on Each Group Activity			
2.25pm -2.30pm	Vote of Thanks & Way forward	Dr. M.L. Thakur		
		State Project Coordinator UNEP-GEF		
2.30pm -3.00pm	Lunch			

### GLIMPSES



Welcome of Chief Guest Smt. Manisha Nanda, Addl. Chief Secretary, Environment Science & Technology Govt. of Himachal Pradesh





**Lighting of Lamp** 



Welcome and introduction to workshop Address by Sh. Kunal Satyarthi, Member Secretary, HPSBB



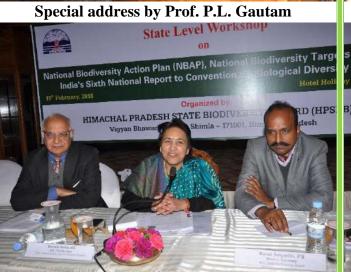
**Dignitaries on Dias** 



Special address by Dr. Ishwar C. Poojar







Inaugural address by the Chief Guest Smt. Manisha Nanda, Addl. Chief Secretary, Environment Science & Technology Govt. of Himachal Pradesh



Vote of Thanks by Dr. Pankaj Sharma, Sr. Scientific Professional, HPSBB



Welcome of Prof. P.L. Gautam



Welcome of Dr. Ishwar C. Poojar



Participants during the workshop



Participants during the workshop



Participants during the workshop



Vote of thanks by Dr. M.L. Thakur

### PRINT MEDIA COVERAGE



शिमला में आयोजित कार्यशाला में जैव विविधता के संरक्षण को लेकर बनाई गई रणनीति

शिमला, 19 फरवरी (ब्यूरो): हिमाचल की करोड़ों की जड़ी-बूटियों को बेचकर मोटा मुनाफा कमाने वाली कंपनियों को अब कुछ हिस्सा जैव विविधता बोर्ड को देना होगा। जैव विविधता कानन 2002 में इसका पहले से ही प्रावधान है। बोर्ड के माध्यम से यह पैसा पंचायत स्तर पर गठित कमेटी को जाएगा। इसे लेकर राज्य का जैव विविधता बोर्ड प्रदेश की जड़ी-बूटियों को खरीदने वाली विभिन्न कंपनियों से बातचीत कर रहा है। जैव विविधता बोर्ड के सदस्य सचिव कुनाल सत्यार्थी ने बताया कि हिमालया कंपनी से बातचीत एडवांस स्टेज पर चल रही है। कंपनियों के साथ जल्द ही एक सम्मेलन भी आयोजित किया जा सकता है।

हिमाचल से हर साल 2000 करोड से ज्यादा की जड़ी-बूटियां प्रदेश से बाहर भेजी जाती हैं, लेकिन मार्कीटिंग की उचित व्यवस्था न होने से स्थानीय लोगों को जड़ी-बूटियां औने-पौने दाम पर बेचनी पड़ती हैं। यह देखते हुए राज्य का जैव विविधता बोर्ड मार्कीटिंग को व्यवस्था करने जा रहा है। इसे लेकर सोमवार को शिमला में आयोजित कार्यशाला में भी चर्चा की गई। इसमें विभिन्न विभागों के अधिकारियों ने स्टेट एक्शन प्लान तैयार किया। मुख्य सचिव पर्यावरण विज्ञान एवं प्रौद्योगिकी मनीषा नंदा ने जैव विविधता और



शिमला : जैव विविधता पर आयोजित कार्यशाला के उद्घाटन अवसर पर अतिरिक्त मुख्य सचिव मनीषा नंदा को स्मृति चिन्ह भेंट करते अधिकारी।

संबद्ध विभागों के साथ-साथ आम आदमी से गया।कार्यशाला में पूर्व अध्यक्ष राष्ट्रीय जैव विविधता आगे आने का आह्वान किया। उन्होंने कहा कि प्राधिकरण चेन्नई के प्रो. पी.एल. गौतम और परियोजना जैव विविधता होगी, तो ही हम रहेंगे। इसे बचाने प्रबंधक राष्ट्रीय जैव विविधता प्राधिकरण चेन्नई डा. के लिए प्रथम चरण में गत वर्ष शिमला, सिरमौर, ईश्वर सी. पूजार ने जैव विविधता के संरक्षण के लिए चम्बा और कुछू को चयनित किया गया था। इसके सभी वर्ग के लोगों से आगे आने की अपील की।

जड़ी-बुटियों के संरक्षण और संवर्द्धन के लिए तहत जैव विविधता प्रबंधन समितियों का गठन किया



#### 22 plant species threatened in Himachal ard also lists 16 animal species as threatened, waiting for Centre's notification

#### ARCHANA PHULL

The Himuchal Pradesh State Biodiversity Board has listed 22 species of plants and 16 of animals found in the hills of Himachal Pradesh are listed at the second as threatened.

as threatened. Separate committees of experts, constituted by the Boards notification in Decem-ine and propose threatened species of plants and ani-mais. On the basis of their mass. support, we sent a list of 38 species for notification by Centre, 'said member secre-tary of the Board, Kunal Sat-

Some threatened plant Some unreatened paint species from HP includes Mohra, Atis, Salam Panja, Ner Dhoop and Ratanjot, and that of animals are Himaloyan musk deer, Bearded, White Rumped Stender billed and Reatbackdowlenge Colder d headed vultures. Golden



Additional Chief Secretary, Manisha Nanda being presented momento by member secretary of state biodiversity board kunal Satyarthi at the workshop.

Mahseer and snow leopard. Satyarthi, who was at the workshop on the national biodiversity action plan and targets on Monday, revealed said after central notifica-tion as threatened plant species could be prohibited depending on situation, and for others it toxidbe regulated. "We can regulate the trade by dividing in seasons. Their cultivation could also be encouraged." He said the Biodiversity Art's mandate is conservation, sustainable utility and ben-efit sharing of biological resources. "Since our state is rich in biological resources, the Board is in the midst of industrial dialogue." Satyarthissi dhe state/shio-logical resource has been going out. Different industries

have been purchasing it from the chain in randing. "We have made a list of pharma companies and bave instanced a dialogue with them, We are taiking to Dabar com-panyalso. The state can earn lakhs of Ruppes annually from the biological resources that go out," he said.

that go out, 'he sand. Satvarathi said the per-mission for taking out the herbsis in the purview of for-est department. The Biodi-versity Board deals with ben-effic sharing. Me said the Board will also hold pharma companies accountable for having taken biological resources from HP even before. The Board is presently magaed with the lissing of Bio-logical resources by going down to the Panchayat level. Weworked in four distries of Kullu Chamba Sirmaur and Shimla first and formu-

level. The People's biodiver-sity registers are being made. This will belp getting some per cent of benefit from the bioresource, which goes out-side."

c. Additional Chief Secre-Additional Chief Secre-tax, Environment, Science and Environment, Manisha Sanda said integrated approach was must to protect biodiversity. She called for documentation of the resources. The workshop was attend-ed by expectis from National Biodiversity Authority Chen-nal, scientists from farm var-suises in Humachal and the offi-cials from different depart-ments.

The Biodiversity Act came into being in 2002, wherein every state was to set up the Biodiversity Board. In Himachal, however, the Board was not so active, buil for the mitigeneous base based of the state of the set of th initiative taken in last couple of years



# Sensitising stakeholders on biodiversity action plan

#### **TRIBUNE NEWS SERVICE**

#### SHIMLA, FEBRUARY 19

The Himachal Pradesh State Biodiversity Board (HPSBB) organised a statelevel workshop here today to sensitise various stakeholders on how to prepare the National Biodiversity Action Plan (NBAP) and achieve National Biodiversity Targets (NBT).

Additional Chief Secre ary, Environment Sciand Technology, ence Manisha Nanda said sustainable. conservation efforts related to biodiversity was the need of hour and the mandate of the board. "To achieve specific targets, cooperation from all departments is a must." she said.

She said under national action plan, residents are at the centre of concerns for

विखुप्त होने का अहम



Additional Chief Secretary, Environment Science & Technoli Manisha Nanda, during the state-level workshop in Shimla Monday, TRIBUNE PHOTO

sustainable development and entitled to lead a healthy and productive life in harmony with nature. This action plan would identify threats and constraints in biodiversity conservation, taking cognizance of existing law, strategies and plans and programmes, she said.

Kunal Satyarthi, member

secretary, HPSBB, they need to integrate c servation and sustainat use of biodiversity.

The representatives fro agriculture, ayurvec forests, health, educatio industry, tourism, plannin, horticulture, fisheries, an mal husbandry and loc communities, NGOs partiipated in workshop.

#### Quata

पेड़-पौधों व जीव-जंतुओं की 38 प्रजातियां विलुप्त होने की कगार पर

जानवरों की १६और पेड-पौधों की 22 प्रजातियों का वजुद खतरे में



शिमला, 19 फरवरी (देवेंद्र हेटा): हिमान्हर को नैव विविधता का खवाना माना जाता है, लेकिन प्रदेश को 38 प्रजातियां विल्युम होने को कथार पर पहुंच गई हैं। इनमें वानवर्षों को 16 और पेड़-पौधों की 22 प्रजातियां शामिल् हैं। मानव, जीव-बंदु तथा वनल्यरियों का आपस में इस अबर का जनवर्ष है कि हमीर नजे से प्राप्त प्रकार का जुडाव है कि यदि इनमें से एक बाधित हो तो पर्यावरण संतुलन बिगड

बाता है। रंग्य के बंब विषयेक विस्तुत होने वास्ती ये प्रवासियां उनके संरक्षण के लिए केंद्रीय वर्षे डायवसिंट योर्ड को अपियुपना का इंतवार हो राहा है। बही-बूटियों के ठोपि संप्र प्रकृत क सरसर बह सरफह करों। भाने जाने खले गिरद छरम हो रहे हैं। इरसंचार कंपनिय के उत्यस की रहिएएन को भी नुनकों संख्या का करने का कारण माना का रहा है। राज्य सरकार ने विलुध होने की कागाए प्रायुद्धि जीन स्टेट बायोडारावसिटी बोर्ड ने खतरे को

भांपकर नोटिफाई की 38 प्रजातियां जीव-जंतुओं और वनस्पतियों को नोटिफर्ड

विश्वत विशे का असम् विभागपि CUILCUE UIL वा ति - वे दु भों और कार ण जल वा यु प्रारंतनें र त्राव का करता में जयाद दोला और कम मोरिव मा ज जा ही। वहीं जलसरों के लिएत होने के पछि उनका अवैध कियर और जेमलों में प्रारंत गिर्म वार्वियमा वोर्ड को इसम सुर्वाज जनसरों के लिएत होने के पछि उनका अवैध कियर और जंमलों में प्रारंत गोर्जिंग वार्वियमा वोर्ड को इसम सुर्वाज जनसरों के लिएत त्रारंत वार्वियमा वोर्ड को इसम सुर्वाज जनसरों के लिएत नि के कि प्रारंत वार्वियमा वोर्ड को इसम सुर्वाज जनसरों के लिएत नि के कि प्रारंत वार्वियमा वोर्ड को इसम सुर्वाज जनसरों के लिएत उन्हों ने के स्वार इस्टे बच्चाने का रही। हो प्रयं का अतिल्व प्रधान प्रारंत वार्वियम वोर्ड 38 प्रजीविया वितुत्वर होते की किता प्रारंत का रही। हो प्रयं का अतिलव प्रधान प्रारंत वार्वियम वोर्ड 38 प्रजीविया वितुत्वर होते की किता प्रारंत का रही। हो प्रयं के स्वारंत के कि कि प्रारंत वार्विय की के सम सुर्वाज वार्वा है। ऐसे प्रभुजों के साने पर जव विवय कि के हा में भी मा जजे हैं।

१६ एनिमल भी विलुप्त ये वनस्पतियां होने की कगार पर खतरे में? एनिमल में स्टेप ईगल, तिब्बती

प्रदेश के अलग-अलग क्षेत्री में मौजुद मोहरा, अर्तेश, प्रतीक, रत्नजेत, झारुत काकोती (जंगली लातेन), कुटकी जीवेक, बीना जैस्मीन, कशेर काकोती संदे जटामांसी, दुष्टिया बाख, बनकेकरी, नेरडव, स्माय इतरी या हिमालय सेरो विर तीतर दार्व महिया, हिमालय सरा, बिर सतर, पांची राके गिर, इमेक्स खकरा फिर, एठला बिल गिल्ट, हिमालयन तहर, हिमालय कर्क्सूची हिरण, रीमल व्यापेली, कोश्लास तीतर, लाल के गेतृरव बली गिर, जुजुराना, गोल्डन माठसीर और हिम तेंचुआ भी अब गिने–चुने ही रहे है। राखल व नाग छतरी वनस्पति विलुप्त होने की कगार पर पहुंच गई है। कीटनाशकों की जगह नैचुरल वेस्ट इनपुट का इस्तेमाल करने की अपील

तिमला, 19 फरवरी (ब्यूरो): कृषि व उच्चान उपच में कोटनाक, रसायन और अर्ल्याफ कम होगी। कृषि न्यादा टिकाऊ और फसदी उपच में कोटनाक, रसायन और अर्ल्याफ कम होगी। कृषि न्यादा टिकाऊ और फसदी जर्वरको के इसोमाल से ने केवल रमारी वमीन स्वार्थ सुरुष कुरुवे मुरुकुल ने बीरो बबट खेती फसत होगी, बार्क्स का ने बीरो बबट खेती फसत होगी, बीर्फ्स का में को की राजिक रेखते हुए कुरुवे मुरुकुल ने बीरो बबट खेती फसत होगी, बीर्फ्स को ने बीरो बट स्वार्थ राजा का रकत है।

I Z BOULAU

असरो कृषि व उठान उपक का 5, ताला को भाषाई भी हो सकेगी। सिरसे कृषि व उठान उपक का अभिक उत्पादन प्रदेश में जीते सरतों के दौरान कोटलडक रिसा का सरकता है। सरायन और उप्तेरी उपस्थाल में कई गुजा सरिक के ज्यादन के लिए सिरायल के बागवानी कहीरती हुई है। अभिक उत्पादन सेने की आह सविव के सी, जम्म महित बागवानी विशेषर्क्ष में किसान-बागवान इनका अंधाधुंध प्रयोग कर को दीम गुरुकुल कुरुकेश का दौरा करके लौटी रहे हैं। पुरुकुल से लौटी दोन नियानक में इन है। गुरुकुल कुरुकेश को दौरा करके लौटी रहे है। पुरुकुल से लौटी दोन नियानक में इन है। गुरुकुल कुरुकेश के दौरा का मकारद ज्या प्रथकों को पालस्ट आधार पर जुरू काने की बजट प्राकृतिक खेती को समग्रना और प्रदेश में अरुरत महसूस की।







# जैव विविधता पर कार्यशाला १९ को शिमला में

शिम्प्रला। जैव विविधता पर संबंधित बोर्ड 19 फरवरी को शिमला में एक कार्यशाला का आयोजन करेगा। इसमें विभिन्न विभागों के (कृषि, आयुर्वेद, वन, स्वास्थ्य, शिक्षा, उद्योग, पर्यटन, बागवानी, मत्स्य पालन, पशुपालन), स्थानीय समुदायों के प्रतिनिधियों, प्रासगिक क्षेत्रों, व्यापार, नागरिक समाज संगठनों और गैर सरकारी संगठनों के प्रतिनिधियों को राष्ट्रीय तैथार करने के लिए आयंत्रित किया गया है। प्रदेश राज्य जैव विविधता बोर्ड के सदस्य संचिव, कुणाल सत्यार्थी के पर्यवेक्षण में इस कार्यशाला को गठित किया किया गया है। मनीषा नंदा, अतिरिक्त युख्य संचिव, पर्यावरण विज्ञान और प्रौद्योगिको युख्यातिथि होगी।