NBAP, NBT & Reporting requirements for Sixth National Report to CBD



Kunal Satyarthi, IFS

Member Secretary HP State Biodiversity Board, Shimla

The Convention for Life on Earth

Objectives

Conservation of biological diversity, Sustainable use of its components, Fair and equitable sharing of the benefits arising from the utilization of genetic resources.

It addresses issues relating to research and training, public education and awareness, and technical and scientific cooperation.

The Convention is legally binding and Parties are obliged to implement its provisions.

Near universal membership: 196 parties

<u>India</u>

signed on 5 th June 1992, ratified on 18th February 1994.

Two Protocols adopted so far under CBD: Cartagena Protocol on Biosafety in 2000, and Nagoya Protocol on Access and Benefit Sharing (ABS) in 2010.

The Conference of the Parties (COP): Governing body of the Convention

Advances implementation of the CBD through the decisions

Seven thematic programmes of CoP:

- Agricultural biodiversity,
- Dry and sub-humid lands biodiversity,
- Island biodiversity,
- Marine and coastal biodiversity,
- Forest biodiversity,
- Mountain biodiversity, and
- Inland waters biodiversity.

Two mandatory obligations of CBD on all parties:

- 1. National Biodiversity Strategy and Action Plans (NBSAPs)- Article 6
- 2. National Reports-Article 26

NBSAPs:

 Principal Instruments for implementing the CBD at the National Level-mainstreaming of biodiversity related plans into activities of all sectors which can have impact on biodiversity.

United Nations Decade on Biodiversity and Strategic Plan for Biodiversity

- UN General Assembly has declared 2011-2020 as the UN Decade on Biodiversity, to raise awareness about importance of and threats to biodiversity.
- Coinciding with UNDB, Strategic Plan for Biodiversity 2011-2020 with five Goals and 20 Aichi Biodiversity Targets adopted under CBD in 2010.
- Strategic Plan provides an overarching framework on biodiversity, not only for biodiversity related conventions, but for the entire UN system and all partners engaged in management and policy development on biodiversity.
- All Parties are required to develop national targets in line with Aichi targets, and review and revise/update NBSAP by integrating national targets.

NBSAPs

- CBD requires Parties to develop national strategies, plans or programmes for conservation and sustainable use of biodiversity (NBSAPs)
- India developed first NBSAP (National Policy and Macrolevel Action Strategy on Biodiversity) in 1999 through extensive consultations, as a macro-level statement of existing policies and programmes, gaps and further actions needed for conservation and sustainable use of biodiversity.
- After approval of National Environment Policy (NEP) by the Government in May 2006, revision of 1999 document taken up in consonance with NEP, and using report of NBSAP project. India's second generation NBAP approved in 2008.
- India has updated its second generation NBAP 2008 by developing 12 National Biodiversity Targets (NBTs) in consultation with stakeholders, which are included in Addendum 2014 to NBAP 2008.

National Reports

- Convention enjoins upon Parties to present reports to CoP on measures taken for implementation of Convention and their effectiveness in meeting Convention's objectives.
- National reporting is a continuing requirement.
- Five cycles of national reporting have been completed.
- India submitted NR 5 in March 2014. NR 6 would be due in March 2018.

Aichi Biodiversity Targets (Total 20)

Strategic Goal A: Address the underlying causes of

biodiversity loss by mainstreaming

biodiversity across government and society

Strategic Goal B: Reduce the direct pressures on biodiversity

and promote sustainable use

Strategic Goal C: To improve the status of biodiversity by

safeguarding ecosystems, species and

genetic diversity

Strategic Goal D: Enhance the benefits to all from

biodiversity and ecosystem services

Strategic Goal E: Enhance implementation through

participatory planning, knowledge management and capacity building

India's National Biodiversity Action Plan, 2008 (As amended in 2014)

175 action points under 12 broad thematic areas:

- 1. Strengthening and integration of in situ, on-farm and ex situ conservation
- 2. Augmentation of the natural resource base and its sustainable utilization
- 3. Ensuring inter and intra generational equity
- 4. Regulation of introduction of invasive alien species and their management
- 5. Assessment of vulnerability and adaptation to climate change and desertification

- 6. Integration of biodiversity concerns in economic and social development
- 7. Pollution impacts
- 8. Development and integration of biodiversity databases
- 9. Strengthening the implementation of policy, legislative and administrative measures for biodiversity conservation and management
- 10. Building national capacities for biodiversity conservation and appropriate use of new technologies
- 11. Valuation of goods and services provided by biodiversity and use of economic instruments in decision making processes
- 12. International cooperation

India's Biodiversity Targets and the Aichi Targets

Reference	Target	Related Strategic Goals/Aichi Targets
National Biodiversity Target 1	By 2020, a significant proportion of the country's population, especially the youth, is aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	1
National Biodiversity Target 2	By 2020, values of biodiversity are integrated in National and State planning processes, development programmes and poverty alleviation strategies.	2
National Biodiversity Target 3	Strategies for reducing rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being.	5, 15
National Biodiversity Target 4	By 2020, invasive alien species and pathways are identified and strategies to manage them developed so that populations of prioritized invasive alien species are managed.	9
National Biodiversity Target 5	By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries.	6, 7, 8
National Biodiversity Target 6	Ecologically representative areas on land and in inland waters, as well as coastal and marine zones, especially those of particular importance for species, biodiversity and ecosystem services, are conserved effectively and equitably, on the basis of PA designation and management and other area-based conservation measures and are integrated into the wider landscapes and seascapes, covering over 20% of the geographic area of the country, by 2020.	10, 11, 12

National Biodiversity Target 7	By 2020, genetic diversity of cultivated plants, farm livestock and their wild relatives, including other socioeconomically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	13
National Biodiversity Target 8	By 2020, ecosystem services, especially those relating to water, human health, livelihoods and wellbeing, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.	14
National Biodiversity Target 9	By 2015, 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 legislation.	16
National Biodiversity Target 10	By 2020, an effective, participatory and updated national biodiversity action plan is made operational at different levels of governance.	3, 4, 17
National Biodiversity Target 11	By 2020, national initiatives using communities' traditional knowledge relating to biodiversity are strengthened, with a view to protecting this knowledge in accordance with national legislations and international obligations.	18
National Biodiversity Target 12	By 2020, opportunities to increase the availability of financial, 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 for Resource Mobilization is adopted.	19, 20

IMPLEMENTATION PLAN FOR NATIONAL BIODIVERSITY ACTION PLAN (NBAP)

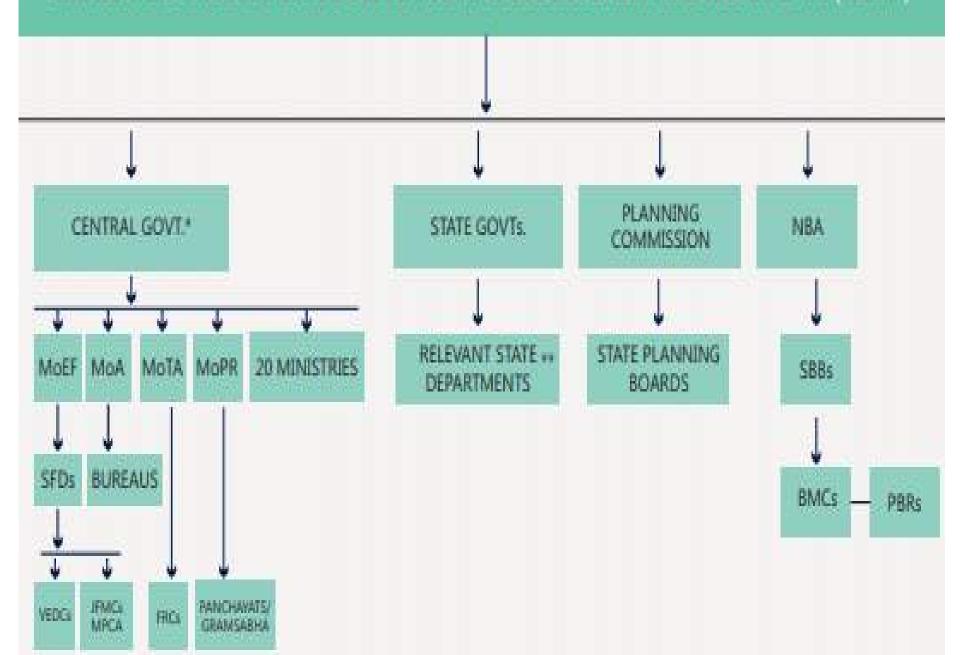


Table 4. Indicative list of Ministries/Departments and National Biodiversity Targets for Implementation of the National Biodiversity Action Plan

Ministries/Departments of Government of India and Planning Commission	Nat	ional E	Biodive	rsity Ta	argets							
Ministry of Agriculture (MoA)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Chemicals and Fertilizers (MoCF)	3	4	5	6	7	8	9	10	11	12		
Ministry of Coal (MoC)	3	4	5	6	7	8	9	10	11	12		
Ministry of Commerce and Industry (MoCI)	2	3	5	7	8	9	10	12				
Ministry of Drinking Water and Sanitation (MoDWS)	3	4	5	6	9	10	11	12				
Ministry of Earth Sciences (MoES)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Environment and Forests (MoEF)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Health and Family Welfare (MoHFW)	1	3	4	5	6	9	10	11	12			
Ministry of Human Resource Development (MoHRD)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of New and Renewable Energy (MoNRE)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Panchayati Raj (MoPR)	1	3	4	5	6	7	8	9	10	11	12	
Ministry of Petroleum and Natural Gas (MoPNG)	3	4	5	6	7	8	9	10	12			
Ministry of Power (MoP)	2	3	4	5	6	7	8	9	10	12		
Ministry of Rural Development (MoRD)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Science and Technology (MoST)	1	2	3	4	5	6	7	8	9	10	11	12
Ministry of Shipping (MoS)	3	4	6	7	8	9	10	12				
Ministry of Tourism (MoT)	3	4	5	6	7	8	9	10	11	12		
Ministry of Tribal Affairs (MoTA)	1	2	3	4	5	6	7	8	9	10	11	12

Ministries/Departments of Government of India and Planning Commission	National Biodiversity Targets												
Ministry of Urban Development (MoUD)	1	3	4	5	6	7	8	9	10	11	12		
Ministry of Water Resources (MoWR)	1	2	3	4	5	6	7	8	9	10	11	12	
Department of Space (DoS)	3	4	5	6	7	8	9	10	11	12			
Ministry of Youth Affairs and Sports (MoYAS)	1	2	3	9	10	11	12						
Ministry of Statistics and Programme Implementation (MoSPI)	1	2	3	5	7	8	9	10	11	12			
Ministry of Communications and Information Technology Technology (MoCIT)	9	10	12										
Planning Commission of India	1	2	3	4	5	6	7	8	9	10	11	12	

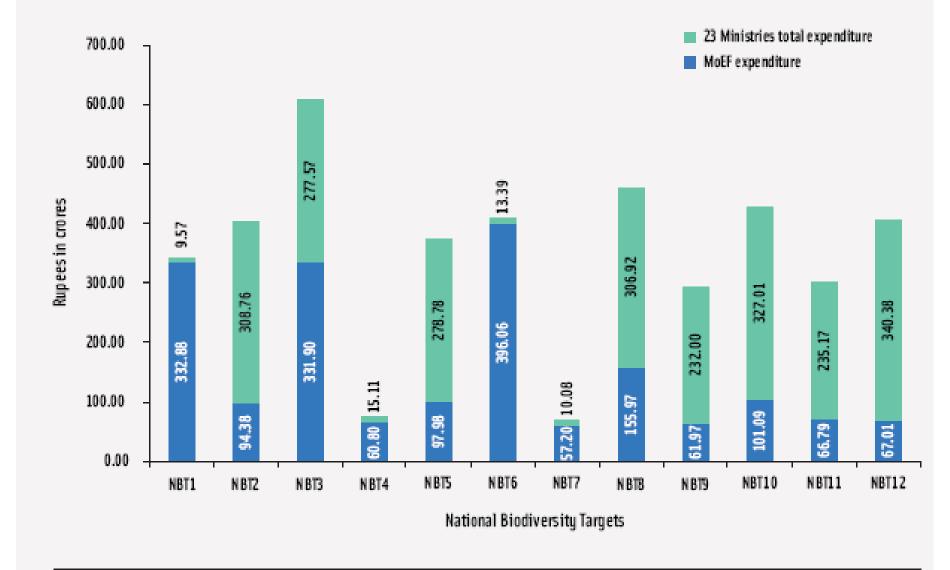
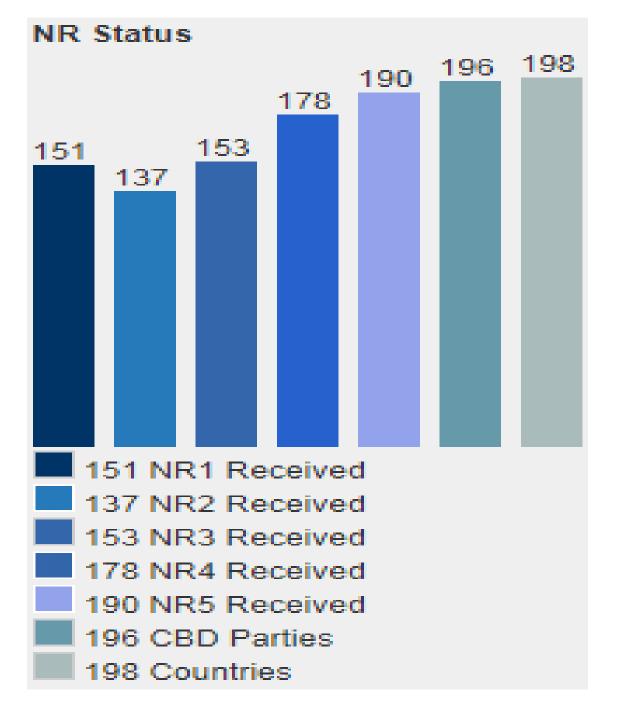
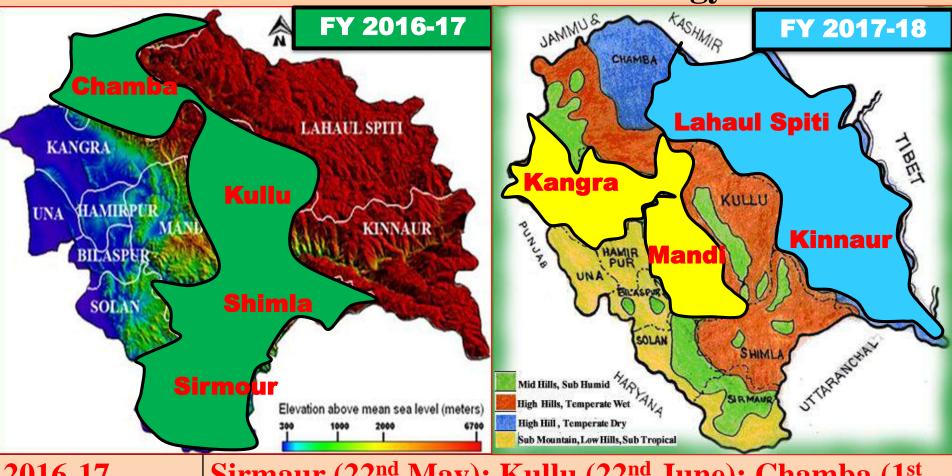


Figure 3. Combined allocation of funds (2013-2014) of MoEF and 23 Ministries/ Departments of Gol that contribute towards NBTs



Implementation of the Biological Diversity Act, 2002: Scenario and Approaches Adopted at HPSBB

BMC: Prioritization & Strategy



2016-17 Sirmaur (22nd May); Kullu (22nd June); Chamba (1st July); Shimla (9th Feb & 26th March 2017)

2017-18

Kinnaur (22nd May) & Lahaul & Spiti (26th June)

❖ Mandi and Kangra to be covered, Feb2018=

Approaches in BMCs Constitution: > 400

- Besides selected ecosystem types, districts prioritized on the basis of bioresources richness
- District and block level workshops for the PRIs organized
- Involvement of Government
- Involvement of different line departments of the State: Forest, Panchayati
 Raj & RD, District Administration, Police, Education, Ayurveda (Ayush),
 Animal Husbandry, Public Relations, Revenue, Agriculture, Horticulture etc.



BIODIVERSITY MANAGEMENT COMMITTEES (BMCs)

Constituted at Gram Panchayat, Development Block & Municipal Corporation Level as on 31st Oct., 2017

Sr. No.	District	Total GP, Block & MC	BMC constituted	% age	% age in prioritized Distt.
1	Sirmour	228	46	20.2	
2	Kullu	204	123	60.3	
3	Chamba	283	69	24.4	
4	Shimla	363	121	33.3	31.33
5	Kinnaur	65	5	7.69	
	Lahaul & Spiti	41	7	17.1	
7	Rest Distt.	2042	31	1.52	
8	Block level	78	1	1.28	
9	MC	2	1	50	AND THE PERSON NAMED IN
	Total	3306	404	12.2	

Innovations in PBR Documentation

GoHP vide notification no. <u>STE -A (3)-1/2004 dated 17/12/2016</u>, notified <u>Expert Group (10 members)</u> to supervise the preparation, evaluation of PBRs and certify their authentication on behalf of the HPSBB.

	Gover Department of	ument of Himschal Profesh Environment, Science & Technology
Na. S	FT-A (3)-1/2014	Dated: Skimla-2, 17-12 — 2016
	2	GTIFICATION
lis con	perti with regard to evaluation	Pradicts State Biodiversity Board (HPSBB) has expre of Peoples Biodiversity Registers in the State, the Governor of Himschaf Frahrsh, to pleased to be
	nd certify their sythesticity of	The fullowing to supervise the preparation, evaluate in behalf of the H.P., State Birdiversity Bourn.
St. No.	Name	Designation & Address
4,	Dr. S.K. Sharms (Agro bindlewsity germplasm)	Rend. Director, NBPOR, New Delhi
2	Dr. N.S. Charina (Medicinal Hariabecta/Fonestry)	Read. Professor, UFAP Nozeri, Solan, HP
T.	Dr. B.D. Sharma (Agriculture/Fenestry)	Rent, Head, NEPGR Phagli, Shimla, HP
4.	Dr. T.N. Lokharpel (Micro- diversity)	Retd. Chairman, Bio-Sciences Department HPI Summer Hill, Shimla-5
5.	Dr. D.R. Nag (Medicinal/ Aromanic Plants)	Road, Hand, Harbal Gorden, Jagitshireagur, Distri Mondi, HP
6.	Dr.V.K. Mattu (Enternologist)	Read Dissour, Integrated Institute of Himsland Environment Studies, HPU, Surrens Hill, Stienla
2.	Dr. S.P. Bhardwaj (Horticulture biodiversity)	Real, Associate Director, Ragional Fruit Resource Station Utiff, Naura, Solan Ric Moshobra, Shindi HP
8.	Dr. Y.P. Shirms (Agri- forticulture blodiversity)	Reid. Hand, Indian Institute of Agriculture (Harticulture) R/o Amariaca Cottage, Shimia, HP

		4
y.	Dr. Subbah Shorms (Fisheries)	Rato, Director, Department of Fisheries, Histories, HP
10:	Dr. B.K. Mandyal (Animal/livestosk Biodivenity)	Professor, Medicine, College of Veterinary & Ariend Sciences, HP KVV, Palarque, HP
		By order
		Turun Kanoor
		Pr. Scentary (flew., Se.& Tech.) to the Government of Himathal Pradesh.
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	. No : STE-A (3)-1/2004	Deced Shimla-2, 172-12-2016.
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Sr. No.	Meeting	Date	Venue
1.	1st Expert Group Meeting	02/02/2017	Paryavaran Bhawan, DEST
2.	2 nd Expert Group Meeting	30/03/2017	Conference Hall, SCSTE
3.	3 rd Expert Group Meeting	25/04/2017	Conference Hall, SCSTE

□ Verification of PBRs:
1. Narwana Khas (Kangra)
2. Tandi (Kullu)
3. Jana (Kullu)
4. Batal (Sirmaur)
5. Sainj (Shimla)
6. Shakrori (Shimla)

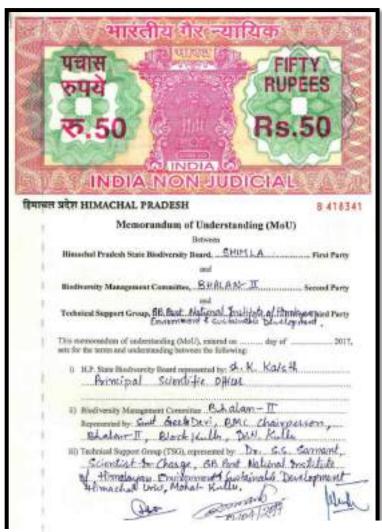


Tripartite Memorandum of Understanding (MoU)

Tripartite MoU signed between:-

- **❖ HP State Biodiversity Board (HPSBB)**
- **❖** Biodiversity Management Committees (BMCs)
- **❖** Technical Support Group (TSG)





Tripartite MoU signed b/w of HPSBB, BMC-MC Shimla & TSG (HFRI), Shimla, on 3/5/2017





Digitization of PBRs



(i) hpbiodiversity.gov.in/PBR_Print.aspx



People's Biodiversity Register (PBR)

General Information of Panchayat											
State:		District:		Block:	Panchayat:						
Himachal Pradesh	•	Kullu ▼	Ban	jar ▼	Tandi	•	Print PBR	Home			
			People's	Biodiversity Register (PBR):	General Details						
1. Name o	f the Gram Panc	hayat		Tandi							
2. Name o	f the State			Himachal Pradesh							
3. Name o	f the District			Kullu	Kullu						
4. Name o	f the Block			Banjar							
5. Geogra	phical Area of th	e Panchayat		57396 heactare							
6. Popula	ion Under the Gr	ram Panchavat									
The Gram	Panchayat Tandi	has eighteen revenue villages namely Su	m,Narhan,Bh	artidhar,Bhalagran,Tandi,Seri,Dughl	,Shach,Dalicha,Mihar,Khanala,Lusha	l,Kandhi,Chamnal,	,Lotla,Dhar,Bhua and Falia a	nd divided into five			
1.Narhan -	Sum,Narhan, Du	ghli,Shach 2.Bhartidhar - Dalicha,Mihar K	hanala,Lusha	l,Bhartidhar 3.Bhlagran - Kandhi,Bh	lagran,Chamnal,Lotla 4.Tandi - Dhar,I	Bhua,Tandi 5.seri					
				Table -II: Details of Population	n						
		Ward No.		Male	Female		Total				
		Ward No.1		135							
		Ward No.2			123 102 225						
<u> </u>		Ward No.3		120	127		247				
_		Ward No.4 Ward No.5		186 112	181 123		367 235				
-											
		Grand Total		676	649		1325				

7. Location

The Gram Panchayat Tandi is lacated in Right side of Jalori Way in Banjar block of Kullu District of Himachal Pradesh. The panchayat is located at 60 km from Kullu District headquarter. Bhahu Panchayat is situated in its North, Karshala and Khanag in its South, Chaini and Kharagaad in its East and in West Teel and Mohni Panchayat is situated. It is situated at a height of 2600 m from above mean sea level.

History of Villages

Village	History
Tandi and Bhua	A man came with his brother from another place which was very far away. They started to live there. Then Deity Sheshnaag came there. They started to worship him. This village was named
Tallot allo Diloa	Tandi. They had many fields to work and these were scattered in a large area. One brother started to live in another place which was below the Tandi village. This place was named Bhua village.
	Once there was a place and there were no habitations. Lomesh Rishi came there and saw that the place was good for habitation. He brought a man from class "Thakur" to live there. Thakur preyed to
	Lomesh Rishi to provide for a source of water. So Rishi hit his silver rod on ground and water erupted. It became a water body. He divided the waterbody in to two parts. Left part was for Thakur and
	right one for him.He made a rule that Thakur will use only left side of waterbody and the other side of waterbody will be his.Then Lomesh Rishi brought a Harijan from Balidhar villag
	traditional folk music callledBaza. Then he brought a Brahmin person to alm and for worshipping. Then a family called "Shildu" came from Rampur – Khumarshal and resides firstly in B
Seri and Lotla	then came to Ser village in Tandi Panchayat. They asked "Thakur" person to reside there. Faliyau also came there to live. There used to be aq diety called Thamut Devta, he said that this 🕍 🎳 🥂
Self and Lotta	"Sar"so this village was named as Seri. Faliyau people threw straw in field and grew crops. When their crops flourished and production was good, then Shildu people forced them far aw 🔭 💥 🔬
	their boundry which was a water stream called "Jalodi khadd".That area was under deities Shringa Rishi and Budhi Nagin.They started to live there and worked also.One of them knew 🐧 📉 🥏
	work and they were earning good. When Shildu and other people of Seri village realized their skills, they called them back to Seri and resided them in Kutla of Brahmins. Those Brahmin 🔪 📉
	accidently so they left the place as they were ashamed of it. Then other Brahmins were called from Thata village situated in Mandi District to live there. The place where they resided w

PART-2

Agro-Biodiversity

erial No.	PBR ID	Crop	Scientific Name	Local Name	Variety	Landscape/Habitat	Approx. Area Shown	Local Status Past	Local Status Present	Special Features	Cropping Season	Use	Associated TK	Other Details	Seed Source	Community	lmage
1	10001	Amaranthus app	Amaranthus app	Sariyara		Agricultural Field	3	Availavle	Availavie	Round,small sized,yellow seeds	Kharif	Food,inddu	Traditional food (laari)	High nutrient value	Last year preserved seeds	Asha Devi	
2	10001	Cereals and Millet	Zea Mays	Makki	Not Reported	Sloppy Landscape	Not Reported	More	Less	Long,Green Leaves and Yellow Seeds	/ Kharif	Fodder,Roti Purpose	Good For Health	Roasted Seeds used in Snacks	Last Year Preserved seeds	Nirmala Devi	popular
3	10001	Amaranthus app	Amaranthus app	Sariyara		Agricultural Field		Availavle	Availavle	Round,small sized,yellow seeds	Kharif	Food,inddu	Traditional food (laari)	High nutrient value	Last year preserved seeds	Asha Devi	
4	10001			Gehun	Not Reported	Slopy Landscape	Not Reported	Availavle	Availavle	Soft plant, Seeds are red and long plant	Rabi	Roti Purpose	Very Nutritious	Fodder	Local Seed	Nirmala Devi	
5	10001		Brassica Oleracea Botrytis Group	Fulgobhi	Not Reported	Agricultural Field	Not Reported	Less	More	White flower and green leaves, disense free	Kharif	Used vegetable	Unknown	Fom Bazar	Yung plants bought from market	Mahesh Thakur	Y
6	10001		Trigonella foenum-graecum	Methi	Not Reported	Agricultural Field	Not Reported	Less	More	Green soft plant,less height white and yellow flower colour,seed solour yellow	Rabi	Used as food and for vegetable preparation	Unknown	Nil	Last year preserved seeds	Kaushaliya	
7	10001	Spinacia oleracea	Spinacia oleracea	Palak	Not Reported	Agricultural Field	Not Reported	Less	More	Soft,green stem and broad leaves	Rabi	Used as food and for chutney preparation	High Nutritional value	Nil	Seeds bought froom bazar	Kaushaliya	



Tripartite MoU signed for the preparation of 98 (47+50+1) PBRs

S. No.	District	Block	PBRs	TSG
		Bhattiyat	8	Himachal Pradesh University, Shimla
1	Chamba (13)	Chamba	3	& Dr. Y. S. Parmar University of Horticulture & Forestry,
		Salooni	2	Solan
		Anni	3	CSV Himsels Duedesh Assistation Livings it. Delimina
		Banjar	12	CSK Himachal Pradesh Agricultural University, Palmpur &
2	Kullu (36)	Kullu	10	GB Pant National Institute of Himalayan Environment
		Naggar	11	and Sustainable Development, Kullu
		Pachhad	3	
		Nahan	2	Dr. Y. S. Parmar University of Horticulture
3	Simmour (10)	Sangrah	5	& Forestry, Solan
3	Sirmour (19)	Shillai	3	
		Rajgarh	1	
		Paonta	5	
		Chhohara	1	
		Chopal	3	
		Jubbal-Kotkhai	1	
		Nankhari	2	
		Theog	1	
4	Shimla (29)	Mashobra	5	Himalayan Forest Research Institute,
_		Chopal	3	Shimla
		Chirgaon	1	
		Basantpur	4	_
		Narkanda	2	_
		Rampur	3	and were the day
		Rohru	3	
5	MC	Shimla	1	N. W. W. W.
	Total		118	

Innovations in ABS Mechanism

- Therefore, 10 threatened and endemic species of medicinal plants identified/prioritized for conservation through cultivation:
 - Aconitum heterophyllum (Ateech), Saussurea lappa (Kuth), Inula recamosa (Pushkarmool),
 - Valeriana wallichii (Sugandhbala), Picrorrhiza kurroa (Kutaki), Hedychium spicatum (Kapurkachri),
 - Arnebia benthamii (Ratanjot), Nardostachys jatamansi, Abies webbiana (Talispatra)
 - Pistacia integerrima (Zebrawood, Kakkarsingi)
- Resource use pattern in Himachal based Ayurvedic pharma units
- Recommendation to the Central Govt: threatened species of medicinal plants viz. Aconitum heterophyllum, Pdophyllum hexandrum and Taxus wallichaina should be re-notified as threatened species with a clause for exemption of cultivated material from the provision of Section 38 of the Biological Diversity Act, 2002 (by constituting a Committee, Gazette notification no. STE-A(3)-1/2004 dated 17th December 2016)

Online ABS platform

विभागाल प्रवेश सरकार	Himachal Pradesh State Biodiversity Board				
Sign in to your account					
	Username:	enter username here			
	Password:	enter password here			
	Login	New User Registration	Back	[
	For	rgot Password Forgot Username			



Significant Best Practice at SBB

Trade Chain, Trade Pattern & Value Chain Economics

Work awarded to

Shoolini University, Solan (HP)

Time period allotted for report submission- 3 months

Medicinal plant species:

Aconitum heterophyllum (Ateech),(Kuth),

Saussurea lappa

- Inula racemosa (Pushkarmool),

Picrorhiza kurroa (Kutaki)

- Pistacia integerrima (Zebrawood, Kakkarsingi)
- Trade chain, trade pattern and Value chain economics
- Market system and marketing mechanisms
- Harvesting, cultivation, collection, storage, processing, manufacturing, marketing practices and value addition
- Demand and supply analyses -Economic feasibility analyses of harvesting from wild and the cultivated sources
- Dependence of local stakeholders on trade of medicinal plants
- Indigenous uses, quality control measures, at source as well as at industry leg

Books for publication

Status of biological diversity found in the State (Chapters from experts):

- Microbial diversity in Himachal Pradesh
- Naturally occurring medicinal plants in Himachal Pradesh and their importance w.r.t. their conservation and sustainable utilization
- Biodiversity of Medicinal Plants in Himachal Pradesh: Conservation and Cultivation
- Wild edible resources of Himachal Pradesh
- Plant resource utilization in Pragpur: First heritage village of India
- Ethnobotanical database on wetland plant resources of district Bilaspur
- Ethnobotanical resources of district Hamirpur
- Bee flora of District Chamba
- Butterfly diversity of subalpine forests of Himachal Pradesh
- Noctuid (Lepidoptera) diversity of conifer forests of Himachal Pradesh
- Status of Animal Biodiversity in Himachal Pradesh

Books prepared in collaboration with State Centre on Climate Change , HP

- Wild edible fruits of Himachal Pradesh
- Traditional crops of Himachal Pradesh
- Wild fruit resources of Himachal Pradesh
- Hidden treasures: An insight to diminishing traditional crops of Himachal Pradesh

Included in 100 day target of the Government of Himachal Pradesh



Review of the list of Threatened Species of H.P for re-notification, Sec. 38

GoHP vide Notification No. STE-A(3)-I/2004, Dated 17-12-2016 notified two Committees for Threatened Animal & Plant spp to review the list of threatened species of HP.

Two meetings were organized on 1st Feb. 2017 under the chairmanship:

- **❖** Director, Himalayan Forest Research Instituted (HFRI),
- **❖** Addl. PCCF (Biodiversity Conservation), (HP Forest Department)

22 species of plants &

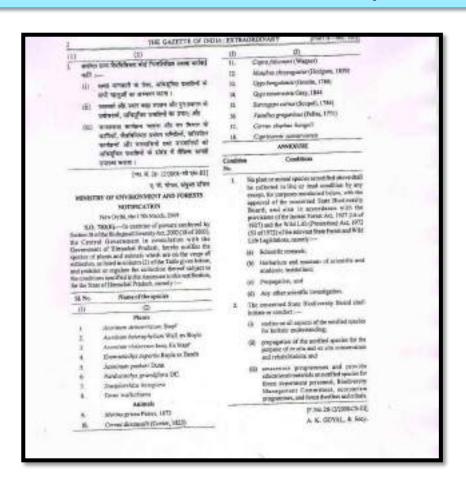
16 species of animals recommended



Re-notification, of Threatened Species of H.P under (Sec. 38)

Two meetings were organized on 1st Feb. 2017 under the chairmanship:

- **❖** Director, Himalayan Forest Research Instituted (HFRI),
- **❖** Addl. PCCF (Biodiversity Conservation), HP Forest Department



MoEFCC vide notification no. SO 783(3), <u>dated 17th March</u>, 2009, notified:

- > 8 spp of plants
- > 10 spp of animals

Threatened spp of HP



LIST OF THE THREATENED PLANT SPECIES OF HIMACHAL PRADESH

Sr. No.	Scientific Name	Common Name	Family
1	Aconitum deinorrhizum Stapf	Mohra	Ranunculaceae
2	Aconitum heterophyllum Wall	Atis	Ranunculaceae
3	Arnebia benthamii (Wall. ex G.Don) I. M. Johnst.	Ratanjot	Boraginaceae
4	Atropa acuminata Royle ex. Lindl.	Jharka	Solanaceae
5	Berberis aristata DC.	Kashmal	Berberidaceae
6	Betula alnoides BuchHam. ex D.Don	Himalayan birch	Betulaceae
7	Dactylorhiza hatagirea D. Don	Salam panja	Orchidaceae
8	Eremostachys superba Royle ex Benth	Gajar Mula	Lamiaceae
9	Fritillaria roylei Hook.	Kakoli/Jangli lasen	Liliaceae
10	Gentiana kurroo Royle	Kutki	Gentianaceae
11	Habenaria edgeworthii Hook. f. ex Collett	Jeevak	Orchidaceae
12	Jasminum parkeri Dunn	Dwarf Jasmine	Oleaceae
13	Lilium polyphyllum D. Don	Ksheer kakoli	Liliaceae
14	Malaxis muscifera (Lindl.) Kuntze	Ridhi	Orchidaceae
15	Nardostachys grandiflora DC	Jatamansi	Boraginaceae
16	Paris polyphylla Sm.	Dudhia bach	Liliaceae
17	Sinopodophyllum hexandrum (Royle) T.S. Ying	Bankakri	Berberidaceae
18	Skimmia laureola (DC.) Siebold & Zucc. ex Walp.	Ner dhoop	Rutaceae
19	Staphylea emodi Wall. ex Brandis	Himalayan bladdernut/ Nag Danu	Staphyleaceae
20	Swertia chirayita (Roxb. ex Fleming) Karsten	Chiretta/Chirayata	Gentianaceae
21	Taxus wallichiana Zucc Synonym: Taxus contorta Griff.	Rakhal/Birmi	Taxaceae
22	Trillium govanianum Wall. ex D.Don	Himalayan Trillium/Nag	Melanthiaceae

LIST OF THE THREATENED ANIMAL SPECIES OF HIMACHAL PRADESH

Sr.			
No.	Scientific Name	Common Name	Family
1	Aquila nipalensis Hodgson	Steppe eagle	Accipitridae
2	Canis lupus chanco Gray	Tibetan wolf	Canidae
3	Capricornis thar Hodgson	Himalayan serow	Bovidae
4	Catreus wallichii Hardwicke	Chir pheasant	Phasianidae
5	Gypaetus barbatus Linnaeus	Bearded vulture	Accipitridae
6	Gyps bengalensis Gmelin	White-rumped vulture	Accipitridae
7	Gyps tenuirostris Gray	Slender billed vulture	Accipitridae
8	Hemitragus jemlahicus C.H. Smith	Himalayan tahr	Bovidae
9	Moschus chrysogaster Hodgson	Himalayan musk deer	Moschidae
10	Parnassius charltonius Gray	Regal apollo	Papilionidae
11	Parnassius stoliczkanus Felder & Felder	Ladakh banded Apollo	Papilionidae
12	Pucrasia macrolopha Lesson	Koklass pheasant	Phasianidae
13	Sarcogyps calvus Scopoli	Red-headed vulture	Accipitridae
14	Tragopan melanocephalus Gray	Western tragopan/Jujurana	Phasianidae
15	Tor putitora Hamilton	Golden Mahseer	Cyprinidae
16	Uncia uncia Schreber	Snow leopard	Felidae

SACRED GROVES TO BE NOTIFIED AS BHS UNDER (SECTION 37)

SACRED GROVES

(Dev-van), rich biodiversity spots and exclusively conserved and protected by local community since time immemorial.

Primary & secondary data is being collected from the field to know the present status/health and its potential to be declared as BIODIVERSITY HERITAGE SITES.

HPSBB identified 248 SG in Kullu and Shimla distt.

Block wise distribution of Sacred Groves

Kullu District (95)

- **Kullu-40**
- **■** Banjar-21
- Nirmand-5
- **Anni- 14**
- Naggar-15

Shimla District (153)

- Chopal-6
- Jubbal-10
- Rohru-16
- Chirgaon-17
- Rampur-13
- Kumarsain-9
- Theog 31
- Basantpur-19
- Mashobra-32



- ➤ Project Sacred Groves of HP, for detail documentation is being carried out by WWF-India, Shimla, Himachal Unit.
- Project duration = 2 years (2017-18)
- \triangleright Total budget= ₹ 14 lakhs (1st instalment of 3.5 lakhs released)

Plan of action

S.No Activities Tin			Timefra	meframe(months)			
		1-4	4-8	8-12	12-16	16-20	20-24
1.	Conceptualization and recruitment of staff						
2.	Collection of primary secondary data about the sacred Groves of HP						
3.	Field surveys community interactions and PRA's						
4.	Expert level consultation and compilation of the data base						



ACCESS AND BENEFIT SHARING



Scrutinized 2125 Industries using Bio-resources in HP as under:

Districts/Units	Total no. units	No. of Units using bioresource
Ayurvedic Units	195	195
Kullu	1937	1098
Hamirpur	2945	46
Sirmour	216	149
Una	2358	378
Kangra	1096	259
Mandi	4066	List to be Scrutinized
Solan	5677	List to be Scrutinized
Shimla	1911	List to be Scrutinized
Lahaul & Spiti	590	No units using bio resource
Kinnaur	598	No units using bio resource
Bilaspur	2406	List to be procured
Chamba	1810	List to be procured
Total	25805	2125

HPSBB is holding "Industrial Dialogue Meet on Access and Benefit Sharing (ABS) Implementation in Himachal Pradesh" in collaboration with CII, Directorate of Industries and Directorate of Ayurveda in the month of Dec. 2017

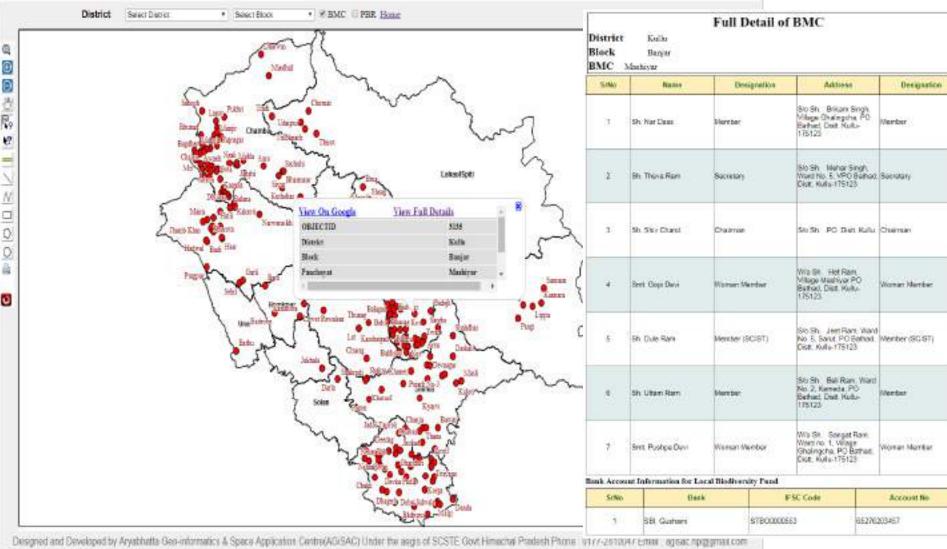
AWARENESS creation & CAPACITY BUILDING programmes

			1
Sr. No	Conclave/workshops/Capacity Building Prog.	Date & Venue	Target Group
1	National Conclave of Biodiversity Management	2nd to 4th May, 2017 at Hotel	Chairpersons & MS of SBB and
	Committees for Experience Sharing on ABS and National	Holiday Home	Chairpersons of BMCs and TK
	Dialogue on Traditional Knowledge''		holders
2	One day workshop on BD Act, 2002 & ABS provisions	11 th May 2017, at at Hotel	State programe for media
		Holiday Home	persons
3	One day workshop on BD Act, 2002 & ABS provisions	11th July 2017, at Forest	CCF, DFO, RFO of GHNP
		Training Institute Sundernager	CF, DFOs, RFOs of Forest
			Circles Kullu, Mandi & Bilaspur
4	Awareness Advocacy workshop for University Law	25 th Aug., 2017 at Conference	Final year students of Law
-	Students on BD Act, 2002 & ABS provisions	Hall, HPU, Shimla	College
	One day workshop on BD Act, 2002 & ABS provisions	4 th Sept., 2017 at Hotel Holiday	Judges of HP High Court,
		Home	Members of Bar Association of
			HP, Lawyers of High Court
5	One day workshop on BD Act, 2002 & ABS provisions	5 th Sept., 2017 at Forest Training	·
		School, Chail	circle (South, Shimla)
			CF, DFOs, RFOs of Forest
			Circles Shimla, Rampur &
			Nahan
6	One day workshop on BD Act, 2002 & ABS provisions	7 th Sept., 2017 at CF Conference	CCF, DFOs, RFOs of Wildlife
		Hall, Dharamsala.	circle (North, Dharamsala)
			CF, DFOs, RFOs of Forest
			Circles Dharamsala, Chamba &
			Hamirpur



Himachal Pradesh State Biodiversity Board





http:www.hpbiodiversity.gov.in











Thank you