

**Management Plan for Chandratat Wildlife Sanctuary
(2018-28)**



**Himachal Pradesh
Forest Department**

Himachal Pradesh Forest Department





Foreword

Mountains are undoubtedly one of the most vulnerable ecosystems on the earth. Though they harbour a spectacular diversity of wild flora and fauna, often unique to the mountain habitats, they are under severe pressure from local communities who are dependent on the ecosystem goods and services provided by the mountains for their livelihood and sustenance. Therefore, management of protected areas in high mountains has always been riddled with the challenges and dilemmas.

An important distinctiveness of the higher altitudes of the Himalaya comes from the fact that wildlife populations here occur over most of the landscape, their contiguity broken primarily by natural geographical features such as a high mountain chain or a river, and rarely by human induced barriers. However, the human population density in the Himalayan high altitudes is on the rise and so is the magnitude of people's dependence on the natural resources. Since the harsh climate and topography of the area are relatively less conducive to agriculture and other developmental options such as industry, most of the region is largely dependent on pastoralism. Wild herbivore species are getting out-competed and their populations are declining due to increasing livestock populations in many areas.

Chandertal Lake is a high altitude lake and a Ramsar site on the upper Chandra valley flowing to the Chandra River of the Western Himalayas (4,337m above sea level) near the Kunzang pass joining the Himalayan and Pir Panjal ranges. The site gives extra importance to the wildlife sanctuary. In this context, developing a management plan for Chandertal Wildlife Sanctuary had to be carried out in the backdrop of experience gained and knowledge generated under the Project Snow Leopard in Upper Spiti Landscape. The sanctuary is also a core zone of Cold Desert Biosphere Reserve and has a unique bio-diversity. Due process of inviting the comments and carrying out the consultations with the field staff of forest department was carried out and where relevant these were incorporated in the Plan. Overall, the Management Plan is refreshingly bold in its approach and given a short period, the technical guidance given by the experts of Nature Conservation Foundation (NCF), Mysuru is commendable. I also thank Chief Wildlife Warden Dr. R.C.Kang for providing valuable suggestions in finalizing this management plan.



I do hope that the concerned field staff of PA and managers would find it a useful document and would take wildlife management efforts in Chandratal wildlife sanctuary to the next level, by the time this plan is due for revision after ten years.

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Preface

The distant landscapes of the trans-Himalaya have fascinated several explorers, for ages. A lot has been written about explorations made to these remote lands, their people and their way of living. The Chandratal Wildlife Sanctuary stands at an intersection of nature and culture with a past that few other wilderness areas can match – the lake finds several references in Indian mythology and local folklore. However, very little is known about the rare wildlife found in these high altitude areas

This high-altitude wetland is identified on the List of Wetlands of International Importance as defined by the Ramsar Convention, for the conservation and sustainable use of wetlands recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value. In recent years, Chandratal has received growing attention from tourists visiting this area from all over India and abroad.

This Management Plan, the first of its kind for the Sanctuary, is based on initial explorations in this area with the attempt to look wildlife in the area and understand the anthropogenic pressures that prevail. The plan allows for initiation of work towards managing the area more effectively as it gains wider popularity among tourist. The plan also aims to systematically facilitate research in these areas, which can subsequently facilitate sound decision-making in future years.

The Management Plan extends for a period of 10 years from 2018-19 to 2027-28 with a proposed budget of Rs 395 lacs. The implementation will bring together the Wild Life Wing, wildlife and conservation agencies working in the region and local communities who live in this landscape that will work jointly to accomplish the proposed plans.

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Contents

1. Introduction to the Area.....	10
1.1. Location, Constituent and Extent.....	10
1.2. Approach and Access.....	10
1.3. Statement of Significance.....	11
2. Eco Sensitive Zone Notification.....	12
3. Background information and attributes.....	13
3.1. Boundaries.....	14
3.2. Geology, terrain, rocks and soil.....	15
3.3. Climate.....	15
3.4. Vegetation.....	17
3.5. Bio-geographical Classification.....	18
3.6. Range of wildlife, status distribution and habitat.....	18
3.6.1. Mammals.....	18
3.6.2. Birds.....	21
4. History of Management and Present Practices.....	21
4.1. General.....	21
4.2. Timber operations including bamboo and firewood harvest.....	21
4.3. Non wood forest produce (NWP) collection.....	22
4.3.1. Fodder.....	22
4.3.2. Fuel Wood.....	22
4.3.3. Other non-timber products.....	22
4.4. Leases.....	22
4.5. Forest Protection.....	23
4.5.1. Legal status.....	23
4.5.2. Hunting.....	23
4.5.3. Illegal activities.....	23
4.6. Livestock grazing.....	24
4.7. Wild fires.....	24
4.8. Insect attacks and pathological problems.....	24
4.9. Wildlife Health.....	24
4.10. Tourism.....	24
4.11. Research, monitoring and training.....	25
4.11.1. Research & monitoring.....	25



4.11.2	Training.....	25
4.12	Wildlife conservation strategies and their evaluation.....	26
4.13	Administrative Set Up.....	26
4.14	Communication.....	26
4.15	Summary of threats to wildlife.....	27
5.	The Protected Area and the Interface Land Use Situation.....	28
5.1	Current situation in zone of influence.....	28
5.2	Development of programmes and conservation issues.....	29
6.	Vision, Objectives and Problems.....	31
6.1	The Vision.....	31
6.2	Objectives of Management.....	31
6.3	Problems in achieving the objectives.....	31
7.	Ecotourism, Interpretation and Conservation Education.....	32
7.1	General.....	32
7.2	Objectives.....	32
7.3	Responsible Ecotourism.....	32
7.4	Interpretation.....	33
7.5	Conservation Education.....	33
7.6	Eco development.....	34
7.7	Development of Micro plans.....	34
8.	Research, Monitoring and Training.....	36
8.1	Research & Monitoring.....	36
8.2	Training.....	36
9.	Climate Change Mitigation Strategies.....	37
10.	Organisation & Administration.....	40
10.1	Structure and Responsibilities.....	40
10.2	Proposed Staff Pattern.....	40
10.3	Amenities.....	41
11.	Budget.....	42
	Annexure I: Sanctuary Notification.....	53
	Annexure II: Intent Notification to add new area to Chandratal Wildlife Sanctuary.....	56

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1. Introduction to the Area

1.1. Location, Constituent and Extent

The Chandratal Wildlife Sanctuary is situated within the geo co-ordinates North (32°31'44" N & 77°36'15" E), East (32°27'42" N & 77°38' 39" E), South (32°23'13" N & 77°36'58" E) and West (32°30'45" N & 77°34'22" E) and located in the Lahaul-Spiti district of Himachal Pradesh.

The Intention Notification No. FFE-B-F(6)-9/2006 dated 14 May, 2007, was to declare an area of 38.56 sq.km as Chandratal Wildlife Sanctuary. There is a subsequent Notification No. FFE-B-F(6)-11/2005-II/Chandratal dated 7 June, 2013 declaring an additional 11.53 sq.km to the Sanctuary.

The Chandratal Wildlife Sanctuary falls under the Spiti Wildlife Division of the Himachal Pradesh Forest Department. The entire Spiti region is classified under the Trans-Himalayan Cold Desert (Zone 1) bio-geography zone with the Province 'Ladakh mountains' (1B) covering most of the southern bank and the 'Tibetan plateau' (1A) covering the northern banks as per the Wildlife Institute of India's biogeography classification (Rodgers and Panwar 1988).

PART - I

The Protected Area: The Existing Situation

1.2. Approach and Access

The Chandratal Wildlife Sanctuary can be reached by road from Manali (c. 130 km). One would need to drive down Rohtang Pass, and take the diversion to Chandratal at Batal. The other route on the diversion leads to Kunzum-la and further to Spiti. One can also access the Sanctuary from Losar, which is the first village in Spiti while travelling from Manali.

The road to Chandratal runs past the Rohtang pass via Gramphoo and Batal, and is open for four months in a year (typically, July to mid-October). A single bus operated by the Himachal Road Transport Corporation (HRTC) runs daily from Kullu to Kaza, the largest town in Spiti. One could get off at Batal, which is 14 km away from the Sanctuary. If travelling from Spiti, Losar is the closest village (c. 35 km) from where the Sanctuary can be accessed by driving down Kunzum-la (Kunzum pass) and taking the diversion at Batal.

Kullu (c. 173 km) is the closest air head, while Una (250 km) and Kalka (275 km) are the closest railheads to Manali.

Tented accommodation facilities are available around Chandratal between July and mid-October – these are set up by tour operators with adequate permissions obtained from the Divisional Forest Officer (Wildlife), Spiti. There are no medical facilities at the camp sites, nor is there any ATM

machine to dispense money. The area is outside cellular network coverage. Thus, only medically fit persons should venture in this area.

1.3. Statement of Significance

8-11-2021
Importance as defined by the Ramsar Convention, for the conservation and sustainable use of wetlands recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.



Chandratal is a high-altitude wetland and is identified on the List of Wetlands of International Importance as defined by the Ramsar Convention, for the conservation and sustainable use of wetlands recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.

The Sanctuary is almost contiguous with the Upper Spiti Landscape, which is

the first landscape identified for conservation under Project Snow Leopard. The Upper Spiti Landscape is a secure home to rare high altitude wildlife that includes the snow leopard—the State animal of Himachal Pradesh—along its primary prey species, the bharal and ibex. Chandratal is also popular as a scenic destination among tourists visiting Spiti. In addition to a rising tourist foothall, parts around the Chandratal Wildlife Sanctuary are accessed by migratory herders who hold rights to graze their sheep and goat in these areas, in summer months.

In this context of the change that the Chandratal Wildlife Sanctuary is seeing, it is important to generate ecological baseline information for the area and develop a robust plan to manage it. Chandratal Wildlife Sanctuary has a great potential for promoting responsible nature-based ecotourism. While working with local stakeholders it could be possible to affect eco-development in a manner that is beneficial to them, as also conducive to the overall management of the area. Through the current management plan, we hope to achieve these management goals.

2. Eco Sensitive Zone Notification

The National Wildlife Action Plan (NW/AP) 2002-2016 indicates that areas outside the protected area network are often vital ecological corridor links and must be protected to prevent isolation of fragments of biodiversity which will not survive in the long run. Land and water use policies will need to accept the imperative to strictly protecting ecologically fragile habitats and regulating use elsewhere. It was further recommended that lands falling within 10 km of the boundaries of national parks and sanctuaries be notified as eco-fragile zones under section 3 (v) of the Environment (Protection) Act and Rule 5 Sub rule (viii) & (x) of the Environment (Protection) Rules.

Following this guidance a proposal to set up an eco-sensitive zone (ESZ) around the Chandratal Wildlife Sanctuary was tabled before the 24th Expert Committee for Declaration of Eco-Sensitive Zone around Wildlife Sanctuaries/National Parks held on 27-28 February 2017 in New Delhi.

The salient features of proposal tabled for the declaration of ESZ were:

- Area of Protected Area: 38.56 sq. km ✓
 - Area of the B.S.Z.: 01.50 sq. km ✓
 - Extent of ESZ: 0.04 km to 3.6 km ✓
- Mun - 0.6 km
Mori - 5.48 km

No objections/public comments were received with respect to the Draft Notification.

After detailed deliberation, the Committee recommended for finalisation of the notification subject to submission of proper map clearly demarcating PA and ESZ boundaries and representing village geo-co-ordinates in the map.

As per GIS boundary:-
Area of Protected Area = 37.29 sq km
Area of ESZ = 17.89 or 48 sq km



3. Background information and attributes

3.1 Boundaries

The Chandratral Lake which is at the core of the sanctuary is a high altitude lake located at about 4300 meters above sea level. The lake has been formed due to blockades of the rock basin by scree and moraine deposits. Glaciers are the main source of inflow into the lake. The sanctuary forms a small part of the catchment and its boundaries follow the natural contours as well as other administrative boundaries so as to form a wide buffer around the lake. The northern part of the sanctuary originates at the confluence of a small nala with Chandra river, its eastern flank follows the sub-divisional boundary while the southern end goes upto the confluence of Chandra River with a nala flowing from Kunzum-la. The western boundary runs along the contour 4200 m running almost parallel above the road and then intersecting the road about 1 km² short of Chandratral and continuing upstream along the Chandra river upto the starting point of the northern boundary. The Sanctuary thus forms a wide buffer around the lake.

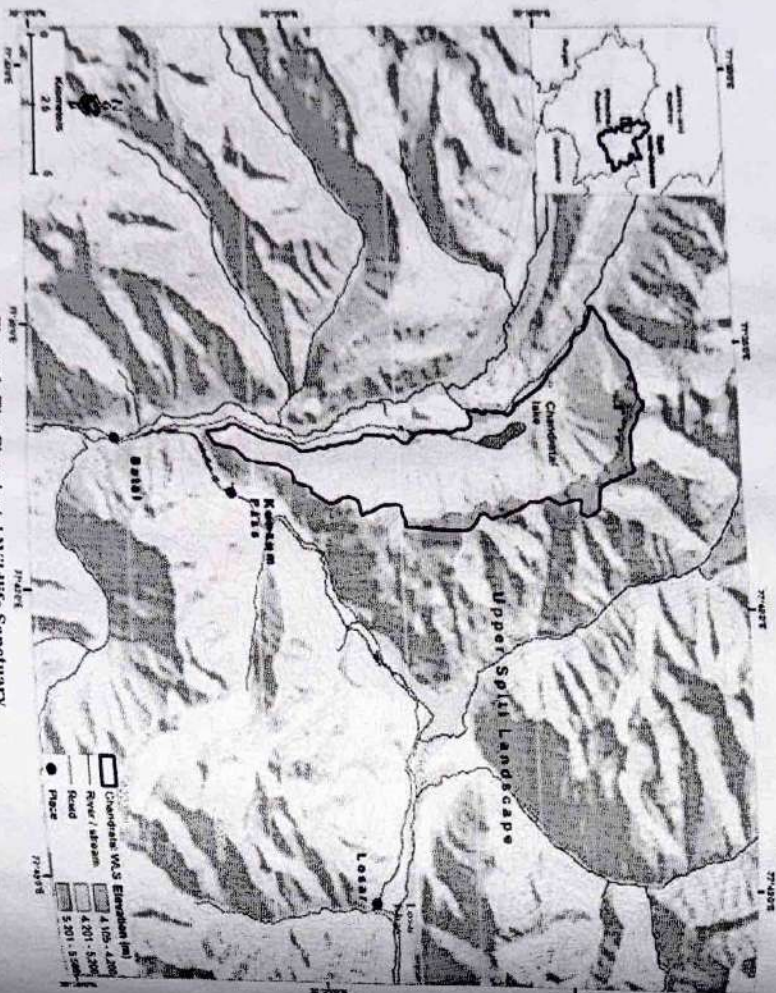
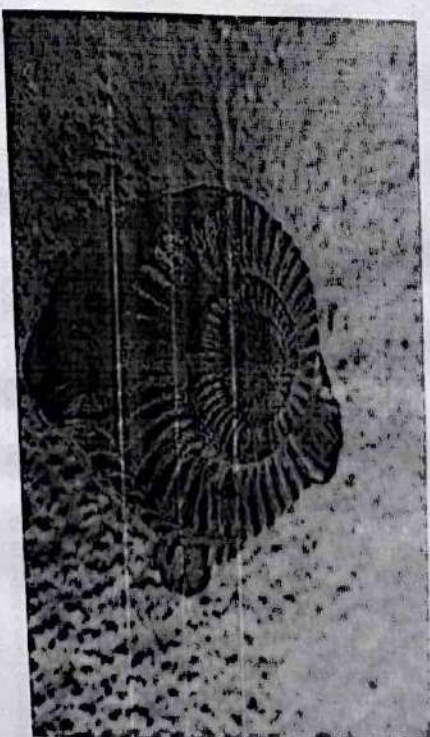


Figure 1: The Chandratral Wildlife Sanctuary

3.2 Geology, terrain, rocks and soil

The Tethys Himalaya contains an extensive record of sediments ranging from Precambrian to Eocene. The Spiti basin, a part of the Tethys Himalayan sedimentary sequence, is the southwestern extension of the greater Tibetan basin. It displays the largest marine and richly fossiliferous sedimentary succession. The region has been an immense source of geological information owing to the almost complete sequence of exposed sediments from the Pre-Cambrian era to the Cretaceous period (Wadia 1967). The area is characterized by sharp changes in stratigraphy and composition of rocks such as quartzite, shales, limestones and conglomerates. Inchofossils, mainly of brachiopods, trilobites, ammonites, bivalves, corals etc. have been known from the surrounding areas. In this regard the nearby Kunzum-la formation is of significant importance. The ichnofossils known from Kunzum-la include the ichnogenera *Bregaueria*, *Chondrites*, *Cruziana*, *Didymaulichnus*, *Nereites*, *Palaeopasciclanus*, *Plycodus*, *Planolites*, *Rusophycus*, *Skullithus* among others showing high behavioural diversity ranging from suspension to deposit feeders. These ichnofossils mainly belong to the Lower Cambrian period and are preserved in, siltstone, shale, sandstone and quartzite occurring at various stratigraphic levels.



A fossil ammonite from Spiti

The geomorphological set up of the area is highly complex. The terrain has an immature topography and is traversed by deep valleys and high hill ranges. The terrain can be divided into two major geomorphological units viz. Structural hills and Valley fills. Structural hills are caused by rocks belonging to Pre-Cambrian, Palaeozoic, Mesozoic and Cenozoic eras. The rocks are generally trending in NNE-SSW and NE-SW direction with steep slopes. Valley fills include both fluvial deposits and moraines. These deposits occur as narrow and elongated strips along the main streams.

Glacial deposits are under the influence of running water and have been termed as glacio-fluvialite deposits. Fluvialite terrain is demarcated in the lower reaches of both the Chenab and Spiti river while glacio-fluvialite deposits are confined to the upper reaches of drainage systems.

Most of the areas in Spiti may be called alpine meadow as the upper stratum of earth and vegetable mould is filled with incompletely decomposed roots of grass and other small plants. Due to glacial and fluvial movements the soil from the upper slopes has been carried down to the lower slopes where the depth of the soil is deeper. The nature of the soil varies little and it may be described as a light sandy loam.

3.3 Climate

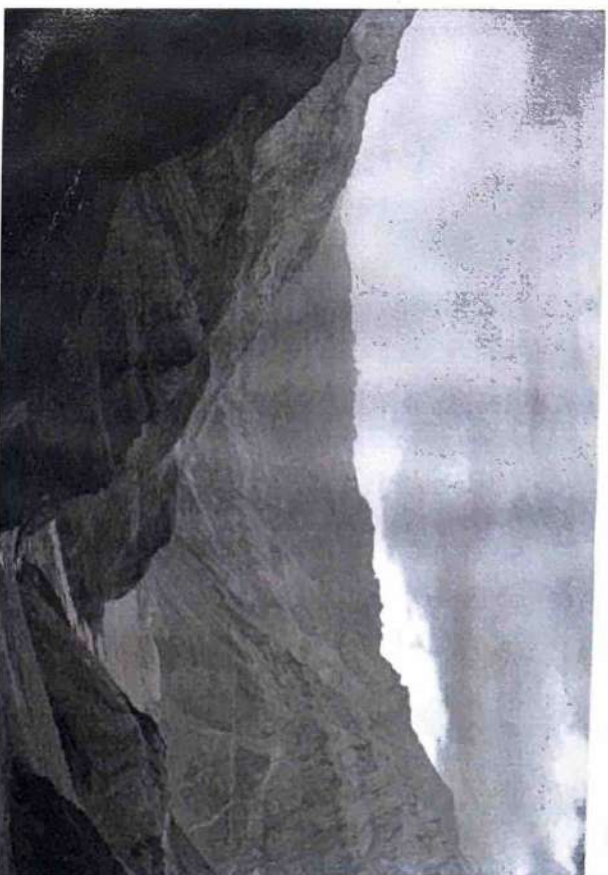
Chandra Tal occurs on the leeward side of the Pir Panjal branch of the Himalaya that cut off the monsoonal effect from the plains rendering the area dry and cold. Westerly disturbances in winter bring some precipitation in the form of snow, but most areas still receive much lower snowfall compared to the adjacent Lahul Valley, Kulu and Kinnaur regions. The annual precipitation in Kaza is recorded at c. 200 mm annually. The temperature ranges from -40 degree Celsius in winter to c. 30 degree Celsius in peak summer, with the minimum temperature remaining sub-zero from September to April in most places. Severe winds occur almost every day and are further reason for the desiccated atmosphere and lack of trees. The overall climate is thus dry and cold with long winter descending from mid-November to March. The ice begins to melt in April heralding the spring with sprouting at lower, south facing slopes that extend to the higher elevations by late May when the peak plant growth season of summer begins. Senescence sets in by late summer leading to the short autumn season.

3.4 Vegetation

The vegetation of Chandra Tal is classified as 'alpine scrub' (Champion and Seth, 1968) or 'dry alpine steppe' vegetation (Schweinhardt 1957, Puri et al. 1989). Such areas are typified by scattered and open bush-land mainly with herbaceous and shrub species. The Tibetan plateau attained its present average elevation (3,500-5,500 m) by the Miocene (8 million years ago), and through the Pleistocene, became progressively arid with open steppe vegetation (Harrison et al. 1992). The two important vegetation formations in the region include open steppe dominated by grasses and sedges (e.g. *Stipa spp.*, *Leymus spp.*, *Carex spp.*) and sedge meadows (*Carex spp.*, *Kobresia spp.*) along mesic sites such as river valleys, lake banks and glaciers. The important plant families found in these areas include *Graminae*, *Cyperaceae*, *Brassicaceae*, *Fabaceae*, *Ranunculaceae* and *Leguminosaceae*.

Plant growth is restricted to a short season (May-August) due to low temperatures during the rest of the year, and available soil moisture is an important limiting factor for plant growth during the growing season (Mishra 2001). Inter-annual variation in primary production is high and depends upon precipitation and temperature variations.

Plants recorded from Chandra Tal WLS include grasses such as *Polygonum*, *Stipa* and *Leymus*, sedges like *Carex*, herbs such as *Potentilla*, *Leontopodium* and *Geranium*. *Bistorta* is a type of knotweed found in the sanctuary.



Terrain around the Chandratal Wildlife Sanctuary.

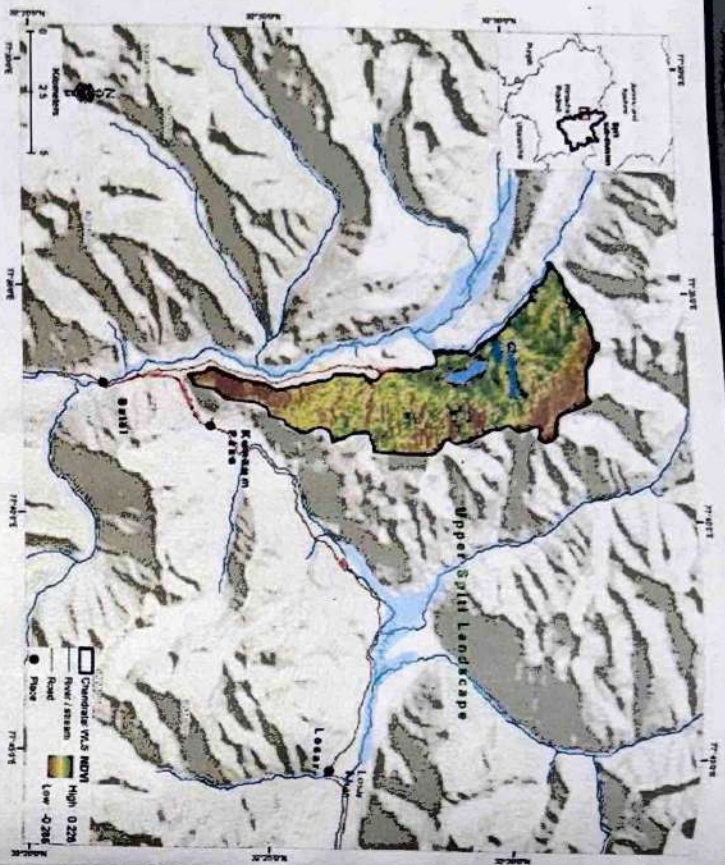


Figure 2: Vegetation in Chandratal Wildlife Sanctuary showing broad cover types

The map (Figure 3) shows vegetated (NDVI>0, maximum=0.228) and non-vegetated (NDVI<=0) areas within Chandratal. The Normalized Difference Vegetation Index is generated from the Near IR and Red bands of each scene as (NIR - Red) / (NIR + Red), and ranges in value from -1.0 to 1.0. This NDVI image is the Landsat 8 annual NDVI composite for the year 2016.

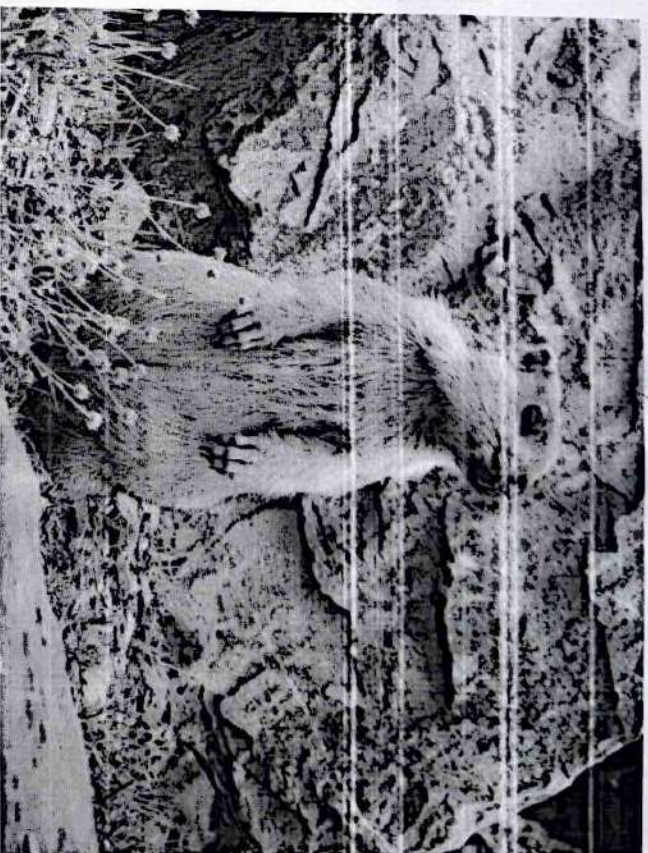
3.5 Bio-geographical Classification

The whole of Spiti region including Chandra Tal WLS falls under the province Tadrak mountains(1B) of Trans-Himalayan Cold Desert(Zone 1) bio-geographic zone as per Wildlife Institute of India's bio-geographic classification (Rodgers and Panwar 1989).

3.6 Range of wildlife, status distribution and habitat

3.6.1 Mammals

The mammalian diversity of the region is not exceptionally large, but several species restricted to Trans-Himalayas occur here. The mammals recorded at Chandra Tal include the Wolf (*Canis lupus*), Red Fox (*Vulpes vulpes*), Royle's Pika (*Ochotona roylei*), Wolly Hare (*Lepus otostolus*) and Himalayan Marmot (*Marmota himalayana*).



Himalayan Marmot (*Marmota himalayana*) at Chandratal Wildlife Sanctuary

3.6.2 Birds

A systematic survey of birds for the Spiti landscape including Chandra Tal Wildlife Sanctuary has been recently carried out (Vikramt 2016). Field visits were also carried out to survey birds of Chandra Tal by wildlife biologists of the Nature Conservation Foundation and field officers of the Spiti Wildlife Division. Combining these sources, the avifauna of the area currently stands at 27 species belonging to 15 families. A single species, Curlew Sandpiper (*Calidris ferruginea*) is classified as



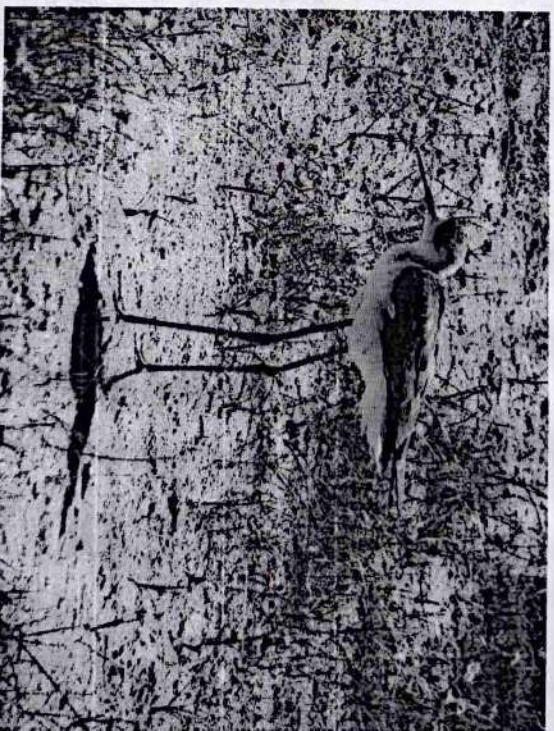
Near Threatened (NT) while the rest 26 species are classified as Least Concern (LC) by IUCN (IUCN Redlist, 2017).

Family	Common Name	Scientific Name	IUCN Status (2017)
Phasianidae	Himalayan Snowcock	<i>Tetraoallus himalayensis</i>	LC
Anatidae	Ruddy Shelduck	<i>Tadorna ferruginea</i>	LC
	Common Teal	<i>Anas crecca</i>	LC
	Garganey	<i>Anas querquedula</i>	LC
Falconidae	Eurasian Kestrel	<i>Falco tinnunculus</i>	LC
Recurvirostridae	Black-winged Stilt	<i>Himantopus himantopus</i>	LC
Charadriidae	Lesser Sand Plover	<i>Charadrius mongolus</i>	LC
Scolopaciidae	Common Sandpiper	<i>Actitis hypoleucos</i>	LC
	Little Stint	<i>Calidris minuta</i>	LC
	Temminck's Stint	<i>Calidris temminckii</i>	LC
	Long-toed Stint	<i>Calidris subminuta</i>	LC
	Curllew Sandpiper	<i>Calidris ferruginea</i>	NT
	Red-necked Phalarope	<i>Phalaropus lobatus</i>	LC
Laridae	Slender-billed Gull	<i>Chroicocephalus genei</i>	Not Accessed
Upupidae	Hoopoe	<i>Upupa epops</i>	LC
Corvidae	Yellow-billed Cuckoo	<i>Pyrrhocorax graculus</i>	LC
	Common Raven	<i>Corvus corax</i>	LC
Alaudidae	Horned Lark	<i>Eremophila alpestris</i>	LC
Muscicapidae	Black Redstart	<i>Phoenicurus ochruros</i>	LC
	White-winged Redstart	<i>Phoenicurus erythrogaster</i>	LC



Family	Common Name	Scientific Name	IUCN Status (2017)
Passeridae	Desert Wheatear	<i>Oenanthe deserti</i>	LC
Prunellidae	Black-winged Snowfinch	<i>Montifringilla adamsi</i>	LC
	Alpine Accentor	<i>Prunella collaris</i>	LC
Motacillidae	White Wagtail	<i>Motacilla alba</i>	LC
	Citrine Wagtail	<i>Motacilla citreola</i>	LC
Fringillidae	Brandt's Mountain-finch	<i>Leucosticte brandti</i>	LC
	Twite	<i>Linaria flavirostris</i>	LC

Table 1: Checklist of birds recorded at Chandratral Wildlife Sanctuary



winged Stilt (*Himantopus himantopus*) at Chandratral Wildlife Sanctuary.

Black-

4. History of Management and Present Practices

4.1 General

The Chandratral Wildlife Sanctuary is managed by the office of the Divisional Forest Officer (Spiti). A challenge with the management of Chandratral Wildlife Sanctuary is that it is isolated, with no connectivity—both road and communication—for most part of the year. While that secures it through winter when the area remains cut-off, it presents a challenge in summer when there is a need to regulate the use of the area.

The key works currently going on in the Sanctuary include:

1. Works to conserve the site at Chandratral
2. Regulate annual inflow of tourists through management of annual permissions to camp operators
3. Patrolling and monitoring in the area

This is the first documented Management Plan developed for the Chandratral Wildlife Sanctuary led by the Himachal Pradesh Forest Department with support from agencies and organisations that have been working in this landscape.

4.2 Timber operations including bamboo and firewood harvest

Chandratral is a wetland while the landscape is a desert steppe comprising rangelands that are characterized by perennial grasses, sedges, forbs and small shrubs, while the tree layer is largely absent. There are no major timber operations, including bamboo and firewood harvest within the landscape.

These alpine pastures are dominated by grasses and sedges (e.g. *Stipa spp.*, *Leymus spp.*, *Carex spp.*) and sedge meadows (*Carex spp.*, *Kobresia spp.*). Several of the pastures adjoining the Sanctuary are grazed by migratory livestock herders from the lower plains of Himachal Pradesh who access these areas in the summer months of July and August. It is estimated that up to 10,000 livestock could be grazing these alpine pastures surrounding the Sanctuary which could be a cause for the low presence of wild herbivores—primarily ibex and bharal, in this area.

4.3 Non wood forest produce (NWFP) collection

While the area remains within the Sanctuary is uninhabited by any resident communities, pastures around the Sanctuary are accessed by groups of migratory livestock herders. The groups have grazing rights over these pastures and access them for two to three months, every year during summer (July and August). During this time, herders set up temporary camps. Each camp is inhabited by 2-3 herders while their flocks graze in the areas around the camp during the summer period.

4.3.1 Fodder

Fodder extraction is limited to the grazing done by flocks of sheep and goat that are brought in by groups of migratory livestock herders. Flock sizes vary and could be as high as 500 animals in a flock. The area in and around the Chandratral Wildlife Sanctuary are grazed by at least 20 groups of migratory livestock herders.

The main species grazed from pastures include *Trigonella sp.*, *Cicer sp.*, *Aconogonum sp.*, and *Festuca sp.* However, herders do complain of deteriorating pasture due to shift in plant compositions to unpalatable species due to a combination of *changing climate* and constant use of the same pastures, with no allowance of time factored for the pastures to recover.

4.3.2 Fuel Wood

Species collected include *Caragana sp.*, *Salix sp.*, and *Hippophae sp.* are used for fuel and heating by the herders. These are collected from areas surrounding their camps.

4.3.3 Other non-timber products

Collection of livestock dung forms an important source of manure for locals of Spiti who practise agro-pastoralism. This dung is generally in great demand. Typically, the rights to collect livestock dung from the pastures around Kunzum-la and Batal remain with the villagers of the Losar Panchayat of Spiti. Occasionally, livestock dung bagged in sacks is also sold by migratory livestock herders to locals of the Losar Panchayat.

4.4 Leases

The groups of migratory herders have permissions to graze their livestock, mainly sheep and goat, in pastures around the Chandratral area.

4.5 Forest Protection

4.5.1 Legal status

The original intention notification issued by Government vide Notification No. FFE-B-F(6)-9/2006 dated 14 May 2007 was to declare an area of 38.56 sq.km as Chandratral Wildlife Sanctuary. Subsequently, the Honble Supreme Court vide order dated 01 February 2013 passed in IA No. 155 (earlier IA No. 139/2010), permitted the State Government to issue final Notifications under Sections 26A, 35(4) & 36A of the Wildlife (Protection) Act, 1972, with regard to the proposed rationalization of boundaries of Wildlife Sanctuaries and National Parks in Himachal Pradesh. The Governor Himachal Pradesh, in exercise of the powers vested in her under section 26A of the Act ibid declared the total area of 38.56 sq. km as Chandratral Wildlife Sanctuary' in June 2013.

Subsequently, in September 2013 an intention notification to add an area of 11.53 sq.km for the extension of Chandratral Wildlife Sanctuary vide Notification No. FFE-B-F(6)11/2005/Chandratral dated 7 June 2013 was issued. The total area of Chandratral Wildlife Sanctuary is now 50.09 sq.km.

4.5.2 Hunting

Hunting is legally not permitted in these areas as wildlife occurring in this landscape is protected under the Wildlife (Protection) Act, 1972.

4.5.3 Illegal activities

Poaching

It is believed that poaching is largely not prevalent in the areas surrounding Chandratral Wildlife Sanctuary. However there have been unconfirmed reports of poaching of marmots from adjoining areas. While there is a clear need to increase surveillance and awareness of prevailing wildlife laws; there is also a need for focused sensitisation about the value of this protected area and its uniqueness to tourists visiting Chandratral. There is also a need to engage with the migratory herder community who access this landscape to graze their herds.

Illegal cutting of trees

Since the Chandratral Wildlife Sanctuary falls above the treeline, illegal cutting of trees is not possible in the landscape.

4.6 Livestock grazing

The areas surrounding Chandratral is grazed by flocks of sheep and goat brought in by migratory livestock herders from lower plains of Himachal Pradesh. These groups hold traditional rights to access the pastures in these areas for several decades.

4.7 Wild fires

Due to the sparse vegetation across the landscape, the risk of wild fires does not exist.

4.8 Insect attacks and pathological problems

There are no significant problems pertaining to insect attacks or pathological problems reported.

4.9 Wildlife Health

Wildlife in and surrounding the Chandratral Wildlife Sanctuary is not very good for wild ungulates like the bharal. While the landscape is conducive to their occurrence, the potential deterioration of pastures from extensive use through summer months is likely to have had an impact on the occurrence of wildlife. However, wildlife reported from the Sanctuary includes the Wolf (*Canis lupus*), Red Fox (*Vulpes vulpes*), Royle's Pika (*Ochotona roylei*), Wolly Hare (*Lepus otostolus*) and Himalayan Marmot (*Marmota himalayana*). Over 26 species of wetland birds are also reported from the Sanctuary.

Due to the high intensity of livestock in the area, the risk of disease is also high. Outbreaks of foot and mouth disease can affect other species in the area. However, there is little documented evidence of any such outbreaks and needs further studies in future.

4.10 Tourism

Tourism is one of the most important aspects of the Chandratral Wildlife Sanctuary. The area around Chandratral is scenic and is extremely popular as a tourist destination. Over subsequent years, there has been a steady rise in the number of tourists visiting Chandratral. Given the difficulty in reaching Chandratral, most tourists are bound to spend at least one night and hence camping facilities become a necessity. In the last year alone (2016-17) 9 licences were granted for pitching a total of 38 tents within the designated camp/vent sites which are about 4 km away from the Chandratral lake..

In the years to come, the number of tourists visiting Chandratral is expected to stay on the rise. It is therefore important to outline a plan to manage tourism within the Sanctuary and increase engagement with tourists and make them aware of the uniqueness of this region to keep this water body intact.

4.11 Research, monitoring and training

4.11.1 Research & monitoring

The information available through systematic field surveys of the Sanctuary area for wildlife is limited. Field surveys to assess wildlife presence in the Sanctuary areas and studies to assess the quality of pastures through a study of the plant community compositions in the grazed and ungrazed areas in and around the Sanctuary could be a useful measure to be initiated.

4.11.2 Training

Staff of the Spiti Wildlife Division have attended trainings and participated in exposure visits in community-based conservation, wildlife monitoring techniques and wildlife protection laws. This was done as part of the implementation of the Management Plan for the Upper Spiti Landscape that is contiguous with the Chandratral Wildlife Sanctuary. A list of initiatives conducted recently (2015-16) include:

Participatory Planning and Implementation

Biodiversity Conservation and Rural Livelihood Improvement Project (BCRLIP) Centre, Periyar, 21 February to 3 March, 2015: A team of 20 officers and staff of the Spiti Wildlife Division attended this workshop in Periyar. The Chief Wildlife Warden, Himachal Pradesh and the Sub-Divisional Magistrate of Spiti also joined the group for a few days to provide their inputs. Detailed modules were imparted in the BCRLIP centre on participatory approaches and tools, key strengths and weaknesses of such efforts, success stories, functioning of the Periyar Foundation, etc... Resource persons for this workshop included the Park Director, Mr. Sanjayan and Mr. Simon Francis, from the BCRLIP Centre, as also Dr. Anil Bharadwaj, APCCF (Kerala Cadre), Dr. VB Mathur (Director, WII) and Dr. AJT Johnsingh (Retd. Dean, WII and Sr. Scientist, NCF).

Mountaineering and Mountain Rescue

Kaza-Shilla Nala, 2-8 June 2015: Mountaineering experts from Manali, Mr. Garrett and Dr. Jeph Mathias, were invited to Spiti to help HPFD staff in mountain rescue, including other aspects such as river crossing and rock climbing. This is important based on the increasing number of tourists who are visiting Spiti these days, as also for camera trapping exercises in remote valleys of Spiti. The Additional District Collector and Sub-Divisional Magistrate also attended some sessions and personnel from the Tourism Department also participated in this workshop.

Wildlife Law and Enforcement

Kaza, 22-24 June 2015; Experts from the Wildlife Conservation Trust were invited to deliver this module to all the 22 plus field staff and officers of the Spiti Wildlife Division. This subject has gained importance with a large number of outsiders in the area due to infrastructure development activities, tourism, etc that are increasing cases of violations and eroding some of the local tolerance to wildlife.

4.12 Wildlife conservation strategies and their evaluation

With initiatives of the HPFD a temporary police check post has been established near the camp sites to monitor tourist activity. This has prevented any conflicts between tent owners and tourists. This has also allowed to keep a check on tourist entry and stopping entry after 6.30 p.m. which is the time for closure to visit the lake.

4.13 Administrative Set Up

The administrative set up comprises of a Range Forest Officer who is supported by a Deputy Ranger and a Forest Guard. The team reports to the Divisional Forest Officer of the Spiti Wildlife Division which comes under the jurisdiction of the Chief Conservator of Forest (Wildlife), South. Basic amenities for staff include a pre-fabricated hut with tents and sleeping bags along with tent lights.

4.14 Communication

Staff is provided with mobile allowance under the Centrally Sponsored Scheme funds at Rs 1000 per month.

4.15 Summary of threats to wildlife

A summary ranking the threats to wildlife is done in the following table. The threats are rated on a scale of 0 to 5.

Sl. No.	Threat categories & heads	Chandratal W.S.			
		Area	Intensity	Urgency	Total ranking
1	Livestock grazing	4	5	5	14
1.1	Migratory livestock grazing				
2	People wildlife conflicts				
2.1	Livestock depredation by wild carnivores	4	1	1	6
3	Developmental Activities				
3.1	Development – Roads and Channels	2	2	2	6
3.2	Development – Poaching	4	1	4	9
4	Other Human Disturbances				
4.1	Plant biomass extraction	4	1	1	6
4.2	Uncontrolled tourism	4	3	3	10
5	Habitat Degradation				
5.1	Habitat degradation & loss of habitat	4	4	2	10
6	Disease				
6.1	Livestock disease	4	2	3	9

Table 2: Threat Assessment for Chandratal Wildlife Sanctuary

The table depicts a list of threats that could affect the Chandratal Wildlife Sanctuary. While these threats can bear in impact, they can also be seen as opportunities where there is need for interventions to be made. Of the several threats identified, the three key threats on which we focus are:

1. Migratory Livestock Grazing
2. Uncontrolled Tourism
3. Habitat degeneration and loss of habitat

5. The Protected Area and the Interface Land Use Situation

5.1 Current situation in zone of influence

The village closest to Chandratal Wildlife Sanctuary is Losar which is approximately 50 km away. Batal is the closest settlement at 15 km distance which has a couple of temporary camps that provide spartan meals to tourists plying on the Manali-Kaza route.

Influence of local Spitian community in the areas surrounding Chandratal Wildlife Sanctuary is meagre. Yak from villages of Losar and Hansa are grazed in the pastures around Kanun-1a and these animals are left for most part of the year and are herded twice a year—for threshing after the harvest of barley and after the first heavy snow fall of the season, after which they are stall fed through the winter months which can extend up to 6 months of the year. The impact of the grazing of yak is limited because their numbers are not high vis-à-vis the size of pastures available to them.

The other group that has an influence on the areas surrounding Chandratal Wildlife Sanctuary are the migratory herders who arrive from lower hills of Himachal Pradesh and graze their livestock through the summer months, for a period of up to 3 months. Rearing livestock is one of the key occupations of this pastoral community. However, it may be interesting to understand the change in livestock grazing in these pastures. There is a general belief that successive generations within the herding community are withdrawing from this occupation, due to the availability of other better options of livelihood before them. Some ongoing work with herder communities that looks at understanding this complexity indicates that while this may be true—that fewer individuals from the younger generation take up herding—that may not necessarily indicate a fall in livestock numbers. In fact, better socio-economic conditions may provide an impetus to increase flock sizes of the livestock being brought in to graze.

Herding community is aware of the demerits of overstocking livestock. Several also complain of the deterioration in pasture quality due to continuous grazing pastures, over the years, that has led to changes in plant composition with palatable species being replaced by unpalatable species. In this context, the need to study impacts of livestock grazing through summer and the socio-ecological transformations that govern this system will be important to make meaningful interventions to conserve the area in future.



5.2 Development of programmes and conservation issues
The threat assessment carried out in Section 3.15 summarises the threats to the Chandratral Wildlife Sanctuary and the areas surrounding. These provide opportunities around with monitoring programmes and conservation interventions can be designed.

1. **Migratory Livestock Grazing:** While this form of grazing is expected to continue in future, it may be important to study the ecological implications of sustained grazing.

Studies of the effects of grazing by native herbivores versus introduced livestock on the plants and soils of semi-arid shrub-steppe rangelands, and how these effects would likely respond to ongoing and projected climate change are being carried out in Spiti. While in theory, rangeland vegetation are often thought to be resilient and capable of absorbing chronic and periodic disturbances, this research thus far has demonstrated empirical counterarguments in which, under pressure of livestock grazing and low moisture due to unusual climate behaviour, soils have a slower rate of nutrient cycling and vegetation are less productive.

At the same time it will be important to look at the lifestyle of the migratory herding community from a socio-ecological perspective to understand the dynamics governing this practice and to evaluate if any meaningful conservation interventions can be made, while working with this community.

2. **Uncontrolled tourism:** Tourism in on the rise at the Chandratral Wildlife Sanctuary. The popularity of the area is on the rise and tourist footfall has been impressive in successive years. In this context, it is important for an assessment to be made by a competent agency of the tourist carrying capacity of the Sanctuary. Based on the inputs from such an assessment, the DFO (Wildlife) Spiti can review the existing practise of handing camping permissions to tour operators as well as implement any measures to improve tourist experience to Chandratral. This can help ensure that tourist make the most of their time spent in this area without causing any damage to the ecology of the area.

3. **Habitat degradation & loss of habitat:** Based on a better understanding of the impacts of intense grazing and tourism, clear measures to arrest habitat degradation and loss can be devised and put in place at the Chandratral Wildlife Sanctuary. This is a long term measure that could require long-term monitoring in the area to understand the impacts of any measures that are implemented. It will also be important to identify indicators for habitat condition, and evaluate baselines against which improvements can be measured.

Proposed Management

PART - II



To conserve the habitat of Chandratral Wildlife Sanctuary through better management of the protected area, improved facilities to foster responsible ecotourism, and greater engagement with all the stakeholders accessing the Sanctuary.

6.1 The Vision

The main objectives in the management of Chandratral Wildlife Sanctuary are:

- 1. Facilitate better management of the Sanctuary area through capacity-building of field staff and measures for employee welfare.
- 2. Study the potential to conduct responsible ecotourism around Chandratral, develop a strategy and implement recommended measures.
- 3. Engage with all stakeholders influencing the Sanctuary—migratory herders, tourists, tour operators and the local community—and develop conservation awareness programmes for them and seek their participation in conserving the area.

6.2 Objectives of Management

Some of the potential problems in achieving the objectives are:

- 1. Chandratral Wildlife Sanctuary is cut-off for about six months in a year, due to heavy snowfall. As a result, the potential working season is limited to the remaining six months during spring and summer (May-October). By the time budgetary approvals for sanctioned works come through, there is very little time for the work to be planned and executed within the financial year.
- 2. The area is managed by a small team and has very limited facilities. This makes it difficult to maintain employee motivation.
- 3. Maintaining continuity with implementation of the management plan given that the tenure of executing officers is shorter than the plan period of 5 years—in most cases, there could be multiple changes in the officers executing this plan.

7. Ecotourism, Interpretation and Conservation Education

7.1 General

The Chandratral Wildlife Sanctuary has great potential to attract tourists. However, given its remoteness and the fragile nature of this landscape, it is essential to prepare a strategy that can assess tourist carrying capacity and which is used to attract and manage tourist inflow. Guided by such a strategy, there is enormous scope to engage with tourist and offer them an opportunity to understand the uniqueness of a high-altitude landscape and the flora and fauna supported in this system. Currently, little is done to engage with local communities from Spiti who access this landscape. Modules for conservation education for local school children could also provide an opportunity to reinforce their connection with the landscape.

The Chandratral Wildlife Sanctuary can offer wilderness based recreation that focuses on a great outdoor experience for all these groups.

7.2 Objectives

The main objectives for the Chandratral Wildlife Sanctuary involve:

- 1. Promote responsible ecotourism around Chandratral Wildlife Sanctuary
- 2. Increase environmental awareness of all stakeholders and visitors coming to Chandratral Wildlife Sanctuary
- 3. Equip local communities to participate and run ecotourism thus promoting ecodevelopment and making them allies in conserving the area

7.3 Responsible Ecotourism

Given the fragile nature of the landscape, it is essential that there be a clear strategy developed on how ecotourism be carried out in this area. Some of the key components of this strategy would be:

- 1. Evaluate tourist carrying capacity for the Sanctuary area.
- 2. Formalise a process for grant of permissions to tour operators, based on the carrying capacity.
- 3. Identify tourism zones that are demarcated to regulate tourist movement. Within this, mark trek routes, spots for birding around the wetland, and scenic viewpoints around the Sanctuary area.
- 4. List infrastructure development requirements to ensure basic support required for tourists.

5. Monitor and evaluate annual tourist activity and implement changes based on evaluation report.
6. Assess the need to appoint a local tourism officer who ensures smooth running of the affairs in the designated tourist zone.

An assessment of the above mentioned points has to be carried out by a competent department like the Himachal Pradesh Tourism Development Corporation, or a group of agencies that can make recommendations that are implemented through the period of the management plan.

7.4 Interpretation

Nature interpretation is important to engage with visitors and make them aware of the uniqueness of the Sanctuary. In the current condition, there are few means at the Sanctuary to engage visitors in this manner.

Some of the aspects to implement in order to improve nature interpretation are:

1. Develop an up-to-date list of plants, birds and animal species recorded within and around the Sanctuary.
2. Create publicity materials such as signage, brochures, pamphlets, a website and short audio-visuals that can be used to share information about the Sanctuary area with tourists.
3. Organise daily nature trails, birding walks and treks for visiting tourists that expose them to information of local flora and fauna. These can be carried out by locally trained youth in coordination with the local tourism department under the Sub Divisional Magistrate at Manali or Kaza.

7.5 Conservation Education

There are close to 20 government schools in the Spiti sub-division of district Lahaul & Spiti. Currently, there is no formal conservation education activity carried out within the Sanctuary area, partly due to its remoteness and lack of infrastructure.

However, within the plan period, there can be a formal arrangement with the Education Department headed by the Sub-Divisional Magistrate to conduct formal activities for school students in a model where the activity is co-funded by the education department and the funds allocated in the management plan.

7.6 Eco development

Chandratal Wildlife Sanctuary is a challenging area to administer due to its geographic isolation. It is important to ensure that all stakeholders, whether visiting or ones dependent on this area, have a minimal impact on the area. Eco development can be a useful mechanism to garner participation of such stakeholders in a manner that their dependence on the area can be minimised and their presence can be used in a manner that is not detrimental for the area.

Most of the measures for ecodevelopment are tagged in with the tourism potential of the area. Some of the possible avenues for ecodevelopment are:

1. Given the large tourism potential, there will be a need for individuals who can guide tourists on treks and nature trails around the Sanctuary and help them interpret local flora, fauna and culture. Youth from the villages in Losar Panchayat in Spiti can be picked and trained for these purposes.
2. Garbage management is a growing concern in these areas. With no options to manage garbage currently, there is a need to identify ways and implement them. If a requisite means is identified (e.g. composting food waste), local youth can be employed to run the facility as a service they can extend in this area and in other parts of the Spiti Wildlife Division that also faces similar challenges.
3. Migratory herders bring in livestock that graze these areas intensively for 2-3 months. Excessive grazing threatens fragile pastures of these areas. The option of developing micro plans with the herder community and implement ways to reduce grazing pressure in the area is another avenue for ecodevelopment.

7.7 Development of Micro plans

A large part of the work proposed will have to be carried out through the process of developing micro plans. Such micro plans will be developed by representatives of the Forest Department, working with the stakeholders that will participate in the implementation of the plan.

Micro-plans have gained importance in the context of participatory planning and action from a realisation that planning carried out away from the village/stakeholders tends to reflect planners' personal experiences, impressions and assumptions rather than realities on the ground. Another rationale for the need to involve the primary stakeholder from the outset is to help ensure ownership of the process and, therefore, the output (i.e. micro-plan) which, in turn, ensures support in the implementation and monitoring of the micro-plan.

The main stages of micro-planning for purposes of ecodevelopment are as follows:

1. Identify a conceptual model for ecodevelopment within the local, geographic context.
2. Identify and develop the capacity of members of a Facilitation Team that will be responsible for developing micro-plans for with stakeholder groups.
3. Develop micro-plans in accordance with established micro-planning principles and practices, taking care to focus on identifying dependencies on forest resources and their alleviation through a range of activities. This stage includes the establishment, reinstitution or revitalisation of the Eco-Development Committee (EDC) and its Executive Committee.
4. Develop a set of agreed strategic interventions, which will provide appropriate levels of resourcing the implementation of priority activities.
5. Identify reciprocal commitments from stakeholders and establish mechanisms for sharing the benefits of income-generating activities.
6. Develop mechanisms for monitoring the implementation of village micro-plans and cluster Ecodevelopment Action Plans

8. Research, Monitoring and Training

Research, monitoring and training and ongoing aspects that can help strengthen our understanding of the area and develop preventive action plans for threats that are emerging in the landscape identified through research and monitoring. Training and capacity building would be useful to ensure that we have adequately trained human resources to tackle identified threats:

8.1 Research & Monitoring

The key aspects of research include:

1. Document flora and fauna found in the Sanctuary and surrounding areas
2. Study the impacts of intensive grazing on plant and soil compositions
3. Monitor health of migratory livestock grazed in the Sanctuary area in collaboration with the Animal Husbandry Department to prevent disease outbreaks
4. Maintain and publish annual records of the research and monitoring efforts carried out in the Sanctuary

There could be additional aspects of research and monitoring identified during the course of implementation of the management plan.

8.2 Training

Some of the training required could include:

1. Handling outdoor medical emergencies—for local forest guards and tour operators interacting with tourists
2. Basics in trekking and mountaineering—for local forest guards and tour operators
3. Wildlife management techniques and wildlife monitoring—for local forest guards
4. Techniques in participatory planning and action—for local forest guards
5. Exposure to other parks and protected areas with community involvement—for local forest guards and other stakeholders.

The list of trainings is dynamic and will change over the course of the implementation of the management plan.

9. Climate Change Mitigation Strategies

Climate change in the Himalayas, a biodiversity hotspot, home of many sacred landscapes, and the source of eight largest rivers of Asia, is likely to impact the well-being of 20% of humanity. However, despite the extraordinary environmental, cultural, and socio-economic importance of the Himalayas, and despite rapidly increasing ecological degradation, not much is known about actual changes in the two most critical climatic variables: temperature and rainfall. Nor do we know how changes in these parameters might impact the ecosystems including vegetation phenology. (Shrestha, U, 2012)

Climate change has become a major issue in the Hindu Kush-Himalayan region. If average temperatures increase as predicted, all aspects of human and natural life will be affected. The mountain regions are particularly vulnerable, both because warming trends are higher and because the impacts are magnified by the extreme changes in altitude over small distances. Life in the Hindu Kush-Himalayan region also relies strongly on the monsoon systems, and these may be altered by climate change. Locally, people's ability to adapt will be challenged; further away, changes in the Himalayas could affect the life and livelihoods of the 1.3 billion people living in the river basins downstream. Good data and information is needed to assess the current situation and to make reliable predictions that can be used as a basis for planning. But poor accessibility, low population density, and lack of infrastructure, have led to low rates of data collection and a general lack of reliable data for the region. (International Centre for Integrated Mountain Development, 2011)

Limited studies on temperature or precipitation for a few localized places show that warming in the Himalayas is 3 times greater than the global average. (Shrestha, U, 2012)

The rates of warming in the Hindu Kush-Himalayan region are significantly higher than the global average. Within the region, the rates in the western Himalayas, eastern Himalayas, measuring actual rainfall and for assessing other climate factors, especially as measuring stations are few and far between. (International Centre for Integrated Mountain Development, 2011)

The average annual mean temperature during the 25 year period has increased by 1.5°C with an average increase of 0.06°C yr⁻¹. The average annual precipitation has increased by 163 mm or 6.52 mm yr⁻¹. Since changes in temperature and precipitation are immediately manifested as changes in phenology. (Shrestha, U, 2012)

The average start of the growing season (SOS) seems to have advanced by 4.7 days or 0.19 days yr⁻¹ and the length of growing season (LOS) appears to have advanced by 4.7 days or 0.19 days yr⁻¹ but there has been no change in the end of the growing season (EOS). There is considerable spatial and seasonal variation in changes in climate and phenological parameters. (Shrestha, U, 2012)

Over the past 25 years temperatures have increased at a rate of 0.19°C per decade, in every good agreement with predictions based on greenhouse gas increases. Even over the past ten years, despite a decrease in solar forcing, the trend continues to be one of warming. Natural, short-term fluctuations are occurring as usual but there have been no significant changes in the underlying warming trend. (Allison, I, 2009)

Eleven of the last twelve years (1995-2006) rank among the twelve warmest years in the instrumental record of global surface temperature (since 1850). The 100-year linear trend (1906-2005) of 0.74 [0.56 to 0.92]°C is larger than the corresponding trend of 0.6 [0.4 to 0.8]°C (1901-2000) given in the Third Assessment Report. The temperature increase is widespread over the globe and is greater at higher northern latitudes. Land regions have warmed faster than the oceans. (IPCC, 2007)

- very likely increase in frequency of hot extremes, heat waves and heavy precipitation
- likely increase in tropical cyclone intensity; less confidence in global decrease of tropical cyclone numbers
- very likely precipitation increases in high latitudes and likely decreases in most subtropical land regions, continuing observed recent trends. (IPCC, 2007)

Given the paucity of data on climate change specific to the trans-Himalayan regions of Spiti, it would be essential to gather information on these aspects. In the context of the Chandratal Wildlife Sanctuary and its adjoining areas which are heavily grazed. Some of the aspects that need to be understood include:

- Local land-use such as pastures, biomass extraction area, other local land uses, how it has been changing in recent decades
- Local grazing system i.e. grazing rotation policies, grazing land lease, supervised/unsupervised grazing practices etc., the extent to which it has changed in recent decades due to potential changes in climate
- Changes over time in livestock population by species/category
- Attitudes and perception towards snow leopards and other carnivores
- Extent of livestock predation by carnivores, now and in the past
- Important wildlife areas such as ungulate wintering and rutting areas, patches of medicinal and rare plant, and information on whether these are changing.

A few climate mitigation measures to consider include:

- Adaptation techniques to mitigate effect of climate change like building of water holding structures and artificial glaciers. These are only mitigation steps to cope with the current decrease in snowfall and increase in temperature.

- With increase in precipitation in the form of rainfall, soil conservation techniques need to be adopted to prevent soil run off.
- Research studies to assess the impact of climate change on the bio diversity of the region should be carried out to find out the influence on flora and fauna.
- Research study to establish the causal reason behind climate change should be carried out in this region is showing much higher rates of warming than the global rate. And the impacts of the climate change in this region show alarming trends on all the four criteria to assess vulnerability of high altitude mountain communities of Asia: Magnitude, timing, persistence, low adaptive capacity, distribution.
- Causal study to identify the reason for the climate change should be taken up.

10. Organisation & Administration

10.1 Structure and Responsibilities

The Chandratal Wildlife Sanctuary was notified in the year 2007. While the area is geographically in the Lahaul sub-division, it is easier to administer from the Spiti sub-division due to its proximity to Kaza (c. 70 km) versus Keylong (c. 130 km). The Spiti Wildlife Division is headed by the Divisional Forest Officer who reports to the Additional District Magistrate of Spiti sub-division, since Spiti has a single-line administration. The working of the Spiti Wildlife Division is also overseen by the Chief Conservator of Forests (South) who is based at Shimla.

The Sanctuary area is isolated with very limited facilities and low staff strength makes it challenging to administer effectively.

10.2 Proposed Staff Pattern

The total area of the Sanctuary is 38.56 km² with an addition Notification No. FFE-B-F(6)-11/2005-II/Chandratal dated 7 June, 2013 to declare an additional 11.53 km² to the Sanctuary. The Range Forest Officer, Chandratal Wildlife Sanctuary is in-charge of the Sanctuary. though this officer usually holds additional charge of other areas within the Spiti Wildlife Division. This is because the terrain is extremely difficult to negotiate on a regular basis.

Currently one forester is employed for 5 months in a year to oversee the tourist inflow. In addition to improving basic amenities for the forester at the Sanctuary, there should be at least one eco-tourism officer and one additional guard to supervise the eco-tourism activities within the Sanctuary area. Two watchers to regulate the movement of migratory livestock into the areas around the Sanctuary are also essential.

Sr. No.	Designation	Existing Posts	Proposed Posts	Justification
1	Forester / Dy. Ranger	1	-	
2	Forest Guard	1	-	
3	Permanent Watchers	-	-	
4	Temporary Watchers	-	3	To cover at least 3 months of peak tourist activity.

Table 3: Proposed Staff Structure for Chandratal Wildlife Sanctuary.

10.3 Amenities

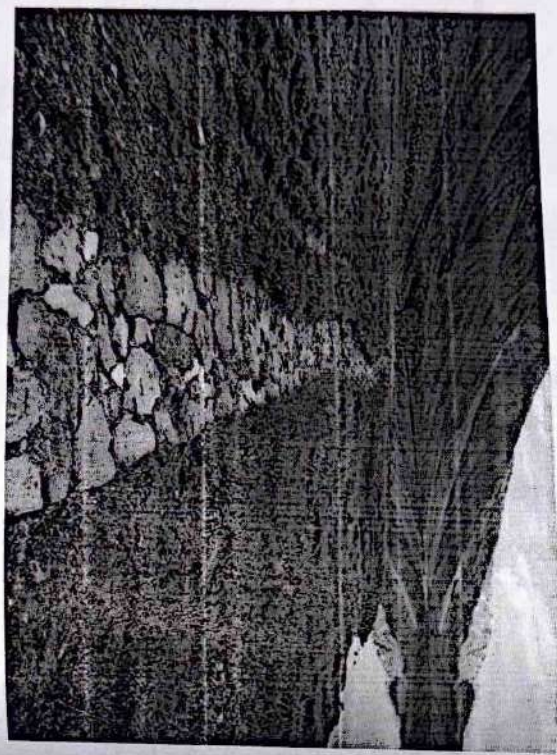
The amenities available within the Sanctuary are minimal and it is challenging for staff to remain permanently stationed for longer periods of time. A forest hut has recently been installed (2016), which would definitely help. However, with a single forester guarding the wetland, it is difficult to manage tourists—especially unruly tourists who frequent the core area after sunset. A permanent gate en route to the Chandratral Lake beyond the camping sites could help prevent tourists from reaching the core area after visiting hours.

In addition to deputing more guards to guard the post and regulate tourist traffic, several basic amenities ought to be provided to team guarding these areas:

1. Walking shoes, wind-proof jacket and head torch
2. Sleeping bag for sub-zero temperatures
3. Solar powered lamps for basic lighting
4. Adequately stocked medical kits for basic medical emergencies

Besides this, some basic amenities can be planned for the staff such as:

1. Regular health check up
2. Health insurance and hospitalisation cover
3. Special allowances should be provided to the field staff for working in difficult area.



11. Budget

Currently, the Spiti Wildlife Division and Chandratral Wildlife Sanctuary receive funding through funds allocated under Centrally Sponsored Schemes (CSS) for the development of National Parks and Sanctuaries or protected areas. **The proposed budget for this management plan will be funded under two programs: CSS and Koldam.**

Increased funding is required for strengthening of infrastructure, development of eco-tourism, awareness generation and education activities etc. The budgetary requirement for the next ten years, i.e, from 2018-19 to 2027-28 has been categorized as explained in the following table.

Year-wise break up of Financial Target for Management of Chandratral Wildlife Sanctuary (2018-2028)												
Sr. No.	Particulars of Work	Rs. In Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
I	Development of Chandratral Wildlife Sanctuary											
A	Vehicle	8	0	0	0	0	0	0	0	0	0	8
B	Purchase of field equipment	2.25	0	0	0	0	2.75	0	0	0	0	5
C	Staff amenities	2.01	0	0	1.5	0	0	1.75	0	1	2	8.26
	Sub Total	12.26	0	0	1.5	0	2.75	1.75	0	1.0	2.0	21.26
II	Protected Area Management											
A	Boundary protection	4.75	1.5	0	4.75	0	2.5	2.5	1.5	0	5.25	22.75
B	Maintenance of road network	6.15	3.1	3.5	5.85	4.15	9	7.35	5.25	5.55	8.65	58.55
	Sub Total	10.9	4.6	3.5	10.6	4.15	11.5	9.85	6.75	5.55	13.9	81.3
III	Development of Responsible Eco Tourism											
A	Manage tourism at	17	17	0.75	6.5	0.55	2.75	6.6	3.7	1.75	9.55	66.15



Year-wise break up of Financial Target for Management of Chandratlal Wildlife Sanctuary (2018-2028)												
Sr. No.	Particulars of Work	Rs. In Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
	Chandratlal Wildlife Sanctuary											
	Sub Total	17	17	0.75	6.5	0.55	2.75	6.6	3.7	1.75	9.55	66.15
IV	Eco-Development											
	Sub Total	1	2.5	3.5	3.7	4.2	4.75	2.75	5.25	5.75	5.75	39.15
V	Research, Monitoring and Training											
	Sub Total	1.5	3.5	0.75	5.25	1	4.5	3.25	4.75	1.5	7.5	33.5
VI	Publicity & Awareness											
	Sub Total	1.5	0.75	1.75	0	2.75	0	2.75	0	3.75	0.5	13.75
VII	Establishment Costs											
	Sub Total	3.2	5	5.6	6.75	7.25	7.8	8.4	9	9.5	10	72.5
VIII	Maintenance of Permanent Assets at Chandratlal Wildlife Sanctuary											
	Sub Total	5.3	4.6	5.2	5.6	6.7	7.2	7.8	8	8.9	8.7	68
	Grand Total	52.66	37.95	21.05	39.9	26.6	41.25	43.15	37.45	37.7	57.9	395.6

Table 4: Summary of budgeted expenses over plan period (2018-23)

A broad activity-wise break-up of these budgeted expenses is provided in the following table.

Year-wise break up of Financial Target for Management of Chandratlal Wildlife Sanctuary (2018-2028)												
Sr. No.	Particulars of Work	Rs. In Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
I	Development of Chandratlal Wildlife Sanctuary											
A	Vehicle											
1	Purchase of vehicle to facilitate visits to Chandratlal Wildlife Sanctuary	8.0	-	-	-	-	-	-	-	-	-	8.0
	Sub Total	8.0	-	-	-	-	-	-	-	-	-	8.0
B	Purchase of field equipment											
1	Digital cameras	0.60	-	-	-	-	0.75	-	-	-	-	1.35
2	Binoculars	0.90	-	-	-	-	1.0	-	-	-	-	1.9
3	GPS and other equipment required for wildlife surveys and census	0.75	-	-	-	-	1.0	-	-	-	-	1.75
	Sub Total	2.25	0	0	0	0	2.75	0	0	0	0	5
C	Staff amenities											
1	Purchase of field equipment—walking shoes, jackets, head torches and sleeping bags.	1.25	-	-	1.5	-	-	1.75	-	-	2	6.5



Year-wise break up of Financial Target for Management of Chandratat Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
2	Purchase of solar powered lanterns and dedicated solar unit for Forest Hut	0.76	-	-	-	-	-	-	-	1	-	1.76
Sub Total		2.01	0	0	1.5	0	0	1.75	0	1	2	8.26
Protected Area Management												
A	Boundary protection											
1	Survey and demarcation of wildlife sanctuary, beats, grazing pastures, enclosures etc	2.75	1.5	-	2.5	-	2.5	-	1.5	-	2.5	13.25
2	Installation and upkeep of general signage and boards	2	-	-	2.25	-	-	2.5	-	-	2.75	9.5
Sub Total		4.75	1.5	0	4.75	0	2.5	2.5	1.5	0	5.25	22.75
B	Maintenance of road network											
1	Maintenance of road from	0.9	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	32.4

Year-wise break up of Financial Target for Management of Chandratat Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
	Kunzum-la to Chandratat Wildlife Sanctuary											
2	Maintenance of existing patrolling paths	0.5	0.6	0.75	0.85	0.9	1	1.1	1.25	1.3	1.4	9.65
3	Construction of culverts/ causeways	2.5	-	-	-	-	3	-	-	-	-	5.5
4	Identify and mark vantage points	1	-	-	-	-	1.5	-	-	-	-	2.5
5	Set up garbage collection and disposal arrangement in the Sanctuary	1.25	-	-	2	-	-	2.5	-	-	2.75	8.5
Sub Total		6.15	3.1	3.5	5.85	4.15	9	7.35	5.15	5.55	8.65	58.55
Development of Responsible Nature-based Eco Tourism												
A	Manage tourism at Chandratat Wildlife Sanctuary											

Year-wise break up of Financial Target for Management of Chandratat Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
1	Commission a study to assess tourism carrying capacity, and develop responsible ecotourism strategy for Chandratat Wildlife Sanctuary	5.0	-	-	-	-	-	-	-	-	-	5.0
2	Construction of gate after the camping area and parking lot to prevent vehicular access after open hours	-	10.0	-	-	-	-	-	-	-	-	10.0
3	Construction of a reception centre cum security watchmen shed at the gate	-	5.0	-	-	-	-	-	-	-	-	5.0
4	Demarcate areas	0.5	-	-	0.6	-	-	0.7	-	-	0.8	2.6

Year-wise break up of Financial Target for Management of Chandratat Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
	for licenced operators to set up camp sites											
5	Create nature trails for nature interpretation such as bharal trail, bird watching etc	5	-	-	1.5	-	-	2	-	-	2.5	11
6	Formation of trekking paths	-	1	-	1.2	-	1.5	-	1.7	-	2	7.4
7	Maintenance of trekking path	-	-	0.25	-	0.3	-	0.4	-	0.5	-	1.45
8	Lay out a waste disposal system around camp sites	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5
9	Establish boards, signages for identification of flora and fauna	1.25	0.5	-	0.2	-	0.25	-	0.75	-	0.25	3.2
10	Procure souvenirs for the visitors such as t-shirts,	3	-	-	2.25	-	-	2.5	-	-	2.75	10.5



Year-wise break up of Financial Target for Management of Chandratal Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
	caps etc											
II	Set up website for the Sanctuary	2	0.25	0.25	0.5	0.5	0.75	0.75	1	1	1	7.5
Sub Total		17	17	0.75	6.5	0.55	2.75	6.6	3.7	1.75	9.55	66.15
IV	Eco-Development											
1	Capacity building for staff in participatory techniques	0.5	0.5	1	1	1	1.25	1.25	1.25	1.5	1.5	10.75
2	Capacity building as tourist guides for local youth	-	1	1	1.2	1.2	1.5	1.5	1.75	1.75	1.75	12.65
3	Development of micro plans with stakeholders seeking their ownership to conserve the landscape	0.5	1	1.5	1.5	2	2	2.25	2.25	2.5	2.5	15.75
Sub Total		1	2.5	3.5	3.7	4.2	4.75	2.75	5.25	5.75	5.75	39.15
V	Research, Monitoring and Training											

Year-wise break up of Financial Target for Management of Chandratal Wildlife Sanctuary (2018-2028)

Sr. No.	Particulars of Work	Rs. in Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
1	Conduct basic research such as survey of biological diversity, socio-economic conditions of the migrant herders grazing livestock in the buffer zone etc	-	3	-	3	-	3.5	-	3.5	-	3.5	16.5
2	Train staff in wildlife techniques, Ecotourism, wildlife laws etc with field visits	1	-	-	1.5	-	-	2	-	-	2.5	7
3	Annual monitoring of biological diversity in the Sanctuary	0.5	0.5	0.75	0.75	1	1	1.25	1.25	1.5	1.5	10

Management Plan for Chandratral Wildlife Sanctuary



Year-wise break up of Financial Target for Management of Chandratral Wildlife Sanctuary (2018-2028)												
Sr. No.	Particulars of Work	Rs. In Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Sub Total		1.5	3.5	0.75	5.25	1	4.5	3.25	4.75	1.5	7.5	33.5
VI Publicity & Awareness												
1	Preparation of brochures, banners, publicity materials etc...	0.5	0.75	0.25	-	0.75	-	0.25	-	0.75	0.5	3.75
2	Nature Education Camps for local school children	1	-	1.5	-	2	-	2.5	-	3	-	10
Sub Total		1.5	0.75	1.75	0	2.75	0	2.75	0	3.75	0.5	13.75
VII Establishment Cost's												
1	Salaries and allowances for the proposed staff	2.5	2.75	3.0	3.5	3.75	4	4.25	4.5	4.75	5	38.0
2	TA, Medical expenses, of the staff	0.5	1.75	2	2.5	2.75	3.0	3.25	3.5	3.75	4.0	27.0
3	Office expenses on site	0.2	0.5	0.6	0.75	0.75	0.8	0.9	1	1	1	7.5
Sub Total		3.2	5	5.6	6.75	7.25	7.8	8.4	9	9.5	10	72.5
VIII Maintenance of Permanent Assets at Chandratral Wildlife Sanctuary												

Year-wise break up of Financial Target for Management of Chandratral Wildlife Sanctuary (2018-2028)												
Sr. No.	Particulars of Work	Rs. In Lakhs										Total
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
1	Civil maintenance of structures built for management of Chandratral Wildlife Sanctuary	1.0	1.0	1	1	1.0	1.5	1.5	1.5	1.5	1.5	12.5
2	Maintenance of vehicles	1.5	1.0	1.0	1.0	1.5	1.2	1.2	1.2	1.5	1.2	12.3
3	Diesel/Petrol expenses	0.3	0.5	0.5	0.7	0.7	0.9	0.9	1.0	1.0	1.0	7.5
4	Supply of uniform to the staff	0.5	0.6	0.7	0.9	1	1.1	1.2	1.3	1.4	1.5	10.2
6	Immunization of livestock in the buffer zone	2.0	1.5	2.0	2.0	2.5	2.5	3.0	3.0	3.5	3.5	25.5
Sub Total		5.3	4.6	5.2	5.6	6.7	7.2	7.8	8	8.9	8.7	68
Grand Total		52.66	37.95	21.05	39.9	26.6	41.25	43.15	37.45	37.7	57.9	395.6

Table 5: Details of budgeted expenses over plan period (2018-28)

Annexure I: Sanctuary Notification

(Administrative English Text of the Department Notification No. FFE-B-F(011/2006-II, Dated 29th June, 2013 as required under Article 248(3) of the Constitution of India)

GOVERNMENT OF BIHAR
DEPARTMENT OF FORESTS

Dated: Shriha, 2, the 13 June, 2013

No. FFE-B-F(011/2006-II/Chandra Td

NOTIFICATION

(10) of the Wildlife

Whereas an Intention Notification under section 18(1) of the Wildlife (Protection) Act, 1972 (53 of 1972) was issued by the Government vide Notification No. FFE-B-F(01-8/2006 dated 14.3.2007, to declare an area of 38.56 sq. km as Chandrapal Wildlife Sanctuary;

And whereas, the matter with regard to rationalization of the Wildlife Sanctuaries and National Parks in Himachal Pradesh was under consideration of the Honble Supreme Court in LA No. 139/2010 in Writ Petition Civil No. 337 of 1995 titled Court for Environmental Law, VVVV4 Versus Union of India & Others;

And whereas, in pursuance to the Honble Supreme Court order dated 7th May 2010, the State Government issued Intention Notifications under Section 18 of the Wildlife (Protection) Act, 1972, in respect of the Wildlife Sanctuaries and National Parks for which rationalization had been proposed;

And whereas, the Honble Supreme Court vide order dated 05/08/2011, further directed the State Government to follow the procedure laid down under Section 18 to 20A and 25 of the Wildlife (Protection) Act, 1972 before issuance of the final Notifications under Section 20A of the Wildlife (Protection) Act, 1972, which procedure was duly followed;

And whereas, the Honble Supreme Court vide order dated 01/02/2013 passed in LA No. 135 (earlier LA No. 139/2010), has permitted the State Government to issue final Notifications under Section 20A, 35(4) & 36A of the Wildlife (Protection) Act, 1972, with regard to the proposed rationalization of boundaries of Wildlife Sanctuaries and National Parks in Himachal Pradesh;

Now, therefore, the Governor Himachal Pradesh, in exercise of the powers vested in her under section 20A of the Act that is pleased to declare the said area of 38.56 sq. km as 'Chandrapal Wildlife Sanctuary' with immediate effect for the purpose of protecting, propagating or developing wildlife or its environment;

The limits of Chandrapal Wildlife Sanctuary shall be as under:

Sr.No.	Name of WL Sanctuary	Coordinates	Boundaries of Chandra Td Wildlife Sanctuary.
1.	Chandrapal Wildlife Sanctuary	i) District ii) Forest Division	Boundaries of Chandra Td Wildlife Sanctuary.

NORTH: Starting from the confluence of a nullah with Chandra river (flowing from north to south) along the ridge to sub-Division boundary of Lahaul-Spiti, then sub-Division boundary line upto a post between two poles 5501mtr. & 5423 mtr. Then towards East along the sub-Divisional boundary upto Pughang Assam near 5301 mtr. post.

EAST: From Pughang Assam point (5301 mtr) towards south along the Sub-Divisional boundary & 4357 mtr. - 5394 mtr., upto post 4807 mtr.

SOUTH: From post 4807 mtr., the boundary runs South-West the ridge down towards the Chandra river to the point of confluence of a nullah (flowing from Kaulson La to Chandra River) with the road to Chandra Td opposite to Liala across the valley.

WEST: From the confluence of the point above the existing road with the nullah coming down from Kaurson La above the contour 4200 mtr running almost parallel to the road and then intersecting the road above the hill short of Chandra Td and crossing the upstream along the Chandra river upto the starting point of the northern boundary.



Annexure II: Intent Notification to add new area to Chandratral Wildlife Sanctuary

(Authoritative English Text of the Government Gazette, No. 199-G-2/19/2006, Dated 18.3.2013 as required under Article 249(3) of the Constitution of India)

GOVERNMENT OF HIMACHAL PRADESH
FOREST DEPARTMENT

No. FFE-8-F(9)-52006

Dated: Deraul, the 5th Sept 2013

NOTIFICATION

Whereas the Government, Himachal Pradesh, after careful consideration is of the view that the areas mentioned in the Schedule below are of adequate ecological, faunal, floral, geomorphological values and Zoological significance, for the purpose of protecting, propagating and developing such areas as a wilderness;

Now therefore, the Governor, Himachal Pradesh, in exercise of the powers vested in her under Section 18(1) of the Wildlife (Protection) Act, 1972 is pleased to include the intention to add the areas of 11.53 Sq. Kms. as specified in the said schedule as an extension to the Chandratral Wildlife Sanctuary under the notification No. FFE-8-F(9)102006-III/Chandratral dated 7th June, 2013 for the approved purpose.

SCHEDULE

Sr. No.	Name of WL Sanctuary	Containing 1) District 2) Forest Division	Proposed boundaries of the areas to be included as extension to the existing Chandratral Wildlife Sanctuary;
1	Chandratral Wildlife Sanctuary	1) Lahaul & Spiti (WL) Division	NO. 17/18: From point 5716m, across the Sarnadar River (Dang Karna) across the west up to State Division boundary Lahaul & Spiti Sub-Division NO. 17/19: From point 5507m, across the west up to State Division boundary Lahaul & Spiti Sub-Division NO. 17/20: From point 5620m, across the west up to State Division boundary Lahaul & Spiti Sub-Division The areas of the above three notifications, open to the Chandratral Wildlife Sanctuary.

This area is situated within the Geo co-ordinates North (32°31'44" N & 77°36'15" E), East (32°27'42" N & 77°36' 39" E), South (32°23'13" N & 77°36'58" E) and West (32°30'45" N & 77°34'22" E). This area falls on Survey of India topo sheet No. 5211/10 & 5210/11 of scale 1: 50000.

Area of Chandratral Wildlife Sanctuary = 38.55 sq. km

By Order

Principal Secretary (Forests) to the Government of Himachal Pradesh.

Dated: Shimla, 2nd June, 2013

Copy forwarded to:

1. All the Administrative Secretaries in the Govt. of H.P., Shimla-2.
2. All the Divisional Commissioners, Shimla, Mandi & Dharamshala, H.P.
3. All the Heads of Departments of H.P.
4. The Principal Chief Conservator of Forests, H.P., Shimla-1
5. The Principal Chief Conservator of Forests, (Wildlife) H.P., Shimla-1.
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11. The Officer H.P. Printing & Stationery Department Shimla-5 for publication in the Raj-patra (Extra-ordinary) Five Copies of the R. -Patra be sent to this Department.
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Under Secretary (Forests) to the Government of Himachal Pradesh

भारत का राजपत्र

The Gazette of India



असाधारण
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अधिसूचना

नई दिल्ली, 3 जून, 2016

का.आ. 1978(आ).—निम्नलिखित अधिसूचना का प्रारूप, जिसे केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (2) के खंड (V) और खंड (XIV) तथा उपधारा (3) के साथ पठित उपधारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, जारी करने का प्रस्ताव करती है, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) की अपेक्षानुसार, जनसाधारण, जिनके उससे प्रभावित होने की संभावना है, की जानकारी के लिए, प्रकाशित की जाती है; और यह सूचना दी जाती है कि उक्त प्रारूप अधिसूचना पर, उस तारीख से, जिसको इस अधिसूचना को अंतर्विष्ट करने वाले भारत के राजपत्र की प्रतियां जनसाधारण को उपलब्ध करा दी जाती हैं, साठ दिन की अवधि की समाप्ति पर या उसके पश्चात् विचार किया जाएगा:

ऐसा कोई व्यक्ति, जो प्रारूप अधिसूचना में अंतर्विष्ट प्रस्तावों के संबंध में कोई आक्षेप या सुझाव देने में हितबद्ध है, इस प्रकार विनिर्दिष्ट अवधि के भीतर, केन्द्रीय सरकार द्वारा विचार किए जाने के लिए, आशेष या सुझाव सचिव, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, इंदिरा पर्यावरण भवन, जोर बाग रोड, अरीयांब, नई दिल्ली-110003 या ई-मेल पते: mei@nic.in पर लिखित रूप में भेज सकेगा।

प्रारूप अधिसूचना

चंद्रताल वन्यजीव अभयारण्य हिमाचल प्रदेश के साहोब-स्वितरी जिले में स्थित है और लगभग 3856 वर्ग किलोमीटर के क्षेत्र में फैला हुआ है। चंद्रताल वन्यजीव अभयारण्य के निर्देशांक उपाखंड I के रूप में उपाखंड है:

और, इस अभयारण्य में वनस्पति और जीवजन्तु की समृद्ध अद्विकीय महत्त्व का प्रतिनिधित्व है:

और, चंद्रताल वन्यजीव अभयारण्य साहू, भेरिया, मरसोह, प्रवासी और निवासी पक्षियों का वास स्थान है:

WEST: Then along the same ridge up stream upto starting point of northern boundary point 5785m.	confluence of a nala flowing from ridgepoint 5785m etc.
SOUTH: From confluence point of the nala above the boundary moves in stream along Chandra river upto confluence of another nala into Chandra river flowing from 5785m.	

Area: The area of 1133 Sq. Km. as specified in the above schedule shall be the area of the above area of 20.50 Sq. Km. of Chandradial Wildlife Sanctuary and the total area of Sanctuary will be 50.90 Sq. Km.

By Order

Principal Secretary (Forests) to the Government of Himachal Pradesh.

Dated Shimla 2 the 18th Sept. 2013

Encl. No. As above

Copy forwarded to:-

1. At the Administrative Secretaries to the Govt. of H.P. Shimla-2.
2. At the Divisional Commissioners, Shimla, Mandi & Charamanaha, H.P.
3. At the Heads of Departments of H.P.
4. The Principal Chief Conservator of Forests, H.P. Shimla-1
5. The Principal Chief Conservator of Forests, (Wildlife) H.P. Shimla-1.
6. At DCFs/DCOs (Wildlife) in H.P.
7. At the Deputy Commissioners in H.P.
8. At the DCFs/DCOs, DFOs in H.P.
9. At B.O. Under Secretary Law to the Government of Himachal Pradesh.
10. The ADC Road, Dist. Lahul & Spiti, H.P.
11. The Commr. H.P. Printing & Stationery Department Shimla-1 for publication in the Rajasthan (Extraordinary) First Copies of the Reg. Rules be sent to this Department.
12. Guard File.

(Prakashia Nandi)
Under Secretary (Forests) to the Government of Himachal Pradesh
Ph. No. 2595-818, Mob. 94194-44573
E-mail undersecretary_hps@gmail.com

और चंद्रलाल बन्धुजी अग्रयारण्य, के चारों ओर के क्षेत्र को, जिसका विस्तार और सीमाएं इस अधिसूचना के धारा 1 में विनिर्दिष्ट हैं, पर्यावरण की दृष्टि से पारिस्थितिक संवेदी ज़ोन के रूप में सुरक्षित और संरक्षित करना तथा उक्त पारिस्थितिक संवेदी ज़ोन में उद्योगों या उद्योगों के वर्गों के प्रचालन तथा प्रसंस्करण करने की प्रतिनिद्ध करना आवश्यक है:

अतः, अन्न, केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1), उपधारा (2) के खंड (V) और खंड (XIV) और उप धारा (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, हिमाचल प्रदेश राज्य में चंद्रलाल बन्धुजी अग्रयारण्य की सीमा के पूर्व निर्दिष्ट 5.625 किलोमीटर तक के विस्तारित क्षेत्र को चंद्रलाल बन्धुजी अग्रयारण्य पारिस्थितिक संवेदी ज़ोन (जिसमें इसमें इसके पर्याप्त पारिस्थितिक संवेदी ज़ोन कहा गया है) के रूप में अधिसूचित करती है, जिसका विवरण निम्नांकित है।

अर्थात् :-
1. पारिस्थितिक संवेदी ज़ोन का विस्तार और उसकी सीमाएं-(1) पारिस्थितिक संवेदी ज़ोन चंद्रलाल बन्धुजी अग्रयारण्य की सीमा से 5.625 किलोमीटर तक के विस्तार होगा और ऐसे ज़ोन की पूर्व-बन्धुजी स्थिति प्रणाली के निर्देशांक उपगण्ड II के रूप में उपाबद्ध है। चंद्रलाल बन्धुजी अग्रयारण्य के उत्तर पश्चिम पर कोई पारिस्थितिक संवेदी ज़ोन प्रस्तावित नहीं किया गया है क्योंकि यह उनके स्लोविंग संभारों के साथ सीमा का निर्माण करता है। पारिस्थितिक संवेदी ज़ोन की क्षेत्र 6150 वर्ग किलोमीटर है।

(2) पारिस्थितिक संवेदी ज़ोन के अंतर्गत आने वाले ग्रामों की सूची उपगण्ड III के रूप में उपाबद्ध है।
(3) पारिस्थितिक संवेदी ज़ोन का मानचित्र सीमा के अन्दर इसके अक्षांश और देशान्तर के साथ उपगण्ड IV के रूप में उपाबद्ध है।

2. पारिस्थितिक संवेदी ज़ोन के लिए आंचलिक महायोजना - (1) राज्य सरकार, पारिस्थितिक संवेदी ज़ोन के प्रयोजनों के लिए राजपत्र में इस अधिसूचना के अंतर्गत प्रकाशन की तारीख से दो वर्ष की अवधि के भीतर, स्थानीय व्यक्तियों के परामर्श से, और इस अधिसूचना में दिए गए अनुबंधों का पालन करते हुए आंचलिक महायोजना तैयार करेगी।

(2) आंचलिक महायोजना का अनुमोदन राज्य सरकार में सक्षम प्राधिकारी द्वारा किया जाएगा।
(3) पारिस्थितिक संवेदी ज़ोन के लिए आंचलिक महायोजना राज्य सरकार द्वारा ऐसी सति शैला इस अधिसूचना में विनिर्दिष्ट है और सुसंगत केंद्रीय और राज्य विधियों तथा केंद्रीय सरकार द्वारा जारी मार्गदर्शक सिद्धांतों, यदि कोई हों, के अनुसार भी तैयार की जाएगी।

(4) आंचलिक महायोजना सभी संबद्ध राज्य विभागों के साथ परामर्श से पर्यावरणीय और पारिस्थितिक विचारणों को उसमें एकीकृत करने के लिए तैयार की जाएगी, अर्थात्-

- (i) पर्यावरण ;
- (ii) वन ;
- (iii) नगर विकास ;
- (iv) पर्यटन ;
- (v) नगरपालिका ;
- (vi) राजस्व ;
- (vii) कृषि ;
- (viii) हिमाचल प्रदेश राज्य प्रदूषण नियंत्रण बोर्ड ;
- (ix) शिक्षा ; और
- (x) लोक निर्माण विभाग।

(5) आंचलिक महायोजना अनुमोदित विद्यमान सू-उपयोग, अवसरचना और क्रियाकलापों पर कोई निर्बंधन अधिसूचित नहीं करेगी जब तक कि इस अधिसूचना में विनिर्दिष्ट न हो और आंचलिक महायोजना सभी अवसरचना और क्रियाकलापों में अधिक रचना और पारिस्थितिक अनुकूलता का संवर्धन करेगी।

(6) आंचलिक महायोजना में अनास्थितित क्षेत्रों के अर्णोद्धार, विद्यमान जल निकासों के संरक्षण, आवाह क्षेत्रों के प्रबंधन, जल-संभरण के प्रबंधन, भूतल जल के प्रबंधन, घुटा और नदी संरक्षण, स्थानीय समुदायों की आवश्यकताओं तथा पारिस्थितिक और पर्यावरण से संबंधित ऐसे अन्य पहलुओं, जिन पर ध्यान देना आवश्यक है, के लिए उपबन्ध होंगे।

(7) आंचलिक महायोजना सभी विद्यमान पूजा स्थलों, ग्रामों और नगरीय क्षेत्रों, वर्गों के प्रकार और स्थानों, कृषि क्षेत्रों, ऊपजाक भूमि, हरित क्षेत्र जैसे उद्यान और उष्ण प्रकार के स्थान, उद्यान कृषि क्षेत्र, फलोंबान, शीलों और अन्य जल निकासों का अन्वयन करेगी।

(8) आंचलिक महायोजना स्थानीय समुदायों की जीवनोपार्जन को सुनिश्चित करने के लिए, पारिस्थितिक संवेदी ज़ोन में विकास को पारिस्थितिक अनुकूल विकास के लिए विनियमित करेगी।

3. राज्य सरकार द्वारा किए जाने वाले उपाय- राज्य सरकार इस अधिसूचना के उपबंधों को प्रभावी करने के लिए निम्नलिखित उपाय करेगी, अर्थात् :-

(1) सू-उपयोग - पारिस्थितिक संवेदी ज़ोन में वर्गों, उद्यान-कृषि क्षेत्रों, कृषि क्षेत्रों, आर्गो-उ-प्रभेद के प्रयोजन के लिए चिन्हित किए गए पारकों और छूले स्थानों का वाणिज्यिक और औद्योगिक संबद्ध विकास क्रियाकलापों के लिए उपयोग या संशोधन नहीं होगा।

परंतु पारिस्थितिक संवेदी ज़ोन के भीतर कृषि भूमि का संशोधन के अर्धीन यानीटरी सभिति की क्रियाकलाप पर और राज्य सरकार के पूर्व अनुमोदन से, स्थानीय निवासियों की आवासीय इमारतों को पूरा करने के लिए और धरा 4 की सारणी के स्तंभ (2) के अर्धीन मद सं 10, 20, 29, 33 और 34 के सामने सूचीबद्ध क्रियाकलापों को पूरा करने के लिए अनुज्ञात होंगे, अर्थात् :-

- (i) पारिस्थितिक अनुकूल पर्यटन क्रियाकलापों के लिए पर्यटकों के अस्थायी आवासन के लिए पारिस्थितिक अनुकूल आवासगाह जैसे टेंट, सक्की के मकान आदि ;
- (ii) विद्यमान सड़कों को चौड़ा और सुदृढ़ करना ;
- (iii) प्रदूषण उत्पन्न करने वाले लघु उद्योग ;
- (iv) कुटीर उद्योग, जिसके अंतर्गत ग्रामीण उद्योग, सुविधा संभार और स्थानीय सुविधाएं सम्मिलित हैं, और
- (v) वर्ण जल संवर्धन:

परंतु यह और कि राज्य सरकार के पूर्व अनुमोदन और संचिधान के अनुच्छेद 244 तथा तत्समय प्रवृत्त विधि के उपबंधों के अनुपालन के विना, जिसके अंतर्गत अनुसूचित जनजाति और अन्य परंपरागत वन निवासी (वन अधिकारों की मान्यता) अधिनियम, 2006 (2007 का 2) भी है, वाणिज्यिक या उद्योग विकास क्रियाकलापों के लिए जनजातीय भूमि का उपयोग अनुज्ञात नहीं होगा।

परंतु यह और भी कि पारिस्थितिक संवेदी ज़ोन के भीतर सू-अभिलेखों में उपसंज्ञात कोई भूटि यानीटरी सभिति के विचार प्राप्त करने के पश्चात् राज्य सरकार द्वारा प्रत्येक मामले में एक बार संशोधित होगी और उक्त भूटि के संशोधन की केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को सूचना देनी होगी।

परंतु यह और भी कि उपर्युक्त भूटि का संशोधन में इस उप धारा के अर्धीन यथा उपबंधित के सिवाय किसी भी दशा में सू-उपयोग का परिवर्तन सम्मिलित नहीं होगा।

परंतु यह और भी कि जिससे हरित क्षेत्र में जैसे वन क्षेत्र, कृषि क्षेत्र आदि में कोई पारिधामिक कटाती नहीं होगी और अनपयुक्त या अनुत्पादक कृषि क्षेत्रों में पुनः बनीकरण करने के प्रयास किए जाएंगे।

(2) प्राकृतिक जल स्रोतों - आन्वैतिक महायोजना में सभी प्राकृतिक जल स्रोतों की पहचान की जाएगी और उनके संरक्षण और पुनरुत्थान के लिए योजना सम्मिलित होगी और राज्य सरकार द्वारा ऐसे क्षेत्रों पर या उनके निकट विकास क्रियाकलाप प्रतिबन्ध करने के लिए ऐसी सीति से मार्गनिर्देश दिए जाएंगे।

(3) पर्यटन - (क) पारिस्थितिक संवेदी जोन के भीतर पर्यटन संबंधी क्रियाकलाप पर्यटन महायोजना के अनुसार होंगे जो कि आन्वैतिक महायोजना के भाग रूप में होंगी।

(ख) पर्यटन महायोजना पर्यटन विभाग, हिमाचल प्रदेश सरकार के राज्य सरकार के वन और पर्यावरण विभाग, राज्य सरकार के परामर्श से तैयार होंगी।

(ग) पर्यटन संबंधी क्रियाकलाप विनियमित होंगे, अर्थात् :-

(i) पारिस्थितिक संवेदी जोन के भीतर सभी नए पर्यटन क्रियाकलापों या विद्यमान पर्यटन क्रियाकलापों का विस्तार केन्द्र सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के मार्गदर्शक सिद्धांतों के द्वारा तथा राष्ट्रीय व्यापक संरक्षण प्राधिकरण, द्वारा जारी पारिस्थितिक पर्यटन (समय-समय पर तथा संशोधित) मार्गदर्शक सिद्धांतों के अनुसार, पारिस्थितिक पर्यटन, पारिस्थितिक शिक्षा और पारिस्थितिक विकास को महत्व देते हुए पारिस्थितिक संवेदी जोन की बहुत समता के अन्वयान पर आधारित होगा;

(ii) पारिस्थितिक अनुकूल पर्यटक क्रियाकलापों के संबंध में अस्थायी अभिभोग के लिए बात सुविधा के सिवाय बंदरतल बन्धवीर अग्रधारण की सीमा से एक किलोमीटर भीतर होटल और रिसोर्टों का नया संनिर्माण अनुज्ञात और विनिर्दिष्ट स्थान में ही अनुज्ञात किया जाएगा।

परंतु संरक्षित क्षेत्र की सीमा से एक किलोमीटर की दूरी से परे पारिस्थितिक संवेदी जोन की सीमा तक नए होटल और रिसोर्ट की स्थापना पर्यटन महायोजना के अनुसार पारिस्थितिक पर्यटन सुविधा के लिए पूर्व परिभाषित और विनिर्दिष्ट स्थान में ही अनुज्ञात किया जाएगा।

(iii) आन्वैतिक महायोजना का अनुमोदन किए जाने तक, पर्यटन के लिए विकास और विद्यमान पर्यटन क्रियाकलापों के विस्तार को बास्तविक स्थल विनिर्दिष्ट संवेदा तथा मानीटरी समिति की सिफारिश पर आधारित संबंधित विनियमक प्राधिकरणों द्वारा अनुज्ञात किया होगा।

(4) शैक्षणिक विरासत - पारिस्थितिक संवेदी जोन में महत्वपूर्ण शैक्षणिक विरासत के सभी स्थलों जैसे सभी जीन कोश आरक्षित क्षेत्र, शैल विखनान, जल प्रपात, झरना, घाटी मार्ग, उपवन, गुफाएं, स्थलों, शमण, अश्वरोहण, प्रपातों आदि की पहचान की जाएगी और उन्हें संरक्षित किया जाएगा तथा उनकी सुरक्षा और संरक्षा के लिए इस अधिसूचना के अंतिम प्रकाशन की तारीख से छह मास के भीतर, उपयुक्त योजना बनाएगी और ऐसी योजना आन्वैतिक महायोजना का भाग होगा।

(5) शालय निश्चित विरासत स्थल - पारिस्थितिक संवेदी जोन में शवनों, संरचनाओं, शिल्प-तथ्य, ऐतिहासिक, कलात्मक और सांस्कृतिक महत्व के क्षेत्रों की पहचान करनी होगी और इस अधिसूचना के अंतिम प्रकाशन की तारीख से छह माह के भीतर उनके संरक्षण की योजनाएं तैयार करनी होंगी तथा आन्वैतिक महायोजना में सम्मिलित की जाएगी।

(6) ध्वनि प्रदूषण - पारिस्थितिक संवेदी जोन में ध्वनि प्रदूषण के नियंत्रण के लिए राज्य सरकार का पर्यावरण विभाग, वायु प्रदूषण नियंत्रण और नियंत्रण अधिनियम, 1981 (1981 का 14) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार, 1981 (1981 का 14) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार, वायु प्रदूषण में मार्गदर्शक सिद्धांत और विनियम तैयार करेंगे।

(7) वायु प्रदूषण - पारिस्थितिक संवेदी जोन में, वायु प्रदूषण के नियंत्रण के लिए राज्य सरकार का पर्यावरण विभाग, या हिमाचल राज्य प्रदूषण नियंत्रण बोर्ड, वायु प्रदूषण नियंत्रण और नियंत्रण अधिनियम, 1981 (1981 का 14) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार, मार्गदर्शक सिद्धांत और विनियम तैयार करेंगे।

(8) बाह्यक्षेत्र का विस्तार - पारिस्थितिक संवेदी जोन में उपचारित बाह्यक्षेत्र का विस्तार, जल प्रदूषण नियंत्रण तथा नियंत्रण अधिनियम, 1974 (1974 का 6) और उसके अधीन बनाए गए नियमों के उपबंधों के अनुसार होगा।

(9) ठोस अपशिष्ट - ठोस अपशिष्टों का निपटान विनियमित रूप में होगा -

(i) पारिस्थितिक संवेदी जोन में ठोस अपशिष्टों का निपटान भारत सरकार के तकनीकी पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर तथा संशोधित अधिसूचना सं. का.आ. 1357(आ), तारीख 8 अगस्त, 2016 नगरपालिका ठोस अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा;

(ii) स्थानीय प्राधिकरण और निष्कीर्ण और अर्ध-निष्कीर्ण संघटकों में ठोस अपशिष्टों के संग्रहण के लिए योजनाएं तैयार करेंगे;

(iii) क्षेत्र निष्कीर्ण सामग्री को अधिमानतः खाद बनाकर या कृषि क्षेत्रों के माध्यम से पुनः-चक्रित किया जाएगा;

(iv) अकार्बनिक सामग्री का निपटान पारिस्थितिक संवेदी जोन के बाहर पहचान किए गए स्थल पर किसी पर्यावरणीय स्वीकृत सीति में होगा और पारिस्थितिक संवेदी जोन में ठोस अपशिष्टों को जलना या शष्कीकरण अनुज्ञात नहीं होगा।

(10) क्षेत्र चिकित्सीय अपशिष्ट - पारिस्थितिक संवेदी जोन में क्षेत्र चिकित्सीय अपशिष्टों का निपटान भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की समय-समय पर यशसंशोधित अधिसूचना वि.एन.आर. 243 (अ) तारीख 28 मार्च 2016 द्वारा प्रकाशित क्षेत्र चिकित्सीय अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार किया जाएगा।

(11) बानीय परिवहन - परिवहन की बानीय गतिविधियां आवास के अनुकूल विनियमित होंगी और इस संबंध में आन्वैतिक महायोजना में विशेष उदाहरण दिये जाएंगे और आन्वैतिक महायोजना के तैयार होने और राज्य सरकार के द्वारा प्राधिकारी के द्वारा अनुमोदित होने तक, मानीटरी समिति प्रवृत्त नियमों और विनियमों के अनुसार बानीय गतिविधियों के अनुपालन को मानीटरी करेंगी।

(12) शौचालय इकाईयां -

(क) प्रस्तावित पारिस्थितिक संवेदी जोन में विधि के अनुसार स्थापित विद्यमान काष्ठ आधारित उद्योगों के सिवाय नए काष्ठ आधारित उद्योगों की स्थापना को अनुज्ञात नहीं किया जाएगा।

(ख) जल, वायु, ध्वनि प्रदूषण कारित करने वाले किसी नए उद्योग की प्रस्तावित पारिस्थितिक संवेदी जोन में स्थापना को अनुज्ञात नहीं किया जाएगा।

4. पारिस्थितिक संवेदी जोन में प्रतिबिद्ध और विनियमित क्रियाकलापों की सूची - पारिस्थितिक संवेदी जोन में सभी क्रियाकलाप पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) के उपबंधों द्वारा शक्ति होंगे और नीचे दी गई तालिका में विनिर्दिष्ट सीति में विनियमित होंगे, अर्थात् :-

क्रम सं.	क्रियाकलाप	टीकाटिप्पणी
(1)	(2)	(3)
1.	बाणिज्यिक बनान, पर्यटन की खदान और उनके लोडने की इकाइयां।	प्रतिबिद्ध क्रियाकलाप (क) सभी नए और विद्यमान बनान (लघु और बृहत् खनिज), पर्यटन उल्थान और उनको लोडने की इकाइयां प्रतिबिद्ध हैं, सिवाय निवासियों की सद्भावपूर्ण घरेलू आवश्यकताओं के नहीं होंगी, जिसके अंतर्गत गृहों के सनिस्वाण या भरमत्त के लिए मिट्टी की खुदाई और व्यक्तिगत उपयोग के लिए गृहों के निर्माण के लिए देशी टाइलों या ईंटों का संनिर्माण भी है। (ख) खनन संक्रियाएं, माननीय उच्चतम न्यायालय की रिट याचिका (सिविल) सं. 1995 का 202 टी.एन. गौडारमन खिरभूलपाद बनाम

		भारत संघ के मामले में आदेश तारीख 4 अगस्त, 2008 और रिट याचिका (सी) सं. 2012 का 435 पौचा फाउंडेशन बनाम भारत संघ के मामले में तारीख 21 अप्रैल, 2014 के अंतरिम आदेश के अनुसरण में सर्वदा प्रचालन होगा।
2.	आरा मीलों की स्थापना।	पारिस्थितिक संवेदी जोन के भीतर नहीं और विद्यमान आरा मीलों का विस्तार अनुज्ञात नहीं होगा।
3.	किन्नी परिसंकटमय परतर्षों का उपयोग या उत्पादन।	लागू विधियों के अनुसार प्रतिबिद्ध (अल्पथा उपबंधित के सिवाय)।
4.	जल या वायु या पृथ्वी या ध्वनि प्रदूषण कारित करने वाले उद्योगों की स्थापना।	पारिस्थितिक संवेदी जोन के भीतर नए और विद्यमान प्रदूषण कारित करने वाले का विस्तार अनुज्ञात नहीं होगा।
5.	नई मुख्य राष्ट्रीय और जल विद्युत परियोजनाओं की स्थापना।	लागू विधियों के अनुसार प्रतिबिद्ध (अल्पथा उपबंधित के सिवाय)।
6.	जलावन लकड़ी का वाणिज्यिक उत्पादन।	लागू विधियों के अनुसार प्रतिबिद्ध (अल्पथा उपबंधित के सिवाय)।
7.	डुकानदारों द्वारा प्लास्टिक शीश का उत्पादन।	लागू विधि के अनुसार प्रतिबिद्ध (अल्पथा उपबंधित के सिवाय)।
8.	प्रकृतिक जल निकारों या सतही क्षेत्र में अनुपचारित बहिर्वाह और ठोस अपशिष्टों का निस्सारण।	लागू विधियों के अनुसार प्रतिबिद्ध (अल्पथा उपबंधित के सिवाय)।
विनियमित क्रियाकलाप		
9.	पर्यटन से संबंधित क्रियाकलाप जैसे वायुयान द्वारा राष्ट्रीय उद्यान क्षेत्रों के ऊपर से उड़ान भरना या गर्म वायु गुब्बारों आदि का उड़ाना।	लागू विधियों के अधीन विनियमित होंगे।
10.	होटल और रिसॉर्ट की वाणिज्यिक स्थापना।	पारिस्थितिक अनुकूल पर्यटन क्रियाकलाप से संबंधित पर्यटकों के अस्थायी व्यवसाय के लिए आवास के संबंध में पारिस्थितिक संवेदी जोन के संरक्षित क्षेत्र की सीमा या उसकी सीमा से एक किलोमीटर के भीतर जो भी हो, नए वाणिज्यिक होटलों और रिसॉर्टों को अनुज्ञात किया जाएगा अल्पथा नहीं।
11.	संनिर्माण क्रियाकलाप।	(क) संरक्षित क्षेत्र की एक किलोमीटर की सीमा के भीतर किसी भी प्रकार के नए वाणिज्यिक संनिर्माण को अनुज्ञात नहीं किया जाएगा; परंतु स्थानीय लोगों को धरा 3 के उप धरा (1) में सूचीबद्ध क्रियाकलापों सहित उनके आवासीय उपयोग के लिए उनकी भूमि में संनिर्माण करने की अनुमति दी जाएगी। (ख) ऐसे लघु उद्योगों जो प्रदूषण उत्पन्न नहीं करते हैं, से संबंधित संनिर्माण क्रियाकलाप विनियमित किए जाएंगे और लागू नियमों और विनियमों, यदि कोई हों, के अनुसार सक्षम प्राधिकारी की पूर्व अनुमति से ही न्यूनतम पर रखे जाएंगे। (ग) एक किलोमीटर से आगे और पारिस्थितिक संवेदी जोन की सीमा तक वास्तविक स्थानीय आवश्यकताओं के लिए संनिर्माण की अनुज्ञा दी जाएगी और अन्य वाणिज्यिक संनिर्माण क्रियाकलाप आंचलिक महायोजना के अनुरूप होंगे। (घ) पारिस्थितिक संवेदी जोन में संनिर्माण क्रियाकलाप आंचलिक महायोजना की अनुसार होगा।

12.	भूमि में बाईं जोरना।	भूमि में नई बाईं जोरने का कार्य प्रतिबिद्ध है। भूमि में पुरानी खुदी हुई बाइयां वायु विधियों के अधीन विनियमित की जानी है।
13.	प्राकृतिक जल निकारों या भू-क्षेत्र में उपचारित बहिर्वाह ठोस अपशिष्ट का निस्सारण।	लागू विधियों के अधीन विनियमित होंगे।
14.	वायु और स्थानीय प्रदूषण।	लागू विधियों के अधीन विनियमित होंगे।
15.	ध्वनि प्रदूषण।	लागू विधियों के अधीन विनियमित होंगे।
16.	भू-जल उत्कर्षण।	लागू विधियों के अधीन विनियमित होंगे।
17.	वृक्षों की कटाई।	(क) राज्य सरकार में सक्षम प्राधिकारी की पूर्व अनुमति के बिना वन, सरकार या राज्य या निजी भूमि पर या वनों में किसी वृक्षों की कटाई नहीं होगी। (ख) वृक्षों की कटाई संबंधित केंद्रीय या राज्य अधिनियम या उनके अधीन बनाए गए नियमों के उपबंध के अनुसार विनियमित होगी। (ग) आरक्षित वनों और संरक्षित वनों की दशा में कार्य योजना अनुदेशों का पालन किया जाएगा।
18.	प्रवासी चरगाहा।	लागू विधियों के अधीन विनियमित होंगे।
19.	विद्युत साइडों का परिनिर्माण।	प्रयोजन केवल विद्युत आने को प्रोत्साहित करना पारिस्थितिक संवेदी जोन से गुजर कर आने वाली सभी विद्यमान नैद्यमान नैद्युत साइडों आंचलिक महायोजना के अधीन विहित समय सीमा में पर्याप्त रूप से विद्युतरूढ़ की जाएगी।
20.	विद्यमान सड़कों को चौड़ा करना और उन्हें सुदृढ़ करना।	उचित पर्यावरण समाधात विचारण और न्यूनीकरण उपाय वया लागू अनुसर होंगे।
21.	होटलों और लॉज के विद्यमान परिसरों में बाइ बनाना।	लागू विधियों के अधीन विनियमित होगा। पारिस्थितिक संवेदी जोन के भीतर कल्पवीच के आबाय संवर्धन को अनुज्ञात करने के लिए होटलों या अन्य वाणिज्यिक स्थापनों को कॉटेदार तार के उनकी संपत्तियों की बाइ नहीं बनाई जाएगी और कोई भी बाइ एक मीटर से अधिक की नहीं होगी। इस अनुबंध का अनुपालन न करने वाली विद्यमान बाइ को आंचलिक महायोजना में उल्लिखित समय सीमाओं के अनुसार उपचारित किया जाएगा।
22.	वन उत्पादों या गैर फाइव वन उत्पादों का संग्रहण।	लागू विधियों के अधीन विनियमित होंगे।
23.	कृषि प्रणालियों में आपूल परिवर्तन।	लागू विधियों के अधीन विनियमित होंगे।
24.	वाणिज्यिक जल संसाधन जिसके अंतर्गत भू-जल संवयन भी है।	लागू विधियों के अधीन विनियमित होंगे।
25.	राजि में यातनिक यातायात का संचलन।	लागू विधियों के अधीन विनियमित होंगे।
26.	विदेशी प्रजातियों को लाना।	लागू विधियों के अधीन विनियमित होंगे।
27.	वाणिज्यिक साइनबोर्ड और होटिंग।	लागू विधियों के अधीन विनियमित होंगे।
28.	पहाड़ी ढालों और नदी तटों का संरक्षण।	आंचलिक महायोजना के अधीन जब तक अल्पथा अनुज्ञात न हो कोई संनिर्माण क्रियाकलाप एक से दस से अधिक ढालों वाली पहाड़ी पर और किसी नदी या प्राकृतिक नाले के तटों से 100 मीटर तक भी नहीं किया जाएगा।
29.	प्रदूषण उत्सर्जन करने वाले लघु उद्योग।	पारिस्थितिक संवेदी जोन से गैर प्रदूषण, गैर परिसंकटमय, लघु और सेवा उद्योग, कृषि, पुष्प कृषि, उद्यान कृषि या कृषि आधारित देशी

	संबन्धित क्रियाकलाप	सक्रिय रूप से बहावा दिया जाएगा।
30.	स्थानीय समुदायों द्वारा बल रही कृषि और बागवानी प्रथाओं के साथ पशुपालन, पशुपालन कृषि, जल कृषि और मछली पालन।	सक्रिय रूप से बहावा दिया जाएगा।
31.	शैतिक कृषि।	सक्रिय रूप से बहावा दिया जाएगा।
32.	सभी गतिविधियों के लिए स्थित प्रायोगिकों को महत्व करना।	सक्रिय रूप से बहावा दिया जाएगा।
33.	कृषि उद्योगों विसर्गें जंतवत शारीण कृषि आदि भी हैं।	सक्रिय रूप से बहावा दिया जाएगा।
34.	वर्षा जल संरचना	सक्रिय रूप से बहावा दिया जाएगा।
35.	नदीकणीय ऊर्जा स्रोत का उपयोग।	सक्रिय रूप से बहावा दिया जाएगा।

5. मानीटरी समिति- (1) केंद्रीय सरकार, पारिस्थितिक संवेदी जोन के प्रभावी मानीटरी के लिए एक मानीटरी समिति का गठन करती है जो निम्नलिखित से मिलकर बनेगी, अर्थात् :-

- (i) बिला मजिस्ट्रेट, साहोब-खिली - अध्यक्ष ;
- (ii) राज्य के विज्ञान संस्था या विश्वविद्यालय में पारिस्थितिक और पर्यावरण के क्षेत्र में एक विशेषज्ञ जो प्रत्येक मामले में एक वर्ष के लिए हिमाचल प्रदेश सरकार द्वारा नामनिर्दिष्ट किया जाए - सदस्य ;
- (iii) शैर सरकारी संगठन (पर्यावरण के क्षेत्र में कार्य करने वाला, जिसके अंतर्गत विरासत संरक्षण भी है) का एक जो प्रतिनिधि जो हिमाचल प्रदेश सरकार द्वारा एक वर्ष के लिए नामनिर्दिष्ट किया जाए - सदस्य ;
- (iv) कार्यालयक इंजीनियर, हिमाचल प्रदेश सरकार प्रदूषण नियंत्रण बोर्ड - सदस्य ;
- (v) उग्र मंडल मजिस्ट्रेट, काबा - सदस्य ;
- (vi) ज्येष्ठ नगर योजनाकार - सदस्य ;
- (vii) प्रभागीय जन अधिकारी, काबा - सदस्य- मजिब ।

6. निरीक्षण निबंधन

- (1) पारिस्थितिक संवेदी जोन समिति इस अधिसूचना के उपबंधों के अनुपालन को मानीटर करेगी।
- (2) पारिस्थितिक संवेदी जोन में भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 1533(ब) तारीख 14 सितंबर, 2006 की अनुसूची में के अधीन सम्मिलित क्रियाकलापों और इस अधिसूचना के पैरा 4 के अधीन प्रविष्टि गतिविधियों के सिवाय जाने वाले ऐसे क्रियाकलापों की दशा में वास्तविक विनिर्दिष्ट स्थानीय दशाओं पर आधारित मानीटरी समिति द्वारा संवीक्षा की जाएगी और उक्त अधिसूचना के उपबंधों के अधीन पूर्व पर्यावरण निकासी के लिए केंद्रीय सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को निर्दिष्ट की जाएगी।
- (3) इस अधिसूचना के पैरा 4 के अधीन तथा-विनिर्दिष्ट प्रविष्टि क्रियाकलापों के सिवाय, भारत सरकार के पर्यावरण और वन मंत्रालय की अधिसूचना संख्याक.आ. 1533(ब) तारीख 14 सितंबर, 2006 की अधिसूचना के अनुसूची के अधीन

ऐसे क्रियाकलापों, जिन्हें सम्मिलित नहीं किया गया है, परन्तु पारिस्थितिक संवेदी जोन में आने हैं, ऐसे क्रियाकलापों की वास्तविक विनिर्दिष्ट स्थानीय दशाओं पर आधारित मानीटरी समिति द्वारा संवीक्षा की जाएगी और उक्त संकट विनियामक प्राधिकरणों को निर्दिष्ट किया जाएगा।

(4) मानीटरी समिति का सदस्य-मजिब या संकट उपायक, ऐसे व्यक्ति के विकट, जो इस अधिसूचना के किसी उपबंध का उल्लंघन करता है, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन परिवार कांडन करने के लिए सक्षम होगा।

(5) मानीटरी समिति मुद्रा वर मुद्रा के आधार पर अर्थशास्त्रों पर निर्भर रहने हुए संकट रिभागों के प्रतिनिधियों या विशेषज्ञों, शैक्षणिक संगणों या संकट पणधियों के प्रतिनिधियों को अपने विचार-विमर्श में सहायता के लिए आमंत्रित कर सकेगी।

(6) मानीटरी समिति प्रत्येक वर्ष की 31 मार्च तक की राज्य के मुख्य कर्तव्यार्थ बार्दन को अपनी वार्षिक कार्यवाही रिपोर्ट उपबंध V पर उपाबद्ध रूप विधान के अनुसार उक्त वर्ष के 30 जून तक प्रस्तुत करेगी।

(7) केंद्रीय सरकार का पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय मानीटरी समिति को अपने कृत्यों के प्रभावी निर्वहन के लिए समय-समय पर ऐसे निर्देश दे सकेगा, जो वह ठीक समझे।

7. इस अधिसूचना के उपबंधों को प्रभाव देने के लिए केंद्रीय सरकार और राज्य सरकार अतिरिक्त उपाय, यदि कोई हों, विनिर्दिष्ट कर सकेंगे।

8. इस अधिसूचना के उपबंध, भारत के भारतीय उच्चतम न्यायालय या उच्च न्यायालय या राष्ट्रीय हरित प्राधिकरण द्वारा पारित कोई आदेश या पारित होने वाले किसी आदेश, यदि कोई हों, के अधीन होंगे।

[प्रा.सं. 25/21/2016-ई.स.वे.आ.सं.]
श. टी. चांदनी, वैज्ञानिक जी
उपाबंध - I

भारत के भू-निकषांक

उत्तर	दक्षिण	पश्चिम	देशांतर	अक्षांतर
77°06'15" पू	77°36'58" पू	77°04'22" पू	77°40'7.828" पू	32°31'44" उ
77°02'15.464" पू	77°32'24" पू	77°03'13" उ	77°40'52.29" पू	32°27'42" उ
77°40'14.466" पू	77°03'25" उ	32°23'13" उ	77°40'14.466" पू	32°23'13" उ
77°03'34.181" पू	77°03'24" उ	32°30'45" उ	77°03'34.181" पू	32°30'45" उ
77°03'1.922" पू	77°03'24" उ		77°03'1.922" पू	
77°03'30.387" पू	77°03'24" उ		77°03'30.387" पू	
76°36'16.332" पू	76°36'16.332" पू		76°36'16.332" पू	

पारिस्थितिक संवेदी जोन के भू-निकषांक

77°40'7.828" पू	77°40'52.29" पू	77°03'34.181" पू	77°03'1.922" पू	77°03'30.387" पू	76°36'16.332" पू
32°31'44" उ	32°27'42" उ	32°23'13" उ	32°30'45" उ		

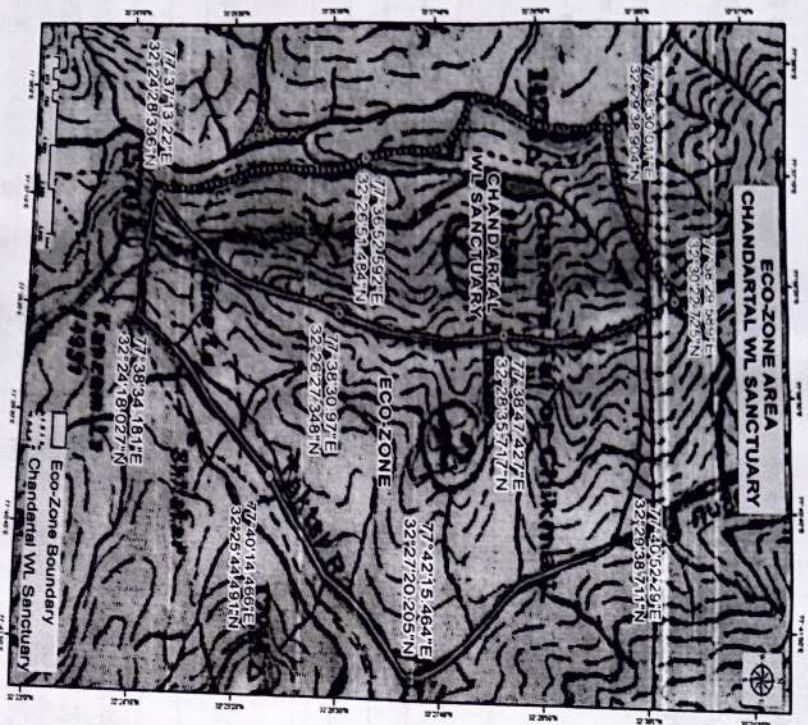
उपाबंध - II

बंरदलस सनकीर बसबादस के बाईं ओर पारिसिक्त संवेदी जोन के वर्तन काने बाते शायों की सूची

क्र. सं.	शायों के नाम	बी. सी. एस. निर्देशांक
1	सोमसर	32°26'23.38" उ 77°45'03.33" पू
2	बीबीन	32°26'19.63" उ 77°45'59.92" पू

उपबंध IV

बाबांर ओर देवांर के बाबा बंरदलस सनकीर बसबादस के पारिसिक्त संवेदी जोन का मानचित्र



उपबंध V

पारिसिक्त संवेदी जोन मानिटीरी समिति की गई कार्रवाई की रिपोर्ट का रूप विधान

1. बैठकों की संख्या और तारीख।
2. बैठकों का कार्यक्रम : कृपया मुख्य उल्लेखनीय बिंदुओं का वर्णन करें। बैठक के कार्यदल को एक पृथक सचिव के रूप में संलग्न किया जा सकता है।
3. आचलिक महशुबाना की तैयारी की गतिविधि त्रिनके वर्तन पर्यटन महशुबाना की है
4. यू-ओभिलेड में सचिव बुद्धियों के सुधार के लिए आवेदन किए गए मामलों का सारांश व्यक्तियों को उपबंध के रूप में संलग्न किया जा सकता है।
5. ईकोइए अधिसूचना, 2006 के अधीन आने वाली क्रियाकलापों की संवीक्षा के मामलों का सारांश ईकोइए के अधीन न आने वाली क्रियाकलापों की संवीक्षा के मामलों का सारांश।
6. व्यक्तियों को उपबंध के रूप में संलग्न किया जा सकता है।
7. पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 19 के अधीन दर्ज की गई क्रियाकलापों का सारांश।
8. महशुबा का कोई अन्य विषय।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 3rd June, 2016

S.O. 1978(E).—The following draft of the notification, which the Central Government proposes to issue in exercise of the powers conferred by sub-section (1), read with clause (v) and clause (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) is hereby published, as required under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, for the information of the public likely to be affected thereby; and notice is hereby given that the said draft notification shall be taken into consideration on or after the expiry of a period of sixty days from the date on which copies of the Gazette containing this notification are made available to the public:

Any person interested in making any objections or suggestions on the proposals contained in the draft notification may forward the same in writing, for consideration of the Central Government within the period so specified to the Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorhugh Road, Allgung, New Delhi-110003, or send it to the e-mail address of the Ministry at es2.mef@nic.in.

Draft Notification

WHEREAS, the Chandartal Wildlife Sanctuary situated in Lahul-Spiti District of Himachal Pradesh and its spread over an area of about 3856 square kilometers. The co-ordinates of Chandartal Wildlife Sanctuary is appended as Annexure-I.

AND WHEREAS, the flora and fauna represent rich biological significance of this sanctuary.

AND WHEREAS, the Chandartal Wild Life Sanctuary is habitat of Snow Leopard, Wolf, Marmot, migratory and resident birds.

AND WHEREAS, it is necessary to conserve and protect the area the extent and boundaries of which are specified in paragraph 1 of this notification around the protected area of Chandartal Wildlife Sanctuary as Eco-sensitive Zone from ecological, environmental and biodiversity point of view and to prohibit industries or class of industries and their operations and processes in the said Eco-sensitive Zone.

NOW THEREFORE, in exercise of the powers conferred by sub-section (1) and clauses (v) and (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby notifies an area to an extent

upto 5.625 kilometers around the boundary of Chanderal Wildlife Sanctuary in the State of Himachal Pradesh as the Chanderal Wildlife Sanctuary Eco-sensitive Zone (herein after referred to as the Eco-sensitive Zone), details of which are as under, namely:-

1. **Extent and boundaries of Eco-sensitive Zone.** (1) The Eco-sensitive Zone shall be to an extent upto 5.625 kilometer from the boundary of Chanderal Wildlife Sanctuary and the Global Positioning System co-ordinates of such zone is appended as Annexure-II. No Eco-sensitive Zone has been proposed on the North-West of Chanderal Wildlife Sanctuary as it forms boundary with their glacier deposits. The Eco-sensitive Zone area is 6150 square kilometers.
- (2) The list of villages falling in the proposed Eco-sensitive Zone is appended as Annexure-III
- (3) The map of the Eco-sensitive Zone along with boundary details and latitudes and longitudes is appended as Annexure-IV.
2. **Zonal Master Plan for the Eco-sensitive Zone.** (1) The State Government shall, for the purpose of the Eco-sensitive Zone, prepare a Zonal Master Plan, within a period of two years from the date of publication of final notification in the Official Gazette, in consultation with local people and adhering to the stipulations given in this notification.
 - (2) The said Master Plan shall be approved by the competent authority in the State Government.
 - (3) The Zonal Master Plan for the Eco-sensitive Zone shall be prepared by the State Government in such a manner as is specified in this notification and also in consonance with the relevant Central and State laws and the guidelines issued by the Central Government, if any.
 - (4) The Zonal Master Plan shall be prepared in consultation with all concerned State Departments, namely:-
 - (i) Environment,
 - (ii) Forest,
 - (iii) Urban Development,
 - (iv) Tourism,
 - (v) Municipal,
 - (vi) Revenue,
 - (vii) Agriculture,
 - (viii) Himachal Pradesh State Pollution Control Board,
 - (ix) Irrigation, and
 - (x) Public Works Department.
 - (5) The Zonal Master Plan shall not impose any restriction on the approved existing land use, infrastructure and activities, unless so specified in this notification and the said Master Plan shall factor in improvement of all infrastructure and activities to be more efficient and Eco-friendly.
 - (6) The Zonal Master Plan shall provide for restoration of denuded areas, conservation of existing water bodies, management of catchment areas, watershed management, ground water management, soil and moisture conservation, needs of local community and such other aspects of the ecology and environment that needs attention.
 - (7) The Zonal Master Plan shall demarcate all the existing worshipping places, village and urban settlements, types and kinds of forests, tribal areas, agricultural areas, fertile lands, green area, such as, parks and like places, horticultural areas, orchards, lakes and other water bodies.
 - (8) The Zonal Master Plan shall regulate development in Eco-sensitive Zone so as to ensure Eco-friendly development for livelihood security of local communities.
3. **Measures to be taken by State Government.**—The State Government shall take the following measures for giving effect to the provisions of this notification, namely:-
 - (1) **Land use.**— Forests, horticulture areas, agricultural areas, parks and open spaces earmarked for recreational purposes in the Eco-sensitive Zone shall not be used or converted into areas for commercial or industries related development activities.

Provided that the conversion of agricultural lands within the Eco-sensitive Zone may be permitted on the recommendation of the Monitoring Committee and with the prior approval of the State Government, to meet the residential needs of local residents and for the activities listed against serial numbers 10,20,29,34 and 35 in column (2) of the table in paragraph 4, namely:-

 - (i) Eco-friendly cottages for temporary occupation of tourists, such as tents, wooden houses, etc. for Eco-friendly tourism activities;
 - (ii) widening and strengthening of existing roads and construction of new roads;

- (iii) small scale industries not causing pollution;
 - (iv) rainwater harvesting; and
 - (v) cottage industries including village industries, convenience stores and local amenities.
- Provided further that no use of tribal land shall be permitted for commercial and industrial development activities without the prior approval of the State Government and without compliance of the provisions of article 244 of the Constitution or the law for the time being in force, including the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (2 of 2007).

Provided also that any error appearing in the land records within the Eco-sensitive Zone shall be corrected by the State Government after obtaining the views of Monitoring Committee, once in each case and the correction of said error shall be intimated to the Central Government in the Ministry of Environment, Forest and Climate Change:

Provided also that the above correction of error shall not include change of land use in any case except as provided under this sub-paragraph:

Provided also that there shall be no consequential reduction in green area, such as forest area and agricultural area and efforts shall be made to reforest the unused or unproductive agricultural areas.

- (2) **Natural springs.**—The catchment areas of all natural springs shall be identified and plans for their conservation and rejuvenation shall be incorporated in the Zonal Master Plan and the guidelines shall be drawn up by the State Government in such a manner as to prohibit development activities at or near these areas which are detrimental to such areas.
- (3) **Tourism.**—(a) The activity relating to tourism within the Eco-sensitive Zone shall be as per Tourism Master Plan, which shall form part of the Zonal Master Plan.
 - (b) The Tourism Master Plan shall be prepared by Department of Tourism, Government of Himachal Pradesh in consultation with Department of Forests and Environment of the State Government.
 - (c) The activity of tourism shall be regulated as under, namely:-
 - (i) all new tourism activities or expansion of existing tourism activities within the Eco-sensitive Zone shall be in accordance with the guidelines issued by the Central Government in the Ministry of Environment, Forest and Climate Change and the Eco-tourism guidelines issued by National Conservation Authority, (as amended from time to time) with emphasis on Eco-tourism, Eco-education and Eco-development and based on carrying capacity study of the Eco-sensitive Zone.
 - (ii) new construction of hotels and resorts shall not be permitted within one kilometer from the boundary of the Chanderal Wildlife Sanctuary except for accommodation for temporary occupation of tourists related to Eco-friendly tourism activities.
 - (d) Provided that beyond the distance of one kilometer from the boundary of the protected areas till the extent of the Eco-sensitive Zone, the establishment of new hotels and resorts shall be permitted only in pre-defined designated areas for Eco-tourism facilities as per Tourism Master Plan.
 - (iii) till the Zonal Master Plan is approved, development for tourism and expansion of existing tourism activities shall be permitted by the concerned regulatory authorities based on the actual site specific scrutiny and recommendation of the Monitoring Committee.
 - (4) **Natural heritage.**—All sites of valuable natural heritage in the Eco-sensitive Zone, such as the gene pool reserve areas, rock formations, waterfalls, springs, gorges, caves, points, walks, rides, cliffs, etc. shall be identified and preserved and plan shall be drawn up for their protection and conservation, within six months from the date of publication of this notification and such plan shall form part of the Zonal Master Plan.
 - (5) **Man-made heritage sites.**—Buildings, structures, artefacts, areas and precincts of historical, architectural, aesthetic and cultural significance shall be identified in the Eco-sensitive Zone and plans for their conservation shall be prepared within six months from the date of publication of this notification and incorporated in the Zonal Master Plan.
 - (6) **Noise pollution.**—The Environment Department of the State Government or Himachal Pradesh State Pollution Control Board shall draw up guidelines and regulations for the control of noise pollution in the Eco-sensitive Zone in accordance with the provisions of the Air (Prevention and Control of Pollution) Act, 1981(14 of 1981) and the rules made thereunder.
 - (7) **Air pollution.**—The Environment Department of the State Government or Himachal Pradesh State Pollution Control Board shall draw up guidelines and regulations for the control of air pollution in the Eco-sensitive Zone

in accordance with the provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder.

(8) **Discharge of effluents.** The discharge of treated effluents in Eco-sensitive Zone shall be in accordance with the provisions of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the rules made thereunder.

(9) **Solid wastes.** Disposal of solid wastes shall be as under:-
(i) the solid waste disposal in Eco-sensitive Zone shall be carried out as per the provisions of the Solid Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forests and Climate Change vide notification number S.O. 1357 (E), dated the 8th April, 2016 as amended from time to time;
(ii) the local authorities shall draw up plans for the segregation of solid wastes into biodegradable and non-biodegradable components;

(iii) the biodegradable material shall be recycled preferably through composting or vermiculture;
(iv) the inorganic material may be disposed in an environmentally acceptable manner at site(s) identified outside the Eco-sensitive Zone; and no burning or incineration of solid wastes shall be permitted in the Eco-sensitive Zone.

(10) **Bio-medical waste.** The bio-medical waste disposal in the Eco-sensitive Zone shall be carried out as per the provisions of the Bio-Medical Waste Management Rules, 2016 published by the Government of India in the Ministry of Environment, Forests and Climate Change vide notification number G.S.R. 343 (E), dated the 29th March, 2016, as amended from time to time.

(11) **Vehicular traffic.** The vehicular movement of traffic shall be regulated in a habitat friendly manner and specific provisions in this regard shall be incorporated in the Zonal Master Plan and till such time as the Zonal Master Plan is prepared and approved by the competent authority in the State Government, Monitoring Committee shall monitor compliance of vehicular movement under the relevant Acts and the rules and regulations made thereunder.

(12) **Industrial units.** (a) No establishment of new wood based industries within the proposed Eco-sensitive Zone shall be permitted except the existing wood based industries set up as per the law.

(b) No establishment of any new industry causing water, air, soil, noise pollution within the proposed Eco-sensitive Zone shall be permitted.

4. **List of activities prohibited or to be regulated within the Eco-sensitive Zone.** All activities in the Eco sensitive Zone shall be governed by the provisions of the Environment (Protection) Act, 1986 (29 of 1986) and the rules made thereunder and be regulated in the manner specified in the table below, namely:-

TABLE

S.No. (1)	Activity (2)	Remarks (3)
1.	Commercial mining, stone quarrying and crushing units.	(a) All new and existing mining (minor and major minerals), stone quarrying and crushing units shall be prohibited except for the domestic needs of <i>bona fide</i> local residents including digging of earth for construction or repair of houses and for manufacture of country tiles or bricks for housing for personal use. (b) The mining operations shall strictly be in accordance with the interim orders of the Hon'ble Supreme Court dated the 4 th August, 2006 in the matter of T.N. Godavaram Thirumulpad Vs. Union of India in Writ Petition (Civil) No.202 of 1995 and order of the Hon'ble Supreme Court dated the 21 st April, 2014 in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.435 of 2012.
2.	Setting up of saw mills and new wood based industry.	No new or expansion of existing saw mills and wood based industry shall be permitted within the Eco-sensitive Zone.
3.	Use or production of any hazardous substances.	Prohibited (except as otherwise provided) as per applicable laws.
4.	Setting up of industries causing water or	No new or expansion of polluting industries in the Eco-

5.	Establishment of new major thermal and hydro-electric projects.	Sensitive Zone shall be permitted.
6.	Commercial use of firewood.	Prohibited (except as otherwise provided) as per applicable laws.
7.	Use of polythene bags by shopkeeper.	Prohibited (except as otherwise provided) as per applicable laws.
8.	Discharge of untreated effluents and solid waste in natural water bodies or land area.	Prohibited (except as otherwise provided) as per applicable laws.
9.	Undertaking activities related to tourism like over-flying the national park area by aircraft, hot-air balloons.	Regulated under applicable laws.
10.	Establishment of hotels and resorts.	No new commercial hotels and resorts shall be permitted within one kilometer of the boundary of the protected area or the boundary of Eco-sensitive Zone whichever is nearer except for accommodation for temporary occupation of tourists related to eco-friendly tourism activities.
11.	Construction activities.	(a) No new commercial construction of any kind shall be permitted within one kilometer from the boundary of the protected area or of the Eco-sensitive Zone whichever is nearer. Provided that local people shall be permitted to undertake construction in their land for residential use including the activities listed in sub-paragraph (1) of paragraph 3. Provided further that the construction activity related to small scale industries not causing pollution shall be regulated and kept at the minimum, with the prior permission from the competent authority as per applicable rules and regulations, if any. (b) Beyond one kilometer upto the extent of Eco-sensitive Zone construction for home fide local needs shall be permitted and other commercial activities shall be regulated as per Zonal Master Plan. (c) construction activity in the Eco-sensitive Zone shall be as per Zonal Master Plan.
12.	Trenching ground.	Establishment of new trenching ground is prohibited. Old trenching grounds are to be regulated under applicable laws.
13.	Discharge of treated effluents and solid waste in natural water bodies or land area.	Regulated under applicable laws.
14.	Air and vehicular pollution.	Regulated under applicable laws.
15.	Noise pollution.	Regulated under applicable laws.
16.	Extraction of ground water.	Regulated under applicable laws.
17.	Felling of trees.	(a) There shall be no felling of trees in the forest or Government or revenue or private lands without prior permission of the competent authority in the State Government. (b) The felling of trees shall be regulated in accordance with the provisions of the concerned Central or State Acts and the rules made thereunder. (c) In case of reserve forests and protected forests, the working plan prescriptions shall be followed.
18.	Migratory guzzlers.	Regulated under applicable laws and as per Zonal Master Plan.
19.	Erection of electric lines.	Promote underground cabling. All existing electric lines passing through the Eco-sensitive Zone shall be adequately

16		insulated in the time frame prescribed under the Zonal Master Plan. Shall be done with proper Environment Impact Assessment and mitigation measures, as applicable.
20.	Widening and strengthening of existing roads. Fencing of existing premises of hotels and lodges.	Regulated under applicable laws. In order to allow free movement of wildlife, hotels or other commercial establishments within the Eco-sensitive Zone shall not fence their properties with barbed wire and no fence shall be higher than 1 meter. Any existing fence not complying with this stipulation shall be modified as per the time lines mentioned in the Zonal Master Plan.
21.		
22.	Collection of non-timber forest products. Drastic change of agricultural system.	Regulated under applicable laws. Regulated under applicable laws.
23.		
24.	Commercial use of natural water resource including ground water harvesting.	Regulated under applicable laws.
25.	Movement of vehicular traffic at night.	Regulated under applicable laws.
26.	Introduction of exotic species.	Regulated under applicable laws.
27.	Sign board and headings.	No construction activity unless otherwise permitted by or under the Zonal Master Plan shall be undertaken on the hill with slopes more than 1 to 10 and also upto 100 meters from the banks of any river, and natural nullah.
28.	Protection of hill slopes and river banks.	
29.	Small scale industries not causing pollution.	Non polluting, non-hazardous, small-scale and service industry, agriculture, horticulture, horticulture or agro-based industry producing products from indigenous goods from the Eco-sensitive Zone, and which do not cause any adverse impact on environment shall be permitted.
Promoted Activities		
30.	On going agriculture and horticulture practices by local communities along with dairies, dairy farming, aquaculture and fisheries.	Shall be actively promoted.
31.	Organic farming.	Shall be actively promoted.
32.	Adoption of green technology for all activities.	Shall be actively promoted.
33.	Cottage industries including village artisans.	Shall be actively promoted.
34.	Rain water harvesting.	Shall be actively promoted.
35.	Use of renewable energy sources.	Shall be actively promoted.

5. **Monitoring Committee.**—The Central Government hereby constitutes a Monitoring Committee, for effective monitoring of the Eco-sensitive Zone, which shall comprise of the following, namely:—

- (a) District Magistrate, Lahul-Spiti
- Chairman
 - (b) An expert in the area of ecology and environment to be nominated by the Government of Himachal Pradesh for a period of one year
- Member
 - (c) One representative of non-Governmental Organisation (working in the field of environment including heritage Conservation) to be nominated by the Government of Himachal Pradesh for a period of one year.
- Member
 - (d) Executive Engineer, Himachal Pradesh State Pollution Control Board
- Member
 - (e) Sub-Divisional Magistrate, Kaza
- Member
 - (f) Senior Town Planner
- Member
 - (g) Divisional Forest Officer, Kaza
- Member
6. **Terms of Reference.**— (1) The Monitoring Committee shall monitor the compliance of the provisions of this notification.

- (2) The activities that are covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533(E), dated the 14th September, 2006, and are falling in the Eco-sensitive Zone, except the prohibited activities as specified in column(3) of the table under paragraph 4 hereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the Central Government in the Ministry of Environment, Forest and Climate Change for prior environmental clearances under the provisions of the said notification.
- (3) The activities that are not covered in the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O. 1533(E), dated the 14th September, 2006 but are falling in the Eco-sensitive Zone, except the prohibited activities as specified in column (3) of the table under paragraph 4 hereof, shall be scrutinised by the Monitoring Committee based on the actual site-specific conditions and referred to the concerned regulatory authorities.
- (4) The Member-Secretary of the Monitoring Committee or the concerned Collector or the Park in-Charge shall be competent to file complaints under section 19 of the Environment (Protection) Act, 1986 against any person who contravenes the provisions of this notification.
- (5) The Monitoring Committee may invite representatives or experts from concerned departments, industry associations or stakeholders to assist in its deliberations depending on the requirements on issue to issue basis.
- (6) The Monitoring Committee shall submit the annual action taken report of its activities as on 31st March of every year by 30th June of that year to the Chief Wildlife Warden in the State as per pro forma appended at Annexure V.
- (7) The Central Government in the Ministry of Environment, Forest and Climate Change may give such directions, as it deems fit to the Monitoring Committee for effective discharge of its functions.
- 7. The Central Government and State Government may specify additional measures, if any, for giving effect to provisions of this notification.
- 8. The provisions of this notification shall be subject to the orders, if any, passed or to be passed by the Hon'ble Supreme Court of India or the High Court or the National Green Tribunal.

Dr. T. CHANDINI, Scientist 'G'
[F.No.25/2016-ESZ-RE]

ANNEXURE-I

COORDINATES OF CHANDERTAL WILDLIFE SANCTUARY

	Longitude	Latitude
North	77°36'15"E	32°31'44"N
East	77°38'39"E	32°27'42"N
South	77°36'58"E	32°23'13"N
West	77°34'22"E	32°30'45"N

ANNEXURE-II

GEO-COORDINATES OF ECO-SENSITIVE ZONE

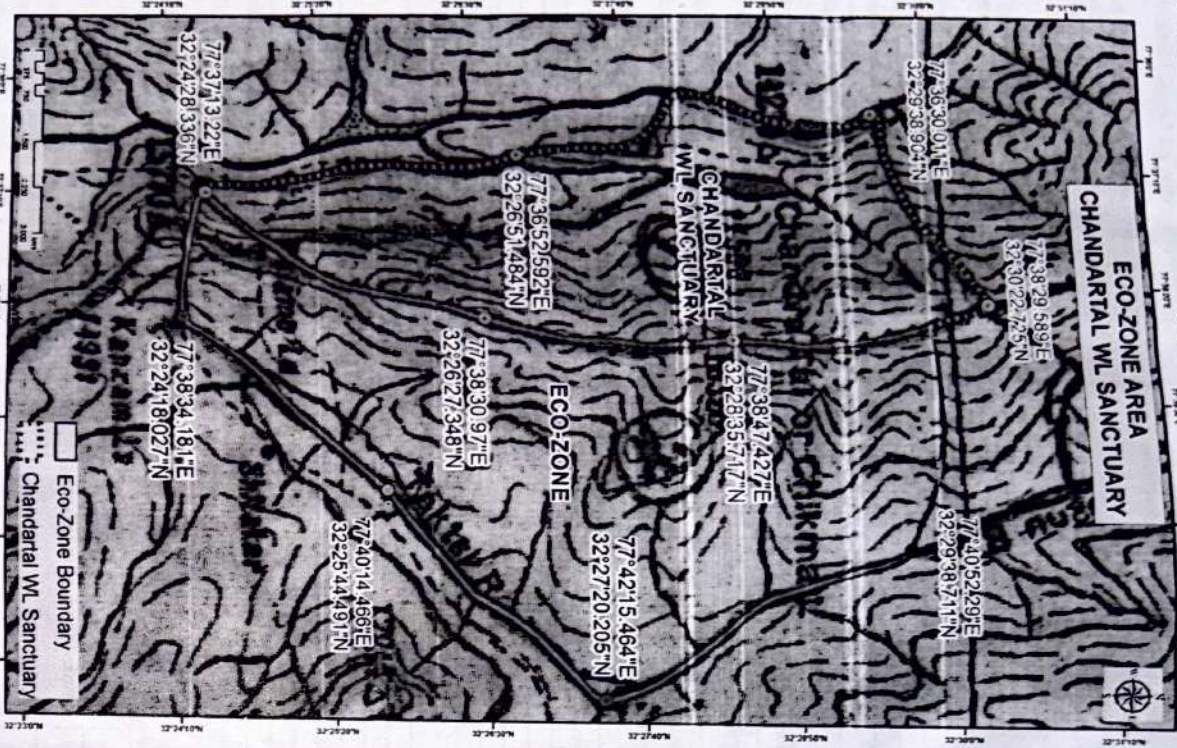
	77°40'7.828" E 32°30'49.828" N
	77°40'52.29" E 32°29'38.711" N
	77°42'15.464" E 32°27'20.205" N
	77°40'14.466" E 32°25'44.491" N
	77°38'34.181" E 32°24'18.027" N
	77°37'1.922" E 32°24'28.933" N
	77°36'30.387" E 32°26'34.936" N
	76°36'16.332" E 32°28'5.049" N

ANNEXURE-III

List of villages in Eco-sensitive Zone around Chandertal Wildlife Sanctuary

Sl. No.	Name of village	GPS Co-ordinates
1.	Losser	32°26'23.38" N 77°45'03.33" E
2.	Chichong	32°26'19.63" N 77°45'59.92" E

MAP OF ECO-SENSITIVE ZONE OF CHANDERTAL WILDLIFE SANCTUARY WITH LATITUDES AND LONGITUDES



Performa of Action Taken Report: Eco-sensitive Zone Monitoring Committee.

1. Number and date of meetings.
2. Minutes of the meetings: Mention main noteworthy points. Attach minutes of the meeting as separate annexure.
3. Status of preparation of Zonal Master Plan including Tourism Master Plan.
4. Summary of cases dealt for rectification of error appear on face of land record (Eco-sensitive Zone wise). Details may be attached as annexure.
5. Summary of cases scrutinised for activities covered under the Environment Impact Assessment notification, 2006. Details may be attached as separate annexure.
6. Summary of cases scrutinised for activities not covered under the Environment Impact Assessment notification, 2006. Details may be attached as separate annexure.
7. Summary of complaints lodged under section 19 of the Environment (Protection) Act, 1986.
8. Any other matter of importance:

Approved

DL

P. Chief Conservator of Forests (WL)
and Chief Wildlife Warden (HWP) Shimla