

MINUTES OF 20TH EXPERT COMMITTEE MEETING FOR DECLARATION OF ECO-SENSITIVE ZONE (ESZ) AROUND WILDLIFE SANCTUARIES/NATIONAL PARKS HELD ON 5TH JULY, 2016 IN THE MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, INDIRA PARYAVARAN BHAWAN, NEW DELHI

A meeting of the Expert Committee for declaration of Eco-Sensitive Zones (ESZ) around Wildlife Sanctuaries/National Parks was held in the Ministry on 5th July, 2016 in the Ministry of Environment, Forest & Climate Change, Indira Parayavaran Bhawan, New Delhi, under the Chairpersonship of Dr. Amita Prasad, Additional Secretary. The list of participants is annexed. The following thirty seven (37) proposals were listed for consideration for finalising the draft Eco-Sensitive Zone (ESZ) notifications:

S. N.	Protected Area (PA)	State
1	Pench NP	Maharashtra
2	Jaikawadi WLS	-do-
3	Sanjay Gandhi NP	-do-
4	Tipeshwar WLS	-do-
5	97 PAs of Andaman & Nicobar Islands	Union Territory
6	Brahmagiri WLS	Karnataka
7	Pushpagiri WLS	-do-
8	Talacauvery WLS	-do-
9	Someshwara WLS	-do-
10	Attiveri Bird Sanctuary	-do-
11	Sharavathi Valley WLS	-do-
12	Arabithittu WLS	-do-
13	Rangayyandurga Four Horned Antelope Sanctuary	-do-
14	Ghataprabha WLS	-do-
15	Kudremukh NP	-do-
16	Bhimgad WLS	-do-
17	Gudavi WLS	-do-
18	Gudekote Sloth Bear Sanctuary	-do-
19	Cauvery WLS	-do-
20	Ranebennur Blackbuck WLS	-do-
21	Malai Mahadeshwara WLS	-do-

22	Melukote WLS	-do-
23	Bandhavgarh TR	Madhya Pradesh
24	Dinosaur NP	-do-
25	Satpura TR	-do-
26	Sailana WLS	-do-
27	Karera WLS	-do-
28	Ghugua Fossil NP	-do-
29	Ken Gharial NP	-do-
30	Madhav NP	-do-
31	Sanjay Dubri & Sanjay NP	-do-
32	Bagdara WLS	-do-
33	Pocharam WLS	Telangana
34	Mahavir Harina Vanasthali NP	-do-
35	Great Indian Bustard Rollapadu WLS	Andhra Pradesh
36	Nelapattu WLS	-do-
37	Rajiv Gandhi NP	-do-

2. At the outset, the Chair welcomed the members of the Expert Committee and representatives of the Governments of Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh, Telangana, and Union Territory of Andaman and Nicobar Islands.

3. Dr. Prasad stated that the objective of establishing an eco-sensitive zone is to ensure an additional protective zone for the wildlife and their habitat, while at the same time ensuring that the area within an ESZ develops sustainably and people 'living in harmony with nature'. Dr. Prasad emphasised that after the finalisation of the draft notifications, the State Governments need to prepare Zonal Master Plans for the various activities which are regulated/promoted within the ESZ. A Monitoring Committee also requires to be constituted expeditiously vide provisions of the Notification.

The Chair emphasised that the local communities are an important stakeholder and should be made aware of the notification and its proposed implementation. These could be through notices in Panchayat Offices, leaflets with FAQs in local languages and through Mobile

Applications and through local TV and Radio channels. Information on environment-friendly technologies and measures for water, soil conservation, habitat and wildlife conservation could also be shared with the local communities on a regular and sustained basis through various flora.

The Chair also stated that the eco-tourism should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, Solid Waste Management, and Environmental Awareness should be promoted within the ESZ. Dr. Prasad also stated that the Zonal Master Plans for the ESZ should attempt branding of the popular spots of ecological significance so that commercial activities on the name of nature and wildlife may be taxed or regulated in a sustainable manner. The Chair emphasized the need of environmental audit on a regular basis, preferably every five years. Attempts should be made to introduce para-taxonomy and train the locals in identification of species within the ESZ with the objective of conserving them. It was also decided that the tenure of the Monitoring Committee should be changed from 1 year to 3 years in all ESZ Notifications. Representative of the State Biodiversity Board should invariably be included as a member of the Monitoring Committee.

3 The representatives of Government of Karnataka could present five proposals of seventeen (17) listed in the agenda and the rest were deferred for consideration in the next ESZ meeting. Also, in addition to the 10 proposals of Madhya Pradesh, listed in the Agenda Item, five additional proposals of Madhya Pradesh, which are yet to be notified were also discussed in the Meeting.

4. Before consideration of individual ESZ proposals, the Committee noted that the generic comments/observations received from Conservation Action Trust, Mumbai on the activities listed in regulated and prohibited categories in the various draft notifications being considered in the meeting could be adequately addressed within the provisions of the draft notification and the existing rules and regulations.

Thereafter, the Chair invited the representatives of the States to make presentations on their proposals.

5.0 The proposals were considered as per agenda:

MAHARASHTRA

5.1 *Eco-sensitive Zone around Pench National Park and Mansinghdeo WLS, Maharashtra*

Pench National Park and the Mansingdeo Wildlife Sanctuary are situated in the Nagpur District of Maharashtra and are spread over an area of 442.29 square kilometres. Pench National Park and Mansingdeo Wildlife Sanctuary are located on the junction of the two States, viz., Maharashtra and Madhya Pradesh on the southern fringes of Satpuda hills and Ambagarh hills. The area is rich in flora and fauna which includes Tiger, Leopard, Hyena, Wild Dog, Jackal, Fox, Leopard Cat, Jungle Cat, Nilgai, Sambhar, Chital, Barking Dear, Wild Pig, Sloth Bear, Langurs etc. The vegetation of the area has teak as predominant tree species.

In order to conserve and protect the habitat in and around the PAs, a draft notification S.O. 1150(E) dated 17.03.2016 around the Pench National Park and Mansingdeo Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental point of view, an area to an extent of up to 9.5 kilometres from the boundary of Pench National Park and Mansingdeo Wildlife Sanctuary in the state of Maharashtra as the Pench National Park and Mansingdeo Wildlife Sanctuary Eco-Sensitive zone. The Eco-Sensitive Zone is spread over an area of 441.42 square kilometres with an extent of up to 9.5 kilometres from the boundary of the Pench National Park and Mansingdeo Wildlife Sanctuary in the state of Maharashtra except portion sharing the inter-state boundary with Madhya Pradesh. The Eco-sensitive Zone is spread across 63 villages in Nagpur district of Maharashtra.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	442.29 sq. km (Pench: 259.71 sq. km and Mansinghdeo WLS 182.58 sq. km)
Proposed ESZ area	:	419.40 sq. km
Proposed Extent of ESZ	:	0.12 to 9.5 km

It was clarified that the ESZ in the draft notification needs to be corrected as 419.40 sq km. The Right of Way for collection of NTFP such as Mahua flowers, Tendu leaves, gum collection is permitted.

Comments received from public/stakeholders on this draft notification were considered by the Committee. During the presentation, representative from National Tiger Conservation Authority (NTCA) pointed out that draft notification has wrong map, and it should be replaced with the correct one presented before the committee. It emerged from the discussion that buffer of the Tiger Reserve should be treated as ESZ. Zoological Survey of India (ZSI) and Botanical Survey of India (BSI) stated that some errors in scientific names of flora and fauna in the draft notification which requires correction. It was suggested that the list of all flora and fauna should consist of common names and the scientific names (which should be in italics in brackets) in the final notification. They should be further classified as Rare, Endangered or Threatened.

The Chair emphasised on considering ESZ outside the buffer zone. The Chair further suggested that eco-tourism and solid waste management should be brought under regulated activities and other eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. The Chair emphasized that word 'tourism' should be replaced by the 'Ecotourism' in the notification. The Committee desired that the old map should be replaced with a recent colour with distinct landuse features. It was agreed for shifting of activities such as overflying of balloons, commercial use of firewood to regulated category. The State Government requested for allowing new construction activities from one km to 100 m. The Committee, however, recommended that no new construction should take place within 250m from the boundary of the Protected Areas with a rider that only 5% area can be constructed. No fencing should be included in the Master Plan.

The Committee after deliberations recommended the proposal for final notification with modifications as given above to be incorporated by the State Government.

5.2 *Eco-sensitive Zone around Jaikawadi Bird Sanctuary, Maharashtra*

Jaikawadi Bird Sanctuary is situated in Aurangabad and Ahmadnagar districts of Maharashtra and is spread over an area 341.05 square kilometres. The sanctuary harbours 67 species of fish, 234 species of resident and migratory birds which have been recorded from the open water stretches of the dam and 215 taxa, 17 species of angiosperms and 2 pteridophyte species have also been recorded from the area.

In order to conserve and protect the habitat in and around the Jaikwadi Bird Sanctuary, a draft notification S.O. 119(E) was published on 06.01.2015 around the Jaikawadi Bird Sanctuary as Eco-sensitive Zone from ecological and environmental point of view. The Eco-Sensitive Zone is spread over an area of 441.42 square kilometres with an extent of 0 to 500 meters from the boundary of the Jaikawadi Bird Sanctuary. The eco-sensitive Zone is spread across 100 villages in Aurangabad and Ahmadnagar District of Maharashtra.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	339.79 sq. km
Proposed ESZ area	:	141.05 sq. km
Proposed Extent of ESZ	:	0 to 0.5 km

It was clarified that the ESZ is zero alongside the dam and the rest is 500m. The Sanctuary has water all through the year.

Comments received from public/stakeholders on this draft notification were considered by the Committee. The Committee recommended that propelled or motorised boating should not be allowed and eco-friendly activities like Eco-tourism, Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ and Solid Waste Management under regulated category. The Chair emphasised to re-examine the prohibited, regulated, promoted activities mentioned in the draft notification and suggested to make them more compatible with the Jaikawadi water body/wetland. The Chair also suggested that 'Health Card for Waterbody/Lake/Wetland' may be maintained for monitoring of the water quality and soil quality on regular basis. The Chair also mentioned to rethink about the feasibility of organic farming in the region. The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.3 Eco-sensitive Zone around Sanjay Gandhi National Park, Maharashtra

Sanjay Gandhi National Park is a unique habitat enclosed in the metropolis of Mumbai and is located in the Thane and Mumbai districts of Maharashtra. The National Park is home to a number of endangered species of flora and fauna and harbours approximately 800 species of flowering plants, 45 species of mammals, 43 species of reptiles, 38 species

of snakes, 12 species of amphibians, 300 species of birds, 150 species of butterflies. The area is also a habitat for large mammalian species such as Leopard, Wild Boar, Four Horned Antelope, Blacknaped hare, Wild Cat, Jackal, and Porcupine and also harbours many bird species such as Peacock, Lesser grebe, Purple Heron, Smaller Egret, Lesser Whistling Teal, Pariah Kite, Bulbul. Many reptiles are also found in the National Park including snakes as Indian Cobra and Viper. The vegetation of the area ranges from littoral forests to western sub-tropical hill forests, Southern Tropical Moist Mixed Deciduous Forest and Western Sub Tropical Hill Forest. Some of the tree species are *Tectona grandis*, *Terminalia tomentosa*, *Acacia catechu*, *Adina cordifolia*, *Mitragyna parviflora*, *Pterocarpus marsupium*, *Holarrhena antidysentrica*, *Butea monosperma*, and *Diospyros melanoxylon* etc.

In order to conserve and protect the habitat in and around the Sanjay Gandhi Park, a draft notification S.O. 229(E) was published on 22.01.2016 around the Park as Eco-sensitive Zone from ecological and environmental point of view. The Eco-Sensitive Zone is spread over an area of administrative area of the park is 103.68 sq. km and notified area is 86.96 sq. km with an extent of an extent of minimum of 100m up to four kilometres from the boundary of Sanjay Gandhi National Park.

The representatives of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	Administrative area of the park is 103.68 sq. km and notified area is only 86.96 sq. km
Proposed ESZ area :		59.46 sq. km from 61.10629 sq km in the draft Proposed
Extent of ESZ	:	100m to 4 km

The SGNP covers an area of 86.96 sq km, however the total area under the Administrative Control (balance area yet to be notified) is 103.68 sq km. The SGNP is situated between 3 districts – Palgar, Thane and Mumbai Suburb. Representatives of the State Government informed that there are presently 35 leopards in the SGNP. Seven leopards have been reported in the Aarey land alone. There has been no reported incidence of man-animal conflict during the last two years. Of the proposed ESZ area of 59.46 sq km, 19.25 sq km is forestland and 40.21 sq km is non-forestland. It was further stated that 21.30 sq km is under the State and MCGM authorities including Tulsi and Vihar Lakes, Aarey, and Film City. Non-State private areas are 18.91 sq km (about 38%). A Metro Rail Shed is proposed in the Aarey land. A 45-60m wide JVLR (Jogeshwari-Vichroli-Link Road) is

proposed. The area has an existing SEEPZ (Special Electronics Export Processing Zone). In view of these already existing and proposed projects, an area of 1.65 sq km is proposed to be excluded from the ESZ which also includes private land and some slums. **Thus, the final ESZ proposed is 59.46 sq km.** The State Government requested that construction activities should be permitted as per approved Master Plans of Thane and Mumbai within the ESZ. It was informed that as per Government of Maharashtra Policy dated 21.10.2015, only 20% area of a land can be constructed or fenced in regions adjoining Protected Areas and the rest has to be developed as wilderness. The construction within the ESZ will be as per Bombay Municipal Bye-laws and Approved Plans.

Comments have been received from public/stakeholders on this draft notification wherein requests have been received from various stakeholders for keeping bare minimum extent of the width of ESZ. It was noted that the National Park being in the centre of the Mumbai city, a large number of residential colonies including high-rise buildings, other human habitations such as slums, office buildings and types of human activities exist alongside the Park on either side. Keeping these in view, the Committee agreed to the State's proposal for a minimum extent of 100 metres and the maximum extent of upto 4km from the Park boundary. The exclusion of an area of 1.65 sq.km land for Mumbai Metro Rail Corporation, temple, etc was also agreed to by the Committee. However, clearances would require to be obtained as per prevalent rules and regulations. **The Committee recommended that any new construction within ESZ shall be in accordance with the Zonal Master Plan, which has to be prepared within two years of the publication of final notification.** The Committee also desired that the Approved Master Plan and the Zonal Master Plan for ESZ should be in sync with one another keeping in view the conservation aspects of the ESZ. **Some activities such as new constructions, hotels and resorts and commercial mining are prohibited upto 1km or upto the extent of ESZ (if the extent is less than 1km),** except for commercial mining which is prohibited upto 1 km. The Committee also suggested that the level of noise pollution should be kept within prescribed limits in the ESZ. The representatives of the State Government also wanted replacing the **Chairperson of the ESZ Monitoring Committee from Deputy Collector, Thane to the Municipal Commissioner** or Additional Commissioner of the Greater Mumbai Municipal Corporation, which was agreed to. The word 'MPCB' would be replaced by the word 'MPCP'.

In addition, the Chair emphasised that the eco-tourism and solid waste management should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the

ESZ. The Chair emphasized the need of environmental audit on regular basis, preferably every five years. The Committee desired that no effluents or sewage from residential areas should be discharged into the water bodies. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned. It was suggested that in order to increase environmental awareness, para-taxonomy should be encouraged and popularised among students.

The Committee after deliberations recommended the proposal for final notification after modifications as given above incorporated by the State Government.

5.4 *Eco-sensitive Zone around Tipeswar Wildlife Sanctuary, Maharashtra*

Tipeswar Wildlife Sanctuary situated in Yavatmal district in the State of Maharashtra is spread over an area of 148.632 square kilometres. Tipeswar Wildlife Sanctuary is an important wildlife habitat for tigers and their prey base. In addition, the sanctuary provides a habitat for more than 30 species of mammal including schedule-I species such as Sloth Bear, four horned antelope many other fauna including Cheetal, Nilgai, Black Buck, Panther, Civet, Hyena, Jackal, Wolf, Porcupine, Deer and Bear and for more than 30 species of mammal including schedule-I species such as Sloth Bear, four horned antelope are found with varieties of residential and migratory bird species. In addition, varieties of amphibian, reptilian and Piscean species are found in this area and various kinds of invertebrates from zooplanktons varieties of butterflies, moths, beetles, odonates, crabs, prawns, spiders, shells are found in this area. The forest type is 'Southern Tropical Dry Deciduous forest and it serves as a repository of various economical, medicinal, aromatic and ornamental plant species. Primitive scheduled tribes such as Kolam and Gond are sharing common habitat with wildlife of this area and these tribal communities resides adjacent to the forest and their day to day requirements are fulfilled from the forests and their deities and other religious places of worship are inside the forests.

In order to conserve and protect the area, a draft notification S.O. 72(E) dated 07.01.2016 for declaring the extent and boundaries around the protected area of Tipeswar Wildlife Sanctuary as Eco- sensitive Zone from ecological and environmental point of view has been notified for an area of 404.57 sq km to an extent varying from 150 meter to 11 kilometres around the boundary of Tipeswar Wildlife Sanctuary in the State of Maharashtra as the Tipeswar Wildlife Sanctuary Eco-sensitive Zone. A total of 60 villages from three Talukas (39 + 1 + 19) fall within Eco-Sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	404.57 sq.km
Proposed ESZ area	:	148.632 sq. km
Proposed Extent of ESZ	:	150 m for a very small stretch in the south-west side of the sanctuary where river forms the boundary of the proposed ESZ.

It was stated that about 5-10 tigers live in the Sanctuary and 5-10 outside and there is a regular movement of these population. A Tiger Conservation Plan has been prepared. It is not proposed to have any commercial hotels within 1km as man-animal conflict has been reported.

No comments have been received from public/stakeholders on this draft notification. The Chair emphasised that the eco-tourism and solid waste management should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. In addition, collection of fuel wood for commercial purpose should be kept in regulated category of activities. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee observed that an ESZ proposal for the side bordering Andhra Pradesh should be also notified. The Committee after deliberations recommended the proposal incorporating the aforesaid modifications.

ANDAMAN & NICOBAR ISLANDS

5.5 *Eco-sensitive Zone around 97 PAs of Andaman & Nicobar Islands*

Owing to the occurrence of a very rich biodiversity in the islands of Union Territory of Andaman and Nicobar Islands, 105 islands out of the total islands of the Andaman and Nicobar Islands have been notified as protected areas under the Wildlife (Protection) Act,

1972. These 105 protected areas include nine National Parks and 96 wildlife sanctuaries, spread over an area of 1620 sq kms including 349.04 sq kms of territorial waters, constituting 15.41 percent of the total geographical area of 8249 sq km of A&N Islands. These islands are covered with forests which support a variety of flora and fauna. Owing to rich biodiversity, a large area of 885 hectares of the Great Nicobar Island has been declared as a Biosphere Reserve. Of the 105 protected areas, in case of 97 islands, the entire area of the 97 islands of A&N Islands (consisting of 93 wildlife sanctuaries and 4 National Parks), a majority of these islands have no human habitation, while few islands have tribal populations. Various laws are in force including the Wildlife (Protection) Act, 1972 (53 of 1972), the Indian Forest Act, 1927 (16 of 1927), the Forest (Conservation) Act, 1980 (69 of 1980) and other regulations including the Andaman and Nicobar Shell Fishing Rules, 1968 and the Protection of Aboriginal Tribes Regulation, 1956 which govern the conservation and protection of the A&N Islands. The GOI with a view to promote conservation and protection of the islands' unique environment and its marine area and to promote development through sustainable integrated management plan based on scientific principles, has also notified certain areas of A&N as Island Protection Zone (IPZ) vide notification number S.O. 20 (E), dated the 6th January, 2011. The coastal stretches of ten islands, namely, Middle Andaman, North Andaman, South Andaman, Great Nicobar, Bartang, Havelock, Little Andaman, Car Nicobar, Neil and Long Island and the entire area of other islands of A&N islands and their water area upto territorial water limit have been declared as Island Protection Zone (IPZ) and restricts such areas from the setting up and expansion of any industry, operations or processes or manufacture or handling or storage or disposal of hazardous substances as specified in the Hazardous Substances (Handling, Management and Transboundary Movement) Rules, 2009, except in the manner provided in the Island Coastal Regulation Zone (ICRZ). The IPZ Notification has also declared areas that are ecologically sensitive and the geomorphological features which play a role in the maintaining the integrity of the coast. These include (i) mangroves; (ii) coral reefs; (iii) sand beaches and sand dunes; (iv) mudflats; (v) protected areas under the Wild Life (Protection) Act, 1972 (53 of 1972), the Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986); (vi) salt Marshes; (vii) turtle nesting grounds; (viii) horse shoe crabs habitats; (ix) sea grass beds; (x) sea weed beds; (xi) nesting grounds of birds; (xii) fishing villages and areas of traditional rights. (b) The area between Low Tide Line and High Tide Line. Areas within the 97 islands with these features are eco-sensitive and should be conserved in accordance with the provisions contained in the Wildlife (Protection) Act, 1972 and other regulations, if applicable.

In view of these aforesaid regulations already in force for the protection and conservation of the 97 islands of A&N Islands, a draft notification S.O. 1498(E) was published on 24.06.2016 stating that the entire land mass including coastal areas of the 97 islands of A&N Islands have been declared as protected areas under the Wildlife (Protection) Act, 1972, and cover the entire island upto low tide line, no additional land is available for notifying an eco-sensitive zone.

The representative of the State Government apprised the Committee about the proposal and the aforesaid details. No comments have been received from public/stakeholders on this draft notification.

The Committee after deliberations recommended the finalisation of the draft notification.

KARNATAKA

5.6 Eco-sensitive Zone around Brahmagiri Wildlife Sanctuary, Karnataka

Brahmagiri Wildlife Sanctuary lies in the core of Western Ghats with a high rain fall ranging between 2500 mm to 6000 mm per year. The Sanctuary supports rich biodiversity with high rate of endemism and is also home for critically endangered species like Malabar Civet and Lion Tailed Macaque, Slender Loris, Nilgiri Marten, Wild Dog, Asian Elephant, Clawless Otter. The Sanctuary forms an important corridor for large mammals like Asian Elephant and Tiger to move between Nagarahole National Park and Talacauvery Wildlife Sanctuary in Karnataka and Wayanad and Aralam Wildlife Sanctuaries in Kerala state and also forms part of the Mysore Elephant Reserve declared under the Project Elephant. The sanctuary area has a very high floral and faunal diversity. The sanctuary consists of evergreen and semi-evergreen forests interspersed with shola grasslands and the vegetation comprises of very important species. The important animals found in the sanctuary are Tiger, Leopard, Wild Dog, Elephant, Gaur, Sambar, Barking deer, Nilgiri Langur, Nilgiri Marten, Clawless Otter, Brown Palm Civet, Leopard cat, Slender loris, Travancore flying squirrel, King cobra, Indian rock python, and Malabar pied hornbill, Malabar grey hornbill, Malabar trogon, Malabar whistling thrush, Wayanad laughing thrush, White-bellied tree-pie, Hill myna etc. The sanctuary is catchment for River Cauvery which is an important River of Karnataka and Lakshmanthirtha and Ramathirtha are the tributaries of River Cauvery that originates from Brahmagiri Wildlife Sanctuary and many perennial streams also originate from the sanctuary.

In order to conserve and protect the area, a draft notification S.O. 3226(E) dated 23.11.2015 for declaring an area of 73.094 square kilometres with an extent varying from 100 meters to 12 kilometres from the boundary of Brahmgiri Wildlife Sanctuary with an extent varying from 100 meters to 12 kilometres around Brahmgiri Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental point of view. The ESZ includes 14 villages in Virajpet Taluk of Kodagu district in Karnataka.

The representatives of the State Government apprised the Committee about the proposal. The salient features of the ESZ are as follows:

Proposed ESZ area	:	73.094 sq. km
Proposed Extent of ESZ	:	1 km to 2.3 km

Comments received from public/stakeholders on this draft notification were considered by the Committee. The state government informed the earlier limit of 100m has been revised to a minimum extent of 1km (which largely comprises of Coffee Estates). It was clarified that in order to increase the ESZ limit, public consultations were held and obtained and further approved by the sub-committee of State Cabinet. There has been no change in the activities from what originally proposed in the draft notification.

The Committee recommended that the eco-tourism and solid waste management should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. The Chair also emphasized the need of environmental audit on regular basis, preferably every five year. Attempts should be made to develop para-taxonomy and popularise it among students. In addition, collection of fuel wood for commercial purpose should be listed under regulated category. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

5.7 Eco-sensitive Zone around Pushpagiri Wildlife Sanctuary, Karnataka

Pushpagiri Wildlife Sanctuary situated in Northern side of Coorg district of Karnataka is spread over an area of 102.92 square kilometres and was formed by including part of

Kadamakal Reserve Forest. Pushpagiri Wildlife Sanctuary forms the core of western Ghats and is characterised by rugged terrain with more than eighty five per cent of the sanctuary area having very steep slope of more than thirty five per cent, high rainfall ranging between 6000 mm to 7000 mm, rich biodiversity, high rate of endemism and home for critically endangered and endangered species like Malabar Civet and Lion Tailed Macaque, Slender Loris and Nilgiri Marten, Wild Dog, Asian Elephant, Clawless Otter, etc. The Sanctuary is surrounded by many reserve forests such as Bisle, Kiribagha, Subramanya and Kadamakal. The Sanctuary provides extended habitat for large mammalian species such as Leopard, Wild Dog, Elephant, Gaur, Sambar, and Barking deer; other smaller mammals include Nilgiri langur, Nilgiri Marten, Clawless Otter, Brown Palm Civet, Leopard Cat, Slender Loris, Travancore flying squirrel and others. It forms part of the Mysore Elephant Reserve declared under the Project Elephant and also acts as an important corridor for large mammals to move between Nagarahole National Park and Bhadra Tiger Reserve in Karnataka. The Sanctuary has been identified as one of the important bird areas in the Western Ghats as 13 of the 16 endemic birds of the Western Ghats are found here; the sanctuary also harbours beautiful endemic and endangered papilionids viz, Malabar banded peacock, Paris peacock, Malabar raven, and Malabar banded swallowtail and major birds including Malabar pied hornbill, Malabar grey hornbill, Malabar trogon, Malabar whistling thrush, Wayanad laughing thrush, White-bellied tree-pie, Hill myna and others. The sanctuary is the catchment for river Kumaradhara which originates from Pushpagiri Wildlife Sanctuary; the sanctuary also acts as an important catchment area for perennial streams and tributaries of river Kumaradhara like Lingadahole, Perchehole, Marigundihole, Uppangalahole, Padakkahole and Kadamakalhole which depicts the importance of eco-system services offered by Pushpagiri wildlife sanctuary. The vegetation comprises of very important species.

In order to conserve and protect the geographical area the extent and boundaries of Pushpagiri Wildlife Sanctuary a draft notification S.O. 139(E) dated 13.01.2016 has been published for declaring an area of 170.53 square kilometres with an extent varying from 100 meters to 8.50 kilometres from the boundary of Pushpagiri Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental aspects. A total of seven villages fall within Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	102.92 sq.km
Proposed ESZ area	:	170.53 sq. km

Proposed Extent of ESZ : 1 km to 8.5 km

It was informed that the minimum extent has been increased from 100m to 1km and the change has been approved by the sub-committee of State Cabinet. Public consultations were also held. It was clarified that there are no villages within the sanctuary but there are four enclosures (including two rubber estates) within the Sanctuary limits.

Comments received from public/stakeholders on this draft notification were considered by the Committee. The representative of State Government informed that there are no changes proposed in the activities from what has been listed in the draft notification. The Committee recommended that activities such as eco-tourism, solid waste management should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. In addition, collection of fuel wood for commercial purpose should be kept in regulated category of activities. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.8 *Eco-sensitive Zones around Talacauvery Wildlife Sanctuary, Karnataka*

The Talacauvery Wildlife Sanctuary situated in western side of Coorg District, Karnataka is spread over an area of 105.59 square kilometres. The Talacauvery Wildlife Sanctuary forms the core of Western Ghats and is characterized by rugged terrain with more than 85% of the sanctuary area having very steep slope of more than 35%, high rainfall ranging between 6000 mm to 7000 mm, rich biodiversity, high rate of endemism and home for critically endangered and endangered species such as the Tiger, Asiatic Elephant, Malabar Civet, Lion tailed macaque, Slender Loris, Nilgiri Marten, Wild Dog, Clawless Otter, etc.

The Sanctuary is surrounded by many Reserve Forests such as Patti Ghat and Padinalknadu Reserved Forests. The sanctuary provides extended habitat for large mammals such as the Tiger Leopard, Asiatic Elephant, Wild Dog, Gaur, Sambar, and Barking deer and smaller mammals include Lion tailed macaque, Nilgiri langur, Nilgiri

Marten, Clawless otter, Brown palm Civet, Leopard cat, Slender loris, Travancore flying squirrel and others. Other wildlife includes King Cobra, Indian Rock Python. It forms part of the Mysore Elephant Reserve declared under the Project Elephant. It acts as an important corridor for large mammals to move between Nagarahole National Park and Talacauvery Wildlife Sanctuary in Karnataka and Wayanad and Aralam Wildlife Sanctuaries in State of Kerala.

The sanctuary area has a very high floral and faunal diversity, the Sanctuary largely consists of evergreen and semi-evergreen forests interspersed with shola grasslands and the vegetation comprises of very important species. The sanctuary has been identified as one of the important habitats for many species of birds in the Western Ghats; 13 of the 16 endemic birds of the Western Ghats are found here and the sanctuary also harbours endemic and endangered species such as Papilionid butterflies, Malabar banded peacock, Paris peacock, Malabar raven, and Malabar banded swallowtail and major bird species include Malabar pied hornbill, Malabar grey hornbill, Malabar trogon, Malabar whistling thrush, Wyanaad laughing thrush, white-bellied tree-pie, orange and black flycatcher and Nilgiri flycatcher.

This protected area is also the catchment for River Cauvery which originates from Talacauvery and the sanctuary also acts as an important catchment area for Perennial streams like Dodda Hole, Nadumale Hole, Betemale Hole, Kume Kolli and Mundra Hole which depicts the importance of eco-system services offered by Talacauvery Wildlife Sanctuary.

In order to conserve and protect the geographical area the extent and boundaries of Talacauvery Wildlife Sanctuary a draft notification S.O. 142(E) dated 15.01.2016 has been published for declaring an area of 105.59 square kilometres with an extent varying from 0.1 km to 15.225 kilometres around the boundary of Talacauvery Wildlife Sanctuary in the State of Karnataka as Eco-sensitive Zone from ecological and environmental aspects. A total of six villages fall within Eco-sensitive Zone.

The representative of the State Government apprised the Committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	105.59 sq.km
Proposed ESZ area	:	105.671 sq. km

Proposed Extent of ESZ : 1 km to 15.225 km

It was informed that the State with the approval of the sub-committee of State Cabinet has increased the minimum extent from 100m to 1km (except alongside boundary shared with State of Kerala). Public consultations have also been held.

Comments received from public/stakeholders on this draft notification were Solid Waste Management approved by the sub-committee of state cabinet. There has been no change in the activities from what originally proposed in the draft notification. However, it was recommended by the Committee to analyse the activities before finalising the notification. Also it was recommended that the eco-tourism, solid waste management should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. In addition, collection of fuel wood for commercial purpose should be kept in regulated category of activities. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications to be incorporated by the State Government.

5.9 Eco-sensitive Zone around Someshwara Wildlife Sanctuary, Karnataka

Someshwara Wildlife Sanctuary (named after Lord Someshwara, the presiding deity of the famous Someshwara Temple located within the sanctuary) notified in 1979 is situated in the Karkala and Kundapur Talukas of District Udupi and in Thirthahalli Taluka, District Shimoga, Karnataka. The sanctuary is spread over an area of 314.25 square kilometres. The Wildlife Sanctuary is characterised by high rainfall of 6000-8000 mm and is known as the 'Chirrapunji of South India'. Someshwara Wildlife Sanctuary supports evergreen and semi-evergreen forest species in the hill slopes and semi-evergreen and mixed moist deciduous forest at foot hills and plains and degraded forest around habitations. Someshwara Wildlife Sanctuary is rich in biodiversity, and is home to a number of critically endangered to endangered species such as the Tiger, Leopard, Black Panther, Wild Dog, Jungle Cat, Wild Pig, Sambhar Deer, Spotted Deer, Barking Deer, Lion Tailed Macaque, Bonnet Macaque, Gaur, Palm Civet, Otters, etc. Due to its high biodiversity value, occurrence of many critically

endangered species, its valued ecosystem services to the people of the region and its aesthetic value (landscape), the Someshwara Wildlife Sanctuary has been included as part of one of the cluster of Western Ghats which was declared on 1st July, 2012 as a World Heritage Site.

In order to conserve and protect the geographical area the extent and boundaries of Someshwara Wildlife Sanctuary a draft notification S.O.142(E) was published on 15.01.2016 for declaring an area of 49.8749 square kilometres with an extent upto 5 kilometres around the boundary of Someshwara Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental aspects. A total of 27 villages fall within Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	314.25 sq.km
Proposed ESZ area	:	49.8749 sq. km
Proposed Extent of ESZ	:	1 to 5 km

The originally proposed minimum extent of ESZ in draft notification was 0 to 5 km. The sides adjoin the northern and southern boundaries with zero ESZ are shared with Mookambika WLS and Kudremukh WLS. It was informed that the changes have been approved by the sub-committee of State Cabinet.

Comments received from public/stakeholders on this draft notification were considered by the Committee. The Committee desired that the State government may examine the feasibility of extending the ESZ in the North and West of the WLS. The state government informed suggested changes as approved by the sub-committee of state cabinet. There has been no change in the activities from what originally proposed in the draft notification. Also it was recommended that the eco-tourism and solid waste management should be brought under regulated activities and other eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. In addition, collection of fuel wood for commercial purpose should be kept in regulated category of activities. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications to be incorporated by the State Government.

5.10 Eco-sensitive Zone around Attiveri Bird Sanctuary, Karnataka

Attiveri Bird Sanctuary was notified in 2000 and is located in the borders of Mundgod and Kalghatgi taluka of Uttar Kannada and Dharwad Districts is spread over an area of 2.226 sq. km. It comprises of an irrigation tank built across Thayavvanahalla at Attiveri village to cater the irrigation needs of the local farmers, which also resulted in attracting varieties of birds, both local and migratory. The first year witnessed about 20 species of birds, followed by 35 species in the next year. As the reservoir is located in the midst of a moist deciduous forest in a calm and serene locality with abundant feeding grounds in the surroundings, it is suitable for the birds to seek refuge here for their breeding activities.

More than 1200 pairs of birds are found breeding in this man made habitats White Ibis, Herons, little Cormorants, Spoonbills, Painted storks are some of the species, which breed here, birds like Lapwings, Waterhen Stilt, Darter, Indian shag, etc. are found throughout the year. Birds such as Pintails, Gargany, Shoveller, Plovers, etc. migrate here for breeding between November to February. Many small and big tanks in the adjacent areas of Mundagod, Haliyal and Yellapur taluks also help the birds to nest, feed and breed, thus making up this sanctuary an ideal aquatic habitat.

In order to conserve and protect the geographical area the extent and boundaries of Attiveri Bird Sanctuary a draft notification S.O. 3340(E) was published on 9.12.2015 for declaring an area of 7.63 square kilometres with an extent up to 1.47 kilometres around the boundary of Attiveri Bird Sanctuary as Eco-sensitive Zone from ecological and environmental aspects.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	2.226 sq.km
Proposed ESZ area	:	7.63 sq. km
Proposed Extent of ESZ	:	1 km to 1.47 km

The originally proposed minimum extent of ESZ in draft notification was 0 to 1.47 km has been revised from 0km to 1km. It was informed that the change of ESZ area has been approved by the sub-committee of State Cabinet.

No comments have been received from public/stakeholders on this draft notification. The Committee recommended that propelled or motored boating should not be allowed and eco-friendly activities like Eco-tourism, Solid Waste Management should be included in the regulated category and activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. The Chair emphasised the need to re-examine the prohibited, regulated, promoted activities mentioned in the draft notification and suggested to make them more compatible to the Attiveri water body/wetland. In addition, The Chair proposed to introduce 'Health Card for Waterbody/Lake/Wetland' to maintain water quality and soil quality. The Chair also suggested exploring the feasibility of organic farming in the region. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

MADHYA PRADESH

5.11 *Eco-sensitive Zone around Bandhavgarh National Park and Panpatha Wildlife Sanctuary, Madhya Pradesh*

Bandhavgarh National Park and Panpatha Wildlife Sanctuary are located in Madhya Pradesh and both the Protected Areas together are spread over an area of 1536.938 square kilometres of which 716.903 square kilometres is core area of the Tiger Reserve and 820.035 square kilometres is the buffer area. The National Park and the Sanctuary support 373 species of flowering plants, 35 species of mammals, 238 species of birds and 111 species of butterflies. Important faunal species found in the Tiger Reserve include Tiger, Bison, Bear, Wolf, Indian Fox, Striped hyena, Jackal, Indian Wild Dog, Spotted Deer, Sambar deer, Barking Deer, Chinkara, Four horned Antelope.

In order to conserve and protect the Bandhavgarh National Park and Panpatha Wildlife Sanctuary which together constitute the Core Area of the Tiger Reserve, a draft notification S.O. 1244(E) was published on 29.03.2016 for declaring an area of 1030.382 square kilometres with an extent of up to two kilometres from the boundary of Bandhavgarh National Park and Panpatha Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental aspects. A total of 132 villages in three districts viz. Umaria, Katni and Shahdol of Madhya Pradesh fall within the Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	716.903 sq.km
Proposed ESZ area	:	1030.382 sq. km
Proposed Extent of ESZ	:	2 km upto buffer boundary

A population of 53 adult tigers and 20 cubs have been reported in the buffer area. There is no dispersion route, although one tiger has been reported to have travelled to Panna Tiger Reserve. Six species of the critically endangered vulture population are also found in the Park. It was stated that no new commercial establishments such hotels and resorts are proposed within 1km of the PA boundary within the ESZ. It was stated that there is a restriction of movement of vehicles between 9pm and 6am. The State Government requested for reducing the extent of ESZ for new construction activities from one km to 250m.

Comments received from public/stakeholders on this draft notification were considered by the Committee. The representative from National Tiger Conservation Authority (NTCA) pointed out that entire buffer of the Tiger Reserve may be included into the ESZ. The Committee recommended that no new construction should take place within 1 km from the boundary of the Protected Areas. The Committee desired that discharge of effluents should be prohibited. Goat farming could be regulated. All major projects should be prohibited. However, the Chair emphasised on considering ESZ outside the buffer zone. The Chair also suggested that the eco-tourism should be brought under regulated activities and other eco-friendly activities like Agro-Forestry, Organic Farming, Solid Waste Management, and Environmental Awareness should be promoted within the ESZ. The Chair emphasized that word 'tourism' should be replaced by the 'Ecotourism' in the notification. Directors of ZSI

and BSI stated that the scientific names of flora and fauna (in italics and in brackets) of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.12 *Eco-sensitive Zone around Dinosaur National Park, Madhya Pradesh*

Dinosaur National Park is located in Dhar district of Madhya Pradesh spread over an area of 0.897 square kilometres has the fossil remains of Dinosaur eggs, bones and scat and also other faunal fossils such as Echinoderms, Molluscs, Fish and Poriferans and floral fossils of gymnosperms, Aurocaria, Podocarpus, Jack Fruit, Palm tree species and blue green algae. The National Park has flora and fauna which is characteristic to the region and include animal species such as Jackal, Fox and Striped Hyeana.

In order to conserve and protect the Dinosaur National Park, a draft notification S.O. 658 (E) was published on 29.03.2016 for declaring an area of 0.5625 square kilometres with an extent of up to 250 meters from the boundary of Dinosaur National Park as Eco-sensitive Zone from ecological and environmental aspects. The Eco-sensitive Zone includes no villages. However villages lands of the following three Burkui, Risaula and Jamniyapura fall in the Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	0.897 sq.km
Proposed ESZ area	:	0.5625 sq. km
Proposed Extent of ESZ	:	250m uniform boundary

Comments received from public/stakeholders on this draft notification were considered by the Committee. The Committee suggested the eco-tourism, solid waste management should be included in regulated category, and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness would be included under promoted activities during preparation of Zonal Master Plan for the ESZ.

The committee after deliberations recommended the proposal for finalisation of the draft notification.

5.13 *Eco-sensitive Zone around Satpura Tiger Reserve, Madhya Pradesh*

Satpura Tiger Reserve along with Satpura National Park, Pachmarhi Wildlife Sanctuary and Bori Wildlife Sanctuary is situated in Madhya Pradesh and together constitute the Core Critical Tiger Habitat which is spread over an area of 1339.26 square kilometres. The Satpura Tiger Reserve is spread over an of 2133.3 square kilometres of which 1339.26 square kilometres is Core Critical Tiger Habitat of the Tiger Reserve and 794.04 square kilometre is the buffer area. Satpura Tiger Reserve is part of the largest Tiger Habitat in the world which includes Chhindwara, Hoshangabad, Betul, Harda, Khandwa and Melghat. The Tiger Reserve has rich biodiversity with high conservation value with at least 14 endangered species of mammals, birds and reptiles and large number of rare and endemic plants especially bryophytes and pteridophytes like Psilotum, Cythea, Osmunda, Lycopodium, Lygodium etc The Tiger Reserve has ecosystem which is typical to the Central Indian Highlands and it harbours diverse fauna which includes the Tiger, Gaur, Sambhar, flying squirrel, Indian giant squirrel, and birds such as the Paradise fly catcher, Malabar pied Hornbill, Malabar Whistling thrush and more than 300 bird species. The Tiger Reserve is unique phytogeographically with 26 plant species from Himalayas and 42 plant species from the Nilgiri Hills. The area is very important from the archaeological and human evolution point of view as there are more than 50 rock shelters with paintings which are 1500 to 10000 years old.

In order to conserve and protect the Satpura National Park, a draft notification S.O. 655(E) was published on 02.03.2016 for declaring an area of 1051.70 square kilometres which includes 794.04 square kilometre buffer area of Satpura Tiger Reserve with an extent of 100 metres on the notified urban and 'Abadi' area side from the boundary of Core Critical Tiger Habitat of the Satpura Tiger Reserve, which includes Satpura National Park, Pachmarhi Wildlife Sanctuary and Bori Wildlife Sanctuary and upto two kilometres on other sides from the boundary of Core Critical Tiger Habitat of the Satpura Tiger Reserve. The Eco-sensitive Zone includes 68 villages in three Districts viz. Hoshnagabad, Betul and Chindwara of Madhya Pradesh.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	2133.30 sq.km
Proposed ESZ area	:	1051.70 sq. km
Proposed Extent of ESZ	:	2 km upto buffer boundary

The representative of State Government stated that both ESZ area and extent have been increased as given above.

Comments received from public/stakeholders on this draft notification were considered by the Committee. It has increased the size of ESZ and included additional villages. The Committee emphasised that the eco-tourism, and solid waste management under regulated activities, with other eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. The Chair suggested that the flora fauna list to be updated with the help of ZSI and BSI. The Committee recommended that no new construction should take place within 1 km from the boundary of the Protected Areas. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The recommended the proposal will be revised for final notification after modifications incorporated by the State Government as stated above.

5.14 *Eco-sensitive Zone around Sailana Wildlife Sanctuary, Madhya Pradesh*

Sailana Wildlife Sanctuary situated in Ratlam district of Madhya Pradesh is spread over an area of 12.96 square kilometres. The Sanctuary consists of three parts Amba (8.51 square kilometres), Sherpur (0.91 square kilometres) and Shikarwadi Private Agriculture and Grazing Land (3.54 square kilometres.), which are not contiguous. The Sanctuary is rich in biodiversity. The area falls under semi-arid grass land. The floral diversity include tree species Babool, Salai, Dudhi, Kher, Lendia, Herbs and Species, Aak, Chirota, Haar Shingar, Zhar beri, Climbers cuscuta and Kusal Sukal lamps, grass species. The faunal biodiversity consists of mammals such as Blue Bulls, Jackal, Fox, Hyena, birds such as Hair Birds,

Common Pea Fowl, Woodpecker, Indian Myna, Jungle Crow, Indian Robin, House Sparrow Baya, etc and reptiles such as the Cobra.

In order to conserve and protect the Sailana Wildlife Sanctuary, a draft notification S.O. 658 (E) was published on S.O. 1245(E) was published on 29.03.2016 for declaring an area of 3.76 square kilometres with an extent varying from 100 meter to 2 kilometres around the boundary of Sailana Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental aspects.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	12.96 sq.km
Proposed ESZ area	:	3.76 sq. km has been revised to 60 sq km
Proposed Extent of ESZ	:	100 m to 2 km

The State Govt representative requested replacing the coordinates in the draft with correct GPS coordinates. It was clarified that the 3 patches of the Sanctuary are not being joined due to resistance from villagers.

Comments received from public/stakeholders on this draft notification were considered by the Committee. There is some change in co-ordinate. The Committee emphasised that activities such as eco-tourism and Solid Waste Management should be included under regulated category, along with other eco-friendly activities like Agro-Forestry, should be promoted within the ESZ. The Chair suggested that the flora fauna list to be updated with the help of ZSI and BSI. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee recommended a revised proposal be submitted for final notification after incorporating the changes as given above.

5.15 Eco-sensitive Zone around Karera Wildlife Sanctuary, Madhya Pradesh

Karera Wildlife Sanctuary is situated in the Shivpuri District of Madhya Pradesh and is spread over an area of 202.21 square kilometres. The Sanctuary supports a variety of

vegetation due to its diverse ecosystems. Mammals such as Black Buck, Nilgai are found in large numbers in the sanctuary and the important avifauna include Bar headed geese, paradise flycatcher, Demoiselle Grane, Darter, Dabchick, Grey partridge, Rosy pelican, white backed vulture, wiretailed swallow, Tailor bird, Pied Kingfisher, Black headed golden Oriole, white wagtail, white pelican, pintail, combduke, Shoveller, Gadwall, Jacana, Blossom headed parakeet, Mahratta, Woodpecker, Marsh Harrier, Pied Myna, Baya weaver, Grey Horbill, Red Turtle Dove, Painted snipe, Purple moorhens and Red Crested Pochard vulture etc.

In order to conserve and protect the Karera Wildlife Sanctuary, a draft notification S.O. 1825(E) was published on 19.05.2016 for declaring an area of 93.00 square kilometres with an extent varying from 500 meter from notified urban and 'abadi' areas and 2 kilometres on the rest of area from the boundary of the Karera Wildlife Sanctuary as Eco-sensitive Zone from ecological and environmental aspects.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	202.21 sq.km
Proposed ESZ area	:	93.00 sq. km
Proposed Extent of ESZ	:	500 m to 2 km

No comments have been received from public/stakeholders on this draft notification. State government mentioned that there is no change in the draft proposal. The committee suggested that activities such as eco-tourism and Solid Waste Management be included in the regulated category and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee recommended the proposal for final notification after suggested changes are incorporated by the State Government. The Committee noted that corrections to be given by Madhya Govt in the Hindi text of the notifications would be incorporated in the final notification.

5.16 Eco-sensitive Zone around Ghughua Fossil National Park, Madhya Pradesh

Ghughua Fossil National Park is situated in Dindori and Umaria Districts of Madhya Pradesh state where plant fossils have been found and is spread over an area of 0.27416 sq. kms. The area is rich in floral and faunal diversity and the forests support tree species including Saja (*Terminalia tomentosa*), Bamboo (*Dendrocalamus strictus*), kekar, Gunja (*Lansea Coromendelica*), mahua (*Madhuca indica*), Haria (*Terminalia chebujia*), Jamrasi (*Elaeodendron glaucum*), Dhawa (*Anogeissus latifolia*), tinsa (*Ougeinia oogenesisis*), Aonla (*Emblica officinalis*), *Eucalyptus* sps, Sissoo (*Dalbergia sissoo*), karanj (*Pongamia pinnata*) Neem (*Azadirachda indica*), Imli (*Tamarindus indica*).

In order to conserve and protect the Ghughua Wildlife Sanctuary, a draft notification S.O. 1271(E) was published on 31.03.2016 for declaring an area of 1.129 square kilometres with an extent of 250 meters all around the boundary of the Ghughua Fossil National Park as Eco-sensitive Zone from ecological and environmental aspects. A total of 4 villages fall within the Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	0.27416 sq.km
Proposed ESZ area	:	1.129 sq. km
Proposed Extent of ESZ	:	250 m uniform

No comments were received from public/stakeholders on this draft notification. A request was made for shifting goat farming to regulated category which was agreed to. The Committee suggested the eco-tourism and other eco-friendly activities like Solid Waste Management, and Environmental Awareness would be considered during the Zonal Master Plan. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should also be mentioned.

The Committee recommended the proposal for final notification after suggested changes are incorporated by the State Government.

5.17 Eco-sensitive Zone around Ken Gharial National Park, Madhya Pradesh

Ken Gharial Wildlife Sanctuary is situated in the State of Madhya Pradesh and is spread over an area of 45.20 square kilometres. The sanctuary was established for conserving the highly endangered Gangetic Gharial and the sanctuary has floral and faunal elements typical to the Central Indian Highlands with teak and miscellaneous forest types.

In order to conserve and protect the Ken Gharial Wildlife Sanctuary, a draft notification S.O. 1273(E) was published on 31.03.2016 for declaring an area of 42.20 square kilometres with an extent of 200 meters from the boundary of Ken Gharial Wildlife Sanctuary as Eco-Sensitive Zone. One village in district Chhatarpur falls within the Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	45.20 sq.km
Proposed ESZ area	:	42.20 sq. km
Proposed Extent of ESZ	:	uniform 200m

No comments were received from public/stakeholders on this draft notification. The word 'Chhattisgarh' needs to be corrected as 'Madhya Pradesh' in the final notification. The Committee suggested that activities such as eco-tourism and solid waste management be included under regulated category and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ.

The Committee after deliberations recommended the proposal for finalisation of the draft notification incorporating the corrections to be conveyed by the State Government.

5.18 Eco-sensitive Zone around Madhav National Park, Madhya Pradesh

Madhav National Park is situated in Shivpuri district of Madhya Pradesh and is spread over an area of 354.61 square kilometres. The National Park has varied type habitats including forests, grasslands and lakes which supports diverse type of fauna and flora. The important faunal species of the National Park includes Leopard, Striped Hyena, Sambhar, Chital, Chausingha, Chinkara, Nilgai, Crocodile and many bird species.

In order to conserve and protect the Madhav National Park, a draft notification S.O. 1270(E) was published on 31.03.2016 for declaring an area of 277.20 square kilometres with an extent of 100 meters on the notified urban and 'Abadi' area side and 2 kilometres on the rest of area from the boundary of the Madhav National Park as Eco-sensitive Zone. A number of villages fall within the Eco-sensitive Zone.

The representative of the State Government apprised the Committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	354.61 sq.km
Proposed ESZ area	:	277.20 sq. km
Proposed Extent of ESZ	:	100 to 200 m

Comments received from public/stakeholders on this draft notification were considered by the Committee. The Committee emphasised that activities such as eco-tourism, solid waste management be included in the category of regulated activities along with other eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness under promoted activities within the ESZ.

The Chair suggested that the flora fauna list to be updated with the help of ZSI and BSI. Representatives of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned. The Committee agreed for shifting Goat farming and tourism related activities (except within 1km of the PA boundary) to regulated category.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.19 *Eco-sensitive Zone around Sanjay Dubri & Sanjay National Park, Madhya Pradesh*

Sanjay National Park and Sanjay Dubari Wildlife Sanctuary are situated in Madhya Pradesh and both the Protected Areas together constitute the core area of the Sanjay Dubri Tiger Reserve which is spread over 812.581 square kilometres. Sanjay Dubri Tiger Reserve is spread over an of 1674.512 square kilometres of which 812.581 square kilometres is core

area of the Tiger Reserve and 861.931 square kilometre is the buffer area and that the Tiger Reserve including both Core and Buffer Area is spread over the states of Madhya Pradesh and Chattisgarh. Sanjay National Park and Sanjay Dubri Wildlife Sanctuary has dry to moist deciduous peninsular type of vegetation which are characterized by open to very dense forest areas. Sanjay National Park and Sanjay Dubri Wildlife Sanctuary form part of Bandhavgarh-Sanjay-Guru Ghasidas-Palamau landscape which is one of the four potential Tiger meta-population landscape. Sanjay National Park and Sanjay Dubri Wildlife Sanctuary provides corridor connectivity with Bandhavgarh Tiger Reserve for Tigers and corridor connectivity for wild elephants of Palamu Tiger Reserve. Various perennial rivers, viz., Gopad, Banas, Mawai, Mahan, Kodmar, Umrari flow through the Sanjay National Park and Sanjay Dubri Wildlife Sanctuary. A wide variety of fauna is found in Sanjay National Park and Sanjay Dubri Wildlife Sanctuary which *inter alia* includes Tiger, Panther, Sloth bear, Cheetal, Sambhar, Four Horned Antelopes, Chinkara, Barking Deer and Wild Pig.

In order to conserve and protect the Sanjay National Park and Sanjay Dubri Wildlife Sanctuary, a draft notification S.O. 1277(E) was published on 31.03.2016 for declaring an area of 1053.243 square kilometres which includes 861.931 square kilometre buffer area of Sanjay Dubri Tiger Reserve and includes 32.759 square kilometre area of Chattisgarh State with an extent of 2 kilometres from the boundary of Sanjay National Park and Sanjay Dubri Wildlife Sanctuary, which together constitute the Core Area of the Sanjay Dubri Tiger Reserve, as the Sanjay National Park and Sanjay Dubri Wildlife Sanctuary Eco-sensitive Zone. The Eco-sensitive Zone includes 101 villages in three districts viz. Shahdol, Sidhi and Singrauli of Madhya Pradesh and 3 villages of Manendragarh District of Chattisgarh.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	812.581 sq.km
Proposed ESZ area	:	1053.243 sq. km
Proposed Extent of ESZ	:	2 km all around the National Park

Comments received from public/stakeholders on this draft notification were considered by the Committee. State government mentioned that there is no change in the draft proposal. The committee suggested that eco-tourism, solid waste management be included in the regulated category and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ area.

The Committee desired that the list of flora fauna should be updated with the help of ZSI and BSI. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.20 *Eco-sensitive Zone around Bagdara Wildlife Sanctuary, Madhya Pradesh*

Bagdara Wildlife Sanctuary is situated in district Singrauli, Madhya Pradesh with an area of 478 sq kilometres. The vegetation found in the sanctuary represents the Sidhi-Singrauli landscape with Northern Mixed Deciduous forest. A total of 145 species of plants have been documented from the Sanctuary which includes 63 tree species, 23 herbs and shrub species, 18 species of climbers, 21 grass and bamboo species and 20 species of aquatic plants. The important fauna found in the Sanctuary includes Panther, wolf, sloth bear, hyeana, jackal, chital, sambhar, nilgai, spotted deer, chinkara, black buck, fox, wild boar, and various species of reptiles and 20 species of birds.

In order to conserve and protect the Bagdara Wildlife Sanctuary, a draft notification S.O. 1272(E) was published on 31.03.2016 for declaring an eco-sensitive with an extent of one kilometre from the western boundary of the Sanctuary. The northern and eastern boundary of the Bagdara Wildlife Sanctuary overlaps with the inter-State boundary between Madhya Pradesh and Uttar Pradesh and Son Gharial Wildlife Sanctuary forms the southern boundary of the Sanctuary.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	478 sq.km
Proposed ESZ area	:	-
Proposed Extent of ESZ	:	1 km all around the western boundary of the Sanctuary

No comments were received from public/stakeholders on this draft notification. The committee suggested that eco-tourism, solid waste management be included in the

regulated category and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ area. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee desired that the area of ESZ should be provided. The Committee after deliberations recommended the proposal for final notification with the modifications incorporated by the State Government.

5.21 Other ESZ Proposals of Madhya Pradesh

The Committee was informed that ESZ proposals for issuing draft notifications were received during 2015 in the Ministry from Government of Madhya Pradesh for the following four projects: **(i) Orchha (ii) Narsingharh (iii) Kheoni (iv) Kunopalpur** based on which draft notifications on the ESZ proposals were ready to be published. However, subsequently, the State Government sent the revised proposals by changing the area and extent of the ESZ. However, these lack a number of vital information with respect to the area and extent of ESZ, maps with revised boundaries of ESZ around PA, villages falling within the revised ESZ, prominent locations of boundary for GPS coordinates along with boundary description, etc.

Based on discussions, the representatives of Government of MP agreed to submit revised proposals for the aforesaid four projects.

In addition, the Committee decided that the Govt of Madhya Pradesh may expeditiously provide revised proposal along with detailed justification for reducing the extent of ESZ for the ESZ proposals received recently on **Ratapani and Singhori Wildlife Sanctuaries** for issuance of draft notifications.

TELANGANA

5.22 Eco-sensitive Zone around Pocharam Wildlife Sanctuary, Telangana

Pocharam Wildlife Sanctuary is situated in the Medak and Nizamabad districts of Telangana and is spread over an area of 130 square kilometres. The major tree species of the area are *Terminalia arjuna*, *Tectona grandis*, *Madhuca indica*, *Buchanania lanzan*, *Lannea*

coromandelica, *Diospyros chloroxylon* and *Wrightia tinctoria*. The area harbours mammals such as Panther, Sloth Bear, Wild Boar, Sambhar, Spotted Deer, Common fox, Four horned antelope, Jungle cat and Wild Dog.

In order to conserve and protect the Pocharam Wildlife Sanctuary, a draft notification S.O. 3223(E) was published on 23.11.2015 for declaring an area of an extent of up to five kilometres from the boundary of the Pocharam Wildlife Sanctuary in the State of Telangana as the Eco-sensitive Zone is spread over an area of 380.51 square kilometres in the Nizamabad and Medak Districts of Telangana as Eco-sensitive Zone. A total of 41 villages fall within the Eco-sensitive Zone.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	130 sq.km
Proposed ESZ area	:	380.51 sq. km
Proposed Extent of ESZ	:	upto 5 km all around the boundary of the Sanctuary

No comments were received from public/stakeholders on this draft notification. The State Government has not made any changes in the activities mentioned in draft notification. The Chair emphasised that the eco-tourism, solid waste management should be brought under regulated activities and eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. The Chair also suggested that fauna and flora list should be properly examined according to BSI and ZSI. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.23 Eco-sensitive Zone around Mahavir Harina Vanasthali National Park, Telangana

Mahavir Harina Vanasthali National Park is situated in Ranga Reddy district of Telangana in a densely populated and residential cum commercial area in close vicinity to the city of Hyderabad and is spread over an area of 1459 hectare. The National Park acts as a vast carbon sink for the rapidly developing city of Hyderabad and stands as the last vestige of the flora, fauna and unique rock formations representing the rich bio-diversity of Deccan Plateau which includes more than 600 plant species, 110 bird species, 20 Mammal species, 20 species of Reptiles and Amphibians, hundreds of species of insects and other invertebrates; The National Park is a suitable habitat for Indian black buck, Four horned antelope, spotted deer, Indian porcupine, civet cat, common mongoose, Indian Pangolin, black napped hare, wild boar, etc. The area supports vegetation which represents typical Deccan flora and has plant species such as *Randea deumatorium*, *Ziziphus mauritiana*, *Bauhinia racemosa*, *Cassia fistula*, *Acacia leucoploea*, and *Anona squamosa*.

In order to conserve and protect the Mahavir Harina Vanasthali National Park, a draft notification S.O. 3229(E) was published on 23.11.2015 for declaring an Eco-sensitive Zone with an extent of up to 1 km. all around the boundary of the Mahavir Harina Vanasthali National Park. The ESZ includes 13 villages in Rangareddy District of Telangana.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	14.59 sq.km
Proposed ESZ area	:	-
Proposed Extent of ESZ	:	1 km all around the boundary of the Sanctuary without affecting the existing Auto Nagar Industrial Area which is adjacent to the Park

No comments have been received from public/stakeholders on this draft notification. The State Government has not made any changes in the activities mentioned in draft notification.

The Chair emphasised to take measures to control the air, water and noise pollution in Auto Nagar area. The Committee also recommended that the eco-tourism and solid waste management should be brought under regulated activities and eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within

the ESZ. The Chair also suggested that fauna and flora list should be properly examined according to BSI and ZSI. Director of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee desired that the details of area of ESZ be provided. The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

ANDHRA PRADESH

5.24 *Eco-sensitive Zone around Great Indian Bustard Rollapadu Wildlife Sanctuary, Andhra Pradesh*

The Great Indian Bustard Rollapadu Wildlife Sanctuary is situated in Kurnool district of Andhra Pradesh and has an extent on 6.14 square kilometres. The Wildlife Sanctuary is located in dry rolling lands of Rollapadu between the Nallamalai and Erramalai Hill Ranges of the Eastern Ghats and has one of the finest grasslands, which offers an excellent habitat for varieties of grassland animals. The sanctuary is a grassland sanctuary with unique floral and faunal characteristics and the common grasses found in the sanctuary include *Aristida funiculata*, *Chrysopogon fulvus*, *Heteropogon species*, *Cymbopogon species*, *Sehima nervosum* etc. interspersed with *Morinda tinctoria*, *Zizyphus mauritiana* and *Phoenix*. The area has a number of seasonal streams. The sanctuary harbours the endangered Great Indian Bustard which is a flagship species of the sanctuary, and the other prominent animal species are Lesser Florican, Black buck, Indian Wolf and Monitor Lizards etc.

In order to conserve and protect the Great Indian Bustard Rollapadu Wildlife Sanctuary, a draft notification S.O. 3127(E) was published on 20.11.2015 for declaring an Eco-sensitive Zone of an area of 1.6751 sq. Km with an extent of 100 m from the boundary of the Great Indian Bustard, Rollapadu Wildlife Sanctuary in the State of Andhra Pradesh as Eco-Sensitive Zone. The Eco-sensitive Zone does not include any village and the complete Eco-sensitive Zone consists of agricultural fields.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA : 6.14 sq.km

Proposed ESZ area : 1.6751 sq. km.

Proposed Extent of ESZ : 100 m all around the boundary of the Sanctuary

Representative of the State Government stated that due to change in irrigation pattern due to the existing Telangana Canal, and the consequent change in the pattern of agricultural activity, the population of bustard has decreased and that of Lesser Florican has increased.

No comments have been received from public/stakeholders on this draft notification. The State Government has not made any changes in the activities mentioned in draft notification. The Chair emphasised that activities such as eco-tourism, solid waste management should be brought under regulated activities and other eco-friendly activities such as Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned. It was also suggested that fauna and flora list should be re-examined.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.25 *Eco-sensitive Zone around Nelapattu Wildlife Sanctuary, Andhra Pradesh*

Nelapattu Bird Sanctuary is situated in Nelapattu Villlage of Doravarisatram Mandal in Nellore District of Andhra Pradesh and has an area of 78.57 sq.km. The Sanctuary is suitable for a wide variety of bird species for both breeding and roosting and it is one of the largest Pelicanry in South–East Asia. Many winter migratory birds visit this sanctuary and it is a breeding ground for some of the rare and endangered species like Grey Pelican, Open Bill Stork, Little Cormorant, Spoon bill, White Ibis, Night heron etc.

In order to conserve and protect the Great Indian Bustard Rollapadu Wildlife Sanctuary, a draft notification S.O. 250(E) was published on 15.01.2016 for declaring an Eco-sensitive Zone of an area of 29.291 sq. km with an extent of upto two kilometres from the boundary of

Nelapattu Bird Sanctuary in the State of Andhra Pradesh as the Eco-sensitive Zone. The Eco-sensitive Zone includes certain villages in Nellore District of Andhra Pradesh.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	78.57 sq.km
Proposed ESZ area	:	29.291 sq. km.
Proposed Extent of ESZ : 2 km all around the boundary of the Sanctuary		

No comments were received from public/stakeholders on this draft notification. The State Government has not made any changes in the activities mentioned in draft notification. The Chair emphasised that the eco-tourism and Solid Waste Management should be brought under regulated activities and eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness should be promoted within the ESZ. In addition, collection of fuel wood for commercial purpose should be kept in regulated category of activities. Directors of BSI and ZSI stated that the scientific names of flora and fauna (in italics and in brackets) should be of flora and fauna should be mentioned along with their common names. Species which are endemic, endangered, threatened and rare should be mentioned.

The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

5.26 Eco-sensitive Zone around Rajiv Gandhi National Park, Andhra Pradesh

Rajiv Gandhi National Park is situated in the Kadapa District of Andhra Pradesh on the banks of Pennar river near Proddatur town and is spread over an area of 2.39 sq.km hectares. The National Park has sand dune ecosystem which supports naturally occurring *Tecoma species*, *Dalbergia sissoo*, *Eucalyptus*, *Palmyra* species and other plant species. The Park harbours five species of mammals, five species of reptiles and two bird species.

In order to conserve and protect the Rajiv Gandhi National Park, a draft notification S.O. 436(E) was published on 04.02.2016 for declaring an Eco-sensitive Zone of an area of

29.291 sq. km with an extent of Eco-sensitive Zone of 500 meters from the boundary of Rajiv Gandhi National Park and includes eight villages in Kadapa District.

The representative of the State Government apprised the committee about the proposal. The salient features of the ESZ are as follows:

Area of PA	:	2.39 sq.km
Proposed ESZ area	:	4.1506 sq. km.
Proposed Extent of ESZ	:	2 km all around the boundary of the Sanctuary

No comments were received from public/stakeholders on this draft notification. The State Government has not made any changes in the activities mentioned in draft notification. The Chair emphasised that activities such as eco-tourism, solid waste management should be regulated and eco-friendly activities like Agro-Forestry, Organic Farming, and Environmental Awareness promoted within the ESZ. The Chair also emphasised to maintain the soil health and biodiversity of the area. The Committee after deliberations recommended the proposal for final notification after modifications incorporated by the State Government.

6. SUMMARY

Based on the draft notifications, comments received, presentations made on the proposals and discussions, the Expert Committee recommended 25 proposals with minor modifications; revision sought for five proposals of Madhya Pradesh (discussed for publication of draft notification) and twelve (12) proposals of Karnataka were not considered (Table 2).

Table 2: Summary of ESZ proposals considered in the 20th ESZ Expert Committee Meeting held on 05.07.2016

S. No.	Protected Area (PA)	States	Decision
1	Pench NP	Maharashtra	Recommended after modifications incorporated by the State Government
2	Jaikawadi WLS	-do-	-do-
3	Sanjay Gandhi NP	-do-	-do-

4	Tipeshwar WLS	-do-	-do-
5	97 PAs of Andaman & Nicobar Islands	Union Territory	Recommended after modifications incorporated by the State Government
6	Brahmagiri WLS	Karnataka	-do-
7	Pushpagiri WLS	-do-	-do-
8	Talacauvery WLS	-do-	-do-
9	Someshwara WLS	-do-	-do-
10	Attiveri Bird Sanctuary	-do-	-do-
11	Sharavathi Valley WLS	-do-	Not considered in the meeting
12	Arabithittu WLS	-do-	Not considered in the meeting
13	Rangayyandurga Four Horned Antelope Sanctuary	-do-	Not considered in the meeting
14	Ghataprabha WLS	-do-	Not considered in the meeting
15	Kudremukh NP	-do-	Not considered in the meeting
16	Bhimgad WLS	-do-	Not considered in the meeting
17	Gudavi WLS	-do-	Not considered in the meeting
18	Gudekote Sloth Bear Sanctuary	-do-	Not considered in the meeting
19	Cauvery WLS	-do-	Not considered in the meeting
20	Ranebennur Blackbuck WLS	-do-	Not considered in the meeting
21	Malai Mahadeshwara WLS	-do-	Not considered in the meeting
22	Melukote WLS	-do-	Not considered in the meeting
23	Bandhavgarh TR	Madhya Pradesh	Recommended after modifications incorporated by the State Government
24	Dinosaur NP	-do-	Recommended
25	Satpura TR	-do-	Recommended after modifications incorporated by the State Government
26	Sailana WLS	-do-	-do-
27	Karera WLS	-do-	-do-

28	Ghugua Fossil NP	-do-	Recommended
29	Ken Gharial NP	-do-	Recommended after modifications incorporated by the State Govt
30	Madhav NP	-do-	-do-
31	Sanjay Dubri & Sanjay NP	-do-	-do-
32	Bagdara WLS	-do-	-do-
33	Pocharam WLS	Telangana	-do-
34	Mahavir Harina Vanasthali NP	-do-	-do-
35	Great Indian Bustard Rollapadu WLS	Andhra Pradesh	-do-
36	Nelapattu WLS	-do-	-do-
37	Rajiv Gandhi NP	-do-	-do-

The Committee also decided that the tenure of the Monitoring Committee should be changed from 1 year to 3 years in all ESZ Notifications. Representative of the State Biodiversity Board should invariably be included as a member of the Monitoring Committee.

The Chairperson desired that a format for submission of ESZ proposals and brief checklist/instructions for making Power Point Presentations should be circulated to all State Governments and also annexed to the minutes. This is given at **Annexure-2** to the minutes.

The meeting ended with vote of thanks to the Chair.

List of Participants of the 20th Expert Committee on ESZ held on 5th July 2016**Members of Expert Committee**

1. Dr. Amita Prasad, Additional Secretary, MoEF&CC - Chair
2. Dr. Sarnam Singh, Dean, Indian Institute of Remote Sensing, ISRO, Dehradun
3. Dr. Gautam Talukdar, Scientist D, Wildlife Institute of India (WII) Dehradun
4. Shri Sanjay Kumar Agarwal, Assistant Director, Forest Survey of India, Dehradun
5. Shri P.K. Duria, Town and Country Planner, TCPO, Ministry of Urban Development, GOI
6. Ms. Abha Agarwal, Associate Town and Country Planner, TCPO, Ministry of Urban Development, GOI
7. Dr. V.R.S. Rawat, Scientist F, ICFRE, Dehradun
8. Shri Vaibhav C. Mathur, AIG, NTCA, MoEF&CC, New Delhi
9. Shri Paramjit Singh, Director, Botanical Survey of India, Kolkata
10. Shri Kailash Chandra, Director (I/C), Zoological Survey of India
11. Shri K. Chandra Sekar, Scientist 'D', GB Pant Institute of Himalayan Environment & Development, Almora
12. Dr. T. Chandini, Adviser, MoEF&CC
13. Shri S.P. Vashisht, DIG(WL), MoEF&CC, New Delhi

Ministry of Environment, Forest and Climate Change, GOI

1. Dr. Subrata Bose, Additional Director
2. Dr. Ashish Kumar, Deputy Director

Officials of Governments of Maharashtra, Madhya Pradesh, Karnataka, Telangana, Andhra Pradesh and Union Territory of Andaman and Nicobar Islands**Maharashtra**

1. Shri K.B. Thakare, D.C.F. Thane, Govt. of Maharashtra
2. Shri G. Mallikarjuna, D.C.F. Nagpur, Maharashtra, Maharashtra Forest Department
3. Shri T.S.K. Reddy, CCF Nagpur, Forest Department of Maharashtra
4. Shri K.P. Singh, CCF (T) Thane, Forest Department. of Maharashtra
5. Shri Vikas Gupta CeF & Director, SGNP, Mumbai, Forest Department. of Maharashtra
6. Shri A.P. Girhepuje, Dy. C.F., Aurangabad, Forest Department. of Maharashtra
7. Shri A.R. Mande, CCF, Aurangabad, Nagpur, Forest Department. of Maharashtra
8. Shri M.S. Reddy, CCF (WL), Nagpur, Forest Department. of Maharashtra

Karnataka

1. Shri Vijaykumar Gosh, Secretary Forest, Environment of Karnataka
2. Shri B.J. Hosmath, PCCF (WL), Banguluru, Karnataka Forest Department

Telangana

1. Shri Ashok Kumar (Scientist), PCCF (WL) CWLW, Telangana Forest Department.

Madhya Pradesh

1. Daleep Kumar, Field Director, M.P. Forest Department.
2. A.P. Singh Sengor, D.F.O. Dhar (M.P.), Forest Department. Government of M.P.
3. Shri J.P. Singh D.F.O., D.F.O. Dhar (M.P.), Forest Department. Government of M.P.
4. Dr. A.A. Ansari, Assistant Director Bandhavgarh Tiger Reserve, M.P. Forest Department.
5. Dr. Alok Kumar, APCCF(WL), M.P. Forest Department.
6. Shri Nahar Singh, DFO (T) Rajagarh M.P., Forest Department.
7. Kshitij Kumar, DFO Ratlam (MP), M.P. Forest Department.

Union Territory of Andaman and Nicobar Islands

1. Shri M.S. Negi, PCCF(WL) and CWLW, Forest and Environment Department Andaman and Nicobar Islands.

ANNEXURE-2**A. CHECKLIST FOR PREPARATION OF ESZ PROPOSALS**

1. Coloured maps (in A3 or A4 size) to be provided in soft and hard forms: As a reference, the maps prepared by Govt of Chhattigarh for Pamed, Gomarda, Semarsot, Barnawapara and Tamor Pingla may be looked up from MoEF&CC's website: envfor.nic.in/Rules and Regulations/ESZ Notifications/Chhatisgarh (The area shown for all 4 maps should cover not only the PA, ESZ **but also the surrounding area of 7-10km around the PA-ESZ.**)
 - i. Location of PA/ESZ on a district/state map.
 - ii. Map based on the latest **Survey of India topo sheets** showing landuse features using standard colour codes for maps such as forests/vegetation (green colour), water bodies (blue), settlements (brown), wasteland (grey), agriculture (yellow) etc. for PAs, ESZ and demarcating the boundary of PA and the ESZ. In addition, the map should also include area extending all around the PA, **upto 7-10 km beyond ESZ boundary.**
 - iii. **Map based on Remote Sensing Satellite image or Google earth image** showing the distinct landuse features and demarcating the boundary of PA and the ESZ. In addition, the map should also include area extending all around the PA, **upto 7-10 km beyond ESZ boundary.**
 - iv. (Geo-coordinates) Latitude and Longitudes (in DMS, i.e., Degree/Minutes/Second Format) based on prominent locations should be shown in a **tabular form** in the proposal as well as **on maps of** Protected Area and ESZ along with legend of land-use.
 - v. Scale Bars on all maps need to be compulsorily depicted along with legends of land use classification which should be depicted by standard colour code.
 - vi. Tables and text on the maps should be readable on the A-4/A-3 size sheet of paper.
2. State Remote Sensing Centres & GIS Centres should be part of delineation and mapping of the PA, ESZ and forest areas.
3. Scientific names of all floral and faunal species need to be provided in the list of flora and fauna along with their common names in the ESZ proposal.
4. List of rare/endangered, endemic, threatened species of flora and fauna found in the PAs/ESZs in the ESZ proposal.
5. Detailed justification needs to be provided in case, the ESZ is less than 500m in width. The width of ESZ should be provided in a range (min to max.)
6. Member-Secretary of the State Bio-diversity Board should also be made a member of the Monitoring Committee.
7. Detailed justification needs to be provided in case the ESZ is less than 500m in width. The width of ESZ should be provided in a range (min to max.) and reflected with detailed boundary description along with GPS coordinates of prominent locations in both the text as well as a legend alongside the map.

B. GUIDELINE FOR PRESENTATIONS BEFORE ESZ COMMITTEE

1. Power point presentations may kindly be made before the ESZ Committee
2. Hard Copies of the Presentation should also be circulated during the presentation and soft copy to the officers in MOEF&CC.
3. The PPT presentation should cover the following:
 - a. Salient features of the ESZ proposal indication size of PA, size of ESZ along with width (range should provide maximum and minimum width)
 - b. **MAPS**
 - i. Maps - As a reference, the maps prepared by Govt of Chhattigarh for Pamed, Gomarda, Semarsot, Barnawapara and Tamor Pingla may be looked up from MoEF&CC's website: [envfor.nic.in/Rules and Regulations/ESZ Notifications/Chhatisgarh](http://envfor.nic.in/Rules_and_Regulations/ESZ_Notifications/Chhatisgarh) (The area shown for all 4 maps should cover not only the PA, ESZ **but also the surrounding area of 7-10km around the PA-ESZ**)
 - ii. Location map of the PA in the district, State
 - iii. Map showing Location Map of the PA on a SOI **topo sheet** showing landuse features using standard colour codes for maps such as forests/vegetation (green colour), water bodies (blue), settlements (brown), wasteland (grey), agriculture (yellow) etc. for PAs, ESZ and demarcating the boundary of PA and the ESZ.
 - iv. In addition, the map should also include area extending all around the PA, **upto 7-10 km beyond ESZ boundary.**
 - v. Map should include details of villages, towns, and settlements in and around the PA and ESZ and any infrastructure and industrial projects, if any in the PA, ESZ and 7-10 km around the PA.
 - vi. A separate **Google Earth map** demarcating PA and ESZ boundary and showing the terrain features and land use features of PA including water bodies, ESZ and area of 7-10km around the PA. The Date of the map should also be displayed.
 - c. Whether regulations such as CRZ, Wetland regulations, etc are applicable to the PA and ESZ.
 - d. Description of bio diversity with a list of rare, threatened and endangered species of flora and fauna along with Common names.
 - e. Justification of the ESZ area. In case it is less than 500m, a detailed justification may be provided.
 - f. Details of consultative process followed.
 - h. Summary of Comments and responses on the draft Notification
 - i. Details of court cases, if any and status thereon