

MINUTES OF 18TH EXPERT COMMITTEE FOR DECLARATION OF ECO-SENSITIVE ZONE (ESZ) AROUND WILDLIFE SANCTUARIES/NATIONAL PARKS HELD ON 31ST MAY, 2016 IN MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE AT INDIRA PARYAVARAN BHAWAN, NEW DELHI

A meeting of the Expert Committee for declaration of Eco-Sensitive Zones around Wildlife Sanctuaries/ National Parks was held in the Ministry on 31st May, 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 one (31) proposals were considered for finalising the draft Eco-Sensitive Zone (ESZ) notifications:

S N	Protected Area	States
1	Tale Valley Wildlife Sanctuary	Arunachal Pradesh
2	Dayang Ering Wildlife Sanctuary	Arunachal Pradesh
3	Kamlang Wildlife Sanctuary	Arunachal Pradesh
4	Nameri Wildlife Sanctuary	Assam
5	Laokhowa -Burhachapori Wildlife Sanctuary	Assam
6	Bunning Wildlife Sanctuary	Manipur
7	Nokrek National Park	Meghalaya
8	Narpuh Wildlife Sanctuary	Meghalaya
9	Gumuti Wildlife Sanctuary	Tripura
10	Rowa Wildlife Sanctuary	Tripura
11	Balukhanda-Konark Wildlife Sanctuary	Odisha
12	Kuldiha Wildlife Sanctuary	Odisha
13	Kotagarh Wildlife Sanctuary	Odisha
14	Vikramshila Gangetic Dolphin WLS, Bihar	Bihar
15	Bhimbandh Wildlife Sanctuary	Bihar
16	Daranghati Wildlife Sanctuary	Himachal Pradesh
17	Chail Wildlife Sanctuary	Himachal Pradesh

18	Pong Dam Wildlife Sanctuary	Himachal Pradesh
19	Lippa-Asarang Wildlife Sanctuary	Himachal Pradesh
20	Simbalbara Wildlife Sanctuary	Himachal Pradesh
21	Majathal Wildlife Sanctuary	Himachal Pradesh
22	Shimla Water Catchment Wildlife Sanctuary	Himachal Pradesh
23	Bandli Wildlife Sanctuary	Himachal Pradesh
24	Jhajjar-Bachauli Wildlife Sanctuary	Punjab
25	Harika Lake Wildlife Sanctuary	Punjab
26	Nangal WLS Wildlife Sanctuary	Punjab
27	Kachchua Wildlife Sanctuary	Uttar Pradesh
28	Hazaribagh Wildlife Sanctuary	Jharkhand
29	Palamau Tiger Reserve Wildlife Sanctuary	Jharkhand
30	Nahar Wildlife Sanctuary	Haryana
31	Bir Shikhadgarh Wildlife Sanctuary	Haryana

2. At the outset, the Chairperson welcomed the members of the Expert Committee and representatives of the State Governments of Arunachal Pradesh, Assam, Manipur, Uttar Pradesh, Bihar, Haryana, Jharkhand, Punjab and Himachal Pradesh. 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 “live 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 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 provided to the local communities on a regular and sustained basis.

3. Representatives of Government of Jharkhand sought deferment of consideration of ESZ proposals for Hazaribagh WLS and Palamau Tiger Reserve WLS. Representatives of Government of Haryana also requested that the proposals for finalisation of ESZ for Nahar WLS and Bir Shikargadh WLS may not be taken up in this meeting. This was agreed to.

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 Chairperson invited the representatives of the States to make presentations on their proposals.

5.0 The proposals were considered as per agenda.

5.1 *Eco-sensitive Zone around Tale Valley Wildlife Sanctuary, Arunachal Pradesh*

Tale WLS is situated about 30km from Hapoli in the district of Lower Subansiri of Arunachal Pradesh and is a part of the Eastern Himalaya Biodiversity Hotspot encompassing about 337 sq km area consisting of subtropical, wet temperate forests, mix coniferous forests, and bamboo forest with over 100 species of plants. The Sanctuary also harbours 115 species of birds, mammals, frogs, snakes and lizards and various fish species.

Shri Ishwar Singh, CCF (WL), Govt. of Arunachal Pradesh apprised the Committee that about 10,000 sq km of the area is Protected Forest (PF) and about 11,00 sq km are under Reserved Forest (RF). Draft notification of the ESZ proposal was published on September 17, 2015. The salient features of the ESZ are as follows:

Area of PA	:	337 sq. km
Proposed ESZ area	:	95.90 hectares
Proposed Extent	:	0 to 100 meters

In regard to the ESZ proposals, it was stated that the WLS is bound on all sides except one by Reserve Forests and the on the southern side is the border with the State of Assam. It was informed that the boundary limit has been decided after consultations with the

tribals and Panchayats of villages in the area. It was informed that the area is biologically very rich. It was clarified that no HEPs are proposed near the area.

Comments of Conservation Action Trust, Mumbai which were of general nature were discussed. Representative sought replacing paragraph in the Draft Notification on geo-coordinates in page no. 10, point no. 2 of the draft notification was considered and replaced as follows "On the Western boundary of Tale Wildlife Sanctuary, the ESZ starts from the point at geo co-ordinates 93° 55' 47.770"E, 27° 36' 15.466" N and goes eastwards for 100 meters up to the point 93° 55' 50.765"E, 27° 36' 17.057" at the western boundary of the sanctuary, and then goes southwards along the boundary of the sanctuary up to the point at Geo Co-ordinates 93° 53' 54.780"E, 27° 32' 11.468"N, then westwards for 100 meters up to the point at Geo Co-ordinates 93° 53' 51.461"E, 27° 32' 12.977"N, then the boundary of ESZ goes northwards 100 meters parallel to the sanctuary boundary up to the starting point 93° 55' 47.770"E, 27° 36' 15.466" N."

Dr. Sarnam Singh, Indian Institute of Remote Sensing, ISRO, Dehradun, stated that debarking of the Taxus tree (*Taxus wallichiana*), which is considered to possess anti cancer property, may be included in the list of prohibited activities. The Committee also recommended that the State Government work with the local communities on NTFP. The expert committee also suggested that Jhum cultivation may be banned within the area. The Committee after deliberations recommended for finalisation of draft notification with the aforesaid changes.

5.2 Eco-sensitive Zone around Daying Ering Wildlife Sanctuary, Arunachal Pradesh

Daying Ering Wildlife Sanctuary is situated about 5 kilometers from Pasighat nearest town and District headquarter of East Siang District of Arunachal Pradesh) covering an area of 190 square km and spread between the two main channels of Siang river and is part of Eastern Himalaya Biodiversity Hotspot. A majority of the area is occupied by riverine forest and grassland with over 91 species of plants. The major vegetation consist of subtropical forest, wet temperate forests, and bamboo forests. The main animal species found in the sanctuary are Leopard, Water Buffalo, Sambar, Barking deer, Hog deer, etc. and bird species Myna, Sparrow hawk, Leaf bird, White wing wood duck etc. found in the sanctuary besides the Bengal florican- an endangered species. The sanctuary is also home to many migratory birds like- Pelican, ducks, Strokes, teals etc., frogs , reptiles and the aquatic bodies harbours Gangetic Dolphin and variety of fish.

Shri Ishwar Singh, CCF (WL), Govt. of Arunachal Pradesh apprised the Committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	190 sq. km
Proposed ESZ area	:	500.72 hectares
Proposed Extent	:	Up to 100 meters

It was informed that no comments have been received from public/stakeholders. Chairperson suggested keeping the extent of ESZ as 500 meters. It was also suggested by expert committee that proper land use maps may be provided. CCF (WL) informed that no revisions/changes have been sought in the activities mentioned in the draft notification. The Committee requested for a revised proposal extending the ESZ to a minimum 500 metres along with good coloured maps demarcating the PA and ESZ boundaries and clear legends on the land use features.

The Committee after deliberations recommended that the proposals be revised on the basis of the aforesaid comments.

5.3 *Eco-sensitive Zone around Kamlang Wildlife Sanctuary, Arunachal Pradesh*

Kamlang Wildlife Sanctuary is about 200 kilometre from Tezu nearest town and District headquarter of Lohit District of Arunachal Pradesh covering about 783.0 square kilometre. The vegetation consists of tropical, temperate and Alpine. There are about 150 tree species found in the sanctuary. It provides a habitat for 61 species of mammals including rare and endangered species such as the Asiatic Elephant, Tiger, Leopard, Hollock gibbon, Stump tailed macaque, Bear, Civets, Flying squirrel and other mammals are likely to be available in this sanctuary and about 20 species of reptiles as forest lizards, snakes, tortoises and amphibians such as toads and frogs and variety of fish species.

The Sanctuary also harbours about 105 species of birds, such as Indian mynah, Black throated sunbird, Quaker babbler, Indian tree pipit, Greater racketail, Streaked spider hunter, Lesser shortwing, Namdaphashortwing, tree creeper, Orangebilliedleaf bird, jungle crow, Magpie robin, white throated bulbul, Bronzed dragon, Large rackettailed dragon, Scarletbacked flowerpecker, Slaty-backed forktail, Blackgorgeted, laughingthrus, Ogle's laughrush, Crimson winged laughingthrus, White headed shrike babbler, Hill myna, Ashy bulbul, Black bulbul, Fairy bluebird, Grey backs shrike, Silverearedmesia, Sultantit, Large

nitava, striated marsh warbler and other birds are found in the sanctuary. It also includes about 20 species of reptiles as forest lizards, skinks, snakes, tortoises and amphibians like toads and frogs and other reptiles are available in the sanctuary besides variety of fish species.

Shri Ishwar Singh, CCF (WL), Govt. of Arunachal Pradesh apprised the committee about the proposal. Draft notification was published on December 1, 2015. It was stated that the ESZ is flanked in the South by Namdapha WLS. The Committee was informed that the Athena Demwe Power Project of 1750MW capacity is proposed to come up at a distance of 50m from the project boundary. It was stated that all relevant clearances – EC, FC and NBWL have been obtained. A reservoir for the HEP Project has been created at the tail end of the project. The salient features of the ESZ are as follows:

Area of PA	:	783 sq. km
Proposed ESZ area	:	3293 hectares
Proposed Extent	:	100 meters to 500 meters. 500 meters in North Eastern, 100 meters in western north-west and 0 meter in southern boundary of the WLS.

Comments received from Shri Prasad Khale, Conservation Action Trust, Mumbai and from Shri Gagan Agarwal, Chief Operating Officer, Athena Demwe Power Limited were discussed during the meeting. The Committee after deliberations recommended that the State Government re-examine extension of the ESZ area and consider fixing the ridge on western side as an ESZ boundary as there were no settlements and the area is fully forested. The Committee after deliberations deferred the proposal for consideration after receipt of revised proposal of the State Government.

5.4 Eco-sensitive Zone around Nameri Wildlife Sanctuary, Assam

Nameri National Park is situated between the northern part of Sonitpur district of Assam and lies along the foothills of Eastern Himalayas of Arunachal Pradesh spread over an area of 200 sq km. Habitat of Nameri is made up of tropical evergreen, semi-evergreen, moist deciduous and narrow strips of open grasslands along rivers. The Sanctuary provides habita to a large number of flora and fauna. Fauna includes Asiatic Elephant, Tiger, Lepard, Cloded Leopard, Sloth Bear, Himalayan Black Bear, Indian Bison, Sambhar and Barking Deer, Himalayan Yellow throated Marten, Malayan Giant Squirrel, Flying Squirrel, Assamese

Macaque, Large Indian Civet, Small Indian Civet, Leopard Cat, etc The Sanctuary also support a wide variety of reptiles, frogs, birds, butterflies and moths.

Shri M K Yadav, APCCF, Govt. of Assam apprised the Committee about the proposal. It was informed that the WLS has a large population of tigers (about 20 assessed by Camera-trap method). It was stated that Nameri WLS is home to the White Winged Wood duck, which is the State Bird of Assam. Present tiger population exceeds 20 in this WLS State of Arunachal Pradesh and Pakheri Tiger Reserve borders it on the northern side. It was informed that commercial mining has been prohibited. The draft notification was published on December 10, 2015. The salient features are as follows:

Area of PA	:	200 sq. km
Proposed ESZ area	:	-
Proposed Extent	:	Up to 5 kms

It was stated that no comments have been received from public/stakeholders. The Committee desired that the proposed ESZ area and range (from and max) need to be mentioned in the notification. It was suggested by the Expert Committee that activities such as picnic spots may be kept under Regulated activities. The Committee after deliberations recommended for finalisation of draft notification with the aforesaid changes and incorporating the information sought from the State Government.

5.5 *Eco-sensitive Zone around Laokhaowa and Burhachapori Wildlife Sanctuary, Assam*

The draft notification was published on December 1, 2015. No comments have been received from public/stakeholders. Shri M K Yadav, APCCF, Govt. of Assam, informed that on the basis of a meeting held in the Ministry, it has been decided to include these two PAs as part of the ESZ proposals for Kaziranga National Park, and the revised proposal is under preparation. In view of this, the Committee deferred the proposal.

5.6 *Eco-sensitive Zone around Bunning, Manipur*

Bunning Wildlife Sanctuary is situated in Tamenglong District of Manipur, covering over an area of 115.8 square kilometres, has got unique ecosystem of Alpine grassland and Forest ecosystem and found at the catchment of four important rivers, natural water fall etc.

hosting varied floral and faunal diversity including Barking deer, Sambar, Leopard, Jackal, Pangolin, Wild boar, Tiger, Jungle cat, Martens, Clouded leopard, Golden cat, Slow etc.

Shri Kereilhouvi Angami, PCCF (WL), Govt. of Manipur apprised the committee about the proposal. It was informed that all the suggestions provided by Wildlife Institute of India have been incorporated. Inclusion of possible WL corridors to other habitats/WLS such as Jiri-Makru WLS in the west, Zeiland WLS in the south has also been addressed. It was stated ESZs of all the 3 WLS are contiguous. Map of the entire area in terms of the bio-diversity value has been assessed through BSI and ZSI. It was informed that Nagaland has to notify ESZ for the PA on the NW side. It was stated that no HEPs are proposed in any of the rivers. The State Government has initiated steps for raising awareness on hunting of wildlife and conservation. The Committee was informed that an MOU has been entered with Ayurvedic Companies for commercial plantation of and in-situ extraction of value added chemicals from medicinal plants. Good practices on socio-economic measures and alternate livelihoods which will lessen pressure on the forests are being disseminated to the villages. Draft notification was published on December 1, 2015 and no change in the activities is proposed. The salient features of ESZ are as follows:

Area of PA	:	115.8 sq. kms
Proposed ESZ area	:	233.5 sq. kms
Proposed Extent	:	0 to 9 kms; 0 km at North (Nagaland Border)

It was informed that the map provided was on the base of World Geodetic System, 1984. During the presentation, the extent was presented to be zero (Nagaland Border), 3.2 km to 9.5 km from the boundary of Bunning WLS. It was clarified that the names of 2 villages have been revised - New Pallong (earlier Piuluang), and Phalong (Bhalok) (earlier Pallong). No comments have been received from public/stakeholders.

The Expert Committee suggested that medicinal plant cultivation can be supported instead of Jhum cultivation. Chairperson stated that markets for medicinal products would need to be adequately established. The Committee after deliberations recommended for finalisation of draft notification with the aforesaid changes.

5.7 Eco-sensitive Zone around Nokrek Wildlife Sanctuary, Meghalaya

Nokrek National Park is located at the tri junction of three districts, i.e. East Garo Hills, West Garo Hills and South Garo Hills Districts and the entire area is hilly terrain and is

located on Tura Range of mountain system in the western part of Meghalaya State and the surrounding area is the principal watershed for the three districts; it forms an important catchment area of the major river system which feed the other low-lying areas of Garo Hills and the major important rivers originating from this area are Simsangriver, Ganolriver, Dareng river, Nitai, Bhugai and other water systems. The region has a tropical climate characterized by high rainfall and high humidity, moderate cold winter and mild summer seasons and the entire Biosphere area receives high rainfall and well distributed all over the entire area.

The area supports broad-leaved evergreen and semi-evergreen forests with brackets of bamboo at lower altitudes. The area also harbours many rare, endangered and endemic faunal species like Hoolock gibbon, the only Ape in India, is also found in the area where a sizeable population has been found to be present and the area forms a part of one of the global hot spots of biodiversity. The practice of shifting cultivation has created a mosaic of various land use categories and successional stages of vegetation and the landscape consists of primary and secondary forests along with degraded land and the coal mining by private parties has led to loss of forests, depletion of ground water and population of surface water, fragmentation of key elephant habitats and disturbance in the movement of animals and replacement of natural vegetation by monoculture plantations is the other major development driven threat to the ecology of the landscape.

Shri P.S. Nongbri, CCF (WL), Govt. of Meghalaya apprised the committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	115.8 sq. kms
Proposed ESZ area	:	27,148 hectares
Proposed Extent	:	2 to 8 kms

No comments have been received from public/stakeholders. The Committee noted that a revised extent of ESZ of 1.2 km has been presented during the presentation, which needs to be justified. The Committee suggested that geographical co-ordinates for both the Protected Area boundary and the Eco Sensitive Zone boundary should be presented in a tabular form. The Committee after deliberations recommended that a new draft may be prepared by the State Government along with detailed justification and may be brought to the Ministry for draft notification.

5.8 *Eco-sensitive Zones around Narpuh Wildlife Sanctuary, Meghalaya*

Narpuh WLS is situated in East Jantia Hills in Jowai, Meghalaya. It represents rich biological diversity. The Sanctuary is bounded by Reserve Forests on all sides except a part in South West which is also bounded by villages and shares boundary with State of Assam. The northern part is bounded by Lukha River forming a physical barrier. The Sanctuary provides habitat for Hoolock Gibbon, Serow, Slow Loris, Sloth Bear, Large Indian Civet, Leopard Cat, Clouded Leopard, Barking Deer, different varieties of squirrel, various species of bats and other mammals. It also provides a habitat for fishes, butterflies some of which are endangered.

Shri P.S. Nongbri, CCF (WL), Govt. of Meghalaya apprised the committee about the proposal. The draft notification was published on November 20, 2015. The salient features are as follows:

Area of PA	:	59.9 sq.km
Proposed ESZ area	:	142.60 sq kms
Proposed Extent	:	100 meters to 7.58 kms

Comments received from Shri Sailen Singh Sutnga, Village Headman were discussed. It was stated that the River Lukha is being polluted by the limestone mining and due to the establishment of 12 cement factories in the area. It was stated that the minimum extent has been proposed as 1.2 kms based on consultations. The Committee after deliberations recommended for finalisation of draft notification with the aforesaid said changes and the State Government furnish a formal revised proposal based on revised ESZ boundary as stated above along with colour maps for finalisation of the draft notification.

5.9 *Eco-sensitive Zone around Gumti Wildlife Sanctuary, Tripura*

Gumti Wildlife Sanctuary is situated alongside Bangladesh International boundary in Tripura and covers an area of 389.54 square kilometres. The floral diversity of the Gumti Wildlife Sanctuary is unique with floral canopies, large varieties of the herbs, shrubs, climber and tree species with medicinal value. Major tree species, occurring in association, found in the sanctuary comprising of moist deciduous and semi evergreen forests. Large open area of Gumti Wildlife Sanctuary consists of a vast expanse of grasses. The heterogeneous landscapes of the sanctuary provide ideal environmental condition for the occurrence of rich

biodiversity including rare and endangered species such as the Asian Elephant, Barking deer, Wild Pig, Jungle Cat, Indian Porcupine, Malayan Giant Squirrel out of these, Hoolock gibbons, Slow loris, Capped langur and Phayre's leaf monkey.

Dr. Rakesh Sarwal, PRC, Government of Tripura apprised the committee about the proposal. The draft notification was published on December 1, 2015. The salient features are as follows:

Area of PA	:	389.54 sq. kms
Proposed ESZ area	:	14,558.04 acres
Proposed Extent	:	0 m to 1200 m

No comments have been received from public/stakeholders. The Expert Committee desired that geographical co-ordinates of the WLS be provided in a tabular form. The committee also suggested that proper justification need to be provided for extent of the ESZ to be zero. A proper land use map may be provided along with clearly demarcated boundaries of PA and ESZ along with land use features so as to have a proper analysis of the boundaries. Chairperson suggested that the list of villages may also be provided along with their location on the map, which will strengthen the notification. The Committee after deliberations recommended that the revised proposal incorporating the aforesaid suggestions may be submitted by the State Govt.

5.10 *Eco-sensitive Zone around Rowa Wildlife Sanctuary, Tripura*

Rowa Wildlife Sanctuary comprises of an area of 85.85 hectares. The floral diversity of the sanctuary is unique and well distributed as herbs, shrubs climber and tree species found the sanctuary some of which have medicinal value. The major tree species comprise of Moist Deciduous and Semi Evergreen forest as per Champion. The habitat supports a large variety of resident and migratory bird population. Rowa Wildlife Sanctuary is rich in species diversity in bamboo species. A number of rare and endangered schedule-I animals have been sighted in the wild life sanctuary which include Spectacle monkey, Leopard cat, Ganges soft shelled turtle, Python, Hill Myna. Besides the Sanctuary is a wet land and a wintering habitat for migratory birds such as lesser whistling teals barbets (Capitonidate), Bulbul (Pycnonotidate), Cuckoos (Cuculidae), Darters (Phalacrocuracidae), Doves and pigeon (Columbidae), Drongos (Dicruridae), Ducks (Anatidae), Orioles (Oriolidae), Owls (Strigidae) Parakeets (Psittacidae), Partridges (Phasianidae), Sunbirds

(Nectariniidae), Woodpeckers (Picidae), Weaver birds of bayas (Plocitae), Tree pies (Corvidae) and Maynas (Sturnidae), etc.

Dr. Rakesh Sarwal, PRC, Government of Tripura apprised the committee about the proposal. The draft notification was published on December 1, 2015. The salient features are as follows:

Area of PA	:	85.85 hectares
Proposed ESZ area	:	62.75 acres
Proposed Extent	:	10 m to 100 m

No comments were received from public/stakeholders. The Committee after deliberations recommended that the proposal for final notification.

5.11 Eco-sensitive Zone around Balukhanda Wildlife Sanctuary, Odisha

Balukhanda-Konark Wildlife Sanctuary has been notified as a Wildlife Sanctuary for conservation of the sensitive coastal ecosystem and biodiversity. The Balukhanda-Konark Wildlife Sanctuary is situated at a distance of about 60 kilometres from Bhubaneswar in Odisha and is an important site for integration of in-situ and ex-situ Conservation of Wildlife. The Sanctuary lies in Puri district extending over 87.0 square kilometres and on the southern side of the Sanctuary is the Bay of Bengal. The primary tree species are namely casuarinas, cashew, *Eucalipatus* and *Acacia auriculiformis*. The natural vegetation consists of Neem, Ghanta, Guakoli, Khirkoli etc. A portion of Golara proposed reserved Forest Block of this Sanctuary situated on the mouth of Prachi river and supports mangrove vegetation like Keruan, Raj, Guan along with species such as Mankadkendu, Barakoli, Jamun, Jhumpuri, Canes and Bamboos. Wild animals found in the sanctuary include Black Buck, Spotted deer, Hyena, Jungle Cat, Jackal, Fox, Monkey, Hare, Monitor Lizard, etc.

Shri C. Mishra, DFO Puri, Government of Odisha apprised the committee about the proposal. The draft notification was published on November 20, 2015. It was informed that Konark Temple is located beyond 1.5km from the WLS. The ESZ boundary has been made zero where the WLS is adjoining Konark town. There are a total 30 villages within the ESZ. The salient features are as follows:

Area of PA	:	87 sq. kms
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Proposed ESZ area	:	21.50 sq kms
Proposed Extent	:	Up to 500 meters

Public Comments received from Shri Akash Ranjan Nath, Governor, Puri Regional Chapter, Wild Orissa was discussed during the meeting. The Expert Committee desired that soft form of colour map with clear colour coding be provided to MoEF &CC. The Committee after deliberations recommended for finalisation of draft notification.

5.12 Eco-sensitive Zone around Kuldiha Wildlife Sanctuary, Odisha

Kuldiha Wildlife Sanctuary is located in Balasore, Mayurbhanj and Keonjhar Districts in the State of Odisha is spread over an area of 272.75 square kilometres. The sanctuary falls in Balasore district and surrounded by forest and villages of Mayurbhanj district in the west, village boundary line adjoining to Tenda Reserve Forest and Bishnupur Protected Forest in the east, Nilgiri ex-state boundary line adjoining to Devagiri Protected Forest and Devagiri Reserve Forest in the south, Kaptipada-Udala-Jharanaghati-Sajanagarh-Nilgiri state highway in the north. The Sanctuary provides a habitat for 32 species of mammals, 134 species of birds, 40 species of reptiles, 5 species of amphibians, with many species of insects like butterflies and dragonflies. The forests composition is represented by mixed deciduous forest. A number of rare and endangered fauna such as the Asiatic Elephant (*Elephas maximus*), Gaur (*Bos gaurus*), Sloth Bear (*Melurnus ursinus*), Wild pig (*Sus scrofa*), Chital (*Axis axis*), Sambar (*Rusa unicorn*), Hanuman langur (*Semnopithecus entellus*), Rhesus macaque (*Macaca mulatta*), Indian Porcupine (*Hystrix indica*), Indian giant squirrel (*Ratufa indica*), Indian pangolin (*Manis crassicaudata*) etc are found in the Sanctuary. The carnivores are represented by Leopard (*Panthera pardus*), Jungle Cat (*Felis chaus*), Indian Wolf (*Canis lupus*), Jackal (*Canis aureus*), Bengal Fox (*Vulpes bengalensis*), Leopard cat (*Felis bengalensis*) etc.

Shri H.B. Udgate, DFO Balasore, Government of Odisha apprised the committee about the proposal. The draft notification was published on February 24, 2016. The salient features are as follows:

Area of PA	:	272.75 sq. kms
Proposed ESZ area	:	234.48 sq kms
Proposed Extent	:	0 to 7 kms

Comments have been received from Tehsildar, Soro; Shri Arun Kumar Mishra, Secy, Nilgiri Khadan O Patharasilpa Sangathan, Balasore; Shri Anil Kumar Mahapatra, Ex Zilla Parishad member, Balasore, Shri Pateek Smit Nayak, Balasore; Shri Akhila Rama Jena, President, Jeeban Jeevika Surakhya Samiti, Balasore, Executive Officer, Office of the Notified Area Council, Nilgiri; and Shri Sukanta Kumar Nayak, MLA, Nilgiri, Balasore and were discussed during the meeting.

A total of 217 villages are falling within the ESZ. Representative, State Government stated that all the public comments have taken into consideration and some changes proposed including ESZ extent and reducing it to zero along the urban areas/municipal areas adjoining the boundary, exclusion of 3 villages (Nijigarh, Mirigini and Betsol). The Committee after deliberations recommended for finalisation of draft notification.

5.13 *Eco-sensitive Zone around Kotagarh Wildlife Sanctuary, Odisha*

Kotagarh Wildlife Sanctuary situated about 350 Kilometres from Bhubaneswar in Odisha, 135 Kilometres from Phulbani and 100 Kilometres from Rayagada. The sanctuary supports a wide variety of floral and faunal diversity representing 165 species of trees, 132 species of herbs, 48 species of climbers, 43 species of mammal & 44 species of birds. Kotagarh WLS forms an integral part of Kotagarh-Chandrapur Elephant corridor. The Northern and South Western portion of the sanctuary constitute a part of Chandrapur Elephant corridor and is a migratory route for Elephants from Kalahandi Forest Division and from Lakhari Valley Sanctuary through Muniguda Range of Rayagada Forest Division. Forests comprise primarily of Sal and its associates. Endangered fauna found in the Sanctuary include the Asiatic Elephant, wild boar, bears, leopards, deer, barking deer, Pangolin, hare and Sambhar. In addition bird species such as Hornbills, Peacocks and a wide variety of reptiles are also found here.

Shri V. Karthick, DFO Balliguda, Government of Odisha apprised the committee about the proposal. The draft notification was published on December 1, 2015. The salient features are as follows:

Area of PA	:	399.50 sq.km
Proposed ESZ area	:	1400.78 sq kms of which forest area is 782.69 sq km
Proposed Extent	:	2 kms to 10 kms

It was informed that no comments have been received from public/stakeholders. It was stated that Van Sangathan Samitis (VSS) with 6000 persons are involved in

regional/local activities. Expert Committee desired that colour maps be provided, with land use features and settlements and villages shown clearly along with demarcated boundaries of the PA and the ESZ. The State Government has desired inclusion of commercial signboards and hoarding as a regulated activity. The Committee after deliberations suggested that the revised proposal incorporating the aforesaid issues along with colour maps be submitted by the State Govt. for further consideration.

5.14 Eco-sensitive Zone around Vikramshila Gangetic Dolphin WLS, Bihar

Vikramshila Gangetic Dolphin Sanctuary, situated in Bhagalpur District of Bihar extends over a length of about 60 kilometre of portion of River Ganges from Sultanganj to three hillocks in the middle of River Ganges at Kahalgaon. The sanctuary provides a habitat to the Gangetic dolphin, otter, turtle, and many migratory birds of vital ecological importance.

Shri Bharat Jyoti, Director (Eco. & Env.), Department of Env. and Forest, Govt. of Bihar apprised the committee about the proposal. The draft notification was published on November 10, 2015. The salient features are as follows:

Area of PA	:	-
Proposed ESZ area	:	12,221 hectares
Proposed Extent	:	100 m to 5 kms

General comments have been received from Conservation Action Trust, Mumbai and were discussed during the meeting. Representative, State Governemnt informed that an ADB assisted project for supplying drinking to Bhagalpur City be mentioned in the list of permitted activities. It was further suggested that the width of the ESZ should be reduced to 50 meters in Barari Ghat in Bhagalpur Municipal Area so that the project execution and post maintenance works are permitted. A modification was also suggested in paragraph no. 4, listing of activities, Entry No. 11: "Construction activities" should be shifted from Category A - Prohibited activity to category B – Regulated Activity with stipulation of Environmental Impact Assessment for all new constructions. Corrections suggested in Area statement: In Sr. no. 23 to 34 -"Jagdishpur Block" to be replaced with "Bhagalpur Block".

It was clarified that drinking water is part of civic amenities which are included in the regulated category in the draft notification The Committee after deliberations recommended for finalisation of draft notification with aforesaid changes. The Committee suggested that geographical co-ordinates of revised area and extent of both PA and ESZ boundary along with colour maps should be provided for final notification.

5.15 Eco-sensitive Zone around Bhimbandh WLS, Bihar

Bhimbandh Wildlife Sanctuary, Munger Forest Division is situated in the Munger, Lakhisarai and Jamui districts of Bihar and extends over an area of 681.90 square kilometres. The sanctuary provides a habitat for a wide variety of flora and fauna represent rich biological significance of this Sanctuary. These include rare and endangered fauna such as the Leopard, Sloth bear, besides some of the endangered species like Hyena, Wolf, Large Indian civet, Barking deer, and also reptiles, amphibians and birds that are endangered and are of high conservation significance. The landscape and forests of this sanctuary are suitable for a diversity of vegetation comprising of Tropical Dry deciduous and Tropical Moist deciduous forests.

Shri Bharat Jyoti, Director (Eco. & Env.), Department of Env. and Forest, Govt. of Bihar apprised the committee about the proposal. The draft notification was published on March 11, 2016. The salient features are as follows:

Area of PA	:	681.90 sq. kms
Proposed ESZ area	:	443.11 sq kms
Proposed Extent	:	Up to 2 kms

Public Comments were received from Shri R. Lakhmanan, Managing Director, BSPGCL, Vidyut Bhawan, Patna; Shri S. S. Choudhary, IFS, Addl. Principal Chief Conservator of Forests cum Chief Wildlife Warden, Bihar, Patna; and Shri Pratyaya Amrit, IAS, Principal Secretary, Energy Department, Govt. of Bihar and were discussed during the meeting.

During the presentation, it was stated that the State Govt. had submitted a revised proposal in Feb 2015, which could not be published as the draft notification. In the revised proposal the proposed ESZ area had been reduced by 876 ha due to provision for Thermal Power Plant within the ESZ. Modifications were suggested that in paragraph 4, listing of activities, entry no. 11, "Construction activities" should be shifted from Category A - Prohibited activity to category B – Regulated Activity with stipulation of Environmental Impact Assessment as relatively substantial area 434 sq km in 291 villages being almost 70% with maximum extent upto 5 km have been provisioned.

The Expert Committee after deliberations recommended that the extent may be reduced to 200-300 meters for a length of 5km along the TPP/area proposed for

development. The Committee after deliberations recommended for finalisation of draft notification with the aforesaid changes.

5.16 *Eco-sensitive Zone around Daranghati WLS, Himachal Pradesh*

Daranghati Wildlife Sanctuary is situated in Rampur, district Shimla, Himachal Pradesh and spread over an area of 167 sq km.

The sanctuary provides a habitat for Western Tragopan, Cheer Pheasant, Must Deer, Ghoral, Serow Ghoral, Leopard, Monal, Koklash, Crested Kalij, many of which are endemic to Himalayan region or endangered.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on September 17, 2015. The salient features are as follows:

Area of PA	:	167 sq. kms
Proposed ESZ area	:	22.5 sq kms
Proposed Extent	:	Up to 375 meters

It was informed that no comments have been received from public/stakeholders. The Committee observed that the boundary of protected area and ESZ area not clear. The Committee after deliberations requested to State Govt. to resubmit the proposal to the Ministry.

5.17 *Eco-sensitive Zone around Chail WLS, Himachal Pradesh*

Chail Wildlife Sanctuary is located in Solan District, Himachal Pradesh. Flora and fauna found in the sanctuary represent rich biological diversity. The main wildlife species found in the sanctuary are Barking deer, Sambar Leopard, Black bea, Ghoral, rhesus monkey, Languor, porcupine. Among birds the main species are Cheer pheasant, Chakor Kaliz, Rod Jungle Fowl, Indian Pea Fowl, specked wood pigeon, Himalayan Wood pecker etc. Besides these, a number of species of invertebrates, amphibians and reptiles are also found in the area. The highly endangered species of deer i.e. Ghoral is also found in this area. Other endangered/rare species found include Cheer pheasant, leopard, goral, and barking deer. The sanctuary has very good vegetation in the form of mixed forests while the open waste land is covered with grass along with shrubs. Deodar is the dominant species of

the area occupying the top canopy. Other species include Ban Oak, Kail, spruce, silver fir, poplar, rhododendron, Chir, Kainth, Khanor, *Acacia mollissima* etc. Middle story is negligible and ground flora is covered by a number of shrub species like *Desmodium*, *Indigofera*, *Salix*, *Berberis*, *Rosa*, *Rubus*, and *Daphnae* etc. Ground flora also includes various grass species, variety of ferns and vascular herbs.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on November 20, 2015. The salient features are as follows:

Area of PA	:	16 sq. kms
Proposed ESZ area	:	34.04 sq kms
Proposed Extent	:	0.7 km to 4.2 kms

No comments were received from public/stakeholders. The Expert Committee suggested that care need to be taken with the boundaries. The Committee suggested use of differential GPS in mapping of the boundaries and use of natural features in maps could help in better understanding. After detailed discussions, the Committee recommended the proposal for finalisation of draft notification. The State Govt was requested to furnish colour maps with clear land use features and demarcation of PA and ESZ boundary for final notification.

5.18 Eco-sensitive Zone around Pong Dam WLS, Himachal Pradesh

Pong Dam Lake Wildlife Sanctuary located in Kangra District, Himachal Pradesh is spread over an area of 207.59 Square Kilometres. Flora and fauna represent rich biological significance of this sanctuary – 230 of bird species belonging to about 54 bird families out of 77 families of the birds recorded in India. The main species of water fowl are bar-headed geese, pintails, poachards, coots, grebes, cormorants and storks etc. The Sanctuary also harbours a variety of butterflies including the Indian fritillary, striped tiger, orange oakleaf, yellow pansy, grey danid eggfly, etc. Animals found in the area includes Nilgai, leopard, civets, mongoose, etc.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	207.59 sq. kms
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Proposed ESZ area : 46.31 sq kms

Proposed Extent : Up to 1.5 kms

General comments received from Shri Debi Goenka, Conservation Action Trust, Mumbai were discussed during the meeting. The Committee noted that details of the minimum extent of ESZ has not been provided. The Committee after deliberations sought a revised proposal from the State Government extending the ESZ area along with colour maps showing land use features and demarcation of PA and ESZ boundary.

5.19 *Eco-sensitive Zone around Lippa Asarang WLS, Himachal Pradesh*

Lippa-Asarang Wildlife Sanctuary is situated in Sangla wildlife range in Kinnaur District of Himachal Pradesh and is spread over an area of 31 square kilometres. Vegetation is represented by the alpine shrubs and juniper bushes. Prominent species in the Sanctuary include Ibex, blue sheep, Snow Leopard.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on December 1, 2015. The salient features are as follows:

Area of PA : 31 sq. kms

Proposed ESZ area : 254 sq kms

Proposed Extent : Up to 14 kms, 0 km on east, south and south west of the WLS

No comments have been received from public/stakeholders. The Expert Committee desired that ESZ area and extent need to be reconfirmed. The Committee after deliberations sought for a revised proposal for the extent with zero ESZ along with colour maps showing land use features and demarcation of PA and ESZ boundary and sent to the Ministry for further consideration.

3.20 *Eco-sensitive Zone around Simbalbara WLS, Himachal Pradesh*

Simbalbara Wildlife Sanctuary is situated in Sirmour District, Himachal Pradesh spread over an area of 27.88 sq. Km. Simbalbara Wildlife Sanctuary also shares boundaries with protected areas of Kalesar National Park in the state of Haryana. The sanctuary supports rich biological diversity of representative of Western Himalayas, Punjab plains and

Upper gangetic plains. It supports many species which are endemic to Western Himalayas and a number of rare or endangered mammals species like Leopard, Jungle cat, Jackal, Himalayan palm civet, Yellow throated marten, sambar, spotted deer, Barking deer, Blue bull, Goral, Wild pig, Common langur, Rhesus macaque and porcupine are found in the area. Historical records indicate the presence of elephants in this area and it is believed that the hydel channel at Yamuna barrage cut off migratory routes (WII, 2003) and elephants are reported to come occasionally to this area. The sanctuary is rich in bird life. More than 100 species of birds are found in this area and the area has birds that are typical of Shiwaliks such as marmor oriol, orange headed thrush and also shows presence of birds found in Himalayas such as kaleej pheasant several spp. of redstarts and wall creeper and it also shows presence of birds that are normally found in moist deciduous forests such as forests such as emerald dove and around 70 species of butterflies are found in this area. Large number of Tiger beetle spp. are also found in this zone.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on December 10, 2015. The salient features are as follows:

Area of PA	:	27.88 sq. kms
Proposed ESZ area	:	31.24 sq kms
Proposed Extent	:	Up to 1.5 km

No comments were received from public/stakeholders. Expert Committee desired that the State Government may provide detailed justification for proposed zero ESZ. The Committee after deliberations decide that the proposal be revised and sent to the Ministry along with colour maps.

3.21 *Eco-sensitive Zone around Majathal WLS, Himachal Pradesh*

Majathal Wildlife Sanctuary is situated in Solan District, Himachal Pradesh spread over an area of 37.71 Square kilometres. The Majhathal Wildlife Sanctuary (WLS) is bordering south bank of river Sutlej partly falling in Solan and partly in Shimla District of Himachal Pradesh in Western Himalayan region within 575m to 1985m above msl. Himalayan Chir pine (*Pinus Roxburghii*), Ban Oak, (*Quercus leucotrichophora*) forest and sub tropical Euphorbia scrub forests are the major vegetation types. Major habitat in the sanctuary comprises steep south eastern slopes covered with large patches of tall grass

sparsely forested with scattered Chil, Ban Oak and mixed broadleaved forests in ravines and low lying areas

The Sanctuary has rich biological diversity. The key species are Cheer, Leopard, sambar, Ghoral, barking deer, Black Bear. Deodar is the dominant tree species of Harsang Baghal and DPF Majathal. Other species includes Ban-oak, Kail, Chir, Kainth, Acacia catechu, Kachnar, Daroo, Paja, Shisham, Sanan, Jamun, Tor, Fegra, Trimble, Mango and Bihul etc.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on December 10, 2015. The salient features are as follows:

Area of PA	:	37.71 sq. kms
Proposed ESZ area	:	12.68 sq kms
Proposed Extent	:	Up to 1.5 km

No comments were received from public/stakeholders. The Expert Committee sought details of minimum extent of ESZ. The Committee requested for a revised proposal along with colour maps.

3.22 Eco-sensitive Zone around Shimla Water Catchment WLS, Himachal Pradesh

Shimla Water Catchment Wildlife Sanctuary is situated in Shimla District, Himachal Pradesh and spread over an area of 10.20 sq. km. The Sanctuary has rich biological diversity. The area supports rich variety of flora and fauna which includes good quality of deodar, Oak, Spruce, kail, popular, rhododendron, *Taxus*, *chil*, *kainth*, *khanor*, *Acacia molissima* etc. The area also bears a large variety of herbs, shrubs and climbers representative of Himalayan region which includes *Desmodium*, *Indigofera*, *Salix*, *Berberis*, *Rosa*, *Rubus*, *Dephanea* etc. Other plant species include various grass species, variety of ferns and vascular herbs. The area is rich in animal species which include mammals such as leopard, barking deer, ghoral, Rhesus macaque, common langur, leopard cat, porcupine: pheasants such as kalij and koklash: and birds such as woodpeekers, parakeet, jungle owlet, pigeon, vultures etc.

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on December 10, 2015. The salient features are as follows:

Area of PA	:	10.20 sq. kms
Proposed ESZ area	:	7.71 sq kms
Proposed Extent	:	Up to 1.5 km

No comments were received from public/stakeholders. The Expert Committee stated that the minimum extent of ESZ should be mentioned. The Committee recommended that the proposal be revised and sent to Ministry along with detailed justification of the ESZ area and extent being finalised by the State Government.

3.23 *Eco-sensitive Zone around Bandli WLS, Himachal Pradesh*

Bandli Wildlife Sanctuary is situated in Mandi district, Himachal Pradesh is spread over an area of 32.11 sq km. The sanctuary supports rich biological diversity of flora and fauna. This includes rare and endangered species such as the leopard, Leopard Cat, Jungle Cat, Goral, Himalayan Civet, Himalayan Yellow Throated Marten, Black Bear, Porcupine, Flying Squirrel, Barking Deer, etc

Shri P. L. Chauhan, CCF (WL), Govt. of Himachal Pradesh apprised the committee about the proposal. The draft notification was published on July 17, 2015. The salient features are as follows:

Area of PA	:	32.11 sq. kms
Proposed ESZ area	:	1.68 sq kms
Proposed Extent	:	Up to 50 meters

Generic comments received from Shri Debi Goenka, Conservation Action Trust, Mumbai were discussed during the meeting. After the presentation, Expert Committee suggested that the proposal may be re-visited and revised.

3.24 *Eco-sensitive Zone around Jhajjar Bachauli WLS, Punjab*

Jhajjar-Bachauli Wildlife Sanctuary is situated in Rupnagar District, Punjab and spread over an area of 1.16 square kilometres. The sanctuary supports a number of wild species such as Sambhar deer, Barking Deer, Python, Cobra, Red Jungle Fowl etc.

Shri Dharendra Singh, APCCF & CWLW, Govt. of Punjab apprised the committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	1.16 sq. km
Proposed ESZ area	:	0.65 sq km
Proposed Extent	:	Up to 100 meters

No comments have been received from public/stakeholders. The Committee suggested that Shivalik Forest Range may be mentioned in the notification. Location map may be provided. The Committee after deliberations recommended finalisation of the draft notification subject to furnishing the aforesaid details.

3.25 Eco-sensitive Zone around Harike Lake WLS, Punjab

Harike Wildlife Sanctuary of an area of 86 square kilometres is the largest wetland in northern India. This wetland-cum-wildlife sanctuary is located about 55 kilometres from Amritsar city, that falls in District Tarn Taran, Ferozepur and Kapurthala This Sanctuary was also accorded the status of a Ramsar Site in 1990 under the Ramsar Convention. The protected area is mostly a water based area with 14 aquatic taxa, 24 terrestrial species. The main water based plant species include Najas, Hydrilla, Ipomoea, Azolla sp., Potamegeton, Vallisneria, etc. The area is also known to support 16 taxa (72 species) of fish, 6 taxa of frogs and toads, 7 species of turtles (including International Union for Conservation of Nature Testudines turtles), 13 species of mammals (including smooth Indian Otter and Indus River Dolphin), 391 species (59 percent migratory) of birds and 4 species of snakes.

Shri Dharendra Singh, APCCF & CWLW, Govt. of Punjab apprised the committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	86 sq. kms
Proposed ESZ area	:	393.44 hectares
Proposed Extent	:	100 meters

No comments have been received from public/stakeholders. The representatives of the State Government informed during the presentation that Harike Lake is the backwater of a river. The Committee after deliberations recommended for finalisation of draft notification.

3.26 Eco-sensitive Zone around Nangal WLS, Punjab

Nangal Wildlife Sanctuary is situated in Rupnagar District, Punjab and spread over an area of 7.15 square kilometres. The vegetation in the sanctuary consists of Northern Tropical Dry Deciduous Forests with main tree species such as Kikkar, Shisham, Neem, Ber, Ficus, Siris, Pipal, Bohar, Jamun, Mango etc. The area is known to support a variety of animals and birds. The main faunal species include Hog Deer, Wild Boar, Jungle Cat, Jackal, Common Mongoose, Common Indian Hare besides turtles and snake. A number of migratory birds of different species from other areas also visit the Nangal lake as the lake is home to 49 fish species.

Shri Dharendra Singh, APCCF & CWLW, Govt. of Punjab apprised the committee about the proposal. The draft notification was published on November 17, 2015. The salient features are as follows:

Area of PA	:	7.15 sq. kms
Proposed ESZ area	:	1.26 sq. km
Proposed Extent	:	Up to 100 meters

No comments have been received from public/stakeholders. The Committee requested State Government to include coloured maps showing land use features in their ESZ proposals with details of geo-coordinates, etc. The Committee after deliberations recommended for finalisation of draft notification.

3.27 *Eco-sensitive Zone around Kachhua WLS, Uttar Pradesh*

The proposal is for declaring an ESZ in the stretch of River Ganges flowing through the city of Varanasi which harbours a large population of turtles which play a significant role as ‘scavengers’ in keeping the river water across this stretch clean of decomposing bodies. The stretch of this river Ganges has been notified as ‘Kachhua (Turtle) Wildlife Sanctuary’.

Shri K. Praveen Rao (IFS), CCF (WL), Govt. of Uttar Pradesh, and Shri Ashok Kumar, Special Secretary Forest & WL, Govt. of Uttar Pradesh apprised the committee about the proposal. The Committee was informed that the Kachhua WLS is a sanctuary for conservation of turtles in River Ganges found in the stretch along the city of Varanasi, which act as ‘scavengers’. It was stated that the no ESZ has been proposed along the western side which is fully developed upto the bank along the city of Varanasi. No ESZ is proposed on the northern and southern side of the river. However, an ESZ of 100 meters on the eastern side which is mainly agricultural fields has been proposed. However, no commercial mining would be permitted upto 1km all around the WLS.

The Committee was informed that the draft notification yet to be published based on the ESZ proposal received from the State Government. The Committee noted that River Ganges could swell beyond 100m during monsoon and after heavy rains. The Committee also noted that the only available side for turtle breeding/nesting sites is along the eastern side of the river. Although there are certain sand depositions within the WLS, they may require being mined as per Sand Mine Regulations to prevent flooding of Varanasi City.

The Expert Committee after deliberations sought a revised proposal from the State Government for proposing an ESZ along the eastern bank based on the High Flood Line (HFL) of the river based on peak rainfall for this location based on IMD data for the past 100 years and for the State Government to examine a safety zone of 100m beyond the HFL.

6. Based on the draft notifications, comments received, presentations made on the proposals and discussions, the Expert Committee recommended thirteen (13) proposals; revision sought for eleven (11) proposals; revised text was sought for one proposal; deferred two (2) proposals and four (4) proposals were not considered on the request of the State Government of Haryana and Jharkhand:

S N	Protected Area	States	Decision
1	Tale Valley Wildlife Sanctuary	Arunachal Pradesh	Recommended
2	Dayang Ering Wildlife Sanctuary	Arunachal Pradesh	Revised Proposal to be submitted by State Govt.
3	Kamlang Wildlife Sanctuary	Arunachal Pradesh	Deferred
4	Nameri Wildlife Sanctuary	Assam	Recommended
5	Laokhowa -Burhachapori Wildlife Sanctuary	Assam	Deferred
6	Bunning Wildlife Sanctuary	Manipur	Recommended
7	Nokrek National Park	Meghalaya	Revised Draft text to be submitted
8	Narpuh Wildlife Sanctuary	Meghalaya	Recommended
9	Gumuti Wildlife Sanctuary	Tripura	Revised Proposal to be submitted by State Govt.

S N	Protected Area	States	Decision
10	Rowa Wildlife Sanctuary	Tripura	Recommended
11	Balukhanda-Konark Wildlife Sanctuary	Odisha	Recommended
12	Kuldiha Wildlife Sanctuary	Odisha	Recommended
13	Kotagarh Wildlife Sanctuary	Odisha	Revised Proposal to be submitted by State Govt.
14	Vikramshila Gangetic Dolphin WLS, Bihar	Bihar	Recommended
15	Bhimbandh Wildlife Sanctuary	Bihar	Recommended
16	Daranghati Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
17	Chail Wildlife Sanctuary	Himachal Pradesh	Recommended
18	Pong Dam Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
19	Lippa-Asarang Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
20	Simbalbara Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
21	Majathal Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
22	Shimla Water Catchment Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
23	Bandli Wildlife Sanctuary	Himachal Pradesh	Revised Proposal to be submitted by State Govt.
24	Jhajjar-Bachauli Wildlife Sanctuary	Punjab	Recommended
25	Harika Lake Wildlife Sanctuary	Punjab	Recommended
26	Nangal Wildlife Sanctuary	Punjab	Recommended
27	Kachchua Wildlife Sanctuary	Uttar Pradesh	Revised Proposal to be submitted by State Govt.

S N	Protected Area	States	Decision
28	Hazaribagh Wildlife Sanctuary	Jharkhand	Not considered on the request of State Govt
29	Palamau Tiger Reserve Wildlife Sanctuary	Jharkhand	Not considered on the request of State Govt
30	Nahar Wildlife Sanctuary	Haryana	Not considered on the request of State Govt
31	Bir Shikhadgarh Wildlife Sanctuary	Haryana	Not considered on the request of State Govt

7. The Chairperson desired that a format for submission of ESZ proposals and brief guidelines/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.

Annexure-1**List of Participants of the 18th Expert Committee on ESZ held on 31st May 2016****Members of Expert Committee**

1. Dr. Amita Prasad, Additional Secretary, Chairperson
2. Dr. T. Chandini, Adviser, MoEF&CC
3. Dr. Sarnam Singh, Indian Institute of Remote Sensing, ISRO, Dehradun
4. Shri Sanjay Kumar Agarwal, Assistant Director, Forest Survey of India, Dehradun
5. Dr. Sandeep Kumar Rant, Associate TCP, TCPO, Ministry of Urban Development, GOI
6. Dr. S.A. Hussain, Scientist G, WII Dehradun
7. Shri Paramjit Singh, Director, Botanical Survey of India, Kolkata
8. Shri Kailash Chandra, Director (I/C), Zoological Survey of India
9. Shri K. Chandra Sekar, Scientist 'D', GB Pant Institute of Himalayan Environment & Development
10. Shri S P Vashishth, DIG(WL)

Ministry of Environment, Forest and Climate Change, GOI

1. Shri Pankaj Verma, Joint Director
2. Dr. Ashish Kumar, Deputy Director
3. Ms. Jafrin Farha Hussain, Research Assistant
4. Dr. R. Dalwani, Advisor, MoEF&CC-Special Invitee

Officials of State Government of Arunachal Pradesh, Assam, Manipur, Punjab, Meghalaya, Uttar Pradesh, Bihar, Jharkhand, Tripura, Odisha, and Himachal Pradesh**Bihar**

1. Shri Bharat Jyoti, Director (Eco. & Env.), Department of Env. and Forest, Govt. of Bihar

Punjab

2. Shri Dharendra Singh, APCCF & CWLW, Govt. of Punjab

Haryana

3. Shri Rambir Singh, CF(WL), Govt. of Haryana

Meghalaya

4. Shri P.S. Nongbri, CCF (WL), Govt. of Meghalaya

Arunachal Pradesh

5. Shri Ishwar Singh, CCF (WL), Govt. of Arunachal Pradesh

Assam

6. Shri Sanjuva Kumar, Principal Secretary, Govt. of Assam
7. Shri M.K. Yadav, APCCF(P&D), Assam Forest Dept., Govt. of Assam

Manipur

8. Shri Arun R.S, DCF, Govt. of Manipur

9. Shri Shambhu Singh, Additional C.S. , Govt. of Manipur
10. Shri Kereilhouvi Angami, PCCF (WL), Govt. of Manipur

Uttar Pradesh

11. Shri K. Praveen Rao (IFS), CCF (WL), Govt. of Uttar Pradesh
12. Shri Ashok Kumar, Special Secretary Forest & WL, Govt. of Uttar Pradesh

Himachal Pradesh

13. Shri P. L. Chauhan, CCF(WL), Govt. of Himachal Pradesh

Jharkhand

14. Shri Rajiv Ranjan, CCF(WL), Government of Jharkhand

Tripura

15. Dr. Rakesh Sarwal, PRC, Government of Tripura

Odisha

16. Shri Siddhanta Das, PCCF(WL), Government of Odisha
17. Shri S.C. Manapar, Principal Secretary F&E, Government of Odisha
18. Shri V. Karthick, DFO Balliguda, Government of Odisha
19. Shri C. Mishra, DFO Pun, Government of Odisha
20. Shri H.B. Udgate, DFO Balasore, Government of Odisha
21. Shri S. S. Bhoi, L.O, Government of Odisha

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

1. Coloured maps (in A3 or A4 size) to be provided in soft and hard forms:
 - i. 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.
 - ii. **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.
 - iii. (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.
 - iv. Scale Bars on all maps need to be compulsorily depicted.
 - v. 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 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. Location of PA/ESZ on a district/state map.
6. 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.)
7. Member-Secretary of the State Bio-diversity Board should also be made a member of the Monitoring Committee.

B. GUIDELINE FOR PREPARATION OF MAPS IN ESZ PROPOSALS

8. Coloured maps (in A3 or A4 size) to be provided in soft and hard forms:
 - vi. 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.

- vii. **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.
 - viii. Latitude and Longitudes (in DMS, i.e., Degree/Minutes/Second Format) should be shown in a tabular form in the proposal as well as on maps.
 - ix. Scale Bars on all maps need to be compulsorily depicted.
 - x. Tables and text on the maps should be readable on the A-4/A-3 size sheet of paper.
9. State Remote Sensing Centres & GIS Centres should be part of delineation and mapping of the PA, ESZ and forest areas.
 10. Scientific names of all floral and faunal species need to be provided in the list of flora and fauna in the ESZ proposal.
 11. List of rare/endangered, endemic, threatened species of flora and fauna found in the PAs/ESZs in the ESZ proposal.
 12. Location of PA/ESZ on a district/state map.
 13. 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.)

C. 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. Location map of the PA in the district, State
 - c. 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.

- d. In addition, the map should also include area extending all around the PA, **upto 7-10 km beyond ESZ boundary.**
 - e. 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.
 - f. 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.
 - g. Whether regulations such as CRZ, Wetland regulations, etc are applicable to the PA and ESZ.
 - h. Description of bio diversity with a list of rare, threatened and endangered species of flora and fauna
 - i. Justification of the ESZ area.
 - j. Details of consultative process followed.
 - k. Summary of Comments and responses on the draft Notification
 - l. Details of court cases, if any and status thereon
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