

MINUTES OF 23rd EXPERT COMMITTEE FOR THE DECLARATION OF ECO-SENSITIVE ZONE (ESZ) AROUND WILDLIFE SANCTUARIES/NATIONAL PARKS HELD ON 19TH and 20th OCTOBER, 2016 (TWO DAYS) IN MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE AT INDIRA PARYAVARAN BHAWAN, NEW DELHI

Minutes of 19.10.2016 (Day 1)

The 23rd Expert Committee Meeting was held under the Chairpersonship of Dr. Amita Prasad, Additional Secretary on 19th October, 2016 and 20th October, 2016 (two days) in the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, New Delhi. The list of participants in the 19th October, 2016 Meeting is annexed as **Annexure A**.

On 19th October, 2016, the following twenty three (23) proposals were listed in agenda of the meeting for consideration to finalise the draft ESZ notifications.

| S. N. | Protected Area | State |
|--------------|---------------------------|-------------------------|
| 1 | Nahargarh WLS | Rajasthan |
| 2 | Ramsagar WLS | -do- |
| 3 | Bhainsrodgarh WLS | -do- |
| 4 | Mount Abu WLS | -do- |
| 5 | Kesarbagh WLS | -do- |
| 6 | Bir Shikargarh WLS | Haryana |
| 7. | Khokhan WLS | Himachal Pradesh |
| 8 | Shikari Devi Sanctuary | -do- |
| 9 | Nargu WLS | -do- |
| 10 | Kais WLS | -do- |
| 11 | Kanawar WLS | -do- |
| 12 | Kugti WLS | -do- |
| 13 | Kibber WLS | -do- |
| 14 | Kalatop-Khajjar Sanctuary | -do- |
| 15 | Sangla Valley Sanctuary | -do- |
| 16 | Tundah Sanctuary | -do- |
| 17 | Talra Sanctuary | -do- |
| 18 | Chandertal Sanctuary | -do- |
| 19 | Gamgul Siyabehi Sanctuary | -do- |
| 20 | Churdhar Sanctuary | -do- |
| 21 | Badalkhol WLS | Chhattisgarh |
| 22 | Bhoramdev WLS | -do- |
| 23 | Bhairamgarh WLS | -do- |

2. At the outset, the Chairperson welcomed the Members of the Expert Committee and representatives of the State Governments of Rajasthan, Haryana and Himachal Pradesh. Representatives from the Government of Chhattisgarh did not attend for the meeting and no intimation to this effect was received from either States. Chairperson requested the

representatives of Rajasthan, Haryana and Himachal Pradesh for presentation of their proposals as per the Agenda.

3. Consideration of ESZ Proposals

RAJASTHAN

3.1 Eco-sensitive Zone around Nahargarh WLS, Rajasthan

The proposal of Nahargarh Wildlife Sanctuary was deferred in the last ESZ meeting held on 5th October, 2016 at the request of the Govt. of Rajasthan.

Nahargarh Wildlife Sanctuary is situated in the Aravalli ranges at Amber hills of Jaipur district of Rajasthan. The WLS has "Tropical Dry Deciduous Forest" and "Tropical Thorn Forest" and the forest is spread over the area on various soil formations and hilly terrain of Aravalis and hence varies in composition. The Wildlife sanctuary has a varied habitat having diversified fauna and flora. The major fauna of this sanctuary include Leopard, Hyena, Jackal, Wolf, Lemur, Porcupine, Biju, Neela, Chinkara, Indian Wild boar, Fox, Crocodile, Jungle Cat, Chital, Sambhar, Bluebull and many species of birds also inhabit the sanctuary.

The draft notification for declaring an eco-sensitive zone around Nahargarh Wildlife Sanctuary was published on 24.09.2015 with the following features:

- Area of PA: 52.40 sq km
- ESZ Area: 79.87 sq km
- ESZ Extent: Vary between 0 km and 13 Km from the boundary of PA.

Shri M. K. Agrawal, Dy. Conservator of Forests (Wildlife) Jaipur Govt. of Rajasthan appraised the Committee about the proposal. It has Stated the ESZ area as 79.356 sq km and ESZ Extent varying between between 0 km and 13 Km. During discussion, the comments received from different stakeholders were considered along with the mining issues in the area.

Shri M. K. Agrawal, Stated that the PA is situated in an urban area and is heavily populated. The State Government has proposed zero ESZ on all of the sides except north-eastern side due to heavy urbanisation.

The State Govt. has requested that due to commercial mining activity within the ESZ, mining should be prohibited only upto a distance of 1 km from the boundary of PA. In the remaining area of ESZ, mining activity should be regulated as per laws. In areas where the ESZ is zero or less than 1 km, prohibition will be restricted upto the proposed ESZ boundary. Mining activity for use of *bona fide* locals will be regulated in the ESZ area. Also, the State Govt. has further requested that establishment of hotels and resorts and construction

activities be shifted from prohibited to regulated category which was agreed upon by the Committee.

Based on discussion, the Committee recommended submission of revised proposal addressing the concerns of the stakeholders, revised size of ESZ area and proper justification for proposing zero ESZ for the reconsideration.

3.2 Eco-sensitive Zone around Ramsagar Wildlife Sanctuary, Rajasthan

The proposal of Ramsagar Wildlife Sanctuary was deferred in the last ESZ meeting held on 5th October, 2016 on the request of the Govt. of Rajasthan.

Ramsagar Wildlife Sanctuary is situated in Dholpur district of Rajasthan. The Sanctuary has a varied habitat with diverse flora and fauna. The major faunal species include the Leopard, Hyaena, Jungle Cat, Chinkara, Crocodile, etc.. The forest area of Ram Sagar Wildlife Sanctuary is 'medium to degraded' in terms of vegetation and main flora is *Anogeissus pendula*, locally known as Kala Dhonk and its associate species. The Sanctuary has considerable adverse environmental impacts due to excessive degradation of the environment with excessive grazing, loss of tree cover soil erosion, etc., thereby endangering the natural resources of the sanctuary, both flora and fauna.

The Draft notification declaring an Eco-Sensitive Zone Ramsar Wildlife Sanctuary was published on 19th October 2015 with the following feature:

- Area of the PA: 34.40 sq. kms
- ESZ area: 31.39 sq. km
- ESZ Extent: varying between 2 km and 5 km from boundary of PA.

Shri M. K. Agrawal, Dy. Conservator of Forests (Wildlife) Jaipur Govt. of Rajasthan appraised the Committee about the proposal. Comments received from the stakeholder were discussed. Secretary, Mining Department, Government of Rajasthan requested to restrict the boundaries of the ESZ upto 100 meters or less as the proposed ESZ has sandstone deposits and has already been declared as mining land in revenue records of Rajasthan Govt. He Stated that closing these mines may adversely affect the revenue to State Govt. and employment opportunity in the area.

Shri Agrawal, further Stated that the State Govt. has revised the proposed ESZ in consultation with the mining department. The final proposed ESZ is of 1km all around the PA boundary with an ESZ area of 39.46 sq km. He presented the revised boundaries with list of villages falling in the ESZ. He also apprised the Committee that the map shown in the draft notification of the Gol did not match with the proposals of GoR. He further Stated that the area of the sanctuary has been given as 34.40 sq km in Draft Notification instead of 34.41 sq km, which needs to be corrected.

State Govt. proposed that the commercial mining activity should be prohibited only upto a distance of 1km from the boundary of PA. In the remaining area of ESZ the mining

activity will be regulated as per laws. In areas where the ESZ is zero or less than 1 km, prohibition of mining should be restricted upto the proposed ESZ boundary. The mining activity for use of *bona fide* locals will be regulated in the ESZ area. Representatives of the State Government informed that the State has sought revisions. The State Govt. further requested the Committee that the activity on establishment of hotels and resorts and construction be shifted from prohibited to regulated category which was agreed to by the Committee.

Chairperson suggested that biodiversity conservation may be promoted to support livelihood of the local people. She further suggested that although Eco-tourism is in the regulated list, hotels and resorts should be permitted as per the carrying capacity of that area and mushrooming of hotels and resorts should be avoided.

The Committee after deliberations recommended for finalization of the draft notification subject to receipt of additional information including furnishing of map and geo-coordinates by the State Government.

3.3 Eco-sensitive Zone around Bhainsrodgarh Wildlife Sanctuary, Rajasthan

The proposal of Bhainsrodgarh Wildlife Sanctuary was deferred in the last ESZ meeting held on 5th October, 2016 at the request of the Govt. of Rajasthan.

Bhainsrodgarh Wildlife Sanctuary lies in the district of Chittoragarh. Rana Pratap Sagar Dam and Nuclear Power Plants are also located in this area. Approximately 1/3rd of the sanctuary boundary is surrounded by "Rana Pratap Sagar Dam" Rawatbhata and River Brahmani. The sanctuary is known for crocodiles and different type of vultures such as Red headed, Egyptian, White backed, cylinder billed, Urasion, Griffon, Indian vulture and is an ideal habitat for herbivores, carnivores and varieties of territorial, arboreal and water birds. The ESZ is spread across 15 villages falling in Chittoragarh Districts of Rajasthan.

The draft notification for declaring an eco-sensitive zone around Bhainsrodgarh Wildlife Sanctuary was published on 20.11.2015 with the following features:

Area of the PA: 201.40 sq. km

ESZ Area: 258.83 sq. km

ESZ Extent : zero km to 3 km from the boundary of the PA

Shri M. K. Agrawal, Dy. Conservator of Forests (Wildlife) Jaipur Govt. of Rajasthan apprised the Committee about the proposal. The Sanctuary area as 229.14 sq km, ESZ area as 258.8350 sq. km and ESZ extent varies between zero to 3 km from the PA. The zero ESZ extent is proposed towards North due to presence of Jawahar Sagar Sanctuary. Similarly, Zero ESZ extent is proposed towards West as there is a Nuclear power plant in the vicinity. On the eastern side Rana Pratap Sagar Dam is also included in the ESZ to protect the aquatic fauna and flora. Comments were received from Administrative Secretary, Mining

Department, Government of Rajasthan requesting to restrict the boundaries of the ESZ upto 800 meters or less as the proposed ESZ contains sandstone deposits and has already been declared as mining land in revenue records of Rajasthan Govt. He stated that not exploring this mining area will adversely affect the revenue to State Govt. and employment opportunity in the area.

State Govt. proposed that commercial mining activity should be prohibited only upto a distance of 1 km from the boundary of PA. In the remaining area of ESZ, mining should be regulated as per laws. In areas where the ESZ is zero or less than 1 km, the prohibition will be restricted upto the proposed ESZ boundary. Mining for use of *bona fide* locals will be regulated in the ESZ area. Representatives of the objected to the proposal of the State Government. Also, the State Govt. further requested the Committee to shift establishment of hotels and resorts and construction activities from the prohibited to regulated category which was agreed upon by the Committee.

The Committee after deliberations recommended for finalization of the draft notification subject to receipt of additional information incorporating the aforesaid details from the State Government.

3.4 Eco-sensitive Zone around Kesarbagh Wildlife Sanctuary, Rajasthan

The proposal of Kesarbagh Wildlife Sanctuary was deferred in the last ESZ meeting held on 5th October, 2016 on the request of the Govt. of Rajasthan.

Kesarbagh Wildlife Sanctuary is located in Dholpur District of Rajasthan. The sanctuary has dry deciduous thorny forest and the important tree species include *Anogeissus pendula*, *Balanites aegyptica*, *Butea monosperma*, *Acacia catechu*, *A. leucophloea* etc. and the important faunal species found in the sanctuary include sloth bear, hyena, jackal, jungle cat, and wild boar. The Proposed ESZ of Kesarbagh Wildlife Sanctuary is spreading across 22 villages falling in Dholpur District of Rajasthan.

The Draft ESZ notification around Kesarbagh Wildlife Sanctuary was published on 15th January 2016 with the following features:

- Area of the PA: 14.76 sq. km
- ESZ Area: 22.39 sq. km
- ESZ Extent: varying between zero km and 4.873 km from PA boundary

Shri M. K. Agrawal, Dy. Conservator of Forests (Wildlife) Jaipur Govt. of Rajasthan appraised the Committee about the proposal. The comments received from stakeholders were discussed. Secretary, Mining department, Government of Rajasthan requested to restrict the boundaries of the ESZ upto 100 meters as the proposed ESZ have Sandstone deposits and has already been declared as mining land in revenue records of Rajasthan Govt. It was stated that there are fourteen mines fall within the proposed ESZ of

Kesarbagh WLS and closing these mines will adversely affect the revenue to State Govt. and loss of employment to local people of the area.

Accordingly, the State Govt in consultation with the Mining Department of the State has revised the proposed ESZ extent to 1km all around the PA boundary of with an ESZ area of 21.05 sq km. The revised boundaries of ESZ along with the coordinates were presented by Shri Aggrawal.

The State Govt. has further proposed that commercial mining should be prohibited only upto a distance of 1km from the boundary of PA. In the remaining area of ESZ mining activity should be regulated as per laws. In areas where the ESZ is zero or less than 1 km, prohibition will be restricted upto the proposed ESZ boundary. Mining activity will be regulated in the ESZ area for use of *bona fide* locals. Also, the State Govt. further requested the Committee that establishment of hotels and resorts and construction activities be shifted from prohibited to regulated category which was agreed upon by the Committee.

During the discussion, Chairperson emphasised that there should be a water conservation plan in the proposals for water scarce areas. She further stated that water recharge structures should be protected and promoted.

The Committee after deliberations recommended for finalisation of the draft notification subject to receipt of additional information incorporating the aforesaid details from the State Government.

3.5 Eco-sensitive Zone around Mt. Abu WLS, Rajasthan

The proposal was not discussed on the request of the Rajasthan Government.

HARYANA

3.6 Eco-sensitive Zone of around Bir Shikargarh Wildlife Sancturay, Haryana

The proposal of Bir Shikargarh WLS, Haryana was considered in the earlier ESZ Expert Committee Meetings held on 26th November, 2015, 31st May, 2016 and on 5th October, 2016. However, in all these meetings, consideration of the proposal was deferred on the request of the State Government.

The draft Notification to declare ESZ of Shikargarh WLS was published on 1st June, 2015 with the following features:

- Area of PA: 767 hectare
- ESZ area: 229 hectares
- ESZ Extent: Varying between zero metre to 1200 metres from PA boundary.

Recently, the proposal is once again considered in the ESZ Expert Committee meeting held on 19th October, 2016 and Shri P.P. Bhojvaid, Chief Wildlife Warden, Haryana attended the Meeting and appraised about the proposal. Comments received from M/s Burj Kotian Crusher Owners Association, Panchkula were also discussed in the meeting.

Shri Bhojvaid informed that in response to the draft notification dated 26th May, 2015, issued for delineation of Eco-Sensitive Zone around Bir Shikargarh Wildlife Sanctuary, a representation was made by the local MLA and the village Panchayat; thereafter CM, Haryana constituted a Committee to look into the matter. He further informed that Bir Shikargarh WLS and another WLS named Khol- Hi-Raitan are situated adjacent to each other with an Ariel distance of 2 km. Therefore after discussions with stakeholders and on the recommendation of the team of Standing Committee of NBWL, the river systems between Bir Shikargarh and Khol Hi Raithan Wildlife Sanctuary such as Ghaggar, Mala Nadi, Kaushalya and Jabrot have also been included in the ESZ of these protected areas as they form important Wildlife corridors.

Shri Bhojvaid stated that accordingly the State Government amended the boundaries of ESZ around Bir Shikargarh Wildlife Sanctuary. The revised Eco-Sensitive Zone is from 0 to 23.10 km from the boundary of Bir Shikargarh Wildlife Sanctuary within the State of Haryana and the area of ESZ is 1131ha. The revised map of ESZ boundary together with its latitude & longitude were provided during the meeting.

In the Draft Notification, the activity on erection of mobile towers has been included under prohibited category. However, to provide better communication/connectivity in the ESZ area it was agreed to shift it to regulated category. Similarly it was also agreed to include Eco-tourism activity under regulated category.

After detailed discussions, the Expert Committee recommended that the finalization of Draft Notification for declaring of Eco-Sensitive Zone around the Bir Shikargarh WLS, in the State of Haryana with above amendments.

HIMACHAL PRADESH

3.7 Eco-sensitive Zone around Khokhan WLS, Himachal Pradesh

The Khokhan Wildlife Sanctuary located in Kullu District of Himachal Pradesh. The flora and fauna of this Sanctuary represent rich biological significance. The main fauna of the Sanctuary include leopard, leopard cat, jungle cat, Himalayan civet, Black bear, Porcupine languor, Jackal, species of snakes, fish, Bats, Butterfiles etc. Besides this many Avi fauna such as Streaked Laughing Thrush, Variegated Laughing Thrush, Himalayan Woodpecker, Grey Bushchat, Ring Rosed Parakeet, Grey Wagtail, Blue Whistling Thrush, Blue Magpie, Fantail, Pipit, Rosefinch, Warbler, Rock Pigeon, Grey Partridge, Shikra, Common Hoopoe, Himalayan Griffon, Pea Fowl are found. The area has forests of Deodar, Fir, Spruce and Kall among conifers and also has a variety of broad leaved species such as *Prunus*, *Acer*, *Juglans*, *Buxus*, *Rhododendron*, *Celtis*, *Betula*, *Ulmus*, *Aesculus*, *Alnus*, *Myrica*.

A draft notification was published on 24th February 2016 declaring an Eco-Sensitive Zone around the boundary of Khokhan Wildlife Sanctuary with the following features:

Area of the PA: 14.94 sq. km

ESZ area: 7.45 sq. km

ESZ Extent: varying between zero Km to 2.75 km from the boundary of PA

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. The State Government proposed for a revised ESZ with an extent varying between 300 meters to 14.0 km. The presentation included details of flora and fauna and details of GPS coordinates of PA and ESZ. No comments were received from stakeholders on the Draft Notification.

The Expert Committee recommended the finalisation of Draft Notification for declaration of Eco-Sensitive Zone around the Khokhan WLS, in the State of Himachal Pradesh on submission of revised ESZ area.

3.8 Eco-sensitive Zone around Shikari Devi WLS, Himachal Pradesh

Shikari Devi Wildlife Sanctuary is located in district Mandi in Himachal Pradesh. The flora and fauna represent rich biological significance of this Sanctuary. The fauna of this Sanctuary include the Leopard cat, Jungle Cat, Black Bear, Monkey, Langur, Barking Deer, species of snakes, Flying squirrel, etc. and besides this many avifauna such as the Streaked Laughing Thrush, Variegated Laughing Thrush, Himalayan Woodpecker, Grey Bushchat, Ring Rosed Parakeet, Grey Wagtail, Blue Whistling Thrush, Blue Magpie, Fantail, Pipit, Rosefinch, Warbler, Rock Pigeon, Grey Partridge, Shikra, Common Hoopoe, Himalayan Griffon, Golden Eagle, Black Drongo, etc. Among pheasants there are Monal, Koklash, Kaleej, Chukor etc. The area has forests of Deodar, Fir, Spruce and Kall among conifers and has a variety of broad leaved spp. Among them are *Prunus*, *Acer*, *Juglans*, *Buxus*, *Rhododendron*, *Celtis*, *Betula*, *Ulmus*, *Aesculus*, *Alnus*, *Myrica* and other miscellaneous species providing under storey.

A draft notification declaring an Eco-Sensitive Zone around the boundary of Shikari Devi Wildlife Sanctuary was published on 26th February, 2016 with the following features:

- Area of the PA: 29.94 sq. km
- ESZ Area: 19.20 sq. km
- Extent of ESZ in draft Notification: between 50 meters and 2 km.

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. It was stated that the State Government has proposed to revise the extent of ESZ varying between 1 km and 17km. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ. No comments were received from public/stakeholders on the draft Notification. The proposal was accepted, with the revised extent of ESZ boundaries as proposed by the State Government.

The Expert Committee recommended the finalisation of Draft Notification for declaration of Eco-Sensitive Zone around the Shikari Devi WLS in the State of Himachal Pradesh on submission of revised ESZ area.

3.9 Eco-sensitive Zone around Nargu WLS, Himachal Pradesh

The proposal was considered in the earlier ESZ Expert Committee Meeting held on 4th July, 2016. However, the proposal was deferred as it was observed that in the northern and south-east sides no ESZ has been proposed, therefore the Committee had suggested exploring the possibility of extending ESZ in north and south-east sides and desired that the State Government revise and re-submit the proposal.

The Nargu Wildlife Sanctuary located in Mandi District of Himachal Pradesh. The flora and fauna represent rich biological significance of this Sanctuary. The area has forests of, Deodar, Fir, Spruce and Kall among conifers and has a variety of broad leaved spp. such as *Prunus*, *Acer*, *Juglans*, *Buxus*, *Rhododendron*, *Celtis*, *Betula*, *Ulmus*, *Aesculus*, *Alnus*, *Myrica* and other miscellaneous species providing under storey. The fauna include Western Tragopan Himalayan Monal, Chukor, Koklash, Kaleej, Kusk Deer, Barking Deer, Leopard, Leopard Cat, Jungle Cat, Himalayan Yellow Throated Marten, Black Bear, Brown Bear, Porcupine, Flying Squirrel, Monkey and Langur. The Eco-Sensitive Zone is 50.42 square kilometres with an extent up to 1 kilometre around the Nargu Wildlife Sanctuary.

The draft notification declaring ESZ around Nargu WLS was published on 26th February, 2016 with the following features:

- Area of the PA: 132.32 sq. km
- ESZ Area: 50.42 sq. km
- ESZ Extent: varying between zero km to 1 kilometre around PA

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh appraised the Committee about the proposal. Nargu Wildlife Sanctuary has Dhauladhar WLS in North West and Khokan WLS in South East direction. In view of this, the ESZ area is slightly revised by the State Govt with the extent varying between 700 meters and 3 km and ESZ area of 50.0425 sq Km. The presentation included the details of flora and fauna and GPS coordinates of PA and ESZ. No comments have been received from public/stakeholders on the draft Notification. The Chairperson suggested maintenance of cultural landscape of the local area in the ESZ.

The Expert Committee recommended the finalization of Draft Notification for Declaration of Eco-Sensitive Zone around the Nargu WLS, in the State of Himachal Pradesh after suggested changes are incorporated by the State Government.

3.10 Eco-sensitive Zone around Kais WLS, Himachal Pradesh

Kais Wildlife Sanctuary is situated in district Kullu in Himachal Pradesh. The flora and fauna represent rich biological significance of this Sanctuary. Kais WLS is known to harbour an exceptional variety of wildlife and the species found in this sanctuary are threatened species include Himalayan Monal, Leopard and other species like Black bear, Goral Leopard Cat, Himalayan yellow throated marten, Himalayan Palm Civet, Flying squirrel etc. It has been recognised as important bird area for Himalayan Monal endemic vulnerable species restricted to Himalayan region. The area has forests of Ban oak, Moist Deodar, Western mixed coniferous forests, Moist temperate deciduous forests and alpine pastures and important spp. are Fir, Spruce and Kail, Ban, *Kharsu*, *Juglan*, *Buxus*, *Rhododendron*, *Betula*, *Ulmus*, *Aesculus*, *Alnus*, *Myrica* and other miscellaneous species.

The draft notification declaring ESZ around Kais WLS was published on 19th April, 2016 with the following features:

- Area of the PA: 12.61 sq. km
- ESZ area: 24.651 sq km
- ESZ Extent: varying between 50 meters and 2.21km

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. The State Government proposed for a revised extent of ESZ varying between 120 meters and 3 km. The presentation included the details of flora and fauna and GPS coordinates of PA and ESZ. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were also discussed in the meeting. The Chairperson suggested maintenance of cultural landscape of the local area in the ESZ.

The Expert Committee after deliberation recommended the finalization of Draft Notification for declaring Eco-sensitive Zone around the Kais WLS, in the State of Himachal Pradesh on submission of revised ESZ Area by the State Government.

3.11 Eco-sensitive Zone around Kanawar WLS, Himachal Pradesh

Kanawar Wildlife Sanctuary is located in Kullu District of Himachal Pradesh. The flora and fauna represent rich biological significance of this Sanctuary. The area has forests of Deodar, Fir, Spruce and Kall among conifers and has a variety of broad leaved spp. such as *Prunus*, *Acer*, *Juglans*, *Buxus*, *Rhododendron*, *Celtis*, *Betula*, *Ulmus*, *Aesculus*, *Alnus*, *Myrica* and other miscellaneous species. The fauna include Leopard, Brown bear, Himalayan Civet, Himalayan Yellow Throated Marten, Black Bear, Barking Deer, Monkey and Jackal, etc.

The draft notification declaring ESZ around Kanawar WLS was published on 19th April, 2016 with the following features:

- Area of the PA: 107.29 sq km

- ESZ Area: 64.655 sq km
- ESZ Extent: vary between zero km and 2.7 km

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were also discussed in the meeting. Zero extent was proposed towards South-Eastern side in the draft notification as this side is connected with Great Himalayan National Park. The State Government has proposed for a revised extent of ESZ varying between 300 meters and 3.5 km. Since the Great Himalayan National Park is situated in the vicinity of ESZ of Kanawar WLS, Chairperson desired that the same should be reflected in the proposal. In view of this the Committee asked to submit a coloured maps with clear land use features and demarcation of PA and ESZ boundary and revised ESZ area before proceeding for its final ESZ notification.

The Committee after deliberation recommended the proposal for finalisation of the draft notification with above stated revision and information sought from the State Government as above.

3.12 Eco-sensitive Zone around Kugti WLS, Himachal Pradesh

Kugti Wildlife Sanctuary is situated in Chamba District of Himachal Pradesh. The flora and fauna represent rich biological significance of this sanctuary. The Kugti Wild Life Sanctuary is habitat of Himalayan Ibex (*Capra Ibex*), Snow Leopard (*Panthera uncia*), Himalayan Tahr (*Hemitragus jemlahicus*), Musk Deer (*Moschus moschieferus*), Ghoral (*Nemorthaedus goral*), Leopard (*Panthera pardus*) Brown Bear (*Ursus arctos*), Black Bear (*Selenarctos tibetanus*) Monal (*Lophophorous impejanus*), Western Tragopan (*Tragopan melanocephalus*), Chakor (*Alectoris chukar*), Koklas (*Pucrasia macrolopha*), etc. Flora of WLS is represented by Kail (*Pinus wallichiana*), Spruce (*Picea smithiana*), Silver Fir (*Abies pindrow*) *Berberis*, *Ionicera*, *Quercus semecarpifolia*, *Betula utilis*, Rakhal (*Taxus baccata*), *Rhododendron*, *Aesculus indica*, *Corylus columna*, *Acer pictum*, , *Juglans regia*,, *Betula*, *Rhododendron companulatum*, *Viburnum*, *Strobilanthus*, *Sarhococca*, and *Rosa*, *Juniperus recurva*. *Jurinea macrocephala* (Dhoop), *Aconitum heteroplyllum* (Patis), *Picrorhiza kurrooa* (Kaur), *Sassurea lappa* (Kuth), *Viola odorata* (Banafsha), and *Valeriana wallichii* (Muskwala).

The draft notification declaring ESZ around Kugti WLS was published on 19th May, 2016 with the following features:

- Area of the PA: 405.49 sq km
- Area of ESZ Area: 63.70 sq km
- ESZ Extent: vary between zero and 1 km from the sanctuary boundary

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. The presentation included the details of flora and fauna

and details of GPS coordinates of PA and ESZ. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were also discussed in the meeting. The State Government has proposed revised extent of ESZ varying between 500 meters and 2 km. During presentation it was stated that because of inaccessible range of Dhauladhar Peaks and Lahaul spiti, Zero ESZ was proposed in the northern and eastern sides.

The Committee after deliberations recommended the proposal for finalisation of the draft notification on submission of revised ESZ area by the State.

3.13 Eco-sensitive Zone around Kibber WLS, Himachal Pradesh

Kibber Wild Life Sanctuary is situated in the Lahul and Spiti District of Himachal Pradesh. The important fauna found in this sanctuary are Snow Leopard, Ibex, Golden Eagle, Red Fox, Blue Sheep, Brown Bear and Wolf. The Eco-sensitive Zone is proposed with an extent of 160 metres around the Western and South Western boundary of Kibber Wildlife Sanctuary covering an over an area of 310 square kilometres. No Eco-sensitive Zone is proposed in other directions where most of the area is permafrost or inaccessible.

The draft notification declaring ESZ around Kibber WLS was published on 28th April 2016 with the following features:

- Area of the PA in draft: 1353.12 sq km
- ESZ Area: 310 Sq. km
- ESZ Extent: vary between zero m and 160m

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. It was informed that the State Government revised the area of the Protected Area as 2220.12 sq km with ESZ extent varying between 500 meters and 2 km around the Western and South Western boundary of Kibber Wildlife Sanctuary. ESZ is proposed mainly on Western and South Western sides of Kibber WLS. In other directions the area is permafrost, inaccessible and free form habitation and biotic pressure and therefore zero ESZ is proposed on these directions. Kibber WLS has important corridor with Changthang WLS of Ladakh in North-East direction, International boundary in East and inaccessible area of high altitudes on Western side. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were discussed in the meeting.

The Committee after deliberation recommended the proposal for finalisation of the draft notification on submission of revised ESZ area by the State.

3.14 Eco-sensitive Zone around Kalatop-Khajjjar WLS, Himachal Pradesh

The Kalatop - Khajjjar Wildlife Sanctuary situated in Chamba District of Himachal Pradesh. The flora and fauna represent rich biological significance of this sanctuary; the

Kalatop-Khajjiar Wild Life Sanctuary is habitat of Black Bear, Leopard, Leopard cat, Ghoral, Monal, Chakor, Koklas, Kalij, Cheer etc.

The draft notification for declaring ESZ around Kalatop - Khajjiar WLS was published on 3rd June 2016 with the following features:

- Area of the PA: 17.17 sq km
- Area of ESZ: 2.25 sq km
- Extent of ESZ: Vary between zero and 500 meters from the PA boundary

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh appraised the Committee about the proposal. Shri informed the Committee that the ESZ proposal is revised keeping in view the population density and topography of the area. The revised the ESZ extent varies between 300 meters to 1 km. The presentation included the details of flora and fauna and details of GPS coordinates of PA and ESZ. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were also discussed in the meeting.

The Committee after deliberation recommended the proposal for finalisation of the draft notification on submission of revised ESZ area by the State.

3.15 Eco-sensitive Zone around Sangla Valley Sanctuary, Himachal Pradesh

Sangla Valley (Rakchham-Chitkul) Wildlife Sanctuary is situated in District Kinnaur District of Himachal Pradesh. The flora and fauna represent rich biological diversity of this Sanctuary. The Sangla Valley Wildlife Sanctuary is a habitat of Black Bear, Brown Bear, Musk Deer, Leopard, Snow Leopard, Monal, Chakor, etc.

The draft notification declaring ESZ around Sangla Valley WLS was published on 3rd June 2016 with the following features:

- Area of the PA: 304.0 sq. km
- ESZ Area: 464.80 Sq. km
- ESZ Extent: vary between zero and 15 km.

Shri S. S. Negi, PCCF (Wildlife) & Chief Wildlife Warden, Himachal Pradesh apprised the Committee about the proposal. The State Government revised the extent of the ESZ and it varies between 800 m and 28 Km. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ. There is no ESZ is proposed in South and South Western side wherein it shares boundary with Govind Parshu Vihar National Park and Sanctuary of Uttarakhand. Also, there is no ESZ is proposed in West direction due to presence of habitation. Generic comments received from Shri Debi Goenka, Conservation Action Trust Mumbai were discussed in the meeting.

The Committee after deliberation recommended the proposal for finalisation of the draft notification on submission of revised ESZ area by the State.

3.16 Eco-sensitive Zone around Tundah WLS, Talra WLS, Chandertal WLS, Gamgul Siyabehi WLS and Churdhar Sanctuary, Himachal Pradesh

The proposal was considered and the Committee desired that the State Government should prepare an integrated ESZ proposal wherever two or more Wildlife Sanctuaries situated closely or are located in vicinity of a National Park. The Chairperson had suggested the Himachal Pradesh officials to explore the above possibility and come back with the revised proposals for (i) Tundah WLS (ii) Talra WLS (iii) Chandertal WLS (iv) Gamgul Siyabehi WLS and (v) Churdhar Sanctuary. The Committee after deliberation deferred the proposals of above Stated four (5) proposals in view of above suggestions.

Based on the draft notifications, comments received on the draft notifications, presentations made on the proposals and discussions in the Expert Committee meeting, the Expert Committee recommended three (3) proposals of Rajasthan; one proposal of Haryana and seven (7) proposals of HP while three (3) proposals Chhattisgarh were deferred, and one (1) proposal Rajasthan were not considered on the request of the State Government of Rajasthan:

| Sl. No. | Protected Area | State | Decision |
|---------|--------------------|-------------------------|---|
| 1. | Nahargarh WLS | Rajasthan | Revised proposal to be submitted by State for reconsideration |
| 2. | Ramsagar WLS | -do- | Recommended with changes suggested by the Committee |
| | Bhainsrodgarh WLS | -do- | Recommended with changes suggested by the Committee |
| | Kesarbagh WLS | -do- | Recommended with changes suggested by the Committee. |
| | Mount Abu WLS | -do- | Not considered on the request of the State Government |
| | Bir Shikargarh WLS | Haryana | Recommended |
| 3. | Khokhan WLS | Himachal Pradesh | Recommended |

| Sl. No. | Protected Area | State | Decision |
|---------|---------------------------|---------------------|--|
| 4. | Shikari Devi Sanctuary | -do- | Recommended |
| 5. | Nargu WLS | -do- | Recommended with incorporation of changes suggested by the Committee |
| 6. | Kais WLS | -do- | Recommended with incorporation of changes suggested by the Committee |
| 7. | Kanawar WLS | -do- | Recommended with incorporation of changes suggested by the Committee |
| 8. | Kugti WLS | -do- | Recommended with incorporation of changes suggested by the Committee |
| 9. | Kibber WLS | -do- | Recommended |
| 10. | Kalatop-Khajjar Sanctuary | -do- | Recommended with incorporation of changes suggested by the Committee |
| 11. | Sangla Valley Sanctuary | -do- | Recommended with incorporation of changes suggested by the Committee |
| 12. | Tundah Sanctuary | -do- | Deferred for submission of a common ESZ proposal including two or more PAs |
| 13. | Talra Sanctuary | -do- | |
| 14. | Chandertal Sanctuary | -do- | |
| 15. | Gamgul Siyabehi Sanctuary | -do- | |
| 16. | Churdhar Sanctuary | -do- | |
| 17. | Badalkhol WLS | Chhattisgarh | Deferred |
| 18. | Bhoramdev WLS | -do- | Deferred |
| 19. | Bhairamgarh WLS | -do- | Deferred |

Minutes of 20.10.2016 (Day 2)

The list of participants in the 20th October Meeting is annexed as **Annexure B**. On 20th October, 2016, the following eighteen (18) proposals were listed in agenda of the meeting for consideration to finalise the draft ESZ notifications:

| S. No. | Protected Areas | State |
|---------------|--------------------------------------|------------------|
| 1. | Cauvery WLS | Karnataka |
| 2. | Sharavati WLS | -do- |
| 3. | Kudremukh WLS | -do- |
| 4. | Arabithittu WLS | -do- |
| 5. | Rangayanadurga 4-Horned Antelope WLS | -do- |
| 6. | Ghataprabha WLS | -do- |
| 7. | Bhimgad WLS | -do- |
| 8. | Ranganathittu WLS | -do- |
| 9. | Bannerghata WLS | -do- |
| 10. | Velavadhar Black Buck NP | Gujarat |
| 11. | Khijadia WLS | -do- |
| 12. | Hingolghadh WLS | -do- |
| 13. | Barda WLS | -do- |
| 14. | Porbander WLS | -do- |
| 15. | Gaga Great Indian Bustard Sanctuary | -do- |
| 16. | Nalsarovar WLS | -do- |
| 17. | Hazaribagh WLS | Jharkhand |
| 18. | Palamau Tiger Reserve | -do- |

2. In addition, Chief Wildlife Warden of Goa was invited in the meeting for discussing the ESZ proposal of Bhimgad Wildlife Sanctuary located in the State of Karnataka having a State boundary along with the Madei Wildlife sanctuary in Goa. The Government of Jharkhand had regretted for not being able to be present in the meeting and hence requested for the deferment of the proposals for declaration around Hazaribagh Wildlife Sanctuary and Palamau Tiger Reserve. The Government of Gujarat requested for the deferment of proposals for declaring ESZ around Velavadar Black Buck National Park and Barda Wildlife Sanctuary due to huge number of objections received from the local stakeholder. The State Government of Karnataka requested for the deferment of proposals for declaring ESZ around Ranganathittu Wildlife Sanctuary and Bannerghata National Park. On the request of Karnataka Government, two proposals for declaring ESZ around Ranebennur Blackbuck and Gudavi Sanctuaries in Karnataka were considered in addition to those Stated in the agenda, with the permission of Chair.

3. At the outset, the Chair, Dr. Amita Prasad, welcomed the members of the Expert Committee and representatives from the Governments of Gujarat and Karnataka. Dr. Prasad emphasised the importance of Eco-Sensitive Zone around PAs and highlighted the need of inclusion of green audit in the ESZ notification and suggested that there should be periodic review, to know the status of wildlife and protected areas in the country. Use of new technologies such as mobile applications should be promoted for day to day monitoring and application of specific conservation strategies. In case of protected areas having wetlands, there should be provisions to maintain the water quality through Water/Sewage Treatment Plants.

The Chairperson also Stated that scientific institutions such as the Centre for Ecological Sciences of Indian Institute of Sciences, Bengaluru is specialised with the ecology of the Western Ghats, and should be engaged for effective conservation of biodiversity of the region. She also pointed out the importance of taxonomy and suggested that the taxonomists should be identified using local staff/people who could be associated with the experts of BSI and ZSI to generate the interest of local community and involve them in the process of conservation. Thereafter, discussion started with the ESZ of Bhimgad WLS.

5 Discussion on ESZ Proposals

KARNATAKA

5.1 Eco-Sensitive Zone around Bhimgad Wildlife Sanctuary, Karnataka

The proposal of Bhimgad Wildlife Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Karnataka and again deferred on 30th July, 2016 ESZ meetings.

PCCF (WL), Goa who had specifically attended the consideration of this proposal in th meeting stated declaration of 10km radius of ESZ around Bhimgad Wildlife Sanctuary was

important for the State of Goa, as the catchment of the Madei Wildlife Sanctuary falls in the Bhimgad WLS as River Mahadeyi which flows into Madei WLS, Goa originates from Bhimgad WLS, in the State of Karnataka. Therefore, the area between the States of Goa and Karnataka should be included in the ESZ to ensure that the region does not develop unsustainably. In view of this, Government of Goa had requested this Ministry to intervene and resolve the issue between two States.

Chairperson requested the PCCF and CWLW, Goa to explain their views in regard with the Madei Wildlife Sanctuary. The PCCF and CWLW, Goa Stated that Karnataka should declare Eco-Sensitive Zone around Bhimgad Wildlife Sanctuary in such a way that it should also protect the north-eastern side of the Madei Wildlife Sanctuary. The Government of Karnataka stated that extension of ESZ is not feasible due to physiographic features and socio-political constraints. After a brief discussion and exchange of views between two States, it was advised that the issue should be resolved through the mutual consent of the State Governments. A communication in this direction would be issued to both the States. Thereafter, Chairperson requested the representatives of Karnataka and Gujarat for presentation of their proposals as per the Agenda.

5.2 Eco-Sensitive Zone around Cauvery Wildlife Sanctuary, Karnataka

The proposal of Cauvery Wildlife Sanctuary was deferred in the ESZ meeting held on 30th July 2016 as State Government could not present it in the Expert Committee Meeting.

Cauvery Wildlife Sanctuary is located at the tri-junction of Chamarajanagar, Mandya and Ramanagara districts of Karnataka State, India. The Sanctuary is named after River Cauvery which flows all along the middle of the Wildlife Sanctuary for about 105 km distance from West end of the sanctuary to South-East end of the wildlife sanctuary. Cauvery wildlife sanctuary is situated at the southern-most tip of the Eastern Ghats, very close to the point where Eastern Ghats meets Western Ghats. Cauvery wildlife sanctuary forms a vital link between the MM Hills wildlife sanctuary-BRT Tiger Reserve on the South-west side & Bannerghatta National Park on the Northern side (Ramdevarabetta-Chavarkal elephant corridor) and thus became critical for the movement & thus long term survival of Endangered and Vulnerable species like Royal Bengal Tiger, Asian elephants and leopards etc.

Since Cauvery wildlife sanctuary is located at the confluence of the Western Ghats and Eastern Ghats, it harbours the flora & fauna of Western Ghats, Eastern Ghats and also some species unique to this area and thus holds rich biodiversity value. Cauvery wildlife sanctuary is the only habitat within the State of Karnataka for Near Threatened (IUCN) species of grizzled giant squirrel (*Ratufa macroura*) which is endemic to southern India and Sri Lanka. Cauvery wildlife sanctuary stands as one among the three places in India, where this grizzled giant squirrel has been documented and reported till date. Very recently honey badger or ratel (*Mellivora capensis*) has been recorded & camera trapped for the first time from the Cauvery wildlife sanctuary and thus the sanctuary became unique habitat in the State of Karnataka for the protection and conservation Honey badger.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 656(E) dated 03.03.2016 was published with the following features:

- Area of PA: 1027.51 sq. km
- ESZ Area: 558.906 sq. km
- ESZ Extent: varying between 0.10 km and 15 km

The representative of the State Government apprised the Committee about the proposal. It has increased the minimum ESZ extent and now it is proposed to vary between 1.0 km and 14.5 km without any change in ESZ Area and number of villages. The presentation included the details of flora and fauna and details of GPS coordinates of PA and ESZ and list of villages. Comments/objections on provisions of draft notification raised by local stakeholders were discussed in the meeting and considered while making recommendations. The State Government has requested to make following changes in the following activities:

- I. Use of production of hazardous substances should be considered under Regulated Activity.
- II. Undertaking activities related to tourism like over-flying the National Park Area by aircraft, hot-air balloons should be considered under Regulated Activity.
- III. Construction Activities, household small kirani shops etc. should be permitted within 1 km from the boundary of PA.
- IV. Sale of surface water or ground water should be allowed only for the drinking water needs of the local population like establishing RO unit.

The Committee discussed the matter in length and are in the view that to allow all these changes may lead to the misuse of ESZ provisions thereby diluting the overall purpose of declaring ESZ around PAs. Chairperson Stated about the carrying capacity in the area for promoting tourism.

The Committee after deliberation recommended the proposal for finalisation of the draft notification with the changed extent of ESZ boundaries as proposed by the State Government for publication of the final notification.

5.3 Eco-Sensitive Zone around Sharavati Wildlife Sanctuary, Karnataka

The proposal of Sharavati Wildlife Sanctuary was deferred in the ESZ meeting held on 30th July 2016 as requested by the State Government.

Sharavathi Valley Wildlife Sanctuary is located at Sagara Taluk of Shimoga District, Karnataka State. Hilly area forms the catchment basin for Sharavati River. Sharavati Valley Wildlife sanctuary is spread over parts of Sagara taluk with an extent of 431.32 sq. km. Sharavathi Valley wildlife sanctuary forms vital link between Dandeli Tiger Reserve and Mookambika, Someshwara and Kudremukh National Park thus became critical for the

movement & thus long term survival of endangered species like tiger, elephant and leopard etc.

Sharavathi Valley wildlife sanctuary is located at the core of the Western Ghats and harbors lot of endemic flora & fauna, thus holds rich biodiversity value. Sharavathi Valley wildlife sanctuary along with adjoining forests of Sirsi, Honnavar Divisions forms the largest habitat for Lion Tailed Macaque. About 322 important plant species (28 RET), 48 species of Amphibians (15 RET), 237 Bird species, 10 RET Species of Mammals, 4 RET species of Reptiles found in the sanctuary.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3551(E) dated 29.12.2015 was published with the following features:

- Area of PA : 431.32 sq. km
- Proposed ESZ area : 737.495 sq. km
- Proposed Extent of ESZ : 1.0 to 9.5 km

The representative of the State Government apprised the Committee about the proposal. It has increased the minimum ESZ extent and now it is proposed to vary between 1.0 km and 13.8 km, with an ESZ area of 737.495 sq km and additional villages. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages. Comments/objections on provisions of draft notification raised by local stakeholders were discussed in the meeting and considered while making recommendations. The State Government has requested to make following changes in the following activities:

- I. Use of production of hazardous substances.
- II. Undertaking activities related to tourism like over-flying the National Park Area by aircraft, hot-air balloons” should be considered under “Regulated Activity.
- III. Construction Activities, household small kirani shops etc. should be permitted within 1 km from the boundary of PA and
- IV. Fishing.

The Committee discussed the matter in length and are in the view that to allow all of the suggested changes may lead to the misuse of ESZ provisions thereby diluting the overall purpose of declaring ESZ around PAs. Further, Chairperson Stated to explore the possibility of including the water bodies in the south western part of the protected area under ESZ. Based on the response of the State Government the proposal would be finalised.

5.4 Eco-Sensitive Zone around Kudremukh National Park, Karnataka

The proposal of Kudremukh National Park was deferred in the ESZ meeting held on 30th July 2016 as State Government could not present it in the Expert Committee Meeting.

Kudremukh National Park is located at the trijunction of Udupi, Dakshina Kannada and Chikmagalur districts of Karnataka. Being part of the Central Western Ghats, Park is largely mountainous and forms the largest contiguous block of tropical rainforest in the entire Western Ghats. The Park also has the largest Shola-grassland complex and is the catchment of three major rivers –Tunga, Bhadra which are east flowing and Nethravathi which is west flowing, vital to the water needs of the drier plains of the KNP. In 2012, Kudremukh NP along with Someshwara WLS became part of UNESCO World Heritage Site. Nearly 1300 families belonging to 108 settlements including the Kudremukh Township reside inside the National Park.

Kudremukh is the largest remaining home/habitat for the single largest population of the Lion tailed macaques. The National Park is also home for King Cobra, the longest venomous snake in the world and Malabar Slender Loris a rare primate endemic to Kudremukh. The National Park is a representative of Tropical wet evergreen forest holding the assemblage of three top carnivores like Tiger, Leopard and Wild dogs. Kudremukh National Park holds high degree of endemism for faunal groups like reptiles, amphibians and fishes. Insects represent the most diverse faunal species followed by birds inside the National Park area. Other important fauna occurring in this National Park include Asiatic elephant, Indian Bison, sambar, barking deer/muntjac, spotted deer, mouse deer, sloth bear, striped hyena, chevrotain, wild pig, Hanuman langur, bonnet macaque, Malabar giant squirrel, peacock, python and Malabar civet cat etc. Kudremukh National Park is considered as a hottest hotspot for orchids in central Western Ghats.

Kudremukh National Park is the fountain head and catchment for major rivers like Tunga, Bhadra and Nethravathi and also catchments for other minor rivers like Swarna, Gurupura, Yennehole and Seethanadhi, forming the lifeline of three districts and plays a vital role in the regional economy. Kudremukh receives one of the highest rainfalls in South India (average of 7000 mm per year). Further, Kudremukh National Park holds one of the highest standing biomass estimated at an average of 250-300 tons per hectare and therefore acts as one of the great carbon sinks, an antidote to global warming & climate change.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 63(E) dated 07.01.2016 was published with the following features:

- Area of PA: : 600.57 sq. km
- ESZ area : 286.259 sq. km
- ESZ Extent : Varying between zero and 10 Km

The representative of the State Government apprised the Committee about the proposal. It has increased the minimum ESZ extent and now it is proposed to vary between 1.0 km and 9.6 km, with ESZ area of ESZ as 316.63 sq. km and additional villages. The presentation included the details of flora and fauna and details of GPS coordinates of PA and ESZ and list of villages. Comments/objections on provisions of draft notification raised by local stakeholders were discussed in the meeting and considered while making recommendations. The State Government has requested to make changes in the following activities:

- I. Under Establishment of Industries causing air, water, soil and noise pollutions household small kirani shops etc will be permitted within 1km from the boundary of PA.
- II. Sale of surface water or ground water should be allowed only for the drinking water needs of the local population like establishing RO unit.
- III. Use of production of hazardous substances should be considered under Regulated Activity.
- IV. Undertaking activities related to tourism like over-flying the National Park Area by aircraft, hot-air balloons should be considered under Regulated Activity.

The Committee discussed the matter in length and are in the view that to allow all of the suggested changes may lead to the misuse of ESZ provisions thereby diluting the overall purpose of declaring ESZ around PAs. Further, Chairperson Stated that it is contiguous with Someshwara WLS and Mukambika WLS accordingly the Divisional Officer should be made Chair of the Monitoring Committee.

The Committee after deliberations recommended the proposal for finalisation of the draft notification with the changed extent of ESZ boundaries as proposed by the State Government for publication of the final notification.

5.5 Eco-Sensitive Zone around Arabithittu Wildlife Sanctuary, Karnataka

The proposal of Arabithittu Wildlife Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Karnataka and on 30th July 2016 as State Government could not present it in the Expert Committee Meeting.

Arabithittu Wildlife Sanctuary is situated in Hunsur Taluka of the Mysore district, Karnataka. The sanctuary harbours varied fauna including panther, spotted deer, wild pig, Indian, porcupine, Indian hare, common mongoose, fox, partridges, cobra, rat snakes, viper etc. The Sanctuary has dry deciduous scrub forests which have *Santalum album*, *Anogeissus latifolia*, *Embllica officinalis*, *Ficus species*, *Hardwickia binata*, *Mitragyna parviflora*, *Terminalia tomentosa*, *Zizypus spp*, *Cassia fistula*, *Dodonea viscose*, *Diospyros melanoxylon*, *Syzygium cumini*, *Chloroxylon swietenia*, *Acacia sundra* etc,. The pressure of grazing on the Sanctuary is high as it is surrounded by many villages and there is no other forest land.

The Ministry of Defence, Government of India, has set up a Defence Research and Development Organization establishment at Arabithittu Wildlife Sanctuary by acquiring 718.39 Acres of revenue lands adjacent to the sanctuary during the year 1992-93 and the defence authorities have fenced the boundary of Arabithittu Sanctuary for protection.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3329(E) dated 07.12.2015 with published with the following features:

- Area of PA : 13.50 sq. km
- ESZ Area : 39.76 sq km
- ESZ Extent : varying between 0.015 km to 10 km.

No comments on the draft notification has been received. The representative of the State Government apprised the Committee about the proposal. The minimum ESZ extent has been increased and varies between 1 km to 3.25 km, with an ESZ area of 39.76 sq. km with same number of villages. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages. It has stated that the Hosurumaramma Temple is the main centre of cultural/ Religious value.

Chairperson stated that the DRDO establishment be outside of ESZ. The Committee after deliberation recommended the proposal for finalisation of the draft notification with the changed extent of ESZ boundaries as proposed by the State Government for publication of the final notification, details of which will be provided by the State Government.

5.6 Eco-Sensitive Zone around Rangayanadurga Wildlife Sanctuary, Karnataka

The proposal of Rangayanadurga Wildlife Sanctuary was deferred in the ESZ meeting held on 30th May 2016 and again on 30th July 2016 on the request of the Govt. of Karnataka.

Rangayyanadurga Four Horned Antelope Wildlife Sanctuary is located in Jagalur Taluk of Davanagere district of Karnataka. The forests of Rangayyanadurga Reserved Forests mainly consist of Southern tropical mixed deciduous forest and Southern dry mixed deciduous forest. The vegetation consists of predominantly *Harwickia binata* (Kamara), *Albizia amara* (Thugli), *Anoegissus latifolia* (Dindiga), *Azardicta indica* (Bevu), *Cassia fistula* (Kakke), etc. in association with *Chloroxylon swietenia* (Masivala), *Soyamida febrifuga* (Some) and other fuel species. Apart from this drought resistant species such as *Euphorbias*, *Asclepiads* and *Acacias* are found, the characteristic among these being *Acacia sundra* (Thared), *Acacia nilotica* (Karijali), scrub jungle consisting of *Prosopis juliflora* and other thorny shrubs are common in this region.

The Four Horned Antelope (*Tetraceros quadricornis*) being Schedule-I species is the Flagship species of these forests. Leopards are found in the hilly tract of these forests. Bears, hyaenas and wild boars are seen in the valley portions. Hares are found in plenty in the Hill slopes. Poisonous reptiles include cobras, viper and krait. Different varieties of scorpions are recorded. The commonly found avifauna are jungle crow, sparrow, common myna, golden backed wood pecker, pigeons and partridges. Typical birds of prey are vultures and the paraiah kites. Apart from these other birds like bulbul, stark and cuckoo, peacock are also found.

In order to conserve and protect the habitat in and around the PA, vide a draft notification S.O. 71(E) dated 07.01.2016 was published with the following features:

- Area of PA: 77.24 sq. km
- ESZ area: 136.65 sq. km
- ESZ Extent: Varying between 0.80 km and 2.25 km.

No comments on the draft notification have been received in the Ministry. The representative of the State Government apprised the Committee about the proposal. The ESZ has been increased and is proposed to vary between 0.95 Km and 4.5 km an ESZ area of 137.14 sq. km with same number of villages. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages.

The Committee discussed the matter in length and recommended with the changed extent of ESZ boundaries as proposed by the State Government, for publication of the final notification.

5.7 Eco-Sensitive Zone around Ghataprabha Bird Sanctuary, Karnataka

The proposal of Ghataprabha Bird Sanctuary was deferred in the ESZ meetings held on 30th May 2016 and on 30th July 2016 on the request of the Govt. of Karnataka.

Ghataprabha Bird Sanctuary is located in Gokak and Hukkeri Talukas of Belgaum District of Karnataka. It is a small bird sanctuary comprising a section of Ghataprabha River and over 22 islands in it. A weir and dam constructed during 1883 near Dhupadal have created a reservoir upstream with a large island in its midst. The Gokak waterfalls located in the eastern part of the Sanctuary is the major tourist attraction. Water exists around the island throughout the year except for a few days during March. The PA is connected with a good rail and road network of rail and attracts many tourists, bird watchers, and school children. It gives good opportunity to create awareness amongst the. It is a good example of riverine ecosystem.

Most of the islands that comprise the sanctuary are barren and dry and one of them at western side of Dhupadal Lake is swampy and another has a good growth of *Acacia arabica*, *Pithecollobium dulce* and *Bambusa arundinaecia*, both being introduced species. *Acacia arabica* and *Imperate cylindrica* are considered of special interest, as they are good for nesting. Apart from harbouring endemic birds such as Little Cormorant, Egret, Ibis, Kingfisher, storks, snake birds, heron etc., the area is noted for migratory birds such as the Demoiselle Crane and European White Stork sighted normally during November to March.

In order to conserve and protect the habitat in and around the PA, vide a draft notification S.O. 3550(E) dated 29.12.2015 was published with the following features:

- Area of PA : 29.875 sq. km
- ESZ area : 22.66 sq. km
- Extent of ESZ : 0.30 km around the boundary of the Sanctuary

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. There are no changes suggested by the State government. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages. The State Government requested to make changes in the following activities:

- i. Under Setting up of Industries causing air, water, soil and noise pollutions, household small kirani shops etc. should be permitted within 1 km from the boundary of PA.
- ii. Prohibited activity, i.e. "Use of production of hazardous substances" should be considered under 'Regulated Activity'.
- iii. Prohibited activity, i.e. "Undertaking activities related to tourism like over-flying the National Park Area by aircraft, hot-air balloons" should be considered under "Regulated Activity".
- iv. Sale of surface water or ground water should be allowed only for the drinking water needs of the local population like establishing RO unit.

The Committee discussed the matter and are in the view that to allow all of the suggested changes may lead to the misuse of ESZ provisions thereby diluting the overall purpose of declaring ESZ around PAs. The Committee after deliberation recommended the proposal for finalisation of the draft notification for publication of the final notification.

5.8 Eco-Sensitive Zone around Ranebennur Blackbuck Sanctuary, Karnataka

The proposal of Ranebennur Blackbuck Sanctuary was deferred in the ESZ meeting held on 30th May 2016 and on 30th July 2016 on the request of the Govt. of Karnataka.

Ranebennur Blackbuck Sanctuary is located in Ranebennur, Haveri and Byadgi Taluks of Haveri District of Karnataka. The vegetation consists of *Acacia catechu*, *Prosopis juliflora*, *Dodonea viscosa*, *Acacia sundra*, *Zizyphus mauritiana*, *Randia specia* and *Cassia auriculata*, *Cassia fistula*, Neem (*Azadirachta indica*), *Holoptelia integrifolia*, *Madhuca indica*, *Ficus specia* and Bamboo have been planted along the Sanctuary's roads. The sanctuary is known for its blackbuck and wolf populations and other mammals. Hyenas are also found in the Iranigudda area of the sanctuary. The population of blackbuck has seen a constant increase since the establishment of the sanctuary and the great Indian bustard, a large cursorial bird, also used to be sighted in the short grass plains of the sanctuary till the year 2005 and apart from the great Indian bustard, avifauna in the sanctuary includes Peafowl, Cuckoo, Gray Babbler, Shrike, Black Drongo, Gray Partridge, Sand Grouse, Bush Quail, etc.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 64(E) dated 07.01.2016 was published with the following features:

- Area of PA : 119 sq. km;
- ESZ Area : 112.74 sq. km;
- ESZ Extent : 100 meters to 1.47 kilometres

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. It has increased the minimum ESZ extent and now it is proposed to vary between 100m to 4.6 km with ESZ area of 11274 51 sq. km with 38 number of villages in two blocks. It has stated that the minimum distance is kept 100m due to presence of highway. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages.

The Committee recommended the proposal with the changed extent of ESZ boundaries as proposed by the State Government, for publication of the final notification.

5.9 Eco-Sensitive Zone around Gudavi Bird Sanctuary, Karnataka

The proposal of Gudavi Bird Sanctuary was deferred in the ESZ meeting held on 30th July 2016 upon request of State Government.

Gudavi Bird Sanctuary is situated in Sorba Taluk of Shimoga district of Karnataka. The area is covered by moist deciduous forests and wet lands of Sahyadri hills of Western Ghats, and has magnificent and valuable forest track and in spite of severe biotic pressure, parts of the sanctuary have been able to retain its pristine, dense and diverse vegetation. It is absolutely essential to ensure that the existing resources are not only effectively conserved but appropriate steps are also initiated to further improve the resources. The sanctuary is immensely rich in flora and fauna both in variety and diversity as these forests consist of valuable species including sandal, bamboo, rosewood, honne, nandi, etc., and harbour wildlife like Spotted Deer, Wild Boar, monkeys, Malabar Squirrel, etc., and the area is also very rich in reptiles and avifauna population. The Plateau area forms the catchment basin for River Varada and the area serves as an abode for many vertebrates and invertebrates. The sanctuary has innumerable herbs, shrubs, medicinal plants and grasses some of which are yet to be surveyed and listed.

In order to conserve and protect the habitat in and around the PA, vide a draft notification S.O. 68(E) dated 07.01.2016 was published with the following features:

- Area of PA: 0.7368 sq. km
- ESZ Area: 17.6046 sq. km
- ESZ Extent: varying between 0.5 kilometre to 2.3 kilometres

No comment on draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. The minimum ESZ extent is proposed to be increased to vary between 1km to 3.2 km with an ESZ area of 18.791 sq. km and no additional villages. The presentation included the details of flora and fauna and details of GPS coordinates of PA and ESZ and list of villages. The State Government requested to make changes in the following activities:

- i. Under Setting up of Industries causing air, water, soil and noise pollutions, household small kirani shops etc. should be permitted within 1 km from the boundary of PA.
- ii. Use of production of hazardous substances” should be considered under Regulated Activity.
- iii. Undertaking activities related to tourism like over-flying the National Park Area by aircraft, hot-air balloons should be considered under Regulated Activity.
- iv. Sale of surface water or ground water should be allowed only for the drinking water needs of the local population like establishing RO unit.

The Committee discussed the matter and are in the view that to allow all of the suggested changes may lead to the misuse of ESZ provisions thereby diluting the overall purpose of declaring ESZ around PAs. The Committee recommended with the changed extent of ESZ boundaries as proposed by the State Government, for publication of the final notification.

GUJARAT

5.10 Eco-Sensitive Zone around Khijadia Bird Sanctuary, Gujarat

The proposal of Khijadia Wildlife Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Gujarat.

Khijadia Bird Sanctuary is located in semi-arid region of Jamnagar district, southern coast of the Gulf of Kachchh, Gujarat. This Sanctuary has two distinct freshwater tanks which came into existence after the construction of bunds to prevent freshwater runoff into the sea.

The Sanctuary falls on the Central-Asian, (Indo-Malayan) flyway of bird migration route adjacent to the Gulf of Kachchh. Seasonal wetland of fresh water combined with coastal wetland supports hundreds of species of water birds – Black necked stork, cranes, shoveller, flamingos, spoon bill, coots, cormorants, little grebe, ducks, egrets, ibis, gulls, terns, etc. About 257 (117 waterfowls) species of Birds of which 105 are migratory and 9 are globally rare and threatened species are found in the Sanctuary.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3225(E) dated 23.11.2015 was published with the following features:

- Area of PA : 6.048 sq. km
- ESZ area : 16.6119 sq. km
- ESZ Extent of ESZ : upto one km from boundary of sanctuary

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. The

presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages.

The Committee recommended the proposal for publication of the final notification on submission of additional information in respect flora fauna of the sanctuary.

5.11 Eco-Sensitive Zone around Hingolgadh Sanctuary

The proposal of Hingolgadh Wildlife Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Gujarat.

Hingolgadh Sanctuary is located in Rajkot district of Kachchh, Gujarat. The sanctuary has good quality thorn forests along with savannah grass patches harbouring rich bio-diversity comprising 51 tree species, 155 species of herbs and 38 shrubs and 42 species of climbers, 31 grass species, 11 mammal species which include some rare species, 33 species of reptiles and more than 232 species of birds.

The sanctuary is covered with desert thorn forest, open thorny scrub forest with *Acacia senegal* and patches of grasslands. It include 314 plant species, 15 mammal species, several species of reptiles, 303 species of birds, Chinkara, Hyeana, Indian fox, Flying Fox, Wolf, Jackal, Blue Bull, Porcupine, Ratel, etc.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3495(E) dated 18.12.2015 was published with the following features:

- Area of PA : 6.54 sq. km
- ESZ Area : 65.08 sq. km
- ESZ Extent : Varying between 585 m and 9.58 km

No comment¹ on the draft notification has been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. It has increased the minimum extent of the ESZ to 985 m with an average Width: 3612 meters. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages.

The Committee recommended the proposal for publication of the final notification on submission of additional information in respect flora fauna of the sanctuary along with the revised ESZ area.

5.12 Eco-Sensitive Zone around Porbandar Bird Sanctuary, Gujarat

The proposal of Porbandar Bird Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Gujarat.

Porbandar Bird Sanctuary is located in the middle of the Porbandar city and is covered on all sides by the human population. It is a fresh water lake supporting good population of flamingos and several other water birds: Pelican, spoon bill, coots, pintail, little cormorant, little grebe, shoveller, teals, egrets, ibis, gulls, terns, etc. The bird sanctuary supports more than 75 species of birds, 14 species of flora. The sanctuary supports many migratory, local migratory and resident bird species such as, flamingoes, spotted duck, cormorants, painted storks, adjutant storks, shoveller, common crane, egrets and spoonbills.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3129(E) dated 20.11.2015 was published with the following features:

- Area of PA : 9.33 ha
- ESZ Area : 413.77 sq. km
- ESZ Extent : Varying between zero km and 1.27 km

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. It has presented the mean ESZ extent as 1.26 Km along with the GPS coordinates of PA and ESZ.

The Committee recommended the proposal for publication of the final notification on submission of additional information in respect revised ESZ extent and area.

5.13 Eco-Sensitive Zone around Gaga Great Indian Bustard Sanctuary, Gujarat

The proposal of Gaga Great Indian Bustard Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Gujarat.

Gaga great Indian Bustard Sanctuary is located in Kalyanpur Taluka of Devbhumi Dwarka District of Gujarat. The sanctuary has two parts *viz.* Gaga-I and Gaga-II between these two parts there are vast stretches of waste lands. The sanctuary is situated near the coast on the Indo-Asian migratory fly way and Gaga-I and has a flat terrain having a gentle slope and through Gaga-II river "Khari" flows and a sweet water lake is present on the eastern fringe of the Sanctuary which supports large number of avifauna.

The sanctuary has a unique grassland ecosystem having 66 species of trees, shrubs and herbs which *inter alia* supports 88 species of avifauna, 13 species of mammals, 7 species of reptiles. The sanctuary harbours rare and endangered species such as Great Indian bustard, houbara bustard, wolf and migratory crane species.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3338(E) dated 07.12.2015 was published with the following features:

- Area of PA : 332.87 sq. km
- ESZ area : 1942.78 sq. km
- ESZ Extent : one km all around the boundary

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. The presentation included the details of flora and fauna along with the GPS coordinates of PA and ESZ and list of villages.

The Committee recommended the proposal for publication of the final notification.

5.13 Eco-Sensitive Zone around Nal Sarovar Bird Sanctuary, Gujarat

The proposal of Nal Sarovar Bird Sanctuary was deferred in the ESZ meeting held on 30th May 2016 on the request of the Govt. of Gujarat

Nal Sarovar Bird Sanctuary is located in Ahmedabad and Surendranagar districts of Gujarat. The sanctuary is one of the largest natural wetlands in the country the extent of which varies depending upon the rainfall and which has maximum depth of about 1.5 - 2.0 meters when flooded. The sanctuary receives water mainly from two rivers viz. Brahmini and Bhogavo and also receives rain water from a catchment area spread over 3000 sq. km of Gandhinagar, Mehsana, Ahmedabad and Surendranagar districts of Gujarat.

The Nalsarovar sanctuary has varied habitat types viz. open water areas, marshes, reed-beds and islands - there are more than 300 islands in the sanctuary which get exposed when water level recedes. Due to wide variety of habitats, the Nalsarovar Sanctuary harbours 226 bird species, 20 species of fish and 13 species of mammals including globally threatened species of birds and mammals such as sarus crane, Indian skimmer, Asiatic wild ass and wolf.

The sanctuary has rich aquatic flora with nearly 50 species of algae and over 72 types of flowering plants. The sanctuary supports many water birds including migratory and local bird species like grebes, pelicans, ducks & geese, rails, coots, crakes, jacanas, cormorants, herons, egrets, bittern, storks, ibises, spoonbill, flamingos, cranes, waders, shorebirds, gulls, terns, kingfishers, wagtails, pipits, eagles, harriers.

Owing to its large size and remarkable species richness as well as abundance of aquatic birds, Nalsarovar Bird Sanctuary has been designated as a Ramasar site recognizing it as a Wetland of International Importance under the Ramsar Convention.

In order to conserve and protect the habitat in and around the PA, a draft notification S.O. 3341(E) dated 07.12.2015 was published with the following features:

- Area of PA : 12082 ha
- ESZ Area : 65951.49 ha
- ESZ Extent : varying between 2.35 km to 13 km

No comments on the draft notification have been received by the Ministry. The representative of the State Government apprised the Committee about the proposal. The presentation included the details of flora and fauna along with the GPS coordinates of PA

and ESZ and list of villages. Chairperson Stated that the State government should promote Green skill in the area.

The Committee recommended the proposal for publication of the final notification.

6. Based on the draft notifications, comments received on the draft notifications, presentations made on the proposals and discussions in the Expert Committee meeting, the Expert Committee recommended seven (7) proposals of Karnataka and five (5) proposals of Gujarat. Rest of the proposals four (4) of Karnataka and two (2) of Gujarat are deferred along with two (2) proposals of Jharkhand were deferred:

| S. N. | Protected Areas | State | Decision |
|-------|---|----------------|--|
| 1. | Cauvery WLS | Karnataka | Recommended with revised ESZ extent |
| 2. | Sharavati WLS | -do- | Revised proposal will be reconsidered |
| 3. | Kudremukh WLS | -do- | Recommended with revised ESZ extent |
| 4. | Arabithittu WLS | -do- | Recommended with revised ESZ extent |
| 5. | Rangayanadurga Four-Horned Antelope WLS | -do- | Recommended with revised ESZ extent |
| 6. | Ghataprabha WLS | -do- | Recommended |
| 7. | Bhimgad WLS | -do- | Deferred for considering the concerns of Govt of Goa w.r.t Madei WLS |
| 8. | Ranganathittu WLS | -do- | Deferred on the request of State Govt |
| 9. | Bannerghata WLS | -do- | Deferred on the request of State Govt |
| 10. | Ranebennur Blackbuck Sanctuary | -do- | Recommended with revised ESZ extent |
| 11. | Gudavi Bird Sanctuary | -do- | Recommended with revised ESZ extent |
| 12. | Velavadhar Black Buck NP | Gujarat | Deferred on the request of State Govt |

| | | | |
|-----|-------------------------------------|------------------|---|
| 13. | Khijadia WLS | -do- | Recommended on submission of additional information |
| 14. | Hingolghadh WLS | -do- | Recommended on submission of additional information |
| 15. | Barda WLS | -do- | Deferred on the request of State Govt |
| 16. | Porbander WLS | -do- | Recommended |
| 17. | Gaga Great Indian Bustard Sanctuary | -do- | Recommended |
| 18. | Nalsarovar WLS | -do- | Recommended |
| 19. | Hazaribagh WLS | Jharkhand | Deferred on the request of State Govt |
| 20. | Palamau Tiger Reserve | -do- | Deferred on the request of State Govt |

7. The meeting ended with vote of thanks to the Chair.

List of Participants on 19.10.2016 (Day 1)**Members of Expert Committee**

1. Dr. Amita Prasad, Additional Secretary, Chairperson
2. Dr. Anjun N. Rai, Sci-D, Zoological Survey of India, Kolkata.
3. Shri K. Chandra Sekar, Scientist 'D', G. B. Pant Institute of Himalayan Environment & Development, Almora.
4. Shri Sanjay Kumar Agarwal, AD, FSI, Dehradun
5. Dr. Sandeep Kumar Raut , Associate TCP, Tour & Country Planning Organisation
6. Dr. T. Chandini, Adviser, MoEF&CC.
7. Shri S. P. Vashista, DIG (WL), MoEF & CC.

Ministry of Environment, Forest and Climate Change, GOI

8. Shri Subrata Bose, Additional Director, MoEF & CC-Member Secretary
9. Dr. Vinod Joon, Deputy Director, MoEF & CC
10. Ms. Jafrin Farha Hussain, Research Assistant, MoEF & CC

Officials of Government of Haryana, Rajasthan, Himachal Pradesh

11. Shri P. P. Bhojvaid, APCCF, CWLW (Haryana), Haryana Forest Department.
12. Shri Yogendra Dak, Secretary, Forests, Forest Deptt. , Govt. of Rajasthan.
13. Shri M. K. Agrawal, DCF (WL), Jaipur, Forest Deptt, Rajasthan.
14. Shri A. Tomar, CCF WL, Jaipur, Forest Deptt. , Rajasthan.
15. Shri Deepak Gupta, ACF, Baran, Forest Department, Rajasthan.
16. Shri D. P. Yadav, ACF, Wildlife Dholpur, Forest Deptt. , Rajasthan.
17. Shri Rakesh Mathur, DCF (Plan), Forest Deptt. Rajasthan.
18. Shri S. S. Negi, PCCF, HOFF (HP),WL.
19. Shri P. L. Chauhan, CCFWL, Shimla, Forest Deptt. , Himachal Pradesh.
20. Shri Sanjay Dhima, DFO (WL), Chamba, Himachal Pradesh.
21. Shri D. K. Joshi, DFO, Wildlife Division, Sarahan, Himachal Pradesh

List of Participants on 20.10.2016 (Day 2)Members of Expert Committee

1. Dr. Amita Prasad, Additional Secretary, Chairperson
2. Dr. A.N. Rizvi, Sci-D, Zoological Survey of India, Kolkata.
3. Shri K. Chandra Sekar, Scientist 'D', GB Pant Institute of Himalayan Environment & Development, Almora.
4. Shri Sanjay Kumar Agarwal, AD, FSI, Dehradun
5. Dr. Sandeep Kumar Raut, Associate TCP, Tour & Country Planning Organisation
6. Dr. T. Chandini, Adviser, MoEF&CC
7. Shri S. P. Vashista, DIG(WL), MoEF & CC.

Ministry of Environment, Forest and Climate Change, GOI

8. Shri Subrata Bose, Additional Director, MoEF & CC-Member Secretary
9. Dr. Ashish Kumar, Joint Director
10. Ms. Jafrin Farha Hussain, Research Assistant

Officials of Government of Karnataka, Goa and Gujarat

11. Shri B. J. Hosmath, PCCF (Wildlife), Karnataka Forest Department.
12. Dr. Ramesh Kumar P, Deputy Conservator of Forests, Cauvery Wildlife, Kollegal, Karnataka Forest Department.
13. Shri Sivasankar S, DCF, Shimoga, Wildlife, Shimoga, Karnataka Forest Department.
14. Shri B.V. Patil, DCF Belgavi Divn., Belagavi, Karnataka Forest Department.
15. Shri Ajai Saxena, PCCF & CWLW, Forest Department, Goa.
16. Dr. J. A. Khan, PCCF-WL, Forest Dept., Gujarat.
17. Dr. Gaurav Dahiya, Deputy Secy., Forests & Env. Dept., Gujarat.
