

Part III

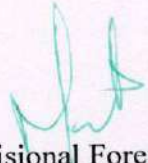
( To be completed by the officer –in-charge of the National Park/Sanctuary and submitted in the Chief Wild Life Warden or officer authorized by him in his behalf within 30 days of the receipt of PART –II

1. Date of receipt of the PART –II	29-10-2019
2. Total Area (Ha.) of Nangal wildlife Sanctuary	715.83
3. Total area (Ha.) diverted from the NP/WLS so far for development purposes	1.517 hec.
4. List the past projects and the area (Ha.) diverted Name of Project Area Diverted Year of Diversion	Nil
5. Positive impact(s) due to the diversion of area for the projects referred to in column 4 above Name of Project(s) Positive Impact Scientific Basis of Assessment (Attach separate Sheet, if required)	Nil
6. Negative impact/s due to the diversion of the area for the projects referred to in column 4 above Name of Project(s) Negative Impact Scientific Basis of Assessment (Attach separate Sheet, if required)	Nil
7. Management Plan Period Attach copy of the management Plan/Management Scheme/Recommendation of Chief Wild life Warden	Period of Management Plan is 2011-12 to 2020-21
8. List Management actions taken/proposed to be taken in the whole Block/Zone in Which the proposed area is located.	Management Activities in the Sanctuary area 1. Rescue and Rehabilitation of wild animals. 2. Regular patrolling of the Sanctuary area. 3. prevention of wildlife crimes and poaching. 4. Extension activities and awareness generation about the Sanctuary.

9. Type of forest in which the proposed area falls.	Type of Forest in which the proposed area falls.  1. Dry deciduous Forest 2. Thorny Forest 3. The Marshy areas (Refer to Annexure 1 & 2)
10. Location of the proposed area w.r.t the critical/intensive wildlife management areas/wildlife habitats (attach Map to scale).	Map on 1:50000 scale is enclosed showing the location of the proposed area.
11. List the likely POSITIVE AND NEGATIVE impact/s of the proposed project giving scientific and technical justification for each impact.	Positive Impact:- It provide the better connectivity between the villages lies on both side of Sutlej river.  Negative Impact:- <ul style="list-style-type: none"> <li>• Habitat degradation due to noise, light and disturbance from vehicles.</li> <li>• The breeding and migratory behavior of birds may change if appropriate mitigation measures are not taken.</li> <li>• Increase pressure of vehicle and human interference cause negative impact on wildlife.</li> </ul>
12. Provide COMPREHENSIVE DETAILS of the impact of the proposal in terms of sections 29 and/or section 35 (6) of the Wild life (protection) Act, 1972 as the case may be	The application of wildlife clearance, by user agency, is a part of the project involving an area of 1.517 hec. inside sanctuary and Eco-Sensitive Zone. Therefore section 29 of Wildlife protection Act, 1972 shall be applicable.
13. Whether the project authorities have ever committed violation of the Wild Life (Protection) Act, 1972 or Forest Conservation Act, 1980 If yes, provide the EXHAUSTIVE details of the offence and the present status of the case.  (concealing or misrepresenting of the facts will lead to rejection of the case in addition to pay other Penalty as Prescribed under Law)	The project authorities have not committed any violation in the part of project and submitted by them to the undersigned for wildlife clearance.
14. Have you examined the project Appraisal document and the alternatives as provided in PART –II?	Yes
15. Have you examined the Bio diversity Impact Assessment Report?	N.A.

16. If yes, Please give your comments on the recommendations given in the report?	N.A.
17. Dates and duration of your field visits to the proposed site.	Field visits were carried out by the undersigned with range staff and user agency on 31-10-2019 With Range staff and Junior Engineer, PWD, B&R on 30-10-2019
18. Do you agree that the present proposal of diversions of NP/WLS area is the best or the only option and is visible.	Yes, the project appraisal document submitted by the user agency deals with Nangal Wildlife Sanctuary. No, other alternative has been provided by user agency.
19. Any other information that you would like to bring to the notice of the State Board for Wildlife, National Board for Wildlife or its Standing Committee that may be relevant and assist in decision making.	Yes 1. The proposed bridge shall be opened only 5 am. to 8 pm. (daily) and pedestrian visitors are allowed in late hours. 2. The user agency shall provide funds for Conservation-cum-Mitigation Plan. (Approved by Chief Wildlife Warden, Punjab.) 3. The Deputy Conservation of Forest can restrict or regulate any activity with due permission of Chief Wildlife Warden, Punjab in migratory and breeding season of birds. 4. The proposed bridge shall be covered on both side to avoid the disturbance to avian fauna
20. Do you recommend the project.	Yes, the project may be recommended for wildlife clearance provided the user agency. The user agency should agree to provide funds to wildlife department for carrying out management activities which are presented in ' Conservation-cum Mitigation Plan' to mitigate the adverse impacts on wildlife habitat as well as biodiversity in the Sanctuary area.

1. Field inspection report of Divisional Forest Officer (wildlife), Ropar.
2. Draft of "Conservation-cum-mitigation Plan"

  
 Divisional Forest Officer (Wildlife),  
 Roopnagar.

## Annexure-1

### Opinion officer in charge of the NP/WLS.

#### i) The Brief History of Protected Area:-

The Forest area of villages Brari, Hambewal, Bhabour Sahib, Daheta, Talaura (Talwara), Khera Bagh and Swamipur bagh of Teh. Anandpur Sahib Distt: Roopnagar was declared as a Protected Forest vide Pb. Govt. Notification no. 2793-Ft (VIII) 64/2415 dated 28/05/1964. The total area was about 674.81 acre and most of it falls within the catchment Area of Nangal Dam. The Nangal reservoir was formed with the construction of a barrage over the Sutlej in 1961, and the water is spread over an area of 650 hectares, including 375 hectares of the reservoir. The project of construction of Bhakra Dam on Sutlej River in Himachal Pradesh and Nangal Dam in Punjab was started in 1948 and completed in 1963. This project was dedicated to the Nation by the then Prime Minister of India Pandit Jawahar Lal Nehru on 22<sup>nd</sup> October 1963. The above Forest area was acquired by Bhakra-Beas Management Board (BBMB) at the time of construction by Bhakra Dam. Water of Bhakra Dam is discharged in Nangal Dam and the present Nangal Lake came into existence.

As per clause no. 1 of National Wildlife Action Plan strengthening and enhancing the protected area Network, the Punjab Govt decided to declare the Nangal Wetlands area as Wildlife Sanctuary and the process was initiated in the year 2006 when a detailed proposal was submitted by the Divisional Forest Officer (Wildlife) Ropar at Mohali vide his office no. 173 dated 30/8/2006. But it took some time to demarcate the exact area to be declared as Wildlife Sanctuary and this work was finalized in year 2009. Hon'ble Minister of Department of Forests and Wildlife Preservation Punjab held meeting of Officers of related Departments and local people of Nangal on 26/06/2009 at Nangal and it was finally decided to declare this area as a Wildlife Sanctuary. Consequently State Govt. issued a Notification No. 34/2/2209/Ft-5/7069 Dt. 10/08/2009 under section 18(I) of the Wildlife (Protection) Act. 1972, declaring the 715.83 Acre area of Nangal Wetlands as Nangal Wildlife Sanctuary.

1. **NORTH:** Boundary of Himachal Pradesh and Private land of village Swamipur bagh and Khera Bagh.
2. **SOUTH:** Urban area of Nangal town and expanse of Sutlej River.
3. **EAST:** Private/Urban land of villages Talwara, Dabheta and Hambewal.
4. **WEST:** Private land of village Bhabour Sahib and Naya Nangal.

#### Rock and Soil:

- i. **Texture:** The soil texture of the area varies from gravel and sandy with sufficient water and nutrients.
- ii. **Characteristics:** The soil is moderately acidic in reaction, salty loam to loam in texture in wetland.

### **Climate:      Temperature:**

During the hot summer months the temperature touches 46<sup>0</sup> whereas in winter the mercury falls to 4<sup>0</sup>C. The hottest months are May and June and the coldest being December and January.

### **Rain Fall:-**

The area normally experience a dry climate all throughout the year, the monsoon showers constituting about 70 per cent of the annual rainfall. The average annual rainfall in the area during the last 15 years is about 875.6 mm. The variation in rainfall during the year is appreciable. On an average there are 62 rainy days. Normally the months of July, August and September are wet months and remaining months of the year can be termed as more or less dry months.

### **Frost:-**

During winter, the frost is quite common. Wherever there is a long dry spell, the frost is quite severe.

### **Wind:-**

During May and June hot and dry westerly winds are quite common. These are responsible for creating dry conditions. The strong winds followed by the rain during summer are responsible for uprooting of trees and breaking of big branches of large size old trees. During winter the cold spell carried by northerly winds is responsible for the retarded growth of plants.

### **Vegetation and Forest Type:-**

The original terrestrial vegetation in and around the Sanctuary area can be classified as "Northern Tropical Dry Deciduous Forest". Due to declaration of this area as Wildlife sanctuary, there is no exploitation of forest and Wildlife resources.

The upper reaches of Shiwaliks in the catchment areas falling in HP at border of Punjab are better vegetated. the growing stocks in this area consist of scattered Khair (*Acacia catechu*). Tun (*Toona ciliata*), Kikar (*Acacia nilotica*), Phalahi (*Acacia modesta*), Jamun (*Syzygium cuminii*), Ber (*Zizyphus jujuba*), Shisham (*Dalbergia sissoo*), Neem (*Azadirachta indica*), Simbal (*Salmalia malbarica*), Tar (*Bauhinia vahlii*), Amb (*Mangifera indica*), Dhak (*Butea monosperma*),

Trees in the upper canopy with thin or thick undergrowth of shrubs such as garuna (*Cassia spinarum*), Mehnder (*Dodoneae viscosa*) Mallah (*Zizyphus nummularia*), Gandhala (*Murraya Koenaii*), Besuti (*Adhatoda vasica*) Jhav (*Artemesia sp*) Hins (*Capparis decidua*), Panwar (*Cassia tora*). Many forest are infested by Bhagiarhi booti (*Lantana camara*), Congress grass (*Parthenium hysterophorus*), and Bhang (*Cannbis sativa*)

Adjoining hills of Nangal have scattered dry deciduous and thorny forests of following types:-

### **Dry Deciduous Forest:**

There are mixed growth of deciduous trees. The lower canopy of trees forests is also deciduous. There is undergrowth of shrubs but the light reaches the surface allowing the growth of grasses.

Bamboos show luxuriant growth and they are present in isolated patches. Trees of deciduous forests are *Dalbergia sissoo*, *Bauhinia variegata*, *Butea monosperma*, *Cordia monosperma*, *Anogeissus latifolia*, *Cedrela toona*, etc.

### **Thorny Forest:**

With the decreasing rainfall, the forests in drier areas is thorny and tend to assume a Xerophytic character because of dry and less moisture available in soil.

Trees are *Acacia nilotica*, *Acacia leucophloea*, *Capparis aphylla*, *Zizyphus mauratiana*, *Z. rotundifolia*.

### **The Marshy areas:**

A few marshy areas are also the characteristics of the sanctuary. These are basically low lying areas which are inundated with water throughout or at least a part of the year. The characteristic vegetation is *Typha elephantine*, *Phragmites karka* and tall grasses, mainly *Saccharum spontaneum* and *Saccharum bengalense*. There are also *Cenchrus* species (*Anjan* grass) in sandy places and *Desmostachys bipinnata* (*Dab*) flourishes under dry conditions. *Vetiveria zizanioides*, *Arundo donax* (*Nara*), *Eragrostis atrovirens*, *Cyperus rotundus*, *Cyperus difformis* (*Nut* grass) are the other major species in the marshy areas.

### **The Fauna:**

About 10,000 migratory birds of different variety can also be seen inside and outside the Nangal Lake area. Often large flocks of migratory birds have a long flight over the vast area of Nangal along the water course particularly in the evening. One can also Spot-Insects, Snakes, Jackals, Hare, Mongoose and Wild cats in Marshy area. A large number of birds, insects and other species, therefore, complete their life cycle by adding new offspring's in this calm vicinity.

Besides the resident birds, including the Red Jungle fowl, Large Indian parakeet, Indian cuckoo, Bank Myna, Wood shrike, yellow eyed babbler and Crested bunting are there. One can watch a large variety of birds from far-off hills roosting and feeding in the area.

The catchment along the reservoir is an important habitat for some threatened species like the Pangolin (*SALLAH*) and Python (*AJAGAR*). Besides it is also an important breeding place for the Smooth India Otter, Jackal, Hog Sambhar and Barking Deer etc.

### **The Role of Wetlands Eco System:**

Wetlands prevent flooding by holding water much like sponge. By doing, so wetland helps keep river levels normal and filter and purify the surface water.

Wetlands accept water during storms and whenever water levels are high. When water levels are low, wetland slowly releases water.

Wetland also releases vegetative matter into rivers, which helps feed fish in the rivers. Wetlands do counter balance the human effect on rivers by ecosystems.

Many animals that live in other habitats use wetlands for migration or reproduction. For example, herons nest in large old trees, but need shallow areas in order to wade for fish and aquatic life.

Amphibians often forage in upland areas but return to the water to mate and reproduce.

While wetlands are truly unique, they must not be thought of as isolated and independent habitat. To the contrary, wetlands are vital to the health of all other biomass and to wildlife and humans everywhere.

Unlike most other habitats, wetlands directly improve other ecosystems. Because of its many cleansing benefits, wetlands have been compared to kidneys. The analogy is good one. Wetland and kidneys both help control water flow and cleanse the system.

### **ii) Current Status of the pressures on Protected Areas:**

Wetlands is one of the highly threatened ecosystems in the world today. Destruction of this valuable ecosystem endangers human, plant and animals life at an alarming rate. The main reason wetland are destroyed is to create agricultural land, while industrial & residential construction also contribute a lot.

Immediate and long term dangers to the wetlands have been identified by different workers which include anthropogenic pressure, weed infestation, eutrophication fishing, pesticide pollution etc. The most important threat to the wetland is due to the anthropogenic pressure i.e. indiscriminate conversion of wetland for agriculture, habitation. irrigation purpose. When rest of the wetlands in Punjab are choking with water hyacinths and dying a slow death the one in Nangal is so calm and pristine that only birds and breeze make waves in it. But it won't be for long as industrial pollution, deforestation and climate change have started to make their presence felt. Due to the presence of vegetation in some of the areas, the visibility of the water reduces, thereby making it difficult for the birds to locate fish. The effluents from industries on the foothills of Himachal Pradesh, especially Golthai, and sewerage from nearby areas flow unabated into the Wetland as compared to the situation several years ago. the release of factory effluents has also lowered the visibility. Beside, the plastic waste hanging from the hillocks hemming the wetland also disturb the birds, which

stay near the banks at night. The ecologically-fragile wetland is also facing the problem of siltation caused by soil erosion wreaked by deforestation in Himachal hills.

**Projected impacts of the project on Wildlife, habit management and assess/use of the resources by the various stakeholders.**

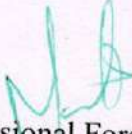
The project will affect the wildlife, their habitat and use of resources by various stack holders. So an expert committee should be constituted to assess the input under the expert team on the Nangal wildlife sanctuary. The user agency shall provide the funds as per the recommendation of the committee after or during execution of the agent.

**Contiguous wildlife areas which would benefit wildlife if added to national park/sanctuary.**

The proposed site lies on river bank of Satluj River which is with in the Nangal wildlife Sanctuary.

**Other areas in the State which have been recommended by state Government, Wildlife Institute of India, BNHS, SACON, HSC, IUCN or other expert bodies for inclusion in Protected area Network.**

The Proposed Project site and surrounding areas have not been yet recommended by State Government, Wildlife Institute of India. BNHS, SACON, HSC, IUCN or other expert bodies for inclusion protected area Network.

  
Divisional Forest Officer (wildlife),  
Roopnagar.

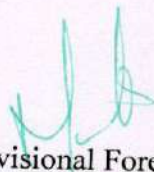
## Annexure-2

### List management action proposed to be taken in the whole Zone in which the proposed area is located

1. No tree cutting, chopping, lumbering, uprooting of shrub and herbs will be allowed.
2. Inventory of existing flora have been prepared at Annexure-3 for both Core zone and Buffer zone.
3. Under mitigation measures the inventory of flora will continue to be assessed once every two years.
4. Provision of costs has been made by expert committee for mitigation measures and plantation and to study survival rate and care & maintenance.

### Type of forest in which the proposed area falls

1. Dry deciduous Forest
2. Thorny Forest
3. The Marshy areas



Divisional Forest Officer (wildlife),  
Roopnagar.

### Annexure 3

#### **Current Status of the Wildlife Sanctuary**

The Sanctuary has rich biodiversity of flora and fauna of its own. However a large number of wild animals do come from neighboring higher reaches of Himachal Pradesh. The Detail of Flora and Fauna is as under:


#### **Main Plants:**

<b>Name</b>	<b>Common Name</b>	<b>Family</b>
Acacia nilotica	Indian gum tree kikar babul	Mimosaceae
Acacia catechu	Khair	Leguminosae
Acacia melanoxylon	Australian acaci	Leguminosae
Acacia modesta	Phulai	Leguminosae
Acacia farnesiana		Mimosaceae
Acacia leucophloea		Mimosaceae
Achras sapota	Chiku	Mimosaceae
Aegle marmelos	Wood apple-bael	Rutaceae
Albizia lebbeck	Margosa tree Siris	Mimosaceae
Alstonia scholaris	devil tree	Apocynaceae
Annona squamosa	sitaphal	Annonaceae
Anogeissus latifolia		Papilionaceae
Azadirachta indica	Neem/nim	Meliaceae
Bombax malabarica		Bombaceae
Butea monosperma	Flame of forest Dhak	Papilionaceae
Bauhinia variegata		Papilionaceae
Bauhinia purpurea		Papilionaceae
Bauhinia racemosa		Papilionaceae
Callicarpa macrophylla		Verbenaceae
Callistemon viminalis	bottle brush/ botal brush	Myrtaceae

<i>Catharanthus pusillus</i>		Apocynaceae
<i>Carissa spinarum</i>		Apocynaceae
<i>Cassia fistula</i>	Amaltas	Caesalpiaceae
<i>Cassia glauca</i>		Caesalpiaceae
<i>Cassia javanica</i>		Caesalpiaceae
<i>Cedrela toona</i>	Toon tree ton	Meliaceae
<i>Celastrus paniculata</i>		
<i>Chukrasia tabularis</i>	Chukrasia	Meliaceae
<i>Cordia dichotoma</i>	Lasuri	Ehertiaceae
<i>Cordia obliqua</i>		Ehertiaceae
<i>Cordia sinesis</i>		Ehertiaceae
<i>Dalbergia sissoo</i>	Shisham tali	Papilionaceae
<i>Delonix regia</i>	Flamboyant flame tree gulmohar	Papilionaceae
<i>Diosyros cordifolia</i>		Ebenaceae
<i>Ehertia aspera</i>		Ehertiaceae
<i>Ehertia laevis</i>		Ehertiaceae
<i>Emblica officinalis</i>	Amla	Euphorbiaceae
<i>Erythrina indica</i>	Indian coral, munga	Papilionaceae
<i>Eucalyptus globules</i>	Safeda	Myrtaceae
<i>Eucalyptus hybrid</i>	Blue gum tree safeda	Myrtaceae
<i>Eugenia jamolana</i>	Black plum Jamun	Myrtaceae
<i>Ficus bengalensis</i>	Banyan Bod bargad	Moraceae
<i>Ficus palamta</i>	Anjir	Moraceae
<i>Ficus religiosa</i>	Peepal tree papal	Moraceae
<i>Grevilea robusta</i>	White oak	Proteaceae
<i>Grewia optiva</i>	Phalsa	Tiliaceae
<i>Grewia asiatic</i>	Phalsa	Tiliaceae

<i>Holarrhena antidysentrica</i>	Kurchi	Apocynaceae
<i>Ichnocarpus frutescens</i>		Apocynaceae
<i>Jacrandra mimosaefolia</i>		Verbanaceae
<i>Lagerstroemia indica</i>	China crepe Saoni	Lythraceae
<i>Leucaena leucocephala</i>	Wild tamarind	Mimosaceae
<i>Machelia champaca</i>	Champa	Magnoliaceae
<i>Magnolia grandiflora</i>	Dulee Champa	Magnoliaceae
<i>Mangifera indica</i>	Mango/amb	Anacardiaceae
<i>Mitragyna parviflora</i>		Rubiaceae
<i>Mimusops elengi</i>	Malsori	Sapotaceae
<i>Morus alba</i>	White mulberry tut	Moraceae
<i>Melia azadirachta</i>	Persian liliac drek	Meliaceae
<i>Morus indica</i>	Mulberry shehtut	Moraceae
<i>Oldenlandia brachiates</i>		Rubiaceae
<i>Parkinsonia aculeate</i>	Jerusalem thron vilayati kikar	Ceasalpinaceae
<i>Phoenix sylvestris</i>	Wild date khajur	Areaceae
<i>Plumeria acutifolia</i>	Pagoda tree	Apocynaceae
<i>Populus euphratica</i>	Poplar	Salicaceae
<i>Propopis juliflora</i>	Mesquite tree Kabul kikar	Mimosaceae
<i>Psidium guyava</i>	Amrod	Myrtaceae
<i>Punica granntum</i>	Anar	Myrtaceae
<i>Ricinus communis</i>	Castor oil tree rind arind	Euphorbiaceae
<i>Salix tetrasperma</i>	Willow tree laila	
<i>Saraca indica</i>	Ashoka	Leguminaceae
<i>Shorea rubusta</i>	Sal	diptreocarpaceae
<i>Tectona grandis</i>	Sagwan	Verbenaceae
<i>Terminalia arjuna</i>	Arjun arjun	Combretaceae

<i>Terminalia chebula</i>	Harer	Combretaceae
<i>Terminalia belerica</i>	Bahera	Combretaceae
<i>Thespesia populenea</i>	Portia tree	Bombacaeae
<i>Toona ciliate</i>		Meliaceae
<i>Tamaridus indica</i>	Imli	Leguminaceae
<i>Thevetia nerifolia</i>	Yello oleander	Apocynaceae
<i>Vallaris solanacea</i>		Apocynaceae
<i>Zizyphus jujube</i>	Indian jujube ber	Rhamnaceae
<i>Zizyphus mauritiana</i>	ber	Rhamnaceae
<i>Zizyphus nummularia</i>	ber	Rhamnaceae
<i>Zizyphus oenopila</i>		Rhamnaceae
<i>Zizyphus oxyphyla</i>		Rhamnaceae
<i>Pongamia pinnata</i>	pongam	Leguminosae
<i>Vitex negundo</i>		Verbenaceae
<i>Wendlandia exserta</i>		Rubiaceae

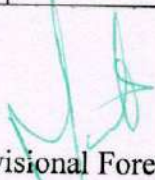
  
 Divisional Forest Officer (wildlife),  
 Roopnagar.

**Annexure 4**

**Main Fishes**

<b>Common Name</b>	<b>Scientific name</b>	<b>Habitat</b>
Rohu	<i>Labeo rohita</i>	Raver Satluj & fish Ponds
Seerha	<i>Labeo gonius</i>	River Satluj
Kalbans	<i>Labeo calbasu</i>	River Satluj
Gid	<i>Labeo dero</i>	River Satluj
Bata	<i>Labeo bata</i>	River Satluj
Kunni	<i>Labeo dyocheilus</i>	River Satluj
Murakh	<i>Cirrhinus mrigala</i>	River Satluj & fish ponds
Common Carp	<i>Cyprinus carpio</i>	River Satluj & fish ponds
Mirror Carp	<i>Cyprinus carpio</i>	--
Pari mashi	<i>Notopterus notopterus</i>	River Satluj
Chital	<i>Notopterus chitala</i>	River Satluj
Mahaseer	<i>Tor putitora</i>	River Satluj
Bam	<i>Mastablus armatus</i>	River Satluj
Puthi	<i>Puntius sarana</i>	River Satluj & fish ponds
Ticher	<i>Puntius ticto</i>	River Satluj & fish ponds
SoL	<i>Channa marulius</i>	River Satluj
Dolla	<i>Channa punctatus</i>	River Satluj & fish ponds
Curd	<i>Channa striatus</i>	River Satluj
Khagga	<i>Rita rita</i>	River Satluj
Singi	<i>Heteropeustes fossilis</i>	River Satluj
Magur	<i>Clarius batracus</i>	River Satluj
Gunchh	<i>Bagarius bagarius</i>	River Satluj
Kaua machhi	<i>Xenatodon cancila</i>	River Satluj

Shisha machhi	Ambasis nama	River Satluj
Shisha machhi	Ambasis ranga	River Satluj
Vacha	Eutrophiichthys vacha	River Satluj
Gulab	Schizothorax Richard sonni	River Satluj
Mali	Wallago attu	River Satluj

  
Divisional Forest Officer(wildlife),  
Roopnagar.

## Annexure 5

## Main Birds Species

Scientific Name	Common Name
<b>Resident Birds</b>	
<i>Acridotheres tristis</i>	Indian myna / Lalri, Shark, / gutar
<i>Acridotheres ginginianus</i>	Bank myna / Ganga myna
<i>Acrocephalus stentoreus</i>	Great reed warbler / waddi dabh pididi
<i>Ardea cineria</i>	Grey heron Nari
<i>Ardea purpurea</i>	Purple heron Kirachi Nari
<i>Ardeloa Graii</i>	Pond heron / Chhappari Bagla
<i>Apus affinis</i>	House swift
<i>Anthus trivialis</i>	Tree pipet
<i>Anhinga melanogaster</i>	Darter / snake bird / Bhujanga
<i>Anthus similes</i>	Long billed pipet / Brown rock pipet
<i>Alanda gulgula</i>	Skylark
<i>Amandava amandava</i>	Red avad avat red munia
<i>Amaurornis phoenicurus</i>	Indian white breast water hen chitthikki Jal kurki
<i>Ammonomanes phoenicurus</i>	Rufous tailed finch lark
<i>Aythya ferina</i>	Common Pochard
<i>Accipitor badius</i>	Black winged kite
<i>Accipiter nisus</i>	Asiaic sparrow hawk / chirimar
<i>Alcedo atthis</i>	Small blue kingfisher / chhota machhera
<i>Athene brama indica</i>	Spotterd owlet
<i>Aeriodotherco tristis</i>	Common hyna
<i>Aeriodotherco ginigiamnus</i>	Bank hyna
<i>Aquila haliaca imperial</i>	Eagle Shahi eagle
<i>Aquila rapax tawny</i>	Eagle ukab
<i>Aquila clanga</i>	Great spotted eagle Wadda china ukab
<i>Aquila pomarina</i>	Lesser spotted eagle / Chhota china eagle

<i>Bubo bubo benghalensis</i>	Great homedowl
<i>Bubulcus ibis</i>	Cattle egret badami bagla
<i>Buteo rufinus</i>	Longe legged Buzzard / Chuhamar tisa
<i>Butorides striatus</i>	Little heron
<i>Ceryle rudis</i>	Indian pied kingfisher / Kilkila
<i>Coturnix coturnix</i>	Grey Quail / Wadda Batera
<i>Clamator jacobinus</i>	Pied crested cuckoo
<i>Hierococcyx varius</i>	Common hawk cuckoo
<i>Columba livia</i>	Indian blue pigeon / Kabotar
<i>Corvus splendens</i>	Indian house crow
<i>Corvus macrorhynchos</i>	Indian jungle crow
<i>Certhia muraris</i>	Tree creeper
<i>Certhia nipalensis</i>	Rusty flanked tree creeper
<i>Cypsiurus parvus</i>	Palm swift
<i>Copsychus saularis</i>	Mag pie robin / Dhial
<i>Cisticola juncidis</i>	Streaked fantail / Warbler
<i>Calidris minutus</i>	Little spirit
<i>Charadrius bubius</i>	Little ringed plover
<i>Charadrius histicua</i>	Common ringed plover / Ringed plover
<i>Caprimulgus indicus</i>	Jungle hightjar
<i>Coracia benghalensis</i>	Indian roller blue jay
<i>Dendrolcitta vagabunda</i>	Rufous tree pie tree pie
<i>Dendrocopos mahrattensis</i>	Maharatta Yellow crowned woodpecker
<i>Dendrocopos auriceps</i>	Brown fronted woodpecker
<i>Dicaeum agile</i>	Thick billed flower pecker
<i>Dicaeum igmpectus</i>	Fire breasted flower pecker
<i>Dinopium benghlense</i>	Golden gacked wood packer / Sunahiri Kathphora
<i>Dicrurus macrocercus</i>	Black drongo / king crow
<i>Egretta garzetta</i>	Little egret / bauna bagla


<i>Elanus caeruleus</i>	Black winged kite / chitti ill
<i>Estrilda amandava</i>	Red munia / Lal munia
<i>Eudynamus scolopacea</i>	Indian Koel
<i>Eumyas thalassina</i>	Verditer fly Catcher
<i>Embemza melangecephala</i>	Black headed bunting
<i>Falco tinnunculus</i>	European kestrel / Lal shikara
<i>Francolinus francolinus</i>	Black partridge / Kala titar
<i>Francolinus pondicerianus</i>	Indian Grey partridge bhura titar
<i>Fulica atra</i>	Coot Koot
<i>Galerida cristata</i>	Indian crested lark top chiri
<i>Gallinula chloropus</i>	Indian Moorthen Jal kukri
<i>Gypus fulvus</i>	Indian griffon vulture bhuri gidh
<i>Gullus gallus</i>	Peafowl
<i>Haliastu indus</i>	Brahminy kite
<i>Hemantopus hemantopus</i>	Black winged stilt
<i>Hirunda rustica</i>	Common Swallow / Barn swallow
<i>Hirundo fluvicola</i>	Streak throated swallow
<i>Hirundo smithii</i>	Wire tailed swallow
<i>Hirundu daurica</i>	Red rumped swallow
<i>Halcyon cmymensis</i>	White breasted kingfisher / Wadda machhera
<i>Ixobrychus cinnamomus</i>	Chestnut bittern
<i>Lanius meridionalis</i>	Grey shrike
<i>Lanius schach</i>	Rufous backed shrife long tailed shrife
<i>Lanius cristatus</i>	Brown shrike
<i>Lanius vittatus</i>	Bay backed shrife
<i>Lonchura malabarica</i>	White munia / Indian silver well
<i>Lonchura punctulata</i>	Spotted munia / Scarlet breasted munia
<i>Milvus migrans</i>	Pariah kite ill or chil
<i>Haliastur Indus</i>	Bahman kite

<i>Mirafra erythroptera</i>	Red winged bush lark
<i>Mirafra javanica</i>	Singing bush lark / Gawaiya chandol
<i>Muscicape thalassina</i>	Verditer flycatcher
<i>Megalurus palustris</i>	Striated marsh warbler
<i>Motacilla alboides</i>	White wagtail hodgon pied wagtail
<i>Motacilla alba dukhnuensis</i>	White wagtail Indian pied wagtail
<i>Motacilla calacarata</i>	Citrine wagtail Yellow wagtail
<i>Motacilla cinerea</i>	Grey wagtail
<i>Motacilla citreola</i>	Yellow head wagtail
<i>Meolphus lathami</i>	Crested bunting
<i>Meotania asiatica</i>	Purple sunbird
<i>Nectarinia sperata</i>	Purple throated sunbird / Van hasselt sunbird
<i>Nectarinia asiatica</i>	Purple sunbird
<i>Nycticocorax nycticocorax</i>	Black crowned night Heron
<i>Ocyeros bisostris</i>	Indian grey hornbill
<i>Oriolus oriolus</i>	Golden oriole
<i>Orthotormus sutorius</i>	Tailor bird / Darji
<i>Oenantive fenschi</i>	River pied chat
<i>Parus major</i>	Great fit
<i>Podiceps niger</i>	Little cormorant
<i>Porphyrio porphyrio</i>	Purple moorthen nili jal kukri
<i>Porzana pusilla</i>	Baillon crake chhota jal bater
<i>Pandion hakiatus</i>	Osprey
<i>Pavo cristatus Indian</i>	Pea fowl / Mor
<i>Perdicula asiatica</i>	Jungle bush quail / Jungle batera
<i>Pericrocotus sinnamomceus</i>	Small mini wet
<i>Pericrocotus flomeus</i>	Scarlet miniwet
<i>Pericrocotus ethologus</i>	Long tailed miniwet
<i>Pericrocotus roseus</i>	Rosy mini wet / Small mini wet

<i>Fernis ptilorhyncus</i>	Crested noney Buzard / Makhi tissa
<i>Petronia xanthocollis</i>	Chestnut shoulder petronia
<i>Phalacrocorax nigher</i>	Little cormorant / Jal kan
<i>Phalacrocorax fuscicollis</i>	Indian cormorant
<i>Pseudibis papilose</i>	Red napped ibis / Black ibis
<i>Psittacula eupatria</i>	Green parakeet / tota
<i>Psittacula krameri</i>	Roseringed parakeet / Total
<i>Prinia inomata</i>	White browned wren warbler Plain wren warbler
<i>Prinia socialis</i>	Ashy wren warble / Asheey prinia
<i>Prinia gracilis</i>	Streaked wren warble / Graceful prinia
<i>Phonicircus ochruros</i>	Black red start
<i>Paseer domesticus</i>	House sparrow / Chiri
<i>Paseer Pyrrhonotus</i>	Jungle sparrow / Jungle chiri
<i>Ploceus benghalium</i>	Black breasted weaver
<i>Ploceus manyar</i>	Streaked weaver
<i>Ploceus phillipinus</i>	Weaver bird / Bijra or baya
<i>Parus major</i>	Grey tit
<i>Pitta brachqura</i>	Pitta
<i>Pycononotus cafer</i>	Red vented bulbul / Bulbul
<i>Pycononotus leucotis</i>	White eared bulbul / White backed bulbul
<i>Rhipidura hypoxantha</i>	Yellow pintail
<i>Rhipidura Ibicollis</i>	White throated peritail
<i>Sanocoloides fulicata</i>	Indian robin
<i>Sarcogyps Calvus</i>	King vulture Raj gidh
<i>Saxicola leucura</i>	White tailed stone chat
<i>Saxicola torquate</i>	Stone chat
<i>Saxicola caprata</i>	Pied bush chatg / Kali galri
<i>Saxicoloides fulicata</i>	Brown backed Indian robin / Pidda
<i>Sturnus contra</i>	Pied Myna / Dabbi mayna

<i>Streptopelia decaocto</i>	Indian Ring dove / Ghuggi
<i>Streptopelia chinensis</i>	Spotted dove Chini ghuggi
<i>Streptopelia orientalis orientalis</i>	
Turtle dove	Kamloa ghugi
<i>Streptopelia tranquebarica</i>	Indian red turtle / Dove Lal tatra
<i>Sterna auranlia</i>	River tern
<i>Tephrodornis pondicarianus</i>	Wood shrikelesser wood shrike
<i>Turdoides caudatus</i>	Comon babbler / Sarhari
<i>Turdoides striatus</i>	Jungle bebler / Seven sisters
<i>Turdoides malcolmi</i>	Large grey babler / Grey babler
<i>Turdoides earlie</i>	Striated bebler
<i>Turdus ruficollis</i>	Back throated thrush
<i>Turdus merula</i>	N bird
<i>Tichodroma muraris</i>	Wall creeper
<i>Tyto alba</i>	Barn owl
<i>Upupa epops</i>	Comon Hoopoe / Chakkiaraha
<i>Vanellus duanelii</i>	River lapwing Spur winged flower
<i>Vanellus Indicus</i>	Red wattled lapwing / Tatihri
<i>Vanellus Malabaricus</i>	Yellow wattled lapwing / Pili tatihari
<i>Vanellus Leucurus</i>	Whilte tailed lapwing / Chittpunjhi tatihari
<i>Vanellus Hypoleues</i>	Comon sandpiper
<b>Migrator Birds</b>	
<i>Anas Crecca</i>	Common teal
<i>Anas feruginea</i>	Ruddy shelduck
<i>Anas querquedula</i>	Blue Winged teal / Nili til
<i>Anas acuta</i>	Northeren Pintail / Sinkhpar
<i>Anas pocilorhyaha</i>	Spotbill duck
<i>Anas strepera</i>	Gadwall gaidwal
<i>Anas cylvpeata</i>	Shoveller Belchi northern shoveler

<i>Anas platyrhynchos</i>	Mallard / Nilsir wild duck
<i>Anas Penelope</i>	Wigeon wajan / Eurasian wigeon
<i>Ansar Indicus</i>	Barheaded goose / Sawa Magh
<i>Ansar Anser</i>	Eastern geryleg goose / Bhoora Magh
<i>Aythya ferina</i>	Common pochard
<i>Aythya fuligula</i>	Tufted duck / Bodal Murgabi
<i>Aythya nyrora</i>	Ferruginous pochard
<i>Circus aeruginosus</i>	Marsh harrier chhanbhi kirla mar
<i>Dendroygna javanica</i>	Lesser whistling teal or tree duck / Birchhi til
<i>Dinopium beneghalens</i>	Golden bagked woodpecker
<i>Fulica atra</i>	Common Coot / Black coot
<i>Himantopus himantopus</i>	Indian black winged stilt lamlatta
<i>Hydrophabenus chirurgus</i>	Pheasat tailed jacana
<i>Larus armenicus</i>	Armenian gull herring gull
<i>Larus cachinnans</i>	Yellow legged gull
<i>Larus heuglini</i>	Lesser black backed gull
<i>Larus ichthyaltus</i>	Pallas gulls / Great black headed goose
<i>Larus ridibundus</i>	Black headed gulls
<i>Megalaima haemacephala</i>	Coppersmith barbet / Crimson breasted barbet
<i>Megalaima zeylanica</i>	Green barbet
<i>Mycteria leucocephala</i>	Painted stork
<i>Phalacrocorax carbo</i>	Great cormorant cormorant
<i>Porphyrio porphyrio</i>	Purple swamphen moorhen / Purple gallinule
<i>Podiceps cristatus</i>	Great crested grebe / Kagidr dubkani
<i>Rhodonessa rufina</i>	Red crested pochard
<i>Tadorna ferruginea</i>	Brahminy surkhab / Ruddy shelduck

  
 Divisional Forest Officer (wildlife),  
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