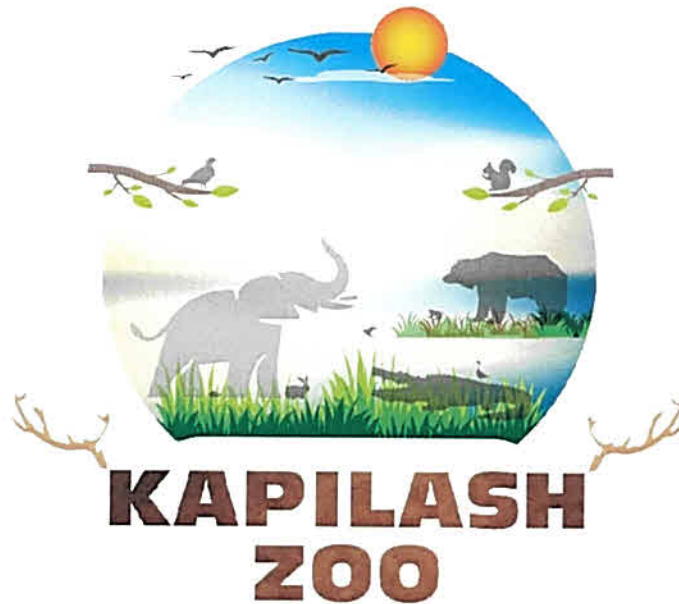


# **KAPILASH ZOO**

**(Small Category Zoo)**

**Annual Report 2019-20**



**Managed by  
Dhenkanal Forest Division, Odisha**

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## 1. Report of the Officer-in-charge

As Executive Director of Kapilash zoo, it gives me immense Pleasure and pride to present the annual report on the developmental works and conservation education programs undertaken in the zoo during 2019-20. Kapilash Zoo being the second oldest zoo of Odisha and the first zoo of the central Odisha is always a place to visit for the rural folk of the surrounding districts. Started off as a deer park and now positioned itself in the category of small zoo. Falling under the category of small zoos and faced by various climatic and anthropogenic challenges, Kapilash Zoo is establishing itself as a place for ex-situ conservation and education. The approach of the zoo towards the display of the animals, its importance to nature immersion and experiential learning has changed considerably and the small and potential team at the Kapilash Zoo is working towards the betterment and inching towards to provide all facilities within its ambit. The surrounding landscapes of Kapilash sanctuary within which the Kapilash zoo is a part off also proved the presence of viable breeding populations of chital, Indian Giant squirrel. This year, we have invested our time and efforts primarily on providing basic amenities to all the zoo animals and reducing mortality in the zoo. The zoo invested on certain predominant necessities like Zoo Veterinary Hospital, Fodder Shed, Storage Cum Kitchen, Post-Mortem Room and basic amenities like drinking water dispensers. The COVID situation during the last quarter posed a challenge to the zoo's revenue and sustenance and posed a different challenge altogether in front of Kapilash Zoo The staffs are now trying to upgrade the facilities in this zoo to attract more visitors. As per the Guidelines of Central Zoo Authority, we are in the process to prepare Master (layout) plan for the period of ten years. After getting the approval for same, will allow the zoo to have many ambitious projects. Though Kapilash small zoo team has given its 100% efforts to bring this zoo at the level on par with the best zoos still lot more works are to be done. Many more enclosure, better up keep and greater facilities are the deciding factors for better future of the zoo. I extend my heartfelt thanks to PCCF-cum-Chief Wildlife Warden for extending their cooperation and support in our endeavour in all forms. I also extend my gratefulness to Chairman and committee members of the Central Zoo Authority of India for providing the required technical guidance and scientific outlook for zoo management. A very special thanks to Odisha Forest & Environment Department for providing us with all possible human resources and support. Last but not the least the general public and media for smooth functioning of the zoo.

  
**Dr Prakash Chand Gogineni,IFS**

**Executive Director & Divisional Forest Officer**

**Kapilash zoo**

**Dhenkanal Forest Division**



## 2. **History of the Zoo**

The present Kapilash Zoo had come up as a Deer Park on 26<sup>th</sup> January 1979 over an area nearly five hectares in the foothills of Kapilash RF to provide a source of entertainment and to propagate a sense of nature & wildlife conservation among the visitors, who visit the famous temple of Lord Chandrasekhar. Subsequently the adjacent area of Kapilash RF and some Debottar land have been included and the present area of the Kapilash Zoo of 26.64ha. This park got recognition of State Authorities as a Mini Zoo since 01.04.1986 which has been recognized by the Central Zoo Authority.

A pond was constructed to conserve the water of catchment area of the Kapilash reserve forest and thus a large water body was born. From this artificial lake, the water was allowed to pass to another lake. The first waterbody has now become a home for large no. of resident and migratory birds. A natural small island is present in the mid lake for the safety, security and availability of food for migratory and local birds.

The lush sylvan surrounding of this zoo an innovation to relax away from the din and bustle of life.

## 3. **Vision**

To be the leading zoo-based conservation institution in the State side by side conserving wildlife, impart knowledge on wildlife and inspire visitors to protect Forests and Wildlife among the community

## 4. **Mission**

To connect people to the conservation of wildlife by demonstrating the role of conservation.

## 5. **Objective**

A professionally run zoological park will serve a great variety of roles to benefit both the animals it houses and the visiting public. Carefully planned breeding programmes can help propagate endangered species and continue gene pools for species whose habitats have been obliterated. Pure as well as applied research on animals in captivity can benefit not only the animals in the zoos but also in the wild. Educational programmes can help foster the respect that wild animals deserve and familiarize the visitors with the important role these animals play in the ecosystem. Large scale habitat destruction has resulted in the extinction of many species. Zoos may have to serve as the last bastion for threatened and endangered species.

The zoo shall work for the conservation of the rich bio-diversity of the state to the following objectives:

- (i) Conservation, breeding of different species particularly those endangered species belonging to the region for preservation of biodiversity
- (ii) To promote education and awareness amongst visitors towards conservation of wildlife
- (iii) Promote nature education and interpretation for communicating the younger generation in particular for appreciating the need of wildlife conservation.
- (iv) Research and scientific study on animal ecology, behaviour, diseases and their control, feed and nutrition and reproductive biology. The knowledge so gained can be made use of in management of wildlife in the wild.
- (v) Exchange with other zoological parks and rehabilitation of suitable endangered species in the wild with strict adherence to the guidelines framed for the purpose.
- (vi) To provide and develop methods of rearing, maintenance in captivity, veterinary and other care
- (vii) To provide a safe abode to the ruined wild animals, confiscated, injured, maimed, orphaned and sick animals.
- (viii) To maintain a gene pool of the endangered wild animals and birds of Odisha.

## 6. **About us**

SL.No	Particulars	Information
Basic Information about the zoo		
1.	Name of the zoo	Kapilash zoo
2.	Year of Establishment	26 <sup>th</sup> January 1979
3.	Address of the zoo	Office of the Kapilash Range Kapilash Zoo, Deogaon, DHENKANAL, ODISHA Pin-759016
4.	State	Odisha
5.	Telephone No.	06762-226717
6.	Fax No.	
7.	e-Mail address	<a href="mailto:dfo.dhenkanal@gmail.com">dfo.dhenkanal@gmail.com</a> <a href="mailto:frokapilash@gmail.com">frokapilash@gmail.com</a>

8.	Website	
9.	Distance from Nearest	Airport:-110 KM
		Railway Station:-20 Km
		Bus stand:-01 Km
10.	Recognition valid upto (Date)	28th September,2019
11.	Category of Zoo	Small
12	Areas in Ha.	26.64 Ha
13.	No. of visitors(Financial Year)	Adult:82409
		Children:27533
		Total Indians:109942
		Total Foreigners:15
		Total Visitors:109957
14.	Visitors' facilities Available in the zoo.	<p>1.Interpretation centre with Exhibits and Audio Visuals</p> <p>2.Library</p> <p>3.Boating</p> <p>4.Rest Sheds</p> <p>5.Children Park</p> <p>6.Toilets</p> <p>7.Wheel chairs and Ramps for disabled persons</p> <p>8.Toilets</p> <p>9.First Aid</p> <p>10.Paragolas</p>
15.	Weekly closure Day of the zoo	Every Tuesday of Month



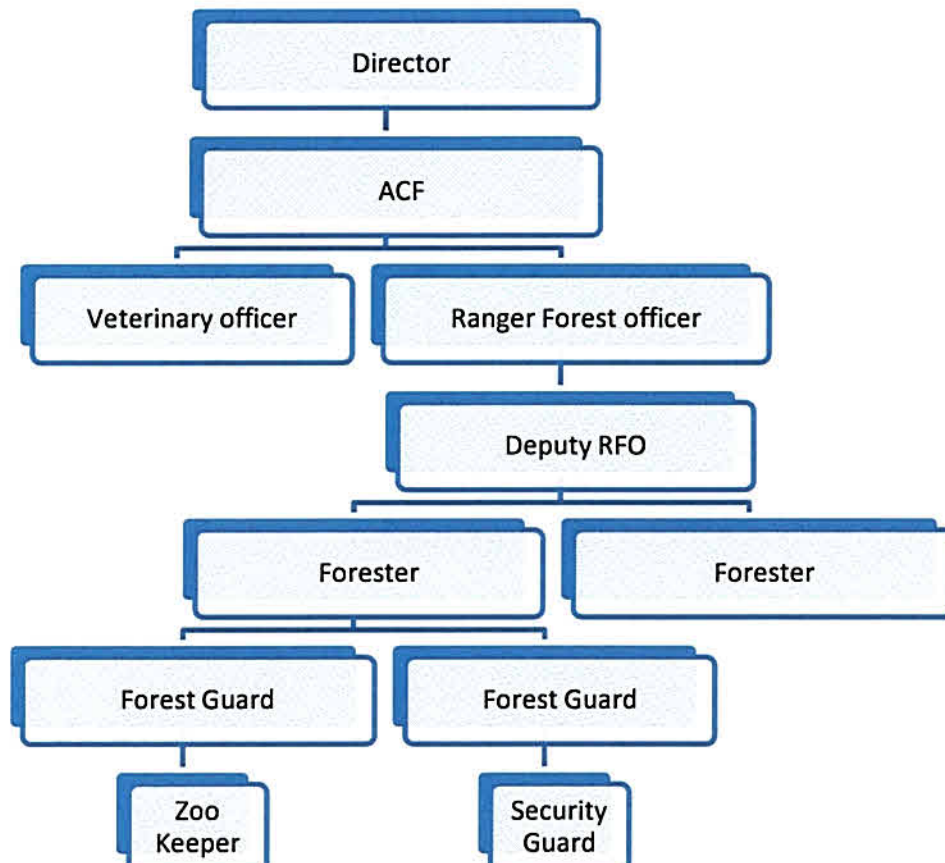
Management Personnel of the zoo		
16.	Name with designation of the officer in -Charge	Dr. Prakash Chand Gogineni, IFS Director/Divisional Forest Officer, Dhenkanal
	Name of the Veterinary Doctor	1.Dr Kishor Chandra Sahu,(On deputation to Satkosia Tiger Reserve) 2.Dr Krushna Chandra Mallick (On Requisition)
	Name of the curator	Shri Gautam Pradhan, Range officer
	Name of the Biologist	Not Available
	Name of the Education officer	Not Available
	Name of the Compounder/Lab Assistant	Not Available
Owner / Operator of the Zoo		
17	*Name of the Operator	Additional Chief Secretary, Forest & Environment Department, Odisha
18	Address of the Operator	Government of Odisha, Forests and Environment Department
19	Contact details/Phone number of Operator	Additional chief secretary to Govt, Forests and environment Dept, Odisha, 0647-2536822
20	E-mail address of Operator	<a href="mailto:efsec.od@nic.in">efsec.od@nic.in</a>

\* Rule 2(m) of the Recognition of Zoo Rules, 2009.

*“Zoo Operator” means the person who has ultimate control over the affairs of the zoos provided that \_\_\_\_*

- I. in the case of a firm or other association of individuals, any one of the individual partners or members thereof; or*
- II. in the case of a company, any director, manager, secretary or other officer, who is in-charge of and responsible to the company for the affairs of the zoo; or*
- III. In case of zoo owned or controlled by the Central Government or any State Government or Union Territory Administration or any Trust or Society funded by the Central Government or a State Government or a Union Territory Administration, the Secretary of the concerned Department of that Government, or as the case may be the Union Territory Administration, shall be deemed to be the Zoo Operator.*

## 7. Organizational Chart



## 8. Human Resources

### Manpower of the Zoo\*

SL.NO	Designation	Number of sanctioned post	Names of the Incumbent
1	Range officer	01	Sri Goutam Pradhan
2.	Zoo Forester	01	Sri Ramachandra Rout
3.	Zoo Forest Guard	02	Sri Sukadev Mohanty
4.	Animal Keeper	02	Sri Pabitra Pradhan
5.	Mali/Gardner	01	Rita Dehury
6.	Temporary Status	04	Gadadhar Sahoo
7.	Zoo Ticket collector	01	Jayanta Kumar Biswal
8.	Night watcher	02	1. Hemanta Dehury 2. Chakradhar Naik
9.	Collector of Green fodder	10	1. Ramesh Das 2. Samir Pati 3. Srikanta Mohapatra 4. Ajit Ku. Mohapatra 5. Paneshu Padhan 6. Sridhar Behera 7. Bapu Mohapatra 8. Satyabrata Rath 9. Parsuram Naik 10. Anil Kumar Pati
10.	Sweeper	02	1. Suresh Behera 2. Ganeswar Behera



11.	Elephant Taker	Care	04	1. Anil Chandra Das 2. Akhil Chandra Das 3. Susanta Dehury 4. Panchanana Naik
12	Fodder Watcher	farm	03	1. Managobinda Gochhayat 2. Arabinda Naik 3. Jiten Sethy
13	Boating Guide		03	1. Prasanta Kumar Swain 2. Kalandi Ch. Rout 3. Dharmendra Pati
14.	Gardener		01	Gadadhar Sahoo
15.	Cook		01	Nil

\*Please give above mentioned information in respect of all zoo personnel, from the Officer in-charge upto the Animal Keeper.

## 9. Capacity Building of zoo personnel

No personnel attended any training in the year 2019-2020. A few training programme got cancelled up in the wake of Covid-19 Pandemic.

## 10. Zoo Advisory Committee –

Since our zoo was classified as small zoo, we have not constituted the advisory committee. Overall zoo was managed by the Guidelines /Inspection carried out by Chief Wildlife Warden and DFO, Dhenkanal.

## 11. Health Advisory Committee–

In order to monitor the animal's health and veterinary care, Kapilash Zoo has a Health Advisory Committee, as mandated by the Central Zoo Authority. During the year 2019-2020, the Health Advisory committee met 3 times to discuss about the health and disease diagnosis.

**a. Date of constitution-09.05.2019**

**b. Members-**

1. Shri Sudarshan Patra, (DFO-cum-Wildlife Warden), Dhenkanal
2. Dr. Biranchi Narayan Mishra ( SDVO, Representative of CDVO, Dhenkanal)
3. Shri Jitendranath Das (ACF, Dhenkanal Division)
4. Shri Darsania Bhoi (Range officer, Kapilash)
5. Dr Krushna Chandra Mallik ( Block Veterinary Officer, Gondia)
6. Shri Susanta Kumar Sahoo (I/c Fr. Kapilash Zoo)

With the transfer of DFO, Dhenkanal and ACF of the division, a new committee was formed on 15.10.2019.

1. Shri Bimal Prasanna Acharya, (DFO-cum-Wildlife Warden), Dhenkanal
2. Dr. Bikash Kumar Dash (Chief District Veterinary Officer, Dhenkanal)
3. Shri Saroj Kumar Biswal (ACF, Dhenkanal Division)
4. Shri Falguni Behera (ACF, Dhenkanal Division)
5. Shri Darsania Bhoi (Range officer, Kapilash)
6. Dr Krushna Chandra Mallik ( Block Veterinary Officer, Gondia)
7. Shri Susanta Kumar Sahoo (I/c Fr. Kapilash Zoo)

**c. Dates on which Meetings held during the year**

- a. 09.05.2019 at Kapilash Range office
- b. 15.10.2019 at Kapilash Range office

### **13. Statement of income and expenditure of the Zoo**

<b>SL.No</b>	<b>Year</b>	<b>Revenue (in Rs.)</b>	<b>Expenditure (in Rs.)</b>
<b>1</b>	<b>2017-18</b>	<b>4,83,685</b>	<b>59,05,000</b>
<b>2</b>	<b>2018-19</b>	<b>7,69,445</b>	<b>115,02,085</b>
<b>3</b>	<b>2019-20</b>	<b>12,45,620</b>	<b>11382</b>
	<b>Total</b>	<b>24,98,750</b>	<b>28,789,085</b>

### 14. Daily feed Schedule of animals

SL. No	Species	Feed item	Quantity		Day of Fasting
			Winter	Summer	
1.	Herbivores	Vegetables, Green fodder, Concentrates, Grains, Roughages	Seasonal fruits(for Elephant)	Seasonal fruits(For Elephant)	No fasting ,fed twice daily
2.	Carnivores	Chicken, fish Mice, rats, birds, Snakes			Fasting on every Tuesday
3.	Omnivores	Concentrates, Honey ,egg, termites, Vegetables	Seasonal fruits	Seasonal fruits	Fed every day twice daily
4.	Crocodiles	Fish & Chicken			Once in 10 days
5.	Birds	Vegetables, Concentrates, Grains, Fishes	Seasonal fruits	Seasonal fruits	No fasting fed twice daily. Tuesday fasting for carnivore birds
6.	Snakes	Live fowls, Rabbits, Rat and snakes			Once in 15 days



### 15. Vaccination Schedule of animals

Sl.No.	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity	Remarks
1.	Spotted Deer	FMD	FMD Vaccine	Half-yearly	
		H.S	H.S.vaccine	Yearly	
2	Elephant	FMD, Anthrax		Half-Yearly	

### 16. De-worming Schedule of animals

SL.N O	SPECIES	DRUGS USED	PERIODICITY	Month
1.	Herbivores : Asian Elephants, Spotted deers, Sambar Deer, Antelopes	1) Albendazole 2) Fenbendazole 3) Ivermectin 4) Oxyclosonide	Quarterly	August , December
2.	Bears	1) Albendazole 2) Fenbendazole	Quarterly	August , February
3.	Birds	Fenbendazole and Praziquantel combination, Piperazine	Quarterly	May, August, November , February
4.	Crocodiles and other reptiles	Fenbendazole and Praziquantel combination	Quarterly	May, August, November, February
5.	Snakes	Albendazole	Quarterly	
6.	Civet cat	Albendazole	Quarterly	June, October, march
7.	Mongoose	Albendazole		August , January

### **17. Disinfection Schedule**

<b>Sl. No.</b>	<b>Species</b>	<b>Type of enclosure</b>	<b>Disinfectant used and method</b>	<b>Frequency of disinfection</b>
1	All Deer Species	Open top enclosure	Lime Sprinkling,	Alternate month
2	Sloth Bear	Open enclosure	Lime sprinkling	Alternate Month
3.	Peafowl, Budgerigar, Brahminy Kite, Barned owl	Caged enclosure	Kohrsolin- TH, Virkon-S	
4	All Bird Species	Caged enclosure	Kohrsolin- TH	Alternate month
			Virkon-S	Alternate month
5	Emu	Caged enclosure	Lime sprinkling	Every month
6.	Tortoise	Caged enclosure	Lime sprinkling	Every month
7.	Crocodile marsh	Open enclosure	Lime sprinkling	Once in a month
8	Elephant	Open	Lime sprinkling	Everyday

### **18. Health Check-up of employees for zoonotic diseases**

Health check-up of zoo employees were regularly carried out for general check-up and maintained correct health of employees. On dt.28 .01.2020, the health check up of all the staffs was carried out in Dhenkanal Headquarter Hospital to detect any zoonotic transmission and for regular health check-up.

### **19. Development Works carried out in the zoo during the year**

Many developmental works were carried under this APO-2019-20 regarding providing basic amenities and facilities pertaining to the improvement of the zoo. Wide ranges of works were taken up during this period for betterment of the zoo such as:-

### **1. Construction of treatment centre**

Construction of treatment centre was taken up to provide better treatment to the ailing animal and too providing regular health checkup of the rescued animals.

### **2. Construction of feed Godown and Kitchen**

Construction of feed Godown and kitchen were taken up to better storage and preparation of food for the zoo animals.

### **3. Construction of Boundary wall near old feeding chamber**

The wall was constructed as it is located outside the compound of the zoo. In order to protect the zoo feed from getting theft and better protection this wall was constructed.

### **4. Cabling of electric line inside Kapilash zoo**

The zoo compound has a great numbers of langurs in order to protect that wildlife from getting electrocuted cabling was done.

### **5. Construction of Toilet**

To provide proper basic amenities and considering the rise of footfall in the zoo during peak time a new toilet complex was constructed to add more facilities in this zoo.

### **6. Construction of gate at Crocodile enclosure**

The gate was constructed to provide protection to the animal keeper. The new one was erected after the old one got damaged.

### **7. Stand-off barrier near Crocodile enclosure**

In order to enhance the view and too adhering to CZA rules a stand-off barrier was created which act as buffer between visitors and the zoo animal.

### **8. Repairing of retaining wall near Lawn**

#### 9. Construction of main boundary wall near pond

The wall was created keeping visitors entering into range office area.

### **20. Education and Awareness programme during the year**

Education and awareness programme are the part of the outreach activities that is one of the very mandates of this zoo. To impart the importance of wildlife and environment a nature camp of one day was arranged for the students of the neighboring schools of locality and Dhenkanal.

Paintings and quiz competitions were organized among the students to create interest among them. The winners were awarded with certificates and cash award.



## **21. Important Events and happenings**

Kapilash zoo has taken up many events to engage students all around to celebrate such as environment day, Wildlife week and Elephant day to mark all important days by organizing expert talk, quiz programme and painting competition among the students. Carrying out a rally walk with the school students to aware the importance of the environment in our life.

## **22. Seasonal special arrangements for upkeep of animals**

The following winter and summer care arrangements are made at Kapilash zoo during the year.

### **Winter care arrangement for captive animals at Kapilash Zoological Park:**

1. Birds housed in different cage Enclosure draped of green shade net and clean gunny bag hanged around the wire mesh from outside during night time.
  - Lighting with 40W electric bulbs protected with a metallic frame in each enclosure provided during night time for warmth.
2. Snakes:
  - Clean fresh straw are provided inside the den of each enclosure during the night time.
  - 40W electric bulbs are provided in the den to provide warmth.
  - Direct sunlight provision into the enclosure is made for basking.
3. Crocodiles:
  - To ensure day time basking overhead branches of shady trees are pruned and fresh sand bed are spread in the basking zone. In extreme cold thatched sheds with underneath straws are provided in each enclosure to help crocs taking shelter in night.
4. Stagnant/ accumulated rain water in all wet moated enclosure is pumped out. Silt accumulated inside moat is removed and the moat be treated with lime and allowed to keep dry.
5. All lake side herbivore enclosures are sprinkled with lime. Stagnant water and mud in enclosures are cleaned and replaced with fresh soil.

### **Summer care arrangement for captive animals at Kapilash zoo:**

#### 1. Herbivore enclosures:

- Sambar and Spotted deer enclosure:
  - Wallowing tank are cleaned and provision of running water facility is made in wallowing tank.
  - Water accumulated near the feeding cell is cleaned.
  - Left over stems of fodders accumulated in the moat areas are cleaned regularly.
  - Top soil is removed and enclosure is cleaned.

#### 2. Reptile management:

- In crocodile and turtle enclosures water in the pool is maintained in running condition during peak hours of the day.
- Sheds is provided at all crocodile enclosures, turtle enclosures.
- Snake enclosures are covered with bamboo tatti/mat.

#### 3. Bird enclosures:

- Provision of side wall curtains is made during day time (10 AM to 4 PM) to protect them from hot blowing wind.
- Water is sprinkled on side wall curtains, floors and roof tops within 8 AM every day.
- The grass lawn passage situated between bird enclosures is flooded with water before 8AM every day.
- Emu is given bath by spraying water on them during early part of the day (i.e. before 10AM).
- Larger earthen water pots are provided in all the bird enclosures to keep the drinking water cool.

#### 4. Bear Enclosures:

- Bears to be kept confined in the feeding cell during 10AM to 4PM in days temp goes beyond 40°C.
- Moat is cleaned and refilled with fresh water at regular interval.

#### 5. Elephant:

Elephant management area is supplied with sprinkler system as a part to mitigate during summer. Mud walk is provided to the elephant so that they can resist heat.

Sprinklers at various enclosures & covering the enclosure with shade net to reduce summer stress

### 23. Research Work carried out and publications

The zoo has invested its time in identifying the areas of interest for the future researches and has had discussions with various academic institutions to actively involve its post graduate and doctoral students to take up wild animal researches. The zoo has also invested its time in identifying and do baselines study about the deer population in the zoo.

### 24. Conservation Breeding Programme of the Zoo

Till now conservation breeding program not initiated in the zoo.

### 25. Animal acquisition / transfer / exchange during the year

A.	Animals arriving in the Zoo				
	H.NO.	Species	Number (M:F)	From which Zoo	Date of arrival in the zoo
		Elephant	02		
B.	Animals going from the zoo				
	H.NO.	Species	Number (M:F)	Going to which Zoo	Date of deposition from the zoo
	-	-	-	-	-

## 26. Rescue and Rehabilitation of wild animals carried out by the Zoo

Sl. No.	Date of Rescue	Species with number of animals rescued with their sex (M: F:U:T)	Received from	Date of Submission of Report to the CWLW / CZA	Action taken	
					Date and Place of rehabilitation in their habitat	Reasons for housing in the zoo, if not released in their habitat

## 27. Annual Inventory of animals

Form – II

[see Rule 11(1)]

Part – A

Inventory Report for the  
Year: 2019-20

Endangered  
Species

S.N o.	Ani mal Nam e	Scient ific name	Opening Stock as on dt.01.04. 2020				Births			Acquisiti on			Disp osal			Death			Closing Stock as on dt.31.12. 2020				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
1	Peafo wl	<i>Pavocris tatus</i>	1	3		4														1	3		4
2	Eleph ant	<i>Elephas maximu s</i>	4	1		5				1										4	2		6
3	Sama bar	<i>Rusa unicolor / Cervous unicolor</i>	1	1	2	4														1	1	2	4
4	Mang ose	<i>Herpest es edward sil</i>	0	1		1														0	1		1



5	Small Indian Civet	<i>Viverricula Indica</i>	0	0	1	1													0	0	1	1
6	Sloth Bear	<i>Ursus ursinus / melursus ursinus</i>	1	1	0	2													1	1	0	2
7	Crocodile (Mugger)	<i>Crocodylus palustris</i>	1	2	2	5													1	2	2	5
8	Python	<i>Python molurus</i>	2	1	1	4													2	1	1	4

\*Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

### Part - B

#### Other than Endangered Species

S.No.	Animal Name	Scientific name	Opening Stock				Births			Acquisition			Disposal			Death			Closing Stock as on			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	T			
1	Brahminy kite	<i>Haliastur indus</i>	0	0	2	2													0	0	2	2
2	Budgerigar	<i>Melopsittacus undulatus</i>	0	0	40	40													0	0	40	40
3	Barn fish owl	<i>Ketupa zeylonensis</i>	0	0	4	4													0	0	4	4

4	Barn owl	<i>Tyto alba</i>	0	0	1	1												0	0	1	1
5	Cockatiel	<i>Nymphicus hollandicus</i>	0	0	5	5												0	0	5	5
6	Emu	<i>Dromaius novae hollandiae</i>	1	1	0	2												1	1	0	2
7	Spotted Deer	<i>Axis axis</i>	6	95	16									1				65	940		159
8	Wild pig	<i>Sus scrofa</i>	1	0	0	1												1	0	0	1
9	Antelope	<i>Alcelaphinae</i>	1	0	0	1								1				0	0	0	0
10	Indian Star tortoise	<i>Geochelone elegans</i>	0	0	1	1												0	0	1	1
11	Elongated tortoise	<i>Indotestudo elongata</i>	0	0	1	1												0	0	1	1

**28. Mortality of animals**

Sl.No.	Animal Name(with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post-mortem report
1.	Pea fowl	<i>Pavo cristatus</i>	U	26.08.2019	pneumonia
2	Pea fowl	<i>Pavo cristatus</i>	F	28.09.2019	Catarrhal enteritis
2.	Sambar	<i>Rusa unicolor</i>	M	30.11.2019	Maggot wound with infection

**29. Compliance with conditions stipulated by the Central Zoo Authority**

**Details on compliance of the conditions stipulated by the Central Zoo Authority (as per the earlier letter of grant of recognition issued to the Zoo)**

Letter No. F.No.19-106/92-CZA(211) (Vol-I)(PKR)/1568/2019 dated: 07.10.2019

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Remarks	
					Status with regard to compliance of the conditions as submitted by the Officer-in-charge of the Zoo	Status with regard to compliance as noted physically by the evaluator during the visit

**1.General Requirements**

1	10.1(3)	The visitors' circulation in the zoo should be regulated and it should be separated from the service path for use of zoo personnel. In case of enclosure for Peafowl, more than 80% of the periphery has visitor's access leading to undue disturbance to birds. It should be reduced to 25%. In case of enclosure for Marsh crocodile, there is no service path. It should be addressed at the earliest.	-	Since last Evaluation	Peafowl's now kept in a new enclosure. Service Path for Marsh crocodile @ Rs.80, 000/- has been undertaken and will be completed by 15.01.2020. Documentary Proof of Work is also enclosed in <b>Annexure-I</b>	
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2	10.1(4)	Inspection path should be laid along the perimeter wall of the Zoo to facilitate regular inspection.			The inspection path around perimeter boundary wall of Zoo has already been developed during December, 2018.	
3	10.1(6)	The four mahouts working in the Elephant Rescue Centre of the Zoo are residing inside the Zoo premises in proximity to the rescue elephants. Their residence should be shifted outside the Zoo.			Four Mahouts are residing outside the zoo as per the observation made	
4	10.1(7)	It is observed that one side of the ticket counter is filled with filth. Waste management practices in the Zoo should be improved to ensure minimal environmental impact.			That side of the ticket counter has already been cleaned. Now waste management practice is being followed regularly by installing appropriate bins.	
5	10.1(8)	It is observed that all the wild animals acquired by way of rescue are on display to visitors except one male four horned antelope & mongoose.(1:1).All rescue animals should be housed in the off display area of the Zoo. In the absence of the all display facility, the rescued animals should shifted recognized Rescue Centre/Zoo having such facilities.	Immediately	-do-	All the rescued animals first kept outside the enclosures and after some days they are shifted to enclosures observing all formalities.	
6	10.1(9)	The domestic animals housed in the Zoo namely Rabbit (36 Nos.) and Mithun (2 Nos.) should be removed immediately from the Zoo premises.			Already removed from Zoo Premises as per the observation made.	

7	10.1 (9)	Stray dogs has been observed inside the zoo premises. Entry of stray animals into the Zoo should be prevented.		.	Stray dogs are not being allowed to enter inside the Zoo premises. The height of compound wall of Zoo has been increased	
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### 2.Administrative and Staffing Pattern

8	10.2 (1)	A whole time officer-in-charge with adequate administrative and financial power should be deputed in the Zoo.	Imme diatel y	-do-	Deputy Range Officer is exclusively in-charge of Zoo under Range Officer , Kapilash.	
9	10.2( 2)	The Zoo being a small category Zoo, did not depute scientific and technical personnel necessary for scientific management of the Zoo. The scientific and technical personnel should be deputed to assist the officer in charge for scientific management of the Zoo. Presently, staff of the Zoo is not deputed as necessary for a small category Zoo. The Zoo Operator should address this address this at the earliest. Full time Curator, Veterinarian, Biologist cum Education Officer should be deputed in the Zoo.	Imme diatel y	-do-	The Deputy Director, Nandankana n Zoological Park Bhubaneswa r is being separately requested for providing scientific technical management guidance for Kapilash Zoo. For posting of one full time Curator, Veterinarian, Biologist cum Education Officer, the C.W.L.W., Odisha has already been moved vide this office memo No. 2305 Dt. 18.03.2019	



**3.Development and Planning**

11	10.3 (1)	The Zoo should get its Master (Layout) Plan and Master Plan for approval of the Central Zoo Authority.	Imme diatel y	-do-	Master (Layout) Plan of Kapilash Zoo has already been submitted to CZA vide this office Letter No 10032 dtd.25.11.2016. The same is again resubmitted after complying the objections vide this office Memo No.11470 Dt.18.12.2019 for consideration. The Master Plan prepared during 2016 is being revisited and will be submitted.	
12	10.3 (3)	At the time of evaluation, wall is under construction to separate the Staff Quarter, Forest Rest House, Range Office Quarantine Area of the Zoo, Old Empty aviary, Fodder farm, Vermi-compost unit and Anti-Poaching Camp respectively from the Zoo. It is necessary and advisable to create permanent infrastructure after obtaining approval of the Master Layout Plan of the Zoo, in view of the long term development of Zoo.	-	-do-	Already implemented . Documentar y proof of work is enclosed with <b>Annexure-II.</b>	

		As the collective wisdom of the experts goes into the plan during scrutiny of the plan, it leads to better planning. The Zoo Operator should ensure that creation of infrastructure is taken up after obtaining approval of the CZA for the Master Layout Plan, Master Plan and design of enclosures for endangered species.				
13	10.3 (3)	The children's Park is adjacent to the enclosure for peafowl. It should be shifted near entrance away for Animal enclosure. Shifting of the children's Park should propose in the Master Layout Plan of the Zoo.	Immediate	-do-	Peafowl enclosure has already been shifted. Children's Park will be shifted to the entrance soon after receipt of fund.	
14	10.3 (6)	The Animal Collection Plan of the Zoo should be prepared and submitted as part of the Master plan for approval of the Central Zoo Authority.	Immediate	-do-	The Animal Collection plan has already been included in the Master Plan for approval of the Central Zoo Authority.	
15	10.3 (7)	It is observed that the Zoo is accepting rescued animal through it does not have appropriately designed enclosures and upkeep facilities for the species as well as the facilities for keeping it the isolation during quarantine period. The rescued elephants, Mongoose and four horned antelopes are housed in the off-display are of the zoo.	Immediate		Now a days, the rescued animals are not accepted as there is no adequate facilities in this Zoo.	

		<p>The off-display facility housing rescued Mongoose (1 square meter) and four horned antelope (3.6meter x 2.5 meter x 2.5 meter) is grossly inadequate as per the prescribed standard. Rest of rescued animals are housed in the main enclosure of the Zoo and put on display to visitors unless the Zoo has appropriate facility of prescribed standard to house animals in the off-display area of the zoo, the zoo should not accept rescued animals for housing. The zoo should refrain from accepting rescued animals for which it does not have facility.</p>				
15	10.3 (8)	<p>It observed that the Zoo Management is not reporting the source, legality and facility of housing, upkeep and health care of rescued animal accepted for housing [Star tortoise(0:0:1),Peafowl (0:1), Rose ringed parakeet (0:0:3),EMU(0:0:2),Elephant (1:0),Four horned antelope (1:0), Small Indian Civet (0:0:1), Mongoose(1:1)] to the Chief Wildlife Warden of the State and the CZA. The legal provision in the matter should be complied.</p>	Immediately	-do-	<p>The source, legality and facility of housing, upkeep and health care of rescued animal will be submitted to CZA on perusal of official record.</p>	

**4. Animal housing , display of animal enclosures**

17	10.4 (2)	Animal enclosures in the Zoo aren't according to the design and dimension prescribed by the CZA. The Zoo Operator should propose their modification as per norms in the Master (Layout) Plan for approval of the CZA.	Immediately	-do-	After approval of the Master (Layout) Plan by CZA, the same would be implemented in phased manner taking into account the availability of fund.
18	10.4(2)	It is observed that one of the four elephants housed in the Rescue Centre of the Zoo is chained on three legs while other two elephants on two legs. Also, none of the chains have a sheath to provide cushion and avoid injury to elephants. It should be ensured that the elephants are housed in the Zoo as per the Guidelines issued in the matter by the Central Zoo Authority.			The rescued elephants are housed in rescue centre separately outside the display area. As suggested, cushioned sheath has been provided with chain in every legs.
19	10.4 (2)	Wild pig is presently housed in the enclosure for Sambar under construction. Also, it is observed to have abnormally high human imprint. All the captive wild animals in the zoo should be encouraged to express their natural behaviour.	-	-do-	Already shifted to new enclosure. Documentary proof of work is enclosed as <b>Annexure-III.</b>
20	10.4 (2)	Enclosure for the Indian Star tortoise, Rose-ringed parakeet, Brahminy Kite, Owl, Emu and Budgerigar found in highly cramped condition and unhygienic. They should be housed in an enclosure of appropriate dimension. Either modification of the	-	-do-	After approval of the Master (Layout) Plan by CZA, the same would be implemented in phased manner taking into account the

		enclosure at existing site or shifting to new spacious enclosure should be proposed in the Master (Layout) Plan for approval of the CZA.			availability of fund. However, Star Tortoise and Emu Shifted to New Enclosure. Documentar y proof of work is enclosed as <b>Annexure-IV</b>	
21	10.4 (3)	Barking deer died in the Zoo on 25.2.2017 due to "Strangulation and circulatory shock by iron mesh". Appropriate measures should be taken to ensure safety and security of the captive animals.	-	-do-	Adequate step for prevention is being undertaken. One time aberration due to sinking of a tube well resulting in hyper excitement.	
22	10.4 (3)	Channels made in the enclosure for herbivores for passage of storm water may cause injury to captive animals. They should be suitably covered and levelled with the surface.	-	-do-	Proper Drainage system has already been provided. Documentar y proof of work is enclosed as <b>Annexure-V</b>	
23	10.4 (6)	All animal enclosures should provided with dynamic enrichment schedule based on the need of the species.	Imme diatel y	-do-	Is being undertaken in consultation with Deputy Director, Nandankana n Zoological Park, Bhubaneswa r.	
24	10.4 (7)	Adequate Screening should be provided between enclosures.	Imme diatel y	-do-	Noted and being implemented .	
25	10.4 (8)	The Zoo management is constructing enclosures for animals of endangered species (Sloth bear) without obtaining approval of design from	Imme diatel y	-do-	Post-facto approval for Sloth Bear enclosure has been applied vide this office	



		the Central Zoo Authority. The design of the enclosure should be submitted to the CZA for post-facto approval.			Letter No.11895 dtd.30.12.2019	
26	10.4(9)	Stand-off barriers is absent in case of enclosures for peafowl, Marsh crocodile, Sambar, Sloth bear and Spotted deer. The same should be laid as per standard specified by the CZA.			The stand-off barrier for enclosures of Sambar, sloth bear, marsh crocodile and Spotted deer have been completed and for peafowl, it has been constructed.	
27	10.4(10)	The signage on display in the Zoo states that the rescued wild animals are displayed to visitors. It is in violation of the provisions of Schedule 1 (8) of Rule 10 under the Recognition of Zoo Rules, 2009. Hence the signage should be corrected.			The signage has been dully corrected soon after it was pointed out during evaluation.	
<b>5. Up keeping and Healthcare of animals</b>						
28	10.5(2)	It is observed that the diet offered to animal as per records and in reality is different. Biryani and cooked rice offered to few animal on the day of evaluation. Diet schedule for all captive animal should be prepared in consultation with the veterinarian and the same should be strictly implemented.	-	-do-	The Deputy Director, Nandankana Zoological Park, Bhubaneswar has provided necessary diet chart and the same is adhered to.	

29	10.5 (3)	Presently, Feed Store is outside the premises of the Zoo along with residence of the Forest Department staff (however designated as Forest Awareness Centre) The feed store should be constructed inside the Zoo. The same should be proposed in the Master (Lay out) Plan.	-	-do-	The Feed Store will be constructed inside the zoo premises and will be completed by March, 2020.	
30	10.5(4)	Provision for kraal should be provided in all animal enclosures to ensure adequate protection from inclement weather, to prevent scavenging of food meant for captive animals, to act as secondary holding area while maintenance activity in the enclosure and to facilitate close observation of animals.			Now the kraals are available for Sloth Bear, Wild Boar and the above facility shall be provided for all animals for which proposals has been submitted for construction during 2019-20.	
31	10.5(5)	It is observed that solid waste generated in the Elephant Rescue centre of the Zoo is being disposed right behind the animals leading to unhygienic condition. Also, solid waste collected in the Zoo has been observed to be dumped at enclosure for Budgerigars. The waste generated in the Zoo should be disposed efficiently with least environmental impact.			The solid waste generated in Elephant rescue centre as well as budgerigar & other animals were disposed outside the Zoo premises. A vermi compost unit is available outside the Zoo premises for recycling of the same.	

32	10.5(5)	Footbath with disinfectant solution is not present at service entry to animal houses, in case of enclosure for marsh crocodile, spotted deer and Samber. It should be addressed on priority.			Now Footbath with disinfectant solution is used at the entry of all animal enclosures	
33	10.5(5)	A Schedule for disinfection of animal enclosures should be prepared in consultation with the Veterinarian and copy of the same should be displayed at individual enclosure.	-	-do-	Disinfection of animal enclosures has been carried out. Documentary proof of work is enclosed as <b>Annexure-VI.</b>	
34	10.5(6)	It is observed from records that the consultant Veterinarian's visit to the Zoo to keep a close watch on general behaviour and health parameters of the captive animal is not regular. It is informed that the Consultant Veterinarian visits the Zoo once in a week. More ever the zoo is housing many endangered species. As per the Rules, housing of endangered species requires deployment of curatorial staff and a fulltime Veterinarian. The norms in this regard should be strictly complied.	Six months		The veterinarian now comes to the zoo once in a week to inspect all the animals. He also comes at the time of requirement beyond his weekly schedule. However, the Govt. have been moved to provide a full time veterinarian for Zoo.	
35	10.5(8)	Every Zoo animal should be screened for parasitic loads as per written schedule prepared by the Zoo in consultation with the veterinary officer and the schedule should be displayed at every enclosure.	-	-do-	A schedule for parasitic loads of animal will be prepared in consultation of VAS, Gondia.	

36	10.5 (9)	It is observed that the Zoo personnel involved in upkeep and health care of captive wild animals are not screened against zoonotic diseases, They should be screened once a year and record should be maintained.	Immediate	-do-	Zoo personnel involved in upkeep and health care of captive wild animals has been screened yearly against zoonotic diseases on 16.10.2019	
37	10.5 (10)	Records namely Keepers Daily Report, Animal History Card and Treatment Card should be prepared and used in the formant prescribed by the Central Zoo Authority.	-	-do-	Keepers Daily Report, Animal History Card and Treatment Card for Sloth Bear and Sambar has been prepared. Action is being taken for other wild animals.	
<b>6. Veterinary and infrastructure facilities.</b>						
38	10.6 (1) (C)	Treatment Room with appropriate infrastructure should be created in the Zoo.	-	-do-	Construction of Treatment Room has started and will be completed by March, 2020.	
39	10.6 (3)	One Stockman/Compounder should be appointed as Veterinary Support Staff of the Zoo, applicable for a small category Zoo.	Immediate	-do-	Noted Appropriate Authority will be moved.	
40	10.6 (6)	The Zoo Operator should undertake capacity building programmes for the zoo personnel by deputing them to nearby large Zoo in Bhubaneswar. It is to be ensured that only trained personnel should be permitted to take care of the captive wild animals	-	-do-	Documentary proof of work is enclosed as <b>Annexure-VII</b>	

<b>7. Post-mortem Report and Disposal of Carcasses of Animals</b>						
41	10.7 (1)	The post mortem report of the mugger died in the Zoo on 26.01.2018 is not available in the Zoo Record. The Zoo Operator should be ensure that the animal that die in the Zoo are subjected to post-mortem examination and report should be promptly maintained. The Post-mortem Report for abovementioned animal should be obtained and submit to the CZA.	-	-do-	Documentary proof of work is enclosed as <b>Annexure-VIII</b>	
42	10.7 (1)	On perusal of records, it is observed that cause of death in most of the cases is Pneumonia. The matters pertaining to nutrition, hygiene and healthcare of the captive animals should be subjected to review of the Health Advisory Committee of the Zoo constituted on 30.11.2017 and appropriate measures be taken.	-	-do-	Minutes of the last four meetings of the District Level Health Advisory Committee held on dtd.07.09.2018, 19.01.2019, 08.05.2019 and 15.10.2019 of the Zoo are enclosed as <b>Annexure-IX</b>	
43	10.7 (2)	It is observed that the Post-mortem Report of animals died in the Zoo is in deviation from the form prescribed by the Central Zoo Authority. The prescribed form should be adopted by the Zoo.	-	-do-	The same is being adopted as per the form prescribed by Central Zoo Authority.	
44	10.7 (3)	It is observed that cause of death in case of a Small Indian Civet, Female Elephant that died on 08.01.2018 and Sambar that died on 07.01.2017, is inconclusive. However no further diagnosis is done to determine the cause. The Zoo Operator should ensure that in the cause of death is determined in all the cases.	-	-do-	In future diagnosis will be done as per the advice of Veterinarian from Bhubaneswar to determine the cause of death.	



**9. Acquisition and breeding of animals**

45	10.9 (8)	It should be ensured that all the animals particularly of endangered species should be marked and recorded in the respective Animal History Card. Also, the information pertaining to the endangered species housed in the Zoo is provided to the National Studbook Keeper.	Immediate	-do-	Animal History Card has been maintained for each animal. Noted for guidance.
46	10.9 (9)	As per the CZA's "Guidelines for Establishment and Scientific Management of Zoos", the number of ungulates / herbivores of each species should not exceed 10(ten) in a Small category zoo. However, the Kapilash Zoo is housing 152 Spotted Deer. The Zoo Operator shall adopt population control measures in Spotted Deer and shall limit their number as per the guidelines. Also the animal collection of the Plan should be finalised in consultation with the CZA in consultation with the Chief Wildlife Warden of the State.	-	-do-	Originally it was started as a Deer Park for which number is high. Segregation of male from female is continuing in the zoo and result will be visible. However, soft release to the wild is contemplated as per guidelines issued by CZA.
47	10.9 (10)	During evaluation, it is informed that a Honey badger escaped from enclosure while feeding. Presently, rescued Small Indian Civet is housed and displayed to visitors. The Zoo Operator should review the security measures and take up necessary measures. All the service entry to animal enclosures should have provision of double door to prevent accidental animal escape.	-	-do-	During construction of new enclosure provision of double door locking system is being provided to prevent accidental escape of Zoo Animals.

**12. Visitors Facilities.**

48	10.12 (1)	Hygiene in the Toilets meant for use for Visitors of the Zoo should be improved.	Immed iately	-do-	Followed New Construction of Hygienic Toilet inside the Zoo will be completed by March, 2020.
49	10.12 (2)	First Aid equipment along with life saving drugs including anti-venom serum for snake bite should be made readily available in the Zoo.	Immed iately	-do-	First Aid kit is available in the Zoo. For anti-venom serum, the same is available in Deogaon Government Public Health Centre which is 2 Kms from the Zoo.

**Rull 11. Maintenance of the records and submission of inventory**

50	11.1	Four elephant (3 male & 1 female) housed in the off display area of the zoo were rescued on 07.07.2010, 24.12.2011, 04.09.2012 and 14.05.2018 respectively. However, approval of the Central Zoo Authority for their acquisition under Section 38-1 of the Wild Life (Protection) Act, 1972. The Zoo Operator should submit a proposal for post-facto approval of the Central Zoo Authority.	-	-do-	Post-facto approval of the Central Zoo Authority sought by the DFO, Dhenkanal Division vide Letter No.11892 dt.30.12.2019
51	11(1)	Through the Zoo is housing endangered species, not regularly submitting Quarterly Inventory to the CZA. It should be ensured that the Quarterly Inventory of animals is submitted within 15 days from end of the Quarter.	-	-do-	The Quarterly Inventory of animals for the last three quarters i.e. quarter ending 31.03.2019, 30.06.2019 and 30.09.2019 are enclosed as <b>Annexure-X</b> .

### 30. List of free living wild animals within the zoo premises

The zoo is housed in the Kapilash wildlife sanctuary and houses a wild range of mammals, Birds and Reptiles.

#### a. Mammals

SL No	English name	Scientific name
1	3	4
1	Flying fox (Bat)	<i>Pteropus giganteus</i>
2	Jungle cat	<i>Felis chausaffinis</i>
3	Sloth bear	<i>Melursus ursinus</i>
4	Jackal	<i>Canis aureus</i>
5	Royal Bengal tiger	<i>Panthera tigris tigris</i>
6	Wild pig	<i>Sus scrofa</i>
7	Four Horned Antelope	<i>Tetracerus quadricornis</i>
8	Wolf	<i>Canis lupus pallipes</i>
9	Ratel	<i>Mellivora capensis</i>
10	Mouse Deer	<i>Moschiola/Tralugus meminna</i>
11	Common Langoor	<i>Presbytis entellus</i>
12	Hyaena	<i>Hyaena hyaena</i>
13	Spotted deer(Chital)	<i>Axis axis</i>
14	Wild Buffalo	<i>Bubalus bubalis</i>
15	Leopard (Panther)	<i>Panthera pardus</i>
16	Leopard cat	<i>Felis bengalensis</i>
17	Indian Fox	<i>Vulpes bengalensis</i>
18	Barking deer	<i>Muntiacus muntjak</i>
19	Hare	<i>Lepus nigricollis</i> <i>Raficaudatus</i>
20	Fishing cat	<i>Felis viverinus</i>
21	porcupine	
22	Mole	<i>Suncus murinus</i>
23	Common mongoose	<i>Herpetes auropunctatus</i>
24	Boselaphus	<i>Tragocamelus</i>
25	Common Otter	<i>Lutra lutra</i>
27	Rhesus macqua	<i>Macaca mulatta</i>



28	4 striped palm squirrel	<i>Funambu pennatnti</i>
29	Pangoline	<i>Manis crassicaudata</i>
30	Indian porcupine	<i>Hystrix indica</i>
31	Sambar	<i>Cervus unicolor</i>
32	3 striped palm squirrel	<i>Funambulus palamarum</i>

## b. Birds

	<b>Family: Gaviidae</b>	
1	Little Grebe	<i>Tachybaptus ruficollis</i> (Pallas, 1764)
	<b>Family: Phalacrocoracidae</b>	
2	Little Cormorant	<i>Phalacrocorax niger</i> (Vieillot, 1817)
3	Indian Shag	<i>Phalacrocorax fuscicollis</i> (Stephens, 1826)
4	Great Cormorant	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)
	<b>Family: Ardeidae</b>	
5	Little Egret	<i>Egretta garzetta</i> (Linnaeus, 1766)
6	Median Egret	<i>Mesophoyx intermedia</i> (Wagler, 1829)
7	Cattle Egret	<i>Bubulcus ibis</i> (Linnaeus, 1758)
8	Indian Pond-Heron	<i>Ardeola grayii</i> (Sykes, 1832)
9	Little Green Heron	<i>Butorides striatus</i> (Linnaeus, 1758)
10	Chestnut Bittern	<i>Ixobrychus cinnamomeus</i> (Gmelin, 1789)
11	Black Bittern	<i>Dupetor flavicollis</i> (Latham, 1790)
12	Night heron	<i>Nycticorax nycticorax</i>
	<b>Family: Ciconiidae</b>	
13	Asian Openbill-Stork	<i>Anastomus oscitans</i> (Boddaert, 1783)
	<b>Family: Threskiornithidae</b>	
14	Black Ibis	<i>Pseudibis papillosa</i> (Temminck, 1824)
	<b>Family: Anatidae</b>	
15	Lesser Whistling-Duck	<i>Dendrocygna javanica</i> (Horsfield, 1821)
16	Brahminy Shelduck	<i>Tadorna ferruginea</i> (Pallas, 1764)
17	Cotton Pygmy-goose	<i>Nettapus coromandelianus</i>
	<b>Family: Accipitridae</b>	
18	Black-shouldered Kite	<i>Elanus caeruleus</i> (Desfontaines, 1789)
19	Black Kite	<i>Milvus migrans</i> (Boddaert, 1783)
20	Crested Serpent-Eagle	<i>Spilornis cheela</i> (Latham, 1790)
21	White-eyed Buzzard	<i>Butastur teesa</i> (Franklin, 1832)
22	Indian shikra	<i>Accipiter badiusdussumieri</i>
	<b>Family: Phasianidae</b>	
23	Jungle Bush-Quail	<i>Perdicula asiatica</i> (Latham, 1790)

24	Red Junglefowl	<i>Gallus gallus</i> (Linnaeus, 1758)
25	Indian Peafowl	<i>Pavo cristatus</i> Linnaeus, 1758
26	Red Spurfowl	<i>Galloperdix spadicea</i>
	<b>Family: Turnicidae</b>	
27	Small Buttonquail	<i>Turnix sylvatica</i> (Desfontaines, 1789)
	<b>Family: Rallidae</b>	
28	Brown Crake	<i>Amauornis akool</i> (Sykes, 1832)
29	White-breasted Waterhen	<i>Amauornis phoenicurus</i> (Pennant, 1769)
30	Common Moorhen	<i>Gallinula chloropus</i> (Linnaeus, 1758)
31	Common Coot	<i>Fulica atra</i> (Linnaeus, 1758)
	<b>Family: Jacanidae</b>	
32	Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i> (Scopoli, 1786)
33	Bronze-winged Jacana	<i>Metopidius indicus</i> (Latham, 1790)
	<b>Family: Charadriidae</b>	
34	Little Ringed Plover	<i>Charadrius dubius</i> (Scopoli, 1786)
35	Yellow-wattled Lapwing	<i>Vanellus malabaricus</i> (Boddaert, 1783)
36	River Lapwing	<i>Vanellus duvaucelii</i> (Lesson, 1826)
37	Red-wattled Lapwing	<i>Vanellus indicus</i> (Boddaert, 1783)
	<b>Family: Scolopacidae</b>	
38	Common Snipe	<i>Gallinago gallinago</i> (Linnaeus, 1758)
39	Common Sandpiper	<i>Actitis hypoleucos</i> Linnaeus, 1758
40	Little Stint	<i>Calidris minuta</i> (Leisler, 1812)
	<b>Family: Recurvirostridae</b>	
41	Black-winged Stilt	<i>Himantopus himantopus</i> (Linnaeus, 1758)
	<b>Family: Laridae</b>	
42	Pallas's Gull	<i>Larus ichthyaetus</i> Pallas, 1773
43	Black-headed Gull	<i>Larus ridibundus</i> Linnaeus, 1766
44	River Tern	<i>Sterna aurantia</i> Gray, 1831
	<b>Family: Burhinidae</b>	
45	Stone-Curlew	<i>Burhinus oedicephalus</i> (Linnaeus, 1758)
	<b>Family: Columbidae</b>	
46	Blue Rock Pigeon	<i>Columba livia</i> (Gmelin, 1789)
47	Oriental Turtle-Dove	<i>Streptopelia orientalis</i> (Latham, 1790)
48	Spotted Dove	<i>Streptopelia chinensis</i> (Scopoli, 1786)
49	Eurasian Collared-Dove	<i>Streptopelia decaocto</i> (Frisvaldszky, 1838)
50	Emerald Dove	<i>Chalcophaps indica</i> (Linnaeus, 1758)
51	Yellow-legged Green-Pigeon	<i>Treron phoenicoptera</i> (Latham, 1790)
52	Laughing Dove	<i>Streptopelia senegalensis cambayensis</i>
	<b>Family: Psittacidae</b>	
53	Alexandrine Parakeet	<i>Psittacula eupatria</i> (Linnaeus, 1766)
54	Rose-ringed Parakeet	<i>Psittacula krameri</i> (Scopoli, 1769)
55	Plum-headed Parakeet	<i>Psittacula cyanocephala</i> (Linnaeus, 1766)



	<b>Family: Cuculidae</b>	
56	Common Cuckoo	<i>Cuculus canorus</i> (Linnaeus, 1758)
57	Pied Crested Cuckoo	<i>Clamator jacobinus</i> (Boddaert, 1783)
58	Asian Koel	<i>Eudynamys scolopacea</i> (Linnaeus, 1758)
59	Greater Coucal	<i>Centropus sinensis</i> (Stephens, 1815)
60	Drongo cuckoo	<i>Surniculus lugubris</i>
	<b>Family: Tytonidae</b>	
61	Barn Owl	<i>Tyto alba</i> (Scopoli, 1769)
	<b>Family: Strigidae</b>	
62	Brown Fish-Owl	<i>Ketupa zeylonensis</i> (Gmelin, 1788)
63	Spotted Owlet	<i>Athene brama</i> (Temminck, 1821)
	<b>Family: Caprimulgidae</b>	
64	Common Indian Nightjar	<i>Caprimulgus asiaticus</i> (Latham, 1790)
65	Indian Jungle Nightjar	<i>Caprimulgus indicus</i> Latham, 1790
	<b>Family: Apodidae</b>	
66	Asian Palm-Swift	<i>Cypsiurus balasiensis</i> (Gray, 1829)
	<b>Family: Apodidae</b>	
67	House Swift	<i>Apus affinis</i> (Gray, 1830)
68	White-rumped Needletail-Swift	<i>Zoonavena sylvatica</i> (Tickell, 1846)
	<b>Family: Alcedinidae</b>	
69	White-breasted Kingfisher	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)
70	Small Blue Kingfisher	<i>Alcedo atthis</i> (Linnaeus, 1758)
71	Lesser Pied Kingfisher	<i>Ceryle rudis</i> (Linnaeus, 1758)
	<b>Family: Meropidae</b>	
72	Small Bee-eater	<i>Merops orientalis</i> (Latham, 1801)
73	Blue-tailed Bee-eater	<i>Merops philippinus</i> Linnaeus, 1766
74	Chestnut-headed Bee-eater	<i>Merops leschenaulti</i> Vieillot, 1817
	<b>Family: Coraciidae</b>	
75	Indian Roller	<i>Coracias benghalensis</i> (Linnaeus, 1758)
	<b>Family: Upupidae</b>	
76	Common Hoopoe	<i>Upupa epops</i> Linnaeus, 1758
	<b>Family: Bucerotidae</b>	
77	Indian Grey Hornbill	<i>Ocyceros birostris</i> (Scopoli, 1786)
78	Oriental Pied Hornbill	<i>Anthracoceros albirostris</i> (Shaw, 1808)
	<b>Family: Capitonidae</b>	
79	Brown-headed Barbet	<i>Megalaima zeylanica</i> (Gmelin, 1788)
80	Coppersmith Barbet	<i>Megalaima haemacephala</i> (P.L.S. Müller, 1776)
81	Blue throated Barbet	<i>Megalaima asiatica</i>
	<b>Family: Picidae</b>	
82	Greater Golden-backed Woodpecker	<i>Chrysocolaptes lucidus</i> (Scopoli, 1786)
	<b>Family: Alaudidae</b>	
83	Ashy-crowned Sparrow-Lark	<i>Eremopterix grisea</i> (Scopoli, 1786)



84	Rufous-tailed Finch-Lark	<i>Ammomanes phoenicurus</i> (Franklin, 1831)
85	Red-winged Bush-Lark	<i>Mirafra erythroptera</i> Blyth, 1845
	<b>Family: Hirundinidae</b>	
86	Wire-tailed Swallow	<i>Hirundo smithii</i> Leach, 1818
87	Redrumped swallow	<i>Hirundo daurica</i>
	<b>Family: Motacillidae</b>	
88	White Wagtail	<i>Motacilla alba</i> Linnaeus, 1758
89	Large Pied Wagtail	<i>Motacilla maderaspatensis</i> (Gmelin, 1789)
90	Grey Wagtail	<i>Motacilla cinerea</i> (Tunstall, 1771)
91	Paddyfield Pipit	<i>Anthus rufulus</i> (Vieillot, 1818)
	<b>Family: Campephagidae</b>	
92	Large Cuckoo-Shrike	<i>Coracina macei</i> (Lesson, 1830)
93	Black-headed Cuckoo-Shrike	<i>Coracina melanoptera</i> (Rüppell, 1839)
94	Scarlet Minivet	<i>Pericrocotus flammeus</i> (Forster, 1781)
95	Common Woodshrike	<i>Tephrodornis pondicerianus</i> (Gmelin, 1789)
	<b>Family: Pycnonotidae</b>	
96	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i> (Linnaeus, 1758)
97	Red-vented Bulbul	<i>Pycnonotus cafer</i> (Linnaeus, 1766)
	<b>Family: Irenidae</b>	
98	Common Iora	<i>Aegithina tiphia</i> (Linnaeus, 1758)
	<b>Family: Laniidae</b>	
99	Brown Shrike	<i>Lanius cristatus</i> (Linnaeus, 1758)
100	Bay-backed Shrike	<i>Lanius vittatus</i> (Valenciennes, 1826)
101	Rufous-backed Shrike	<i>Lanius schach</i> (Linnaeus, 1758)
102	Long-tailed Shrike	<i>Lanius schach</i>
	<b>Family: Turdinae</b>	
103	Blue Rock-Thrush	<i>Monticola solitarius</i> (Linnaeus, 1758)
104	Oriental Magpie-Robin	<i>Copsychus saularis</i> (Linnaeus, 1758)
105	White-rumped Shama	<i>Copsychus malabaricus</i> (Scopoli, 1786)
106	Indian Robin	<i>Saxicoloides fulicata</i> (Linnaeus, 1776)
107	Pied Bushchat	<i>Saxicola caprata</i> (Linnaeus, 1766)
108	Indian Chat	<i>Cercomela fusca</i> (Blyth, 1851)
109	Yellow-eyed Babbler	<i>Chrysomma sinense</i> (Gmelin, 1789)
	<b>Family: Timaliinae</b>	
110	Common Babbler	<i>Turdoides caudatus</i> (Dumont, 1823)
111	Rufous-bellied Babbler	<i>Dumetia hyperythra</i> (Franklin, 1831)
112	Jungle Babbler	<i>Turdoides striatus</i> (Dumont, 1823)
	<b>Family: Sylviinae</b>	
113	Jungle Prinia	<i>Prinia sylvatica</i> (Jerdon, 1840)
114	Ashy Prinia	<i>Prinia socialis</i> Sykes, 1832
115	Plain Prinia	<i>Prinia inornata</i> (Sykes, 1832)
116	Aberrant Bush-Warbler	<i>Cettia flavolivacea</i> (Blyth, 1845)
117	Common Tailorbird	<i>Orthotomus sutorius</i> (Pennant, 1769)
118	Common Chiffchaff	<i>Phylloscopus collybita</i> (Vieillot, 1817)

	<b>Family: Muscicapinae</b>	
119	Blue-throated Flycatcher	<i>Cyornis rubeculoides</i> (Vigors, 1831)
	<b>Family: Monarchinae</b>	
120	Asian Paradise-Flycatcher	<i>Terpsiphone paradisi</i> (Linnaeus, 1758)
121	Black-naped Monarch-Flycatcher	<i>Hypothymis azurea</i> (Boddaert, 1783)
	<b>Family: Rhipidurinae</b>	
122	White-browed Fantail-Flycatcher	<i>Rhipidura aureola</i> (Lesson, 1830)
	<b>Family: Dicaeidae</b>	
123	Thick-billed Flowerpecker	<i>Dicaeum agile</i> (Tickell, 1833)
	<b>Family: Nectariniidae</b>	
124	Purple Sunbird	<i>Nectarinia asiatica</i> (Latham, 1790)
125	Purple rumped sunbird	<i>Nectarinia zeylanica</i>
126	Little Spiderhunter	<i>Arachnothera longirostra</i> (Latham, 1790)
	<b>Family: Zosteropidae</b>	
127	Oriental White-eye	<i>Zosterops palpebrosus</i> (Temminck, 1824)
	<b>Family: Estrildidae</b>	
128	Red Munia	<i>Amandava amandava</i> (Linnaeus, 1758)
129	White-throated Munia	<i>Lonchura malabarica</i> (Linnaeus, 1758)
130	Spotted Munia	<i>Lonchura punctulata</i> (Linnaeus, 1758)
131	Black-headed Munia	<i>Lonchura malacca</i> (Linnaeus, 1766)
	<b>Family: Passerinae</b>	
132	House Sparrow	<i>Passer domesticus</i> (Linnaeus, 1758)
	<b>Family: Ploceinae</b>	
133	Baya Weaver	<i>Ploceus philippinus</i> (Linnaeus, 1766)
	<b>Family: Sturnidae</b>	
134	Brahminy Starling	<i>Sturnus pagodarum</i> (Gmelin, 1789)
135	Asian Pied Starling	<i>Sturnus contra</i> Linnaeus, 1758
136	Common Myna	<i>Acridotheres tristis</i> (Linnaeus, 1766)
137	Jungle Myna	<i>Acridotheres fuscus</i> (Wagler, 1827)
	<b>Family: Oriolidae</b>	
138	Eurasian Golden Oriole	<i>Oriolus oriolus</i> (Linnaeus, 1758)
139	Black-headed Oriole	<i>Oriolus xanthornus</i> (Linnaeus, 1758)
	<b>Family: Dicruridae</b>	
140	Black Drongo	<i>Dicrurus macrocercus</i> Vieillot, 1817
141	White-bellied Drongo	<i>Dicrurus caerulescens</i> (Linnaeus, 1758)
142	Spangled Drongo	<i>Dicrurus hottentottus</i> (Linnaeus, 1766)
143	Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i> (Linnaeus, 1766)
	<b>Family: Corvidae</b>	
144	Indian Treepie	<i>Dendrocitta vagabunda</i> (Latham, 1790)
145	House Crow	<i>Corvus splendens</i> (Vieillot, 1817)
146	Jungle Crow	<i>Corvus macrorhynchos</i> (Wagler, 1827)

	<b>Family: Cisticolidae</b>	
147	Zitting Cisticola	<i>Cisticola juncidis</i>
	<b>Family: Artamidae</b>	
148	Ashy Woodswallow	<i>Artamus fuscus</i>
	<b>Family: Phasianidae</b>	
149	Painted francolin	<i>Francolinus pictus</i>
150	Grey partridge	<i>Perdix perdix</i>
	<b>Family: Hemiprocnidae</b>	
151	Crested Treeswift	<i>Hemiproctne coronata</i>
	<b>Family: Phylloscopidae</b>	
152	Hume's warbler	<i>Phylloscopus humei</i>
	<b>Family: Tyrannidae</b>	
153	White-throated Flycatcher	<i>Empidonax albigularis</i>

## c. Reptiles

SL. NO.	SNAKES	SCIENTIFIC NAME	
1	Common Worm(Blind Snake)	<i>Typhlina</i>	<i>bramina</i>
2	Beaked worm or Blind Snake	<i>Typhlina</i>	<i>acutus</i>
3	Russell's Earth Boa	<i>Eryx</i>	<i>conicus</i>
4	John's Earth Boa	<i>Eryx</i>	<i>Johni</i>
5	Indian Pytheon	<i>Python</i>	<i>molurus</i>
6	Dhaman or Common Rat Snake	<i>Ptyas</i>	<i>mucosus</i>
7	Fasciolated Rat Snake or Banded Racer	<i>Argyrogena</i>	<i>fasciolatus</i>
8	Common Kukri Snake	<i>Oligoden</i>	<i>arnensis</i>
9	Common Indian bronze back or tree snake	<i>Bendrelaphis</i>	<i>tristis</i>
10	Checkered deelback	<i>Xenochrophis</i>	<i>piscator</i>
11	Buffstriped keelback	<i>Amplicoma stolata</i>	<i>plumbicolor</i>
12	Green Keelback	<i>Macropisthodon</i>	<i>plumbicolor</i>
13	Indian Gamma or Cat Snake	<i>Bioga</i>	<i>trigonata</i>
14	Common Green Whip Snake	<i>Ahaetulla</i>	<i>nasutus</i>
15	Schneider Smooth Water	<i>Enhydris</i>	<i>anlydris</i>
16	Common Indian Krait	<i>Bungarus</i>	<i>caerulens</i>
17	Banded Krail	<i>Bungarus</i>	<i>fasciatus</i>
18	Indian Cobra	<i>Maja</i>	<i>naja</i>

19	Monocellate Cobra	<i>Maja</i>	<i>naja</i>
20	King Cobra	<i>Ophiophagus</i>	<i>hannali</i>
21	Russell's Viper	<i>Vipera</i>	<i>russelli</i>
22	Bamboo Pit Viper	<i>Trimersurus</i>	<i>gramineus</i>
23	Saw Scaled Viper	<i>Echis</i>	<i>carinatus</i>
	<b>CHAMELEONS</b>		
24	India Chameleon	<i>Chamameleon</i>	<i>zeylanicus</i>
	<b>SKINK</b>		
25	Common or Brahiny skirk	<i>Mabuya</i>	<i>carinata</i>
26	Little Skins	<i>Mabuya</i>	<i>carinata</i>
27	Snake Skins	<i>Riopa</i>	<i>punetata</i>
	<b>LACERTIDS</b>		
28	Leschenaults Cabrita	<i>Cabrita</i>	<i>leschenaulti</i>
29	Jerden's Snake eye	<i>Opisops</i>	<i>jerdoni</i>
	<b>MONITOR LIZARDS</b>		
30	Common Indian Monitor	<i>Varanus</i>	<i>bengalensis</i>
31	Water Monitor	<i>Varanus</i>	<i>versicolor</i>
32	Giant Monitor Lizard	<i>Varanus</i>	<i>salvator</i>
	<b>LIZARDS GECKO</b>		
33	Northern House Gecko	<i>Hemidactylus</i>	<i>flaviviridis</i>
34	Bar Gecko	<i>Hemidactylus</i>	<i>leschenaulti</i>
35	Brooks Gecko	<i>Hemidactylus</i>	<i>Brookigray</i> <i>triedrus</i>
36	Termita Hill Gecko	<i>Hemidactylus</i>	<i>dandin</i>
	<b>AGAMIDS</b>		
37	CommonGarden Lizard	<i>Calotes</i>	<i>versicolor</i>
38	Forest calotes	<i>Calotes</i>	<i>rouxi</i>
39	Fan throated lizard	<i>Sitana</i>	<i>ponticeriana</i>
40	Short tailed Agama	<i>Agama</i>	<i>minor</i>
41	Peninsular Rock agama	<i>Psammophikes</i>	<i>dorsalis</i>

  
 Divisional Forest Officer  
 Dhenkanal Division