

# **ANNUAL REPORT**

## **FOR THE YEAR 2018-19**



**SAKKARBAUG ZOOLOGICAL PARK**  
**JUNAGADH**







## CONTENTS

Sr. No	Section	Page Number
1.	Report of the Officer-in-charge	
2.	History of the Zoo	
3.	Vision	
4.	Mission	
5.	Objective	
6.	About us	
7.	Organizational Chart	
8.	Human Resources	
9.	Capacity Building of the zoo personnel	
10.	Zoo Advisory Committee	
11.	Health Advisory Committee	
12.	Statement of income and expenditure of the Zoo	
13.	Daily feed Schedule of animals	
14.	Vaccination Schedule of animals	
15.	De-worming Schedule of animals	
16.	Disinfection Schedule	
17.	Health Check-up of employees for zoonotic diseases	
18.	Development Works carried out in the zoo during the year	
19.	Education and Awareness programmes during the year	
20.	Important Events and happenings in the zoo	
21.	Seasonal special arrangements for upkeep of animals	
22.	Research Work carried out and publications	
23.	Conservation Breeding Programme of the Zoo	
24.	Animal acquisition / transfer / exchange during the year	
25.	Rescue and Rehabilitation of the wild animals carried out by the zoo	
26.	Annual Inventory of animals	
27.	Mortality of animals.	
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	
29.	List of free living wild animals within the zoo premises	



## 1. Director's Report

Sakkarbaug Zoological Park (SBZP) is one of the oldest zoo in the country. It was established by the then Nawab of Junagadh in 1863. It has been categorized as a large zoo as per the Recognition of Zoo Rules 2009. SBZP extends over about 84 hectares of land on the foothills of Mount Girnar in Junagadh city. Presently the zoo is looking after and managing 1237 Wild fauna of 110 species in which are 502 animals, 406 birds, 98 reptiles. Sakkarbaug Zoological Park aims to complement and strengthen the conservation efforts of wild fauna in Gujarat and re-inforce National efforts in preservation of the country's biodiversity. SBZP also aims at exhibiting wild animals for purposes of conservation, education, research and recreation.

The vision of zoo is to complement ex-situ conservation of endangered wild animals and to contribute to raise awareness in masses to strengthen conservation of wildlife in particular and biodiversity as well environment in general. Well planned and appropriately designed ecosystem based zoos can sensitize visitors to the dangers of a hostile or indifferent attitude towards nature. The zoo has been the main source of genetically pure Asiatic Lions for the captive collection of zoos. Since the last 50 years, more than 250 Asiatic lions have been sent to different zoos across the country and abroad. The budget is utilized for every aspect of the conservation breeding programme of various endangered species, wildlife care, research, training and wildlife awareness camps.

The mission is to provide better up keep and better veterinary care to the animals and to create a centre of excellence for the visitors by providing an opportunity of better understanding of the animal world with education and re-creation. SBZP also serves the purpose of referral centre for veterinary care in addition to providing rescue facilities for the wild animals. The Zoo witnessed record footfall on some special days. Seminars and various events were conducted on World Forest Day, World Environment Day, Wild life Week, World Wild life Day, World Lion Day, World Sparrow Day, World Vulture Day etc. During the present reporting years Zoo has enhanced its infrastructure by adding Incinerator house, Quarantine Section, Additional enclosure for Vultures, Wolves etc. I am hopeful that in coming years these facilities will further enhanced the success of captive breeding and welfare of animals housed.

I sincerely convey my gratitude to Shri Shyamal Tikadar, IFS, Principal Chief Conservator of Forests, Wildlife and Chief Wildlife Warden, Gujarat State, Gandhinagar & Shree. D.T.Vasavada IFS, Chief Conservator of Forests, Wildlife Circle, Junagadh, Dr.S.P.Yadav, IFS, Member Secretary, Central Zoo Authority of India, New Delhi for their valuable guidance and continuous encouragement. I express my sincere thanks to all my staff A.J.Sindhi, Assistant Director & Curator, Dr. R.F. Kadivar, Veterinary Officer, Mahek Raval, Yashodhar Goletar, Biologist, Shri Bharat P. Bamaniya, Storekeeper had contributed in the preparation of this report. I also thankful total zoo personnel and wish them a bright future and improvement.



**Dr.Ram Ratan Nala**  
Director,  
Sakkarbaug Zoological Park,  
Junagadh.



## 2. History of the Zoo

The zoo was established in 1863, by the then Nawab of Junagadh, Mohabatkhanji Babi- II. The place of the zoo was named as Sakkarbaug, because it was a private garden of the Nawab, having a step well with sweet potable water. Initially, the zoo had a personal collection of animals of Nawab, which included Asiatic Lions, African Lions, Tigers, Cheetahs, Leopards, Ratel, etc. These animals were taken out as a procession in the town of Junagadh on some auspicious days like Eid for the purpose of display. Later on it was managed by Education department of the state Government before taking over by the State Forest Department in 1960. Earlier, the area of the zoo was only 6 ha. Later on, 78 ha. of land of Reserve Forest, undermining lease was handed over to the zoo following a strong protest by the local NGOs coordinated by the then Zoo Officer, Late Shri P.P. Rawal. Another 2 ha. land was allotted from the adjoining Fruit Trees Research Centre of Junagadh Agriculture University. It is one of the oldest and largest zoos of India.



-Total area: 84 ha.

-Total number of species: 110

-Total number of animals: 1006

- Total staff: 106

### 3. Vision:

To complement ex-situ conservation of endangered wild animals and to contribute to raise awareness in masses to strengthen conservation of wild life in particular and bio diversity as well environment in general.

### 4. Mission:

To provide better up keep and better veterinary care to the animals and to create a centre of excellence for the visitors by providing an opportunity of better understanding of the animal world with education and recreation.

### 5. Objectives:

The National Zoo Policy states:

“THE MAIN OBJECTIVE OF THE ZOO SHALL BE TO COMPLEMENT AND STRENGTHEN THE NATIONAL EFFORTS IN CONSERVATION AND STRENGTHEN THE NATIONAL EFFORTS IN CONSERVATION OF THE RICH BIODIVERSITY OF THE COUNTRY, PARTICULARLY THE FAUNA.”

### Thus have following objectives:

- Conservation: To conserve and preserve wild fauna by improving and enhancing the Captive Breeding Programme of selected endangered species.
- Education: To educate and aware the visitors about importance of biodiversity and its conservation and to raise awareness about protecting the environment.
- Research and Training: To facilitate research and training in the field of conservation of wildlife, its captive management and veterinary care of wild animals.
- Recreation: To entertain the visitors with the rich collection of flora and fauna and other amenities.



## 6. About us

Sr.No.	Particulars	Information
<b>Basic Information about the Zoo</b>		
1	Name of the Zoo	SAKKARBAUG ZOOLOGICAL PARK
2	Year of Establishment	1863
3	Address of the Zoo	RAJKOT HIGHWAY, OUTSIDE MAJEVADI GATE, JUNAGADH-362001 (GUJARAT)
4	State	GUJARAT
5	Telephone Number	0285-2660235
6	Fax Number	0285-2660236
7	E-mail address	<a href="mailto:directorsbz@rediffmail.com">directorsbz@rediffmail.com</a> <a href="mailto:directorsbz@gmail.com">directorsbz@gmail.com</a>
8	Website	--
9	Distance from nearest	Airport: Rajkot - 110 km
		Railway Station: 3 km
		Bus Stand: 5 km
10	Recognition Valid upto (Date)	05-05-2017
11	Category of zoo	Large Zoo
12	Area (in Hectares)	84 Ha.
13	Number of Visitors (Financial Year)	Adult :728020
		Children :248500
		Total Indian : 976520
		Total Foreigners :
		Total Visitors :976520
14	Visitors' Facilities Available in Zoo	Drinking Water, Rest Huts, Toilets, Canteen, Souvenir Shop, Wheel Chair, Pram, Clock Room, Garden,
15	Weekly Closure Day of the Zoo	Wednesday
<b>Management Personnel of the zoo</b>		
16	Name with designation of the Officer in-charge	<b>Dr.Abhishek kumar</b> Director, Sakkarbaug Zoological Park, Junagadh
	Name of the Veterinary Officer	<b>Dr.R.F. Kadivar</b> Veterinary Officer, Sakkarbaug Zoological Park, Junagadh
	Name of the Curator	<b>Shri A.J.Sindhi</b> Assistant Director & Curator, Sakkarbaug Zoological Park, Junagadh
	Name of the Biologist	Mahek Raval, Yashodhar Goletar.
	Name of the Education Officer	Shri JyotirmayBuch
	Name of the Compounder/ Lab Assistant	Nilam Pampaniya.
<b>Owner / Operator of the Zoo</b>		
17	*Name of the Operator	<b>Dr.Rajeev Kumar Gupta, IAS</b> Additional Chief Secretary (Forests & Environment).



Sr.No.	Particulars	Information
18	Address of the Operator	Additional Chief Secretary (Forests & Environment). Forests & Environment Department, Block 14, 8 <sup>th</sup> floor, Gandhinagar
19	Contact details/Phone number of Operator	079-23251051/23251053
20	E-mail address of Operator	<a href="mailto:ds-f-fed@gujarat.gov.in">ds-f-fed@gujarat.gov.in</a>

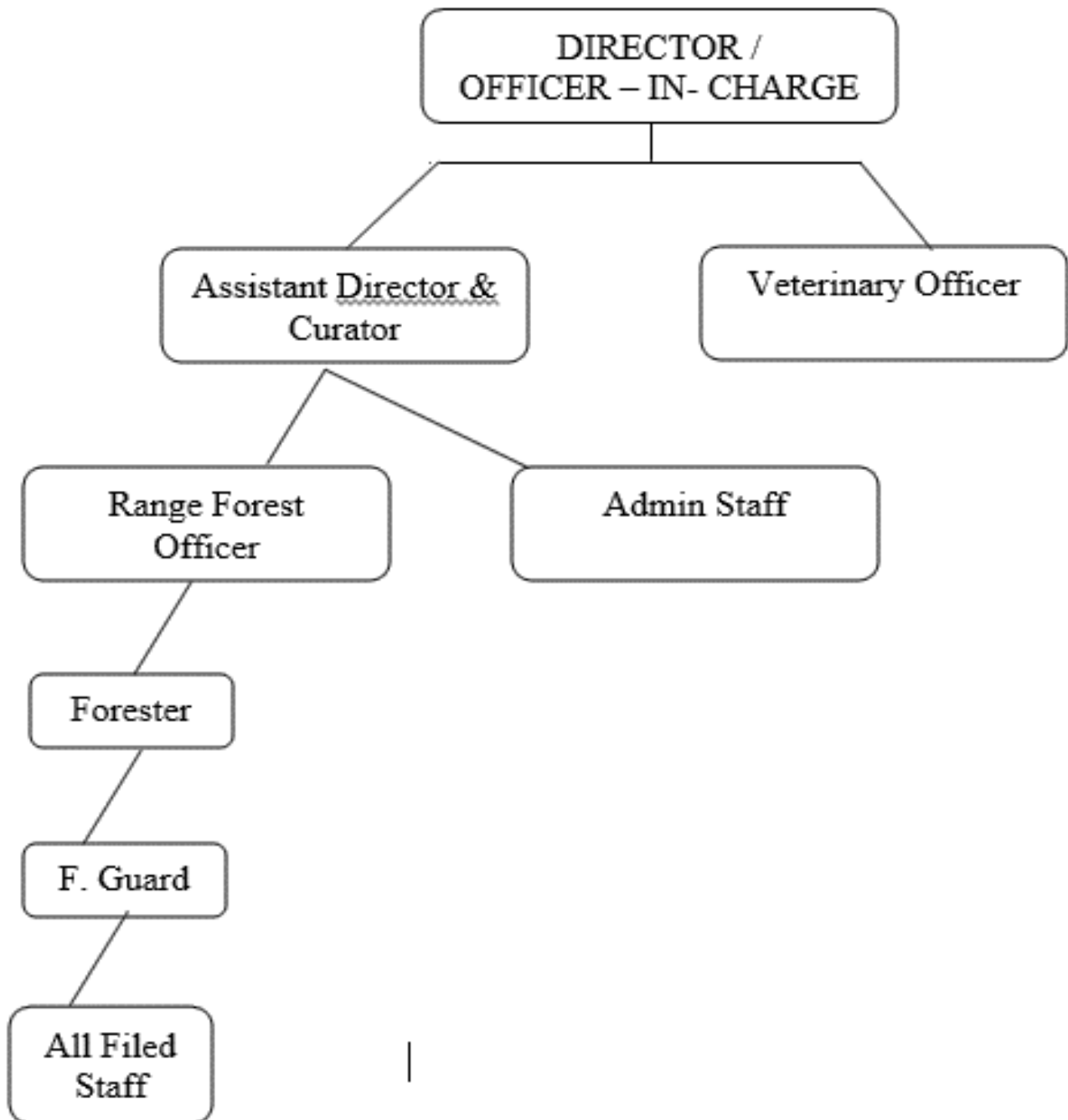
*\* Rule 2(m) of the Recognition of Zoo Rules, 2009.*

*“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

<b>Sr. No.</b>	<b>Post</b>	<b>Sanction Post</b>	<b>Filled Post</b>	<b>Vacant Post</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Director	1	1	0
2	Assistant Director & Curator	1	1	0
3	Veterinary Officer	1	1	0
4	Range Forest Officer	1	1	0
5	Forester	1	1	0
6	Accountant Group-1	1	1	0
7	Accountant	1	1	0
8	Storekeeper cum Supervisor	1	1	0
9	Clerk	3	0	3
10	Bagvan cum Mechanic	1	0	1
11	Driver	1	1	0
12	Forest Guard	3	1	2
13	Zoo Nayak	1	1	0
14	Peon	1	0	1
15	Gardner	1	0	1
16	Watchman	16	6	10
17	Sweeper	4	0	4
18	SBZMAS Staff	104	89	15
	<b>TOTAL</b>	<b>143</b>	<b>106</b>	<b>37</b>



## 9. Keeper's Training

Sr.No.	Name and designation of the zoo personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
1	60 Keeper's of Sardar patel zoo, Kevdiya.	Upkeep and Management of Captive animals.	90 days.	Sakkarbaug Zoological Park, Junagadh.



**PARTICIPANTS OF ANIMAL KEEPER'S TRAINING WITH SBZP**



## 10. Zoo Advisory committee (Proposed)

a. **Date of constitution : 01-04-2018**

b. **Member :**

- (1) Chief Conservator of Forests, Wildlife Circle, Jungaadh – **Chairman**
- (2) Director, Sakkarbaug Zoological Park, Junagadh – **Member Secretary**
- (3) Dy. Conservator of Forests, Gir (West), Junagadh – **Member**
- (4) Dy. Conservator of Forests, SasanGir– **Member**
- (5) Dy. Conservator of Forests, Morbi – **Member**
- (6) Assistant Director & Curator, SBZP, Junagadh – **Member**

c. Dates on which meeting held during the year : yearly

## 11. Health Advisory Committee (Proposed)

a. **Date of constitution: 01-04-2018**

b. **Member :**

- (1) Director, Sakkarbaug Zoological Park, Junagadh – **Chairman**
- (2) Veterinary Officer, SBZP, Junagadh – **Member Secretary**
- (3) Assistant Director & Curator, SBZP, Junagadh – **Member**
- (4) Dean, Veterinary Collage, JAU, Junagadh – **Member**
- (5) Dy. Director, Animal Husbandry, Junagadh – **Member**
- (6) Professor & Head, Dept. of Veterinary Pathology, Microbiology & Medicine, JAU, Junagadh – **Member**

c. Dates on which meeting held during the year : Quarterly

## 12. Statement of income and expenditure of the Zoo (2018-19)

Sr. No.	TOTAL INCOME		EXPENDITURE		REMARKS
	STATE	SBZMAS	STATE	SBZMAS	
1	92800 (Tender Fees)	21486159 (Visitors Entry Charge, Parking Charge, etc)	38349000 (Budget allocation from state)	77927712 (Expenditure as per APO)	-



### 13. Daily feed Schedule of animals

Sr. No.	Feed	Quantity per day	Cost in Rupees
1	Mixed Vegetables	90	3330
2	Fruits	97	3934
3	Bread	4	100
4	Pulses & Cereals	110.5	4,940
5	Eggs	75	375
6	Meat (Carabeef, Veal, Fish, Chicken)	667	85,834
7	Green fodder (Lucerne + Maize)	1850	8593
8	Amul Nutrich feed pellets	75	1875
9	Milk	32	704

### Species wise feed schedule of animal in the zoo.

Sr. No.	Birds	Details of Diet/ animal	Daily/Weekly
1	Peafowl	Mixed Fruits 60 gm, Palak or green leaves. 50 gms, Jawar and Bajara 100 gms, Poultry feed 200 gms, Minced meat 30 gms, Bread 25 gms	Daily/Weekly
2	Spoonbill White	<i>Fish 100 gm</i>	Daily
3	Peafowl (White)	<i>Mixed Fruits 60 gm, Palak or green leaves. 50 gms Jawar and Bajara 100 gms, Poultry feed 200 gms Minced meat 30 gms, Bread 25 gms</i>	Daily
4	White rumped vulture	<i>Calf Meat 1.5 kg</i>	Alternate day
5	Indian vulture	<i>Calf Meat 1.5 kg</i>	Alternate day
6	Eurasian griffon	<i>Calf Meat 1.5 kg</i>	Alternate day
7	Himaliyan griffon	<i>Calf Meat 1.5 kg</i>	Alternate day
8	King Vulture	<i>Calf Meat 1.5 kg</i>	Alternate day
9	Kalij pheasant	<i>Poultry feed 25 gms, Jawar 30-40 gms, Bajara 20-30 gms, Maize + gram 30 gms, Green leaves (Palak + Coriander) 20-40 gms, Gralic 5 gms, Bread 10 gms, Vegetables 75 gms Mixed fruits 25 gms</i>	Daily
10	Red Jungle Fowl	<i>Poultry feed 25 gms Jawar 30-40 gms Bajara 20-30 gms Maize + gram 30 gms Green leaves (Palak + Coriander) 20-40 gms Gralic 5 gms Vegetables 50 gms Mixed fruits 25 gms</i>	Daily
11	Shikra	<i>Chicken 150 gms</i>	
12	Budgeriger	<i>(Rala) Kang 10-15 gms Palak Few leaves Bajara, Maize &amp; Pea Mixture 30 gms</i>	Daily



Sr. No.	Birds	Details of Diet/ animal	Daily/Weekly
13	Cockatiel	Carrot 10 gm Groundnut 20 gm Maize 20 gm Peas/Mung 30 gm Papaya + Banana 20gm Guava + Apple 30 gm Sun flower seed 25 gm	Daily
14	Crane Demoiselle	Crain mixture. 100-150 gms (Jawar) 40 % (Pedy) Dangar 40 % (Grams) Chana 20 % Fish 100 gms	Daily
15	Common crane		
16	Emu	Palak + Kothmir 300 gms Seasonal Fruits 100 gm Green grams 500 gms Mung 30 gm Juwar 50 gms Emu Feed palates 500 gms	Daily
17	Flamingo (Greater)	Flamingo's mixture (Bajara 70 %Rala(Kang) 20% Zinga powder10%) 400 gm	Daily
18	Ibis ( Oriental White)	Fish 100 gm	Daily
19	Peach faced Love Birds	(Rala) Kang 10-15 gmsPalak Few leaves Bajara, Maize & Pea Mixture 50-60 gms	Daily
20	Fishers love birds		
21	Blossom Headed Parakeet	Papaya 50 gm Chilli 2 gm Carrot 25 gm Guava 50 gm Groundnut 25 gm Maize 25 gm Peas/Mung 50 gm Sunflower seed 20 gm	Daily
22	Parakeet Rose ringed		
23	Pelican Rosy	Fish 400 gm	Daily
24	Pheasant Silver	Poultry feed 25 gmsJawar 30-40 gmsBajara 20-30 gms Maize + gram 30 gms Green leaves (Palak + Coriander) 20-40 gmsGralic 5 gms Bread 10 gms Vegetables 75 gms Mixed fruits 25 gms	Daily
25	Pheasant Golden		
26	Stork Painted	Fish 200 gm	Daily
27	Red breasted parakeet	Papaya 50 gm Chilli 2 gm Carrot 25 gm Guava 50 gm Groundnut 25 gm Maize 25 gm Peas/Mung 50 gm	
28	Barn Owl	Chicken 150 gms	Daily
29	Alexandrine parakeet	Papaya 50 gm Chilli 2 gm Carrot 25 gm Guava 50 gm Groundnut 25 gm Maize 25 gm Peas/Mung 50 gm	Daily
30	Black headed seagull	Fish100 gm	Daily
31	Eagle (Kite)	chicken 100 gms	Daily
32	Ring necked pheasant	Poultry feed 25 gmsJawar 30-40 gmsBajara 20-30 gms Maize + gram 30 gms Green leaves (Palak + Coriander) 20-40 gmsGralic 5 gms Bread 10 gms Vegetables 75 gms Mixed fruits 25 gms	Daily
33	Marsh Harrier	Chicken 100 gms	Daily
34	Brahminy kite	Chicken100 gm	Daily



Sr. No.	Birds	Details of Diet/ animal	Daily/Weekly
35	Red Munia	<i>Munias mixture. 10-15 gms (Ragee) 33 % (Rala) 33 % (Bajara ) 34 % Green leaves (Palak) 10 Gms</i>	Daily
36	Dusky Lory	<i>Mix grains 20 gm mix fruits 15 gm Mix vegetable 15 gms</i>	Daily
37	White Cockatoo	<i>Carrot 50 gm Groundnut 50 gm Maize 50 gm Peas/Mung 100 gm Chili 5 gm Papaya + Banana 100 gm Guava + Apple 100 gm Sun flower seed 25 gm</i>	Daily
38	Lady Amherst's Pheasant	<i>Poultry feed 25 gms Wheat 30-40 gms Jawar 30-40 gms Bajara 20-30 gms Maize + gram 30 gms Green leaves (Palak + Coriander) 20-40 gms Gralic 5 gms Bread 10 gms Vegetables 75 gms Mixed fruits 25 gms</i>	Daily
39	African Grey Parrot	<i>Mixed Fruits 60 gm Palak or green leaves. 50 gms Jawar, Maize, Bajara 100 gms Bread 25 gms</i>	Daily
40	Indian pied hornbil	<i>Papaya 50 gms Apple 50 gms</i>	Daily
41	Zebra Finch	<i>(Rala) Kang 10-15 gms Palak Few leaves Bajara, Maize &amp; Pea Mixture 50-60 gms</i>	Daily
42	Green pheasant	<i>Poultry feed 25 gms Jawar 30-40 gms Bajara 20-30 gms Maize + gram 30 gms Green leaves (Palak + Coriander) 20-40 gms Gralic 5 gms Bread 10 gms Vegetables 75 gms Mixed fruits 25 gms</i>	Daily
43	Ostrich	<i>Ostrich mash feed 3 kg Soaked Bengal gram 500 gms Cabbage 200 gms Palak(Spinuch)+Kothmir(Coriander 400 gms Carrots 300 gms Watermelon/Kharek 400 gms.</i>	Daily
44	Blue and yellow Macaw	<i>Carrot 50 gm Groundnut 50 gm Maize 50 gm Peas/Mung 100 gm Chili 5 gm Papaya + Banana 100 gm Guava + Apple 100 gm Sun flower seed 25 gm</i>	Daily
45	Sun Conure	<i>Mixed grains 10 gms Mixed fruits 10 gms</i>	Daily
46	Spot billed duck	<i>Duck mixture Bajara 35% Juvar 5% Fishmeal 8 % Mineral mixture 3 % Peddy 10 % Sun flower 4 % 100-200 gm</i>	Daily
47	Ibis ( Black)	<i>Fish 100 gm</i>	Daily
48	Rudy shelduck	<i>Duck mixture Bajara 35% Juvar 5% Maize 30 % Fishmeal 8 % Mineral mixture 3 % Peddy 10 % Sun flower 4 % 100-200 gm</i>	Daily
49	Bonelli's eagle	<i>Chicken 300 gm</i>	Daily
50	Steppe Eagle	<i>chicken 500 gm</i>	Daily



Sr. No.	Birds	Details of Diet/ animal	Daily/Weekly
51	Sarus Crane	<i>Crain mixture. 100-150 gms (Jawar) 40 % (Peddy) Dangar 40 % (Grams) Chana 20 % Fish 200 gms</i>	Daily
52	Black Swan	<i>Vegetable 300 gm Soya 5 gm Lucern 150 gm Mixed grains 200 gm Poultry 100 gm</i>	Daily
53	Eclectus Parakeet	<i>Peanut 20 gm Mixed fruits 50 gm sunflower seed 50 gm</i>	Daily
54	Sulphar crested cockatoo	<i>Peanut 20 gm Mixed fruits 50 gm sunflower seed 50 gm</i>	Daily
55	Amazon parrot	<i>Peanut 20 gm Mixed fruits 50 gm sunflower seed 50 gm</i>	Daily
56	Rainbow lorikeet	<i>Peanut 20 gm Mixed fruits 35 gm sunflower seed 30 gm</i>	Daily

Sr. No.	Mammals	Details of Diet/ animal	Daily / Weekly
1	Four horned antelope	<i>Green maize/juwar 3 kg Green Lucern 1.5 kg Concentrate palletes 200 gm Soaked grams 200 gm</i>	Daily
2	Indian Wolf	<i>Buffalo Meat 1 kg Chicken 1 kg Canine Buiscite 100 gm</i>	Daily
3	Bear Sloth	<i>Bread 1.5 to 2.0 kg Milk 500 ml Banana 1 piece Potato 1 kg Carrot 250 gm Guava 1 kg Honey 100 ml</i>	Daily
4	Black buck	<i>Green maize/juwar 4 kg Green Lucern 2 kg</i>	Daily
5	Black buck (White )	<i>Concentrate palletes 200 gm Soaked grams 200 gm</i>	Daily
6	Chinkara	<i>Green maize/juwar 3 kg Green Lucern 1.5 kg Concentrate palletes 200 gm Soaked grams 200 gm</i>	Daily
7	Wild Ass	<i>Green maize/juwar 16kg Green Lucern 8 kg Concentrate palletes 500 gm Soaked grams 800 gm</i>	Daily
8	Jackal	<i>Buffalo Meat 1 kg</i>	Daily
9	Swamp deer	<i>Green Fodder (Maize/Juvar + Lucerne) 15 kg Dry fodder ( G,nut hay) 3 kg Chana 500 gm Concentrate Palletes 500 gms</i>	Daily
10	Leopard	<i>Buffalo meat 3 kg</i>	Daily
11	Indian Lion	<i>Buffalo meat 6-10 kg, Lion cub below 6 months: calf meat 1-2 kg</i>	Daily
12	Macaque Bonnet	<i>Banana Two pieces Tomato 25 gm Onion 25 gm Green leaves (palak + coriander) 50 gm Potato 0 gm Carrots `100 gm Guava /Apple/cheeku 150 gm</i>	Daily
13	Resus Monkey	<i>bread 100 gm Chana 50 gm</i>	



<b>Sr. No.</b>	<b>Mammals</b>	<b>Details of Diet/ animal</b>	<b>Daily / Weekly</b>
14	Tiger Bengal	<i>Buffalo meat 6-10 kg</i>	Daily
15	Tiger ( White )		
16	Thamin deer	<i>Green Fodder (Maize/Juvar + Lucerne) 10 kg Chana 300 gm Concentrate Palletes 300 gms</i>	Daily
17	African Cheetah	<i>Chicken 2 kg</i>	Daily
18	Indian bison	<i>Green Maize 45 kg Green Lucern 20 kg Dry G.Nut hay 3 kg Concentrate Palletes 2.5 kg</i>	Daily
19	Malabar giant squirrel	<i>Mixed fruit 50 gm Mixed vegetable 50 gm Bread 1 slice</i>	Daily
20	Nilgiri langur	<i>Banana Two pieces Tomato 25 gm Onion 25 gm Green leaves (palak + coriander) 50 gm Potato 100 gm Carrots `100 gm Guava /Apple/cheeku 150 gm bread 100 gm Chana 50 gm Boiled egg 2 Gound nut 25 gm Boiled rice 30 gm</i>	Daily
21	Indian palm civet cat	<i>Beef with bone 300 gms Banana 2 nos. Milk 50 ml Bread slice 2 nos.</i>	Daily
22	Small Indian Civet		Daily
23	Jungle Cat	<i>Chicken 500 gm</i>	Daily
24	Mouse Deer	<i>Green leave 50 gm Horse gram 50 gm Mixed Vegetable 50 gm Mixed fruit 50 gm</i>	Daily
25	Red Necked Wallaby	<i>Dried lucern 200 gms, carrot 50 gm, corn 50 gm, Palak / Kothmir 100 gm, Beet root 50 g, Apple 50 gm concentrate palletes 100 gm fresh grass ad. Lib.</i>	Daily
26	African Caracal	<i>Chicken 800 gm Buffalo meat 800 gm</i>	Daily
27	Deer Barking	<i>Green maize/juwar 3 kg Green Lucern 1.5 kg Concentrate palletes 200gm Soaked grams 200 gm</i>	Daily
28	Deer Hog	<i>Green maize/juwar 4kg Green Lucern 1.5 kg Concentrate palletes 200 gm Soaked grams 200 gm</i>	Daily
29	Deer Sambar *	<i>Green Fodder (Maize/Juvar + Lucerne) 15 kg Dry fodder ( G,nut hay) 3 kg Chana 500 gm Concentrate Palletes 500 gms</i>	Daily
30	Deer Spotted	<i>Green maize/juwar 5 kg Green Lucern 1.5 kg Concentrate palletes 200 gm Soaked grams 200gm</i>	Daily
31	Hyena Striped	<i>Buffalo meat 2.5 kg</i>	Daily
33	Porcupine (Indian )	<i>Potato 150 gms Cabbage 200 gm Carrot 100 gm Bringle 200 gm Dudhi 200 gm Cucumber 150 gm</i>	Daily
34	Porcupine (White )		
35	Hippopotamus	<i>Green Maize 60 kg Green Lucern 40 kg Concentrate Palletes 3.5 kg Potato 4 kg Carrot 6 kg Banana 5 kg 60 kg</i>	Daily



Sr. No.	Mammals	Details of Diet/ animal	Daily / Weekly
36	Common Marmoset	<i>Bread 30 gms Seasonal fruits 25 gms Bengal gram 5 gms Apple 25 gms Banana 20 gms Grapes 10 gms Orange 20 gms Green gram 5 gms Papaya 5 gms Eggs 20 gms Nestum rice 5 gms</i>	Daily
37	Goral	<i>Green maize/juwar 3 kg Green Lucern 1.5 kg Concentrate palletes 200 gm Soaked grams 200 gm</i>	Daily

Sr. No.	Reptiles / Others	Details of Diet/ animal	Daily / Weekly
1	King Cobra	<i>Rat snake 1</i>	Weekly
2	Cobra Indian	<i>Rat / frog</i>	Weekly
3	Common Krait	<i>Small snake</i>	Weekly
4	Crocodile (Gharial)	<i>Fish 3 kg</i>	Weekly
5	Crocodile (Marsh)	<i>Buffalo Meat 3 kg</i>	Weekly
6	Indian Python	<i>Rabbit / Chicken live 1</i>	Weekly
7	Snake keelback Striped	<i>Mice / Lizzard 1</i>	Weekly
8	Viper Russel's	<i>Rat / Frog</i>	Weekly
9	Snake Rat (Dhaman)	<i>Rat / Frog</i>	Weekly
10	Common sand boa	<i>Rat / Frog</i>	Weekly
11	Red sand boa	<i>Rat / Frog</i>	Weekly
12	Tortoise indian star	<i>Mix vegetable 200 gm</i>	Weekly
13	Black turtule	<i>Turtle food 100 gm</i>	Weekly
14	Red eared terrapin	<i>Turtle food 100 gm</i>	Weekly
15	Common wolf snake	<i>Mice / Lizzard 1</i>	Weekly
16	Green vine snake	<i>Mice / Lizzard 1</i>	Weekly
17	Banded racer	<i>Mice / Lizzard 1</i>	Weekly
18	Common trinket snake	<i>Mice</i>	Weekly



#### 14. Vaccination Schedule of animals

Sr.No.	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity	Remarks
1	All Feline	Feline Panleukopenia, Feline Calcivirus, Feline Rehinotrachitis Rabies	Biofel- PCHR (1ml/Animal S/C)	Annual	
2	All Feline & Canine	Canine Distemper	Purevax- Ferret Distemper (Recombinant Vaccine) 1ml/Animal S/C	Annual	
3	All Canines	Canine Distemper Virus, Canine Adeno Virus, Canine Parvo Virus, Parainfluenza Rabies Leptospirosis	Nobivacshappi, NobivacLepto, Nobivac R	Annual	

#### 15. De-worming Schedule of animals

Sl.No.	Species	Drug used	Month
1	All Carnivores	- Fenbadazole - Albendazole - Praziquantel, Pyrental - Ivermectin	very 3 month Interval
2	All Herbivores/ Birds/ Reptile	—	Every 5 month Interval



## 16. Disinfection Schedule

Sr.No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1	All Carnivores/ Birds/ Herbivores/ Reptiles	- Night Shelter - Open Enclosure	- Chemical (Kohrsolin-TH) - Burning Method	Once in a week (Every Wednesday)

### Health Check-up of employees for zoonotic diseases

All zoo personnel of Sakkarbaug Zoological Park were screened for various zoonotic diseases in the month of March-2019 for the year 2018-19& all zoo personnel are found negative for zoonotic diseases. Also all zoo personnel were vaccinated Antirabies vaccine during the checkup.



## 17. Development Works carried out in the zoo during the year

- Two New enclosure for Indian Wolf were constructed for conservation breeding programme.
- CC work in different bird enclosure (Crane, Eagle, Hornbill, White Peafowl, Black Swan, Flamingo)
- New drinking water facility created at entry point.
- We have prepared signage's with good content which include the behaviour and biology of the animals/ Species displayed in enclosures for the education and awareness.
- We have prepared Diorama of various Animals and Birds to beautify the Zoo.

### New Quarantine Section.



**Vulture Aviary**



## Wolf Enclosure



## Watchtower



## 18. Education and Awareness programmes during the year

Camp	Student	Teachers	Others	Total
37	1585	128	203	1916

### Nature Education Camp



## 19. Important Events and happenings

Important events like celebration of Forestry day, World Environment day, Lion day and wildlife week Celebration etc. were observed during the year. Large numbers of students were part of these celebration. Important happening involves the birth of wolves, hog deer, Indian Gaur and Barasingha during the year.

### Pangolin Day



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

As per the season the diet chart of animals get modified by the veterinary officer. Along with the diet the cage get some modifications like shade and cooling effect during the summer season and heating effect by using heat generating instruments during the winter season. During very hot periods of April & May ice were added to the water for cooling and Mineral supplements were added to water for avoiding dehydration effect.

## **21. Research Work carried out and publications**

“Effects of personality and life-history on the welfare of captive Asiatic lions(*Panthera leo persica*).” - Riyazahmed F Kadivar, Veterinary Officer, Sakkarbaug Zoological Park, Junagdh.



## 22. Conservation Breeding Programme of the Zoo

The Central Zoo Authority is coordinating a flagship programme of planned Conservation Breeding. Sakkarbaug Zoological Park has been allotted responsibility by the CZA for 7 conservation breeding programmes. SBZ is a coordinating zoo for Conservation Breeding Programme (CBP) for Asiatic Lion, Indian Wild Ass, Grey Wolf, Four horned Antelope and Asiatic Cheetah. It is a participating zoo for CBP of Chinkara and Vultures. Thus the zoo plays a vital and pivotal role in the conservation breeding of these endemic and endangered animals. There is a dedicated section of conservation breeding facilities.

### - ASIATIC LION

Asiatic Lion Conservation Breeding program has been the most successful programme and we are striving to achieve more precision in our management and healthcare to take it to the next level. The SBZ is also the main source of pure breed Asiatic Lions to the Indian & International Zoos. We have been able to establish links with national and international zoos for information exchange and technology sharing. The state board for Wildlife of Gujarat has approved the proposal for “Long Term Conservation of Asiatic Lion in the year 2006. Among other measures proposed for the conservation of Asiatic Lions, it has been envisaged to establish an ex-situ gene pool population. Accordingly, three gene pool centers are established by Gujarat Forest Department in SBZ, at Rampara Wildlife Sanctuary and Barda Wildlife Sanctuary. Sakkarbaug Zoo is the nodal agency of this project.



#### BIRTH AND DEATH DATA 2018-19

Year	BIRTH AND DEATH DATA 2017-18 Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	3	4	0	7	2	7	0	9

### - INDIAN WILDASS

The Indian Wild Ass is endemic to the Greater Rann and Little Rann of Kutch. SBZ has the largest captive population of Indian Wild Ass. It is noteworthy that captive Wild Ass is housed in SBZ and Madras Zoo and nowhere else in the world. There is a future plan to strengthen its captive breeding by procuring founder animals.



#### BIRTH AND DEATH DATA 2018-19

Year	Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	1	0	0	1	0	0	0	0



## - VULTURE

The vulture breeding aviary was started in the zoo in April 2009. The vulture Conservation breeding Aviary and Hospital aviary are located far from the display area and is surrounded by vegetation to prevent any kind of disturbance. SBZ has four species of Vultures in captivity under CBP, namely White-backed Vulture, Indian Vulture, Eurasian Griffon Vulture and Red-necked Vulture. We have created all the required facilities at the breeding center such as artificial nesting sites and trees.

In a significant development for the conservation of the endangered vulture species, the Sakkarbaug zoo has succeeded in breeding vultures in captivity.



### BIRTH AND DEATH DATA 2018-19

Year	Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	0	0	4	4	4	2	0	6

## - CHINKARA



In the Chinakara CBP ideal climate, good housing facilities, expertise have contributed for successful breeding in the beginning. Later on we have maintained the population for several years. We have reached the stage where we can plan for reintroduction of this species in the wild.

### BIRTH AND DEATH DATA 2018-19

Year	Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	0	0	10	10	3	3	1	7



**- FOUR HORNED & ANTELOPE**

Chausingha have been successfully reared and bred. We need more founder animals with different bloodline hence we need to procure more individuals for the Conservation Breeding Programme.



**BIRTH AND DEATH DATA 2018-19**

Year	Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	0	0	2	2	1	0	0	1

**- INDIAN GREY WOLF**



In the beginning of this Breeding Programme we did not have sufficient founder population. In the last 2-3 years by the exchange programmes we have raised our founder population from Udaipur Zoo, Jodhpur Zoo, Lucknow Zoo and Jaipur Zoo. We are concentrating on this programme to get more animals with different blood line for the successful breeding of wolf. Now we are making attempts to procure the Indian Grey wolf.

**BIRTH AND DEATH DATA 2018-19**

Year	Birth				Death			
	Male	Female	Other	Total	Male	Female	Other	Total
2018-19	3	1	0	4	1	0	0	1

**- ASIATIC CHEETAH**

This particular breeding programme has not been initiated due to total lack of Founder population. It is immensely difficult to find a captive population of Asiatic Cheetah with any zoo or facility complexed with the fact that their population in the wild could be only between 50-70 individuals and found in a small area of Miandasht Wildlife Refuge, Iran.



## 24. 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
	-				
	-				
B.	Animals going from the zoo				
	H.NO.	Species	Number (M:F)	Going to which Zoo	Date of deposition from the zoo
	-----NIL-----				



## 25. 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	
		Species	M	F	U		T
1	03-04-2018	Leopard cub	2	1	0	3	Mandvi range, Surat
2	21-04-2018	Leopard	1	0	0	1	Veraval Range
3	26-04-2018	Leopard	0	1	0	1	Veraval Range
4	13-05-2018	Rhesus Macaque	0	1	0	1	Jamnagar
5	22-05-2018	Leopard	0	1	0	1	Zoo Area
6	25-05-2018	Lion Cub	1	0	0	1	Ambaradi beat, Dhari
7	15-06-2018	Blackbuck	0	1	0	1	Dhoraji range
8	21-06-2018	Lion (Dhara)	0	1	0	1	Rampara Genepool Center
9	26-06-2018	Leopard	1	0	0	1	Agri. Campus Junagadh
10	11-07-2018	Lion (Cub)	1	0	0	1	Ransivav Dungar Uttar Range
11	17-07-2018	Porcupine	0	0	1	1	Sarasiya Range
12	22-07-2018	Blackbuck	0	1	0	1	Kutiyana range
13	25-07-2018	Rhesus Macaque	0	0	1	1	Dungar Dakshin Range
14	27-07-2018	Leopard	1	0	0	1	Jasadhar Range
15	19-09-2018	Lion (Dhiren)	1	0	0	1	Rampara
16	19-09-2018	Lion (Cub)	0	1	0	1	Rampara
17	13-10-2018	Lion	0	1	0	1	Babarkot (Gir east division Dhari)
18	26-10-2018	Budgeriger	0	0	14	14	Junagadh City
19	03-11-2018	Lion	0	1	0	1	Bordevi (Junagadh Forest Division)
20	04-11-2018	Hyena	1	0	0	1	Sasan
21	20-11-2018	Rhesus Macaque	0	1	0	1	Paturan (Junagadh Forest Division)
22	21-11-2018	Indian Palm Civet	0	0	1	1	Ranavav Range (Porbandar  forest  Division)
23	27-11-2018	Lion cub	0	1	0	1	Rajula Range (Amreli SF Division)
24	05-12-2018	Rhesus Macaque	1	0	0	1	Ranavav Range (Porbandar  forest  Division)
25	10-12-2018	Rhesus Macaque	1	0	0	1	Morbi forest division
26	11-12-2018	Lion	0	1	0	1	Junagadh forest division
27	22-12-2018	Leopard	0	1	0	1	Chota Udepur Forest Division
28	27-12-2018	Ratel	0	0	1	1	Kuttch West Forest Division (Bhuj)
29	31-12-2018	Lion (Gyan)	1	0	0	1	Ambardi Safari Park, Dhari
30	09-01-2019	Leopard	0	1	0	1	Sakkarbaug Zoo Forest Area
31	11-01-2019	Leopard	1	0	0	1	Chota Udepur Vadodara Division
32	16-01-2019	Loepard	3	0	0	3	Animal Care centre Amrapur
33	19-02-2019	Leopard	0	2	0	2	Jashadhar Range
34	15-03-2019	Rhesus Macaque	0	1	0	1	Jamnagar Range
35	16-03-2019	Blue bull	0	0	4	4	Social Forest, Rajkot.
36	27-03-2019	Leopard	0	1	0	1	Zoo Area
37	28-03-2019	Monkey	1	1	0	2	Social Forest, Rajkot.
		<b>Total</b>	<b>17</b>	<b>20</b>	<b>22</b>	<b>59</b>	



BIRDS							
Sl. No.	Date of Rescue	Species with number of animals rescued with their sex (M: F:U:T)				Received from	
		Species	M	F	U		T
1	02-04-2018	Barn Owl	0	0	1	1	Junagadh City
2	04-04-2018	Spotted Owlet	0	0	1	1	Savarkundla
3	09-05-2018	Barn Owl	0	0	1	1	Baman village
4	19-05-2018	Owl	0	0	1	1	Upleta
5	06-06-2018	Alexandrine Parakeet	8	0	0	8	Girnar sanctuary, Junagdh Forest Division
6	10-11-2018	Vulture	0	0	1	1	Girnar sanctuary, Junagdh Forest Division
7	21-11-2018	Shikro	0	0	1	1	Porbanadr Sanctuary, Ranavav
8	21--11-2018	Short toed Snake Eagle	0	0	1	1	Porbanadr Sanctuary, Ranavav
9	21-11-2018	Common crane	0	0	1	1	Porbanadr Sanctuary, Ranavav
10	22-11-2018	Domesial Crane	0	0	2	2	Porbanadr Sanctuary, Ranavav
11	19-12-2018	Pelican	0	0	1	1	Keshod
12	21-12-2018	Owl	0	0	1	1	Gondal
13	27-12-2018	Owl	0	0	1	1	Rajkot City
14	06-03-2019	Pelican	0	0	1	1	Girnar range
15	07-03-2019	Blossom headed parakeet	0	0	1	1	Junagadh City
16	16-03-2019	Blossom headed parakeet	0	0	1	1	Social forest, Rajkot.
17	16-03-2019	Rose ring parakeet	0	0	25	25	Social forest, Rajkot.
18	16-03-2019	Alexander parakeet	0	0	5	5	Social forest, Rajkot.
19	16-03-2019	Vulture	0	0	6	6	Bhavanagar van vibhag
		<b>Total</b>	<b>8</b>	<b>0</b>	<b>52</b>	<b>60</b>	
1	10-12-2018	White Cobra	0	0	1	1	Barda Sanctuary, Porbandar Division
2	29-12-2018	Marsh Crocodile	0	0	2	2	Social Forest Division, Devbhumi Dwarka
		<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	
		<b>Net Total</b>	<b>25</b>	<b>20</b>	<b>77</b>	<b>122</b>	



26. Annual Inventory of animals

Form – II  
[See Rule 11(1)]Part – A  
Inventory Report for the Year : 2017-18

Endangered Species\*

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

Sr. No.	Species	Scientific name	Stock As on 01-04-18						During the year						Stock As on 31-03-19							
			M.		F.		T.		Birth		Acquisitions		Disposal		Death		M.		F.		T.	
<b>Birds</b>																						
1	Peafowl	<i>Pavo cristatus</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2	Spoonbill White	<i>Platalea leucorodia</i>	3	4	4	11	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3	4
3	Peafowl (White)	<i>Pavo cristatus</i>	8	1	4	13	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	4
4	White Rumped Vulture	<i>Gyps bengalensis</i>	0	0	49	49	0	0	0	0	0	0	0	0	0	0	0	0	4	0	45	45
5	Indian Vulture	<i>Gyps indicus</i>	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6	Eurasian Griffon	<i>Gyps fulvus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7	Himalayan Griffon	<i>Himalayan fulvus</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8	King Vulture	<i>Sarcogyps calvus</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9	Kalij Pheasant	<i>Lophura leucomeleanos</i>	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
10	Great Indian Hornbill	<i>Buceros bicornis</i>	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2
11	Indian Pied Hornbill	<i>Anthracoeros malabaricus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
<b>Total Birds</b>			<b>16</b>	<b>8</b>	<b>72</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>88</b>
<b>Mammals</b>																						
1	Four Horned Antelope *	<i>Tetracerus quadricornis</i>	9	14	2	25	0	0	0	0	0	0	0	0	0	0	0	0	0	9	13	2
2	Indian Wolf *	<i>Canis lupus pallipes</i>	8	6	0	14	2	1	0	0	0	0	0	0	0	0	2	2	0	8	6	14
3	Bear Sloth	<i>Melursus ursinus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	Blackbuck*	<i>Antelope cervicapra</i>	24	35	10	69	0	0	1	0	2	0	0	0	0	6	3	0	18	34	11	63
5	Blackbuck ( White ) *	<i>Antelope cervicapra</i>	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6	6
6	Chinkara *	<i>Gazella bennetti</i>	10	30	11	51	0	0	0	0	0	0	0	0	0	5	4	0	5	26	11	42
7	Wild Ass*	<i>Equus hemionus khur</i>	8	4	0	12	1	0	0	0	0	0	0	0	0	1	0	0	8	4	0	12
8	Jackal	<i>Canis aureus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9	Swamp Deer *	<i>Rucervus divauelei</i>	5	8	0	13	0	0	3	0	0	0	0	0	0	0	1	0	5	7	3	15
10	Leopard *	<i>Panthera pardus</i>	29	18	0	47	0	0	0	5	4	0	0	1	0	11	3	0	23	18	0	41
11	Indian Lion *	<i>Panthera leo persica</i>	24	39	1	64	0	7	1	3	6	1	2	4	0	4	16	1	21	32	2	55
12	Macaque Bonnet	<i>Macaca radiata</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
13	Macaque Rhesus *	<i>Macaca mulatta</i>	2	2	0	4	0	0	0	2	2	1	0	0	0	1	0	4	3	1	8	8
14	Tiger Bengal	<i>Panthera tigris tigris</i>	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4
15	Tiger Bengal ( White )	<i>Panthera tigris tigris</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
16	Thamin Deer *	<i>Rucervus eldii</i>	5	4	4	13	0	0	0	0	0	0	0	0	0	2	0	0	3	4	4	11
17	Indian Bison	<i>Bos gaurus</i>	1	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	3
18	Malabar Giant Squirrel	<i>Ratufa indica</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
19	Nilgiri langur	<i>Trachypithecus johnii</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
20	Indian Palm Civet Cat	<i>Paradoxurus hermaphroditus</i>	1	1	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1
21	Small Indian Civet	<i>Viverricula indica</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
22	Jungle Cat*	<i>Felis chaus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
23	Mouse Deer	<i>Trogilus meminna</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
<b>Total Mammals</b>			<b>133</b>	<b>179</b>	<b>28</b>	<b>340</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>10</b>	<b>14</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>32</b>	<b>34</b>	<b>1</b>	<b>113</b>	<b>163</b>	<b>35</b>	<b>311</b>

Sr. No.	Species	Scientific name	Stock			During the year						Stock											
			As on 01-04-18			Birth		Acquisitions		Disposal		Death			As on 31-03-19								
			M.	F.	T.	M.	F.	U.	M.	F.	U.	M.	F.	U.	M.	F.	U.	T.					
<b>Reptiles</b>																							
1	King Cobra	<i>Ophiophagus hannah</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1					
2	Cobra Indian	<i>Naja naja</i>	0	1	2	3	0	0	0	0	1	0	0	0	0	0	0	1	3	4			
3	Comm on Kraitt	<i>Bungarus caeruleus</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
4	Crocodile (Gharial)	<i>Gavialis gangeticus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
5	Crocodile (Marsh)	<i>Crocodylus palustris</i>	1	2	0	3	0	0	0	0	2	0	0	0	0	0	0	0	1	2	2	5	
6	Indian Python	<i>Python molurus</i>	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	
7	Viper Russell's	<i>Vipera russelli</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
8	Snake Rat (Dhaman)	<i>Ptyas mucosus</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3
<b>Total Reptiles</b>			2	5	9	16	0	0	0	0	3	0	0	0	0	1	0	2	6	12	20		
<b>Total Animals</b>			151	192	109	452	3	9	5	10	14	6	2	5	0	35	36	5	129	176	114	419	

(\* ) Star Symbol they are identified sex and updated on 31/03/2019

(?) (-) During p.m. sex of animals identified hence male and female stock indicate (-).



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

**Part – B  
Exotic Species.**

Page No 3.1

INVENTORY FORM - 1st April-18 to 31st March-19

F. No. 21 - 1/2001 CZA  
SAKKARBAUG ZOO, JUNAGADH,  
GUJARAT.

**Exotic Species**

Sr. No.	Species	Scientific name	Stock As on 01-04-2018			During the year						Stock As on 31-03-2019						
			Birth			Acquisitions			Disposal			Death						
			M.	F.	T.	M.	F.	U.	M.	F.	U.	M.	F.	U.				
1	Budgeriger	<i>Melopsittacus undulatus</i>	0	0	140	0	0	0	0	14	0	0	0	0	0	0	154	154
2	Cockatiel (Grey)*	<i>Nymphicus hollandicus</i>	0	0	14	0	0	0	0	0	0	0	0	1	0	0	14	15
3	Cockatiel (White)**	<i>Nymphicus hollandicus</i>	0	0	7	0	0	0	0	0	0	0	0	1	0	0	7	8
4	Emu	<i>Dromaius novaehollandiae</i>	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7	7
5	Peach Faced Love Birds	<i>Agopornis roseicollis</i>	10	27	117	0	0	0	0	0	0	0	0	0	0	10	27	117
6	Fishers Love Birds	<i>Agopornis fischer</i>	0	0	20	0	0	0	0	0	0	0	0	0	0	0	20	20
7	Pelican Rosy	<i>Pelecanus onocrotalus</i>	9	4	6	19	0	0	0	0	0	0	0	6	1	0	8	7
8	Pheasant Silver	<i>Lophura nycthemera</i>	1	2	7	10	0	0	0	0	0	0	0	0	0	1	2	7
9	Pheasant Golden	<i>Chrysolophus pictus</i>	2	0	5	7	0	0	0	0	0	0	0	0	0	2	1	8
11	Dusky Lory	<i>Pseudeos fuscata</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0
12	Lady Amherst's Pheasant	<i>Chrysolophus amherstiae</i>	0	1	5	6	0	0	0	0	0	0	0	0	0	0	1	5
13	African Grey Parrot	<i>Psittacus erithacus</i>	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2
14	Zebra Finch	<i>Taeniopygia guttata</i>	1	1	67	69	0	0	0	0	0	0	0	0	0	1	67	69
15	Green Pheasant	<i>Phasianus versicolor</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
16	Ostrich	<i>Struthio camelus</i>	1	1	4	6	0	0	0	0	0	0	0	0	0	1	4	6
17	Blue and Yellow Macaw	<i>Ara ararauna</i>	1	1	1	3	0	0	1	0	0	0	0	0	0	1	1	3
18	Sun Conure	<i>Aratinga solstitialis</i>	2	1	0	3	0	0	0	0	0	0	0	0	2	1	0	3
20	Scarlet Macaw	<i>Ara macao</i>	1	1	1	3	0	0	0	0	0	0	0	0	1	0	1	2
21	Green Peafowl	<i>Pavo muticus</i>	1	0	1	2	0	0	0	0	0	0	0	0	0	1	0	2
<b>Total Birds</b>			<b>29</b>	<b>42</b>	<b>403</b>	<b>474</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>30</b>	<b>41</b>	<b>421</b>
<b>Mammals</b>																		
2	Red Necked Wallaby	<i>Macropus rubiginosus</i>	2	4	1	8	0	0	0	0	0	0	0	2	2	0	1	2
3	African Caracal	<i>Caracal caracal</i>	1	2	0	3	0	0	0	0	0	0	0	0	1	0	1	0
4	Raccoon	<i>Procyon lotor</i>	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
<b>Total Mammals</b>			<b>3</b>	<b>6</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>1</b>
<b>Reptile</b>																		
1	Ball Python	<i>Python regius</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total Reptiles</b>			<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Total Animals</b>			<b>32</b>	<b>48</b>	<b>405</b>	<b>487</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>33</b>	<b>44</b>	<b>423</b>

(\*) Star Symbol they are identified sex and updated on 31/03/2019  
(2) (-) During p.m. sex of animals identified hence male and female stock indicate (-).



Sr. No.	Species	Scientific name	Stock						During the year						Stock													
			As on 01-04-2018						Acquisitions						Death						As on 31-03-2019							
			M.	F.	U.	T.	M.	F.	U.	M.	F.	U.	M.	F.	U.	M.	F.	U.	M.	F.	U.	T.						
<b>Mammals</b>																												
1	Deer Barking	<i>Muntiacus muntjak</i>	2	12	30	44	0	0	0	8	0	0	0	0	0	0	0	0	0	3	3	0	0	1	9	38	48	
2	Deer Hog	<i>Axis porcinus</i>	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	2	
3	Deer Sambar	<i>Rusa unicorn</i>	14	23	27	64	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	13	23	27	63	
4	Deer Spotted	<i>Axis axis</i>	0	18	106	124	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	18	107	126	
5	Hyaena Striped	<i>Hyaena hyaena</i>	1	2	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
6	Porcupine ( Indian )	<i>Hystrix indica</i>	3	1	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	
7	Hippopotamus	<i>Hippopotamus amphibius</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	
8	Common Marmoset	<i>Callithrix jacchus</i>	0	1	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	2	
9	Goral	<i>Nemorhaedus goral</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
10	ratel	<i>Mellivora capensis</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<b>Total Mammals</b>			<b>22</b>	<b>59</b>	<b>171</b>	<b>252</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>56</b>	<b>181</b>	<b>259</b>	
<b>Reptiles</b>																												
1	Common sand boa	<i>Eryx conicus</i>	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
2	Red sand boa	<i>Eryx johnii</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3	Tortoise indian star	<i>Geochelone elegans</i>	3	0	51	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	51	46	
4	Black turtle		1	1	9	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9	11	
5	Red eared terrapin	<i>Trachemys scripta</i>	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14
6	Banded racer	<i>Argyrogena fasciolata</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7	Common trinket snake	<i>Coelognathus helena</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
<b>Total Reptiles</b>			<b>4</b>	<b>2</b>	<b>81</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>81</b>	<b>79</b>	
<b>Total Animals</b>			<b>60</b>	<b>95</b>	<b>342</b>	<b>497</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>12</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>19</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>98</b>	<b>358</b>	<b>518</b>		

(1) (\*) Star Symbol they are identified sex and updated on 31/03/2019

(2) (-) During p.m. sex of animals identified hence male and female stock indicate (-).

## 27. Mortality of animals

### MAMMALS

Sr. No.	Animal Name (with individual identification mark, if any)	Male	Female	Unsex	Total	Date of Death	Reason of Death as per the Post-mortem report
1	Leopard (Cub)	1	0	0	1	04-04-2018	General Debility & Pneumonia (Sarasiya, Dhari)
2	Leopard (Cub)	0	1	0	1	04-04-2018	General Debility & Pneumonia (Sarasiya, Dhari)
3	Leopard (Cub)	1	0	0	1	05-04-2018	Septisemia (Surat)
4	Chinkara	1	0	0	1	16-04-2018	Uremia because of urolith
5	Lion (Ani's Cub)	0	1	0	1	16-04-2018	Granulomatous pneumonia
6	Wolf (Divyangi)	0	1	0	1	28-04-2018	Cardiac and Renal failure
7	Wolf	0	1	0	1	01-05-2018	Old age and consequences
8	Lion (Teeta's Cub)	0	1	0	1	02-05-2018	killed by mother lioness
9	Lion (Teeta's Cub)	0	1	1	2	03-05-2018	born dead/general diability
10	Leopard	1	0	0	1	14-05-2018	Respiratory and hepatic failure
11	Lion (Amia's Cub)	0	1	0	1	15-05-2018	Fibrinous hepatitis
12	Blackbuck	1	0	0	1	21-05-2018	killed by wild Leopard
13	Leopard	0	1	0	1	03-06-2018	Old age and consequences
14	Lion (Dhara)	0	1	0	1	22-06-2018	Subacute Hepato-renal failure (Rampara)
15	Leopard	1	0	0	1	26-06-2018	Nodular pneumonia & Hepato-renal failure (Agri Campus)
16	Lion (Jungali)	1	0	0	1	02-07-2018	Septicemia shock
17	Barking Deer	0	0	1	1	04-07-2018	General Debility
18	Lion (Bahadur)	1	0	0	1	07-07-2018	Intestinal obstruction & its consequences
19	Leopard	1	0	0	1	09-07-2018	Old age and consequences
20	Blackbuck	1	0	0	1	09-07-2018	Fatal infight injury in thorasic and abdominal cavity
21	Chinkara	0	1	0	1	15-07-2018	Snake bite
22	Wild Ass (Foal)	1	0	0	1	13-07-2018	General Debility
23	Hog Deer (Fawn)	1	0	0	1	16-07-2018	Traumatic injury in neck and head
24	Blackbuck	1	0	0	1	18-07-2018	Necrotic hepatitis and old age
25	Blackbuck	1	0	0	1	18-07-2018	Fractured hip & respiratory failure
26	Swamp deer	0	1	0	1	01-08-2018	Shock because of uterine prolapse and old age
27	Chinkara	1	0	0	1	04-08-2018	General Debility
28	Blackbuck	1	0	0	1	05-08-2018	Anaemia
29	Lion (Nageshri) (Rescue)	0	1	0	1	06-08-2018	Multi organ failure because of Neurological disorder
30	Red necked Wallaby	0	1	0	1	07-08-2018	Haemorrhagic pneumonia
31	Lion (Savarkundala)	0	1	0	1	07-08-2018	Multi organ failure because of Neurological disorder
32	Leopard	1	0	0	1	14-08-2018	Renal failure because of old age
33	Leopard	1	0	0	1	06-09-2018	Multi organ failure because of old age and posterior paralysis
34	Chinkara	0	1	0	1	16-09-2018	Renal failure because of old age
35	Thamin Deer	1	0	0	1	17-09-2018	Pneumonia and its consequences
36	Barking Deer	1	0	0	1	18-09-2018	Ascities and its consequences.
37	Red necked	1	0	0	1	23-09-2018	Haemorrhagic pneumonia



	Wallaby						
38	Chinkara	0	1	0	1	26-09-2018	Hemorrhagic enteritis
39	Blackbuck	1	0	0	1	27-09-2018	Fatal infight injury in thoracic and abdominal cavity
40	White Blackbuck	0	1	0	1	14-10-2018	Fatal infight injury in thoracic and abdominal cavity
41	Red necked Wallaby	0	1	0	1	14-10-2018	Haemorrhagic pneumonia
42	Lion ( Babarkot Resque)	1	0	0	1	16-10-2018	Hemorrhagic enteritis
43	Wolf (Pup)	1	0	0	1	23-10-2018	Anoxia because of haemorrhagic lungs
44	Lion ( Babarkot Resque)	1	0	0	1	25-10-2018	Respirator failure.
45	Lion (Maitry)	0	1	0	1	25-10-2018	Respiratory and hepatic failure
46	Lion	1	0	0	1	30-10-2018	Septicaemic, multi organ failure and old age.
47	Red necked wallaby	1	0	0	1	13-11-2018	Shock because of hepatic failure
48	Caracal	0	1	0	1	15-11-2018	Shock because of sever traumatic injury in thorax
49	Indian Palm Civet	0	1	0	1	22-11-2018	Septicaemic shock
50	Four horned Antelope	0	1	0	1	30-11-2018	Shock because of tumorous mass in abomasum wall and severe peritonitis
51	Lion (Parth)	1	0	0	1	03-12-2018	Respiratory and renal failure (Rescue from Ambarardi Safari Park)
52	Leopard cub	1	0	0	1	09-12-2018	Respiratory failure (Rescued from Dhari)
53	Leopard cub	1	0	0	1	12-12-2018	Respiratory failure (Rescued from Surat)
54	Wolf Pup	1	0	0	1	13-12-2018	Respiratory failure and shock (Saloni's pup)
55	Barking Deer	0	1	0	1	01-01-2019	Shock because of fatal traumatic injury in neck and thorax
56	Rhesus Macaque	0	1	0	1	02-01-2019	Respiratory failure because of pneumonia
57	Lion (Gyan)	1	0	0	1	07-01-2019	Shock because of Renal and Respiratory failure
58	Leeopard cub	1	0	0	1	17-01-2018	Respiratory failure (Rescue - from animal car center, Amrapur. )
59	Leeopard cub	1	0	0	1	18-01-2018	Respiratory failure (Rescue - from animal car center, Amrapur. )
60	Barking Deer	0	1	0	1	15-01-2019	Tramautic shock because of infight injury in neck
61	Black buck	0	1	0	1	18-01-2019	Respiratory failure because od injury in neck
62	Lion (Radha's Cub)	0	1	0	1	20-01-2019	Shock and respiratory failure
63	Lion (00-0757-E3C8)	0	1	0	1	04-02-2019	Respiratory failure and shock because of rectal prolapse and septicemia
64	Lion (Pooja 00-069A-B3C8)	0	1	0	1	20-02-2019	Respiratory failure
65	Golden Jackal	1	0	0	1	23-02-2019	Respiratory failure and septicemia
66	Blackbuck	0	1	0	1	01-03-2019	Respiratory failure due to infight injury and shock because of tumor
67	Leopard (00-06 CD-A9BB)	1	0	0	1	02-03-2019	Respiratory failure and old age (Rescue-2011, Pavagadh)
68	Leopard sub-adult (00-0771-671B)	0	1	0	1	03-03-2019	Shock because of Respiratory failure and renal failure (Rescue-Surat)
69	Chinkara	1	0	0	1	04-03-2019	Killed by wild leopard
70	Chinkara	1	0	0	1	08-03-2019	Respiratory failure and killed by wild leopard



71	Lion (Rampara 00-06B7-1C16)	0	1	0	1	11-03-2019	Respiratory failure because of pharyngeal choke because of piece of meat
72	Lion (Tulsi 00-01D9-4FFA)	0	1	0	1	13-03-2019	Respiratory and renal failure because of old age
73	Leopard (00-06B7-5C3F)	1	0	0	1	15-03-2019	Respiratory failure
74	Barking Deer	1	0	0	1	18-03-2019	Respiratory failure and shock because of ascites.
75	Chinkara	1	0	0	1	21-03-2019	Respiratory failure and killed by wild leopard.
76	Spotted Deer	1	0	0	1	24-03-2019	Respiratory failure due to infight injury
77	Thamin	1	0	0	1	24-03-2019	Respiratory failure due to infight injury and shock because of septicemia
78	Barking Deer	1	0	0	1	24-03-2019	Respiratory and renal failure because of old age
79	Blue bull	0	1	0	1	24-03-2019	Shock because of posterior paralysis)
80	Chinkara	0	1	0	1	25-03-2019	Shock and respiratory failure
81	White Blackbuck	0	1	0	1	26-03-2019	Respiratory failure due to infight injury
82	Lion cubs (Aftab*Amrapur 1)	0	3	0	3	29-03-2019	born dead
83	Blackbuck	0	1	0	1	31-03-2019	Shock because of diaphragmatic hernia might be due to infight
	<b>Total</b>	44	40	2	86		



## BIRDS

Sr. No.	Animal Name (with individual identification mark, if any)	Male	Female	Unsex	Total	Date of Death	Reason of Death as per the Post-mortem report
1	Ring necked Pheasant	0	1	0	1	01-04-2018	Fatty liver Syndrom
2	Plum headed Paraket	0	1	0	1	12-04-2018	General Debility
3	White Cockatiel	1	0	0	1	12-05-2018	Respiratory infection
4	Golden Pheasant	0	1	0	1	15-05-2018	Collibacillosis
5	Spoonbill	1	0	0	1	25-06-2018	Pneumonia
6	Pelican	1	0	0	1	11-06-2018	Septicemia
7	Red Jungle Fowl	0	1	0	1	12-06-2018	Respiratory infection
8	Ring Necked Pheasant	1	0	0	1	19-06-2018	Killed by Wild Mongoose
9	Alexandrine Parakeet	0	0	1	1	21-06-2018	Respiratory infection
10	Spoonbill	1	0	0	1	25-06-2018	Pneumonia
11	Alexandrine Parakeet	1	0	0	1	29-06-2018	Fatty liver Syndrom
12	Alexandrine Parakeet	0	1	0	1	30-06-2018	General Debility
13	Alexandrine Parakeet	0	0	1	1	06-07-2018	General Debility
14	White Back Vulture	0	1	0	1	10-07-2018	Visceral gout.
15	White Back Vulture	0	1	0	1	15-07-2018	Respiratory asphyxia because of stricture of trachea by cotton rope
16	Alexandrine Parakeet	1	0	0	1	18-07-2018	Shock because of Heavy Rain
17	Alexandrine Parakeet	1	0	0	1	19-07-2018	Shock because of Heavy Rain
18	Spoonbill	0	0	1	1	19-07-2018	Pneumonia
19	Black headed Ibis	0	0	1	1	20-07-2018	Old Age
20	White Back Vulture (Chick)	0	1	0	1	22-07-2018	Hepatitis and pericarditis
21	Demoiselle Crane	1	0	0	1	23-07-2018	Liver failure
22	Scralett Macaw	0	1	0	1	03-08-2018	Fatal infight injury in Neck
23	Great Indian Hornbill	1	0	0	1	12-08-2018	Old age & its Consequences
24	White Back Vulture	0	1	0	1	06-09-2018	Respiratory asphyxia as engulfed by wild python
25	Grey Cockaiel	1	0	0	1	16-09-2018	Visceral gout and Pneumonia.
26	Red Jungle Fowl	1	0	0	1	03-10-2018	Cardiac failure because of hyropericardium and collbacillosis infection.
27	Crane	1	0	0	1	07-10-2018	Respiratory failure because of pnemunia
28	Eurasian Griffon Vulture	1	0	0	1	06-11-2018	Shock due to tumorous growth in abdomen
29	Sambar	1	0	0	1	09-11-2018	Cardiac failure
30	Red Jungle Fowl	1	0	0	1	07-11-2018	Septicemia shock
31	Shikro	1	0	0	1	09-12-2018	Respiratory Failure
32	Red jungle Fowl	0	1	0	1	29-01-2019	Shock because of Collibacillocis
33	Spotbil duck	0	1	0	1	20-01-2019	Shock because of tumorous growth attached to crop. ( Resucue from jamnagar)
34	Pelican	1	0	0	1	18-02-2019	Septicemia shock ( Rescied from dhoraji)
35	Red Jungle fowl	0	3	0	3	20-02-2019	Due to shock
36	Red Jungle fowl	0	1	0	1	25-02-2019	Shock because of Hepatic failure and cirrohocis
37	Barn Owl	0	1	0	1	25-02-2019	Shock because of respiratory failure and old age
38	Barn Owl	0	1	0	1	27-02-2019	Shock because of Septicemia



39	Pelican	1	0	0	1	28-02-2019	Shock because of Liver failure (Rescued from keshod)
40	Short toed Snake Eagle	1	0	0	1	28-02-2019	Shock because of renal failure
41	Barn Owl	1	0	0	1	28-02-2019	Pneumonia and shock because of 42ulcerative enteritis
42	Pelican Rosy	1	0	0	1	28-02-2019	Shock because of Liver failure
43	Barn Owl	0	1	0	1	01-03-2019	Shock because of respiratory failure and old age
44	Short toed Snake Eagle	1	0	0	1	12-03-2019	Shock
45	Barn Owl	1	0	0	1	25-03-2019	Shock because of old age
46	Green Pheasant	0	1	0	1	31-03-2019	Colibacillosis and old age
	<b>Total</b>	<b>24</b>	<b>20</b>	<b>4</b>	<b>48</b>		

### REPTILE

Sl. No.	Animal Name (with individual identification mark, if any)	Male	Female	Unsex	Total	Date of Death	Reason of Death as per the Post-mortem report
1	Indian Stat Tortoise	1	0	0	1	31-05-2018	Hepatitis & cyst
2	Indian Stat Tortoise	1	0	0	1	19-06-2018	Hepatitis
3	Indian Stat Tortoise	0	1	0	1	17-07-2018	Haemorrhagic enteritis
4	Indian Stat Tortoise	1	0	0	1	23-07-2018	Enteritis
5	Indian Stat Tortoise	0	1	0	1	21-09-2018	Necrotic hepatitis
6	Indian Stat Tortoise	0	1	0	1	24-09-2018	Pneumonia and hepatis
7	King Cobra	0	1	0	1	17-10-2018	Respiratory tract infection
8	Indian Stat Tortoise	1	0	0	1	01-10-2018	Respiratory Failure, Shock because of hepatitis.
	Indian Stat Tortoise	1	0	0	1	05-12-2018	Respiratory Failure
	Monitor Lizard	1	0	0	1	13-12-2018	Shock because of cancerous growth in liver
	<b>Total</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>10</b>		



## 28. 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)

### PART-II

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)

Sr. No	Norm No.	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
<b>1 General requirements</b>					
1	10.1(2)	The zoo operator should plant endemic large trees in various animal enclosures to provide shade and shelter to the animals.	With immediate effect	22.09.2009	Indigenous species are planted and planting of more trees will be taken up during monsoon.
2	10.1(3)	The zoo should be closed to the visitors' at least once a week.	With immediate effect	22.09.2009	Yes
3	10.1(3)	Viewing area for visitors at enclosures for animals should be restricted to 30% of the enclosure's perimeter and night shelters should be appropriately screened to avoid direct viewing.	One year	09.08.2016	The viewing area has been restricted to 30% by covering earlier open periphery.
4	10.1(5)	Perimeter wall should be provided all around the zoo including the newly acquired area.	31.12.2008	05.01.2005	Yes.
5	10.1(7)	At the old zoo, strengthening of drainage of excess water is needed.	With immediate effect	22.09.2009	Yes.
6	10.1(9)	The primary objective of the zoo shall be the conservation of wildlife. The domesticated species, like the domestic geese and ducks, and exotic birds like to budgerigars and love birds, kept either in the same aviary as wild birds or in adjoining aviaries should be removed forthwith form the zoo.	With immediate effect	22.09.2009	We build up a new aviary for exotic birds Avairy No.1 to 15
7	10.1(9)	The presence of free ranging wild animals in the zoo which also		22.09.2009	Done



Sr. No	Norm No.	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
		houses exotic animals should be avoided to prevent disease transmission between wild and captive animals.			
<b>2.Administrative and Staffing pattern:</b>					
8	10.2(1)	The financial powers of the zoo officer should be enhanced to Rs. 1.00 lakh, to purchase feed and medicine and carryout emergency repair of animal enclosures, as may be necessary for proper upkeep and care of the zoo animals.	31.12.2008	05.01.2005	According to Gujarat Financial Rate (GFR) all the DCF has power to purchase upto Rs.20000/- for more than 20000 they have to follow procedure of tendering and rate analysis.
9	10.2(2)	The zoo should post an official with a Masters degree in Wildlife Science / Zoology as a full time Curator, solely responsible for looking after the upkeep of animals and maintenance of animal enclosures.	31.12.2008	05.01.2005	Done
10	10.2(2)	The zoo should post Veterinarians of following description and educational qualifications :- <b>Senior Veterinarian</b> – should have minimum education qualification of B.V.Sc. & A.H. or equivalent with a minimum of 5 years experience of working in a zoo recognized by the Central Zoo Authority, and should be duly registered with the State Veterinary Council or Veterinary Council of India. <b>Junior Veterinarian</b> – Should have minimum educational qualification of B.V.Sc. and A.H. with diploma in zoo and Wildlife animal healthcare management or Masters degrees in Wildlife Disease and management from a recognized University, and should be duly registered with the State Veterinary Council or Veterinary Council of India.	31.12.2008	05.01.2005	Only Sr.Veterinary Officer presently posted. Advertisement for junior veterinarian is under process.



Sr. No	Norm No.	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
<b>3 Development and Planning</b>					
11	10.3(1)	The zoo should prepare a long-term master plan. A management plan should also be prepared giving details of the proposals and activities to be taken up for the development of the zoo in next six years. A copy of the plan should be made available to the Central Zoo Authority for considering providing necessary technical and financial assistance.	31.12.2008	05.01.2005	The Draft Master Plan has been submitted vide letter No. A/WLP/T.3/ 639-41, Dt.28-09-2016
12	10.3(3)	The isolation and quarantine ward placed near the police chowki in the corner of the zoo is under construction. It is suggested that the animal house behind the hospital area should not be used for isolation quarantine. This should be used only for treatment purposes.	Three months	22.09.2009	Isolation and quarantine board is constructed far from the zoo area.
13	10.3(3) & 10.9(6)	It is advisable not to have conservation breeding programme for Asiatic lions in the same area where exotic animals like African cheetah are housed. This is serious concern for transmission of disease. If the animals for conservation breeding programme have to be released in wild for reintroduction, this could become a serious issue.	With immediate effect	22.09.2009	African Cheetah cage is away from Asiatic Lion breeding centre.
14	10.3(6)	The zoo should prepare a collection plan of animals to be housed and displayed with due regard to the availability of land, water, electricity and climatic condition of the area in consultation with CZA.	31.12.2008	05.01.2005	Animals collection plan has been included in the master plan submitted as mention above however a revised collection plan has been submitted vide letter No. A/WLP/T.3/ 89-91, Dt.17-04-2017



<b>4 Animal housing, display of animals and animal enclosures</b>					
15	10.4(1)	The zoo should plant indigenous tree species in various animal enclosures to provide shade and shelter to the animals.	Six months	09.08.2016	Indigenous species are planted and planting of more trees will be taken up during monsoon.
16	10.4(1)	Viewing through the glass at enclosures for snakes etc. is difficult as one sees his / her reflection in the glass. This should be rectified by appropriately placing the glass with opening from the top for better lighting.	Six months	09.08.2016	The structure is very old and fragile so it is plan to shift snakes to better housing facilities.
17	10.4(2)	(i) The animal enclosures in old zoo needs to be re-designed keeping in view of the guidelines circulated by this Authority. (ii) The nest ledges which are made up of iron in bird aviaries especially where Spoonbills and White-Ibises, should be changed. It will be better if the ledges are made of wood to prevent any accident injury to the birds.	Six months  Six months	22.09.2009	(i) Animals enclosure in the old zoo, specially some of the aviaries and reptile house are plan to be redesign and renovated. This is a time consuming exercises as the enclosures need to be vacated by shifting birds / reptile to some make shift arrangement. (ii) Provided
18	10.4(2)	1. The Sloth bear enclosure at the old zoo site need to enlarge or the bears should be shifted to the new enclosure. 2. The macaque enclosures need to be provided large space. 3. The White backed and long billed vultures housed off-exhibit in the aviary existing at the old zoo should be shifted to the	Six months  Six months  With immediate effect	22.09.2009	1. Done  2. Provided  3. already shifted



		<p>off-exhibit Conservation Breeding Centre for Vultures created for the vultures at the zoo.</p> <p>4. The aviaries should be provided with <i>kuchha</i> floor as well as the jungle cat enclosure should be also provided as a part of its enclosure with <i>kuchha</i> floor.</p> <p>5. The aviaries should be provided with appropriate perches and roosting areas.</p>	<p>Three months</p> <p>Three months</p>		<p>4. Provided</p> <p>5. Provided</p>
19	10.4(2)	The feeding and retiring cell of the newly constructed Sloth bear enclosures should be provided appropriate screening to keep them away from the visitors view.	Three months	22.09.2009	Done
20	10.4(2) and 10.5(2)	<p>(i) The drinking water troughs need to be enlarged in most large carnivore enclosure and should be submerged within the ground.</p> <p>(ii) The water pool provided in the Demoiselle crane aviary should be modified by reducing its height and water should be provided 24 hrs.</p>	<p>With immediate effect</p> <p>Three months</p>	22.09.2009	<p>Provided</p> <p>Provided</p>
21	10.4(2)	Animal enclosures in old zoo need to be redesigned.	Six months	09.08.2016	<p>Animals enclosure in the old zoo, specially some of the aviaries and reptile house are plan to be redesign and renovated. This is a time consuming exercises as the enclosures need to be vacated by shifting birds / reptile to some make shift arrangement.</p>



22	10.4(3)	The nest ledges made up of iron in bird aviaries especially of spoonbills and White-ibises should be changed.	Six months	09.08.2016	New wooden nest is provided in aviary
23	10.4(3)	The aviaries should be provided with <i>kuchha</i> floor as well as the jungle cat enclosure should also be provided, a part of its enclosure, with <i>kuchha</i> floor.	Six months	09.08.2016	Provided
24	10.4(3)	The aviaries should be provided with appropriate perches and roosting areas.	Six months	09.08.2016	Provided
25	10.4(6)	The used tyre provided in Rhesus macaque enclosures should be removed instead natural material should be provided.	With immediate effect	22.09.2009	Provided
26	10.4(6)	A water body and some enrichment should be provided in enclosure for Sloth bear.	Six months	09.08.2016	Provided
27	10.4(7)	Authorities of the zoo should carry out screening between all enclosures in the zoo and also between main circulation path and the enclosures.	Six months	09.08.2016	Yes.
28	10.4(7)	The enclosures for Nilgirilangur, Rhesus macaque and Bonnet macaque should be improved with proper screening.	Six months	09.08.2016	The Structure is very old and fragile very soon we plan to better housing facility for primates as per our new Master layout Plan.
29	10.4(9)	The space between the out moat wall and the stand-off barriers of enclosures of lion, Himalayan black bear and sloth bear should be planted with thick hedge of stout plants such as <i>duranta</i> and <i>clerodendron</i> etc.	31.12.2008	05.01.2005	Provided
30	10.4(9)	The zoo should plant hedge between the moat wall and the stand-off barrier.	Six months	22.09.2009	Provided
31	10.4(10)	The new enclosures need to provide with additional signage in proper format as	One year	22.09.2009	Provided



		most signage have become rusted and needs to be redone.			
<b>5 Upkeep and Healthcare of animals</b>					
32	10.5(10)	The zoo should make arrangement for recording detailed observations relating to biological behaviour, population dynamics and veterinary care of exhibited animals. A detailed data base should be prepared and shared with the other zoos in the country.	31.12.2008	05.01.2005	All data is collected by CCTV camera monitoring of a species under conservation breeding programme
33	10.5(10)	Animal history sheets should be prepared for each and every animal of endangered species.	One month	22.09.2009	Prepared
34	10.5(10)	Appropriate arrangements for recording of biological behaviours and population dynamics of endangered species should be made by deputing Curator / Biologist of the Zoo.	With immediate effect	22.09.2009	Done
35	10.5(10)	Authorities of the zoo should maintain Animal History Cards, Treatment Cards, Keeper's Diary, Daily Report as specified by CZA.	Six months	09.08.2016	Treatment card for endangered species and daily report for all the animals are maintained reviewed.
<b>6. Veterinary and infrastructure facilities</b>					
36	10.6(5)	The zoo should post one qualified Lab. Assistant to assist the Sr. Veterinary Officer / Veterinary Officer.	31.12.2008	05.01.2005	Done, On Contract basis
<b>7 Post-mortem and disposal of carcasses of animals</b>					
37	10.7(1)	Post-mortem room should be improved with all required equipment.	Six months	09.08.2016	Done
38	10.7(4)	Should install an incinerator for disposal of carcass.	One year	09.08.2016	We already purchase incinerator equipment but room for put a equipment is under construction.



<b>8.Euthanasia of the animals</b>					
39	10.8(1)	The Zoo may explore the possibility of euthanasia of paralyzed Asiatic lion housed at the zoo.		22.09.2009	No.
<b>9 Acquisition and breeding of animals</b>					
40	10.9(1)	The zoo has excess number of Spotted deer (93 nos.) and Black bucks (65 nos.) in its collection. The Zoo Operator shall be responsible for ensuring that the number of animals of any species does not go beyond the holding capacity of the enclosures available in the Zoo and housing standards are not compromised for keeping the excessive numbers.	With immediate effect	22.09.2009	Male separation of spotted deer and blackbuck is carried out and surplus animal will be restocking in different sanctuary.
41	10.9(1)	The zoo shall keep in its collection only such number of animals and such species for which appropriate housing facility exists. The zoo operators will be responsible for ensuring that the number of animals of any species does not go beyond the holding capacity of the enclosures available in the zoo and housing standards are not compromised for keeping the excessive numbers.	31.12.2008	05.01.2005	We have plan to restocking some of the animals to near sanctuary area.
42	10.9(4)	The zoo should provide mates to the following animals: - (i) Male fox (ii) Male ratel (iii) Sarus crane	31.12.2008	05.01.2005	Mates is provided to Sarus Crain
43	10.9(4)	The Zoo Operator should procure appropriate mates for Porcupine and Civet cat.	Six months	22.09.2009	Provided
44	10.9(4)	Should acquire mate for Giant squirrel, Hippo, Hornbill, Cheetah, Cockatoo, Bison, Jungle cat and White tiger.	Six months	09.08.2016	Mates are provided to cockatoo, bison while the other mates for other animals the exchange will be carried out on priority basis.
45	10.9(4) and	The zoo should participate in	31.12.2008	05.01.2005	Yes.



	10.9(6)	the Planned Breeding Programme of the Asiatic lion as approved by the Central Zoo Authority. For this purpose the zoo should exchange Asiatic lions with other identified zoos by way of breeding loan and gift.			
46	10.9(6)	Should implement advices given by the evaluating team in respect of Vulture Breeding Programme which was communicated vide CZA letter dated 22.09.2009.	Six months	09.08.2016	Yes.
47	10.9(9)	The zoo has large number of black buck and spotted deer in its collection. Appropriate population control measures, like separation of the sexes, sterilization and vasectomy should be undertaken to keep the population of these species within the holding capacity of the enclosures.	31.12.2008	05.01.2005	Male separation of spotted deer and blackbuck is carried out and surplus animal will be restocking in different sanctuary.
<b>12.Visitors' facilities:</b>					
48	10.12(3)	Access to handicapped persons should be provided to handicapped visitors where animals cannot be seen from the road.	Immediately	22.09.2009	Yes.
<b>Other conditions:</b>					
49	Section 38H (1) of the Wildlife (Protection) Act, 1972	Eight Asiatic lions housed at Devaliya about 30 kms from the zoo premises under the control of Deputy Conservator of Forests, Sasan and also at Rampura being used for exhibition as zoo to the visitors in Safari mode. However, these animals are not shown in the inventory of animals submitted to the CZA. This is in violation of Section 38H (1) of the Wildlife (Protection) Act, 1972. Clarification be submitted.	Immediately	22.09.2009	Reference wide letter No.A/WLP/T.3/515-18 Dt.28-08-2016(Attached)
50	Section 38I of the Wild	(i) The zoo should not acquire any animal in	With immediate	22.09.2009	We had already write a note



Life (Protection) Act, 1972	violation of the Wild Life (Protection) Act of Rules made there under. Prior to requisition of animals with respect to Schedule I & II necessary permission should have got obtained from the Central Zoo Authority.	effect		Principal Chief Conservator of Forests
-----------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------	--	----------------------------------------

**Recommendation with respect to the on-going Vulture Conservation Breeding Programme:**

An off display breeding programme of White-backed Vulture (*Gyps bengalensis*) has been established. The following need to be changed / improved immediately:

Sl.	Norm	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
1	10.4(3) and 10.4(6)	The four hospital room built for vultures are covered from all side with just a couple of windows. The roof and flooring are of concrete. There is very little perching provided to vultures in it. It is strictly advised to the zoo keeper to see that the flooring in none of the aviaries is solid. The hospital aviaries should have only ¼% of the area covered as a roof and rest should be open to sky with only netlon mesh at the top. It is advised to the Zoo Director to build the aviary according to the drawing circulated by the CZA in its workshop held at Pinjor during 2006. Vulture develops bumble	Immediately	22.09.2009	Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo Done



Sl.	Norm	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
		foot if they perch on hard surface for some time. Bumble foot is a deadly affliction.			
2	10.4(2)	The flight aviary is big and spacious and it appears that it has been designed as a display aviary for visitors than for the conservation programme. The aviary is much bigger than the dimensions given by the CZA. The aviary (30') is very high with gable roof. All the vultures who could, were sitting on the truss of the aviary. The truss is of iron pipes. At many places on the truss, no coconut rope is provided. The vulture could injure themselves if they collide with the truss. Only chain-link fence is provided on the ceiling. There is no netlon below the chain-link fence. The bird when they try to escape, hit the chain link fence. They could badly hurt in the process. There is also a possibility of their wing getting caught in the fold of the chain link fence. It could prove disastrous if the bird gets caught. Hence a layer of netlon should be provided below the chain link wire mesh. It would be very difficult to catch vultures in this aviary if any intervention has to be done because of the large size of the aviary.	Immediately	22.09.2009	Done



Sl.	Norm	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
3	10.4(3)	The aviary has opening on all the sides. It is highly recommended that one or both the 40'walls are solid all over. The birds feel very secure by this. All concrete nest ledges have been provided in the aviary which house White-backed Vultures. White-backed Vulture has been found to have preference for hammocks or cots in other breeding centres. This is largely because in wild the bird nests on trees and not on the hard rocks. It would be good to give them nestling ledges which have wooden frame and a matting of jute.	Immediately	22.09.2009	We already given nestling ledges which have wooden frame and a matting of jute.
4	10.4(3)	The concrete nesting ledges have been distributed on all the four walls. The room like structure is made by extending the wall outside. The nest ledges have been put on all the three walls of this room like structure. There are no wooden perches for the vultures to land. Vulture will certainly find it cumbersome to get on the nest ledges as they would have to fly round the corner of the room like structure. The ledges face each other in the room and there is very little distance between them. This may lead to frequent fights among birds. It would be best to have access to nest ledges directly without the birds	Immediately	22.09.2009	We shifted all the Vultures in large aviary.



Sl.	Norm	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
		having to fly in a closed area. The ledges should be spread out.			
5	10.5(2)	We were told that the Vultures are fed on freshly slaughtered buffalo meat. It was also mentioned that buffalo calf meat is usually offered to the vultures and it is presumed that the male calves are not treated with any drug. No care is taken to make sure that the meat is not poisoned by diclofenac. The drug Diclofenac, which is a non-steroidal anti-inflammatory drug, is given to cattle and goats for relief in pain and inflammation. The diclofenac has been found to be extremely toxic to vultures even in very low dosages and has been largely responsible for the near extinction of vultures. It is strongly recommended that either the vultures should be given only meat of freshly slaughtered goats after they have been kept with the zoo keeper for a minimum period of seven days. The diclofenac is excreted out of the body of an animal within 72 hours of administration. If the buffalo meat has to be given similar procedure should be followed as in goats. Even if one carcass in a year has diclofenac it will kill the entire population. It is imperative that	Immediately	22.09.2009	We give tested buffalo calf meat to Vultures and presently from beginning of the Vulture Breeding Centre at SBZP there is none of issue is recorded Vulture is death due to effect of diclofenac.



Sl.	Norm	Condition Stipulated	Time Period to Comply	Since when pending	Remarks
					Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
		none of the carcasses offered to vultures have diclofenac in them.			
6	10.5(2) and 10.5(5)	There is only one water bath and there is no provision to clean it from outside without entering the aviary. It is always advisable to have at least two water troughs. One of the troughs could be kept empty during alternate weeks to prevent algal growth.	Immediately	22.09.2009	We empty the water point very alternate day and clean up the feeding space very alternate day and It is not possible to clean the water point without entering in the aviary.
7	10.5(6)	There are no hatches to access the nests ledges from outside. The hatches are important to monitor the nests. There should be hatches above the nest ledges.	Immediately	22.09.2009	Provided



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

MAMMALS	REPTILES	
Sambar	Cobra	Geko
Spotted Deer	Krait	Monitor Lizard
Mangoes	R.Viper	Skink
Fruit bat	Common Sand Boa	Chameleon
Squirrel	Rock Python	Crocodile
Hare	Garden Lizard	

BIRDS		
Flame back Woodpecker	Night Heron	Green Bee-eater
Barbet	Panted stork	White Throated Kingfisher
Coucal	Iora	Pied Kingfisher
Rose ring Parakeet	Tickell's blue Flycatcher	Hoopoe
Swift	Indian Robin	Comb Duck
Owlet	Magpie Robin	Indian Peafowl
Paradise fly catcher	Common Myna	Black Winged Stilt
Night jar	Brahminy Starling	Fantail
Mottled wood owl	Black crowned Sparrow Lark	Spot Billed Duck
Pigeon	Purple Sun Bird	Honey Bazzard
Eurasian Collared Dove	Sparrow	Darter
Common Coot	Citrine Wagtail	Cormorant
Francolin	Baya Weaver	Pond Heron
Ibis	Shilver Bill	Kite
Lapwing	Black Drongo	Shikara
	Small Minivet	





© Mayur H Variya | 2019



