



**DR. Shyamaprasad Mukherjee Zoological Garden**  
**Surat Municipal Corporation**  
**Surat, Gujarat**



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## Annual Report for the Year 2023-24

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

Dr. Shymaprasad Mukerjee Zoological Garden, Sarthana, Surat is one of the medium Zoos of the country. Established on 26<sup>th</sup> April, 2003 as the first zoological park in the Southern region of the Gujarat State, it has progressively emerged as an eminent and vibrant centre for biodiversity conservation and environmental education. As a premier medium zoo of India, it has spearheaded many significant improvements to provide highest standards of housing, husbandry and health care to the captive wild animals and contributed towards enriching our knowledge on the biology of endangered species.

Surat zoo exemplified the inimitable of ex-situ conservation initiatives. The sprawling zoo houses 49 species of mammals, reptiles and birds. The natural forest areas of Sarthana zoo provide home to a rich assemblage of free-living wild animals including 11 species of mammals, 06 species of reptiles, 66 species of birds, 29 species of butterflies. This is one of the most important plant conservation facilities in the Gujarat State. More than 250 species of plants have been documented in the Sarthana zoo premises.

We have completed another outstanding year of biodiversity conservation, zoo management, education. Sarthana zoo has been an excellent place for eco-tourism which attracted 9,03,651 visitors during the year 2023-24. There was significant improvement in the infrastructure development, animal collection, health care, fodder production and conservation efforts. Many zoo education and awareness program including Celebration of wildlife week, World wildlife day, World Environment Day, International tiger day, activities under mission life were organized during the year 2023-2024. Many species of indigenous and exotic animals including Black buck, Rhesus Macaque, Nilgai, Smooth Coated Otter, Painted stork, Ibis, Lady Amherst's Pheasant, Silver Pheasant, Night Heron, Alexandrine Parakeet, etc. have breed successfully in the Zoo during the year. During the year 2023-24 main entry gate redeveloped and it opened for visitors, civil repair and maintenance work is undertaken in zoo. This year 2023-24 redevelopment work of two pond and reptile park is undertaken.

During this financial year we have welcomed pair of Indian Wolf ( 1 Male : 1 Female), Ghariyal ( 2 Male : 2 Female) , From Jaipur Zoo, in exchange of pair of Smooth Coated otter ( 1 Male : 1 Female) , Sambar ( 2 Male : 2 Female) From Rajkot Zoological Park in exchange of Marsh Crocodile ( 04 ),

There has been a substantial improvement in the field of health care during the year. This was possible due to sincere efforts by our staff in order to maintain highest standards of health care and animal husbandry practices and close association with college of Veterinary Sciences, Anand and Navsari and also with the valuable advice and guidance of the Nandini Veterinary Hospital, Surat and faculty members of above colleges on important health care issues.

Surat Zoo has always been an outstanding centre for education on various aspects of ex-situ conservation, health care and management of captive wild animals.

Information on various aspects of management and development of Dr Shymaprasad Mukherjee Zoological Garden, Surat during the year 2023-24 has been provided in the present Annual Report. I would like to thank all my staff for their hard work and dedication that made it a successful year in the maintenance and development of Dr. Shymaprasad Mukharjee Zoological Garden, Surat. I believe that Surat Zoo will continue to grow as a world class zoo and to contribute significantly in the field of wildlife conservation, education and research in coming years.

A handwritten signature in blue ink, appearing to read 'Shyamprasad', is centered on a white rectangular background.

Zoo Superintendent  
Dr. Shymaprasad Mukerjee Zoological Garden  
Sarhana, Surat, Gujarat State

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

Dr. Shyamasprasad Mukherjee Zoological Garden, Sarthana, Surat is one of the premier medium Zoo located amidst a beautiful natural setting recognized by Central Zoo Authority, Government of India. Unlike conventional zoos, it spreads over in 81 acres of land with natural vegetation , water bodies and enchanting landscape that provides the zoo inhabitants an appropriate ambience to live in harmony with the nature. It was dedicated to the public on April, 2003. Total 9,03,651 visitors visited the Zoological Park during 2023-24. Most of the animals of Dr. Shyamasprasad Mukherjee Zoological Garden, Surat housed in open, large moated areas surrounded by natural vegetation. This gives them a feeling of living close to their natural habitat.

## **3. Vision**

To complement and strengthen the national efforts in conservation of the biodiversity of the country, particularly the fauna through the ex-situ conservation linked with in-situ practices through

- Fostering sound physical, psychological and social development for the animals in our care.
- Creating an educational environment for all sectors, groups and individuals that develops a unifying bond between our visitors and the animals which inspires appreciation and concern about wildlife and wild places.
- Contributing to worldwide animal management, conservation and research efforts. Improving the quality of our professional development, administration and operating environment.

## **4. Mission**

To connect visitors and animals through exemplary animal welfare and care, best educational and inspirational experiences, fostering public appreciation and support for wild animals and conservation"

To provide better upkeep and veterinary care to the wild animal housed in zoos in India to ensure their conservation through best practices of management and bringing education & awareness among the people.

## **5. Objective**

- To convey the value of conservation through education.
- Captive breeding of endangered species mainly Smooth Coated Indian Otter, Four horned antelope , Sloth Bear.
- To inspire local and global communities to protect, conserve, and celebrate wildlife.
- To provide a fun, unique, and inspirational experience fostering appreciation, knowledge and care for the natural world.
- To ensure thriving as a premier zoological institution, reaching its fullest potential to serve people, animals and the environment.

## 6. About us

S.No.	Particulars	Information
<b>Basic information about the Zoo</b>		
1.	Name of the Zoo	Dr.Shyamaprasad Mukherjee Zoological Garden
2.	Year Of Establishment	2003
3.	Address Of the Zoo	Opposite Old Sarthana Octroi Naka, Sarthana, Surat- Kamrej Road, Surat-395006
4.	State	Gujarat
5.	Telephone Number	+91 6359905032 +91 6359905033
6.	Fax Number	0261-2451935, 2422110
7.	E-mail address	zoosuperintendent@suratmunicipal.org smczoodrrap@yahoo.com commissioner@suratmunicipal.org commissioner@suratmunicipal.gov.in
8.	Website	www.suratmunicipal.gov.in www.suratmunicipal.org
9.	Distance from nearest	Airport : Surat - 23 Kms
		Railway Station : Surat - 7 Kms
		Bus Stand : Surat - 7 Kms
		BRTS : 100 Mtr.
10.	Recognition Valid upto (Date)	22 <sup>nd</sup> December, 2024
11.	Category of Zoo	Medium
12.	Area (in Hectares)	32.78 Hectares
13.	Number of Visitors (Financial Year)	Adult : Zoo : 723693 Butterfly park : 22571
		Children : Zoo : 179928 Butterfly Park : 3820
		Total Indian : 903621
		Total Foreigners : 30
		<b>Total Visitors : 903651</b>
14.	Visitor's Facilities Available in Zoo	Parking, Toilets, Water huts, Wheel Chair, Canteen / Cafeteria, Battery operated vehicle
15.	Weekly Closure Day of the Zoo	Monday
<b>Management Personnel of the Zoo</b>		
16.	Name with designation of the Officer incharge	Dr. Rajesh A. Patel I/C.Zoo Superintendent
	Name of the Veterinary Officer	Dr. Rajesh A. Patel Assistant Vet. Officer
	Name of the Curator	-- (Vacant)
	Name of the Biologist	-- (Vacant )
	Name of the Education officer	Instead of the Education Officer there is a two post of Zoo Guide in the zoo 1. Shri Hina C. Patel 2. Vacant

<b>17.</b>	Name of the Operator	Municipal Commissioner (Surat Municipal Corporation)
<b>18.</b>	Address of the Operator	Gordhandas Chokhawala Marg, Mugalsarai, Surat-395003
<b>19.</b>	Contact details / Phone number of Operator	0261- 2422244 (D), 0261-2423750 to 2423756 & 0261-2422285 to 2422287
<b>20.</b>	E-mail address of Operator	commissioner@suratmunicipal.org commissioner@suratmunicipal.gov.in

### **SALIENT FEATURES OF SARTHANA ZOO, SURAT**

Area	Dr. Shyamaprasad Mukhrjee Zoological Garden	32.78 hacter (81 acre)
Captive animals as on 31.03.2024	Mammals	23
	Birds	27
	Reptiles	05
	Total	55
No. of animal House	Nos. 480 (covered - 286, Open moated -194)	
Zoo holiday	Every Monday, and on the eve of Dhuleti, Muharram and Anant chaudash	
Zoo timing	for visitors	10.00 am. to 5.00 pm.
Animal feeding time	Carnivores	11.00am. to 1.00 pm. (Except Monday)
	Reptile	11.00am. to 1.00 pm.
	Birds	11.00am. to 1.00 pm.
	Herbivores	11.00am. to 1.00 pm. & 4.00 pm. to 5.00 pm.

### **VISITORS' AMENITIES**

- Drinking water kiosks with water cooler and R.O.system
- Toilets at convenient locations
- Special toilets, wheel chairs and ramps for Handicapped and physically disable persons
- Rest areas, sit-outs / visitors sheds at various location
- Restaurant and snacks bar
- Cloak room near the entrance gate
- First aid (at zoo hospital and main gate entrance)
- Guide maps, informative and directional signage.
- Battery operated vehicles for visitors.

### **SPECIAL ATTRACTION OF SARTHANA ZOOS**

Butterfly garden and insect kingdom

Wildlife interpretation centre with nocturnal house Light and Sound show.

Digitalized payment and issuing facility for entry ticket and facilities of online ticket booking.

## **OTHER SERVICES OF THE ZOO**

1. Interactive education and awareness program.
2. Conduct guided tour for school children.
3. Availability of zoo guided tour on demand of visitors / School child visiting in group.

## **GENERAL INFORMATION FOR VISITORS**

**Entry Hours : 10.00 A.M. (Morning) to 5.00 P.M. (Evening)**

**Zoo remain closed on every Monday**

### **Entry Charges (Per Head)**

### **Entry Fee**

1.	An Individual above 12 years of age	₹	30.00
2.	Children age 3 to 12 years and senior citizens age 65 years and above.	₹	20.00
3.	Children below 3 years		Free
4.	Visiting students of Education institutes (Primary to Secondary Schools) & senior citizen	₹	10.00
5.	School & Institutes related with WWF or nature group activities and for the college students doing research on wild life and jungles.	₹	10.00
6.	For the persons from Women protection centre, Orphanages, Institutions fir disabled & mentally retarded and juvenile homes.		Free
7.	Foreigners.	₹	200.00
8.	Foreigner's children (age 3 to 12 Years)	₹	100.00

### **Photography charges :**

1.	Still Camera (Per day)	₹	50.00
2.	Personal domestic video camera(Per day)	₹	150.00
3.	Professional camera/video (Per day) [Prior approval of competent authority is required, for shooting the wildlife and natural view in the premises of the Nature Park.	₹	5000.00

## **BUTTERFLY GARDEN, INSECT KINGDOM AND WILDLIFE INTERPRETATION CENTER**

### **General Information :**

Visiting Hour's : 10.00 A.M to 5.00 P.M.

Butterfly Garden remains closed on every Monday.

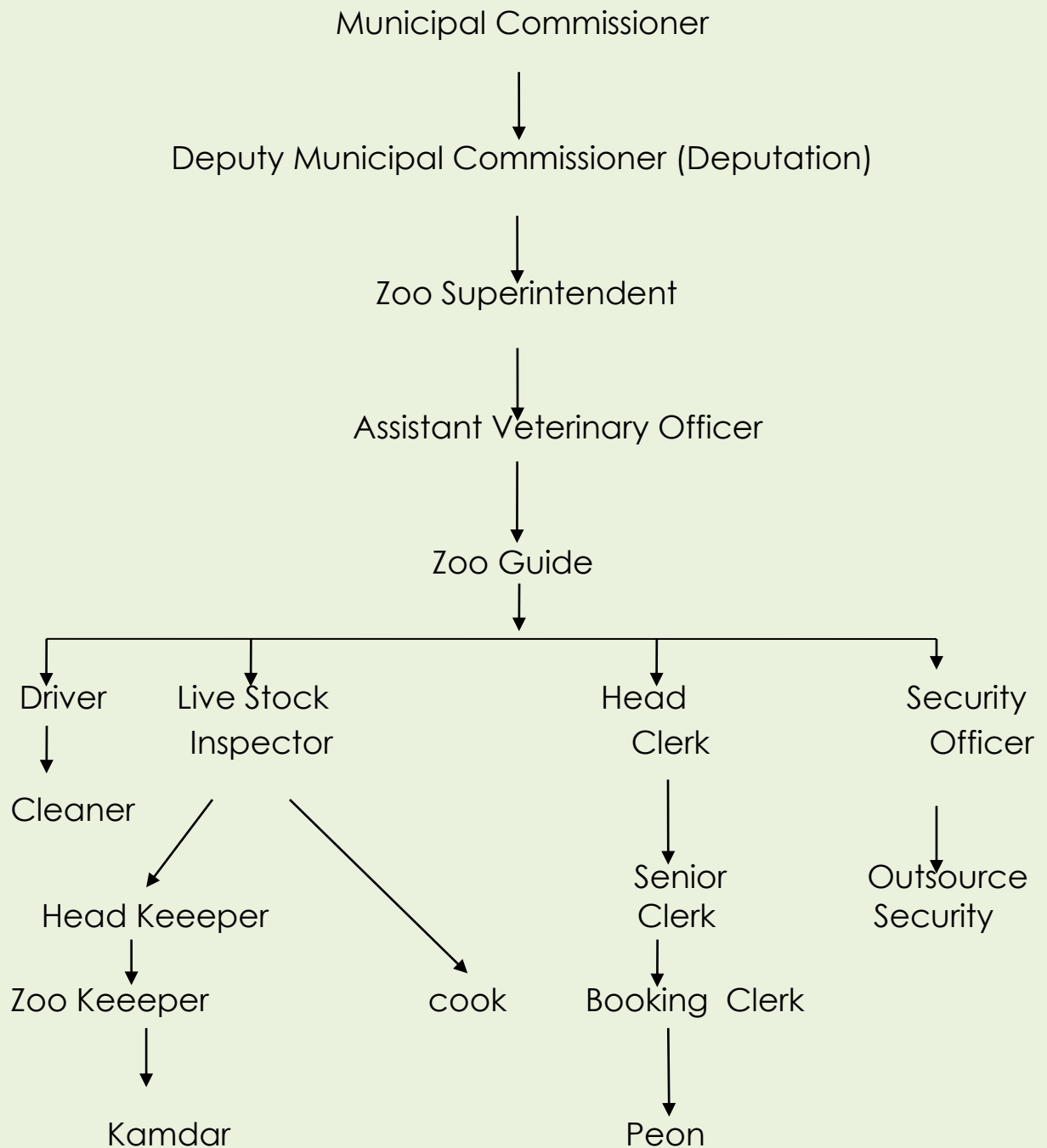
### **Entry Charges (per Head)**

1.	Adult	₹	20.00
2.	Children (age 5 to 12 years)	₹	10.00
3.	Children Below 5 years.		Free
4.	Person from Women protection centre, Orphanages, Institution for disabled & mentally retarded and juvenile homes. Best time to watch Butterfly from 10.00 A.M to 3.00 P.M		Free



## 7. Organization Chart

### Surat Municipal Corporation Dr. Shyamaprasad Mukherjee Zoologica Garden



## 8. Human Resources

Sr. No.	Designation	Number Of Sanctioned Posts	Names of the incumbent
1	Zoo Superintendent	01	Dr. Rajesh A. Patel (Incharge)
2	Assistant Veterinary Officer	01	Dr. Rajesh A. Patel
3	First Grade Clerk	01	Nitinbhai M. Patel
4	Security Officer	01	Vacant
5	Curator ( Educator & Research)/Biologist	01	Vacant
6	Zoo Guide	02	Smt. Hina C. Patel + 01 Vacant
7	Second Grade Clerk	01	Aljibhai Khakhadia
8	Laboratory Technician	01	Vacant
9	Live Stock Inspector	01+01( on loan)	Pritesh Navinlal Patel Ravindra R.Darbar (on loan)
10	Head Zoo Keeper	01	Mahendra R. Valhe
11	Third Grade Clerk	03	Pratik Y.Tailor Dhaval N.Chanakya Vipul A.Patel
12	Horticulture Assistant	01	Tejas S. Patel
13	Driver	01	Mahesh I. Patel
14	Mukadam	01	Vacant
15	Zoo Keeper	15	10 Filled up and 05 post are vacant, which will be filled up as per the requirement of department.
16	Peon	03	Chirag D. Patel Nikhil S.Patil + 02 Vacant
17	Beldar	24	All are filled
18	Zoo Sevak	01	Vacant
19	Cook	01	Balvant M. Parmar
20	Cleaner	01	Sunil I. Solanki
21	Safai kamdar	02	Vacant

## 9. Capacity Building of Zoo personnel

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.	Mr. Aakash V. Parmar	Capacity building programme for Zoo Keepers of the western region	Dt.13/09/2023 to Dt.15/09/2023 3 Days	Sakkarbagh Zoological Garden, Junagadh
2.	Mr. Girish J. chaudhari	Capacity building programme for Zoo Keepers of the western region	Dt.13/09/2023 to Dt.15/09/2023 3 Days	Sakkarbagh Zoological Garden, Junagadh
3.	Dr. Rajeshkumar A. Patel	Shaping Zoos of the future through scientific Management and collaboration.	Dt.11/03/2024 to Dt.12/03/2024 2 Days	Greens Zoological Rescue and Rehabilitation Centre

## 10. Zoo Advisory Committee

- a. Date of Constitution : Not in existence
- b. Member : Not applicable
- c. Date on which Meeting held during the year : NA

## 11. Health advisory Committee

- a. Date of Constitution : 22 / 03 / 2004
- b. Member : 3
- c. Date on which Meeting held during the year: Visit/Meeting not held since last 10 years

## 12. Statement of income and expenditure of the Zoo

### Income of Zoo during the 2022-2023

Sr.No.	Particulars	Income ( Rs.)
1	Zoo entry fees	24091980.00
2	Butterfly park entry fees	498470.00
3	Canteen / cafeteria rent	5075783.00
4	Mango tree auction income	0.00
5	Income from parking contract	0.00
6	Tender fees / Other miscellanies income	653146.00
7	Battery operated passenger vehicle income	136261.00
<b>Total Income</b>		<b>30945260.00</b>

### Expenditure of Zoo during the 2022-2023

Sr. No.	Particulars	Amount
1	Zoo staff Salary	30385315.15
2	Feed cost of animals	8897796.00
3	Medicine cost	157808.00
4	Security	5154458.88
5	Electricity	2650407.00
6	Miscellaneous	457247.00
7	Garden and butterfly park maintenance	1096780.00
<b>Total Expenditure</b>		<b>48799812.03</b>

## 13. Daily diet schedule chart of animals

Sr. No	Species	feed item	Quantity		Day of Fasting
			Winter	Summer	
1	Antelope Four horned	Green fodder + Concentrate	1.5Kg + 50gm	1.5Kg + 50gm	Nil
2	Antelope Black buck	Green fodder + Concentrate	2.0 Kg + 100 gm	2.0 Kg + 100 gm	Nil
3	Antelope Black buck (White)	Green fodder + Concentrate	2.0 Kg + 100 gm	2.0 Kg + 100 gm	Nil
4	Sloth Bear	Milk + Rice +Boiled Egg + Seasonal Green vegetable & fruits + Roti + Honey	1.5lit+400gm+1+3.0 kg+1+50gm	1.5lit+300gm+1+2.0 kg+1+50gm	Monday for milk and Rice
5	Himalayan Black Bear	Milk + Rice +Boiled Egg + Seasonal Green vegetable & fruits + Roti + Honey	1.5lit+500gm+2+4.0 kg+1+75gm	1.5lit+400gm+2+3.0 kg+1+75gm	Monday for milk and Rice

6	Jackal	Beef	1.0 kg	750 gm	Monday
7	Monkey Rhesus	Sprouted legume grains+ Seasonal Green vegetable & fruits	500 gm	500 gm	Nil
8	Leopard	Beef	3.5 kg	3.0 kg	Monday
9	Asiatic lion	Beef	10 kg.	8.0 kg.	Monday
10	Porcupine	Sprouted legume grains +seasonal green vegetable and fruits	1.0 kg.	1.0 kg	Nil
11	Tiger / White Tiger	Beef	10 kg	8 kg	Monday
12	Smooth coated Otter	Fish	1.5 kg	1.4 kg	Nil
13	Mouse Deer	Green fodder+Green leafy vegetables +Seasonal fruits	250 gm	200 gm	Nil
14	Crocodile Marsh	Beef	1 kg / week	1.5 kg / week	--
15	Crocodile Siamese	Beef	1 kg / week	1.5 kg / week	--
16	Tortoise	Mix Green Vegetable+Sproutd Leguminous grains Roots	100gm	100 gm	Nil
17	Gharial	fish	2.5 kg / week	2.5 kg / week	--
18	Indian Rock python	Rabbit / Gunea pig	3.0 kg monthly	3.0 kg fort nightly	--
19	Crane Saras	Boiled Rice + fish + Cereals grains	100 gm + 500gm	100 gm + 500gm	Nil
20	White Peafowl	Grains +Gramms+ Green Leafy Vegetable+Cabbage	200 gm	200 gm	Nil
21	Indian Peafowl	Grains +cabbage +Gramms+green palak	200 gm	200 gm	Nil
22	Night heron	Small Fish	150 gm	150 gm	Nil
23	Spoon bill	Small Fish	150 gm	150 gm	Nil
24	White ibis	Small Fish	150 gm	150 gm	Nil
25	Black kite	Beef (Minced)	50 gm	50gm	Nil
26	Alexandrine parakeet	Seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
27	Cockatiel	maize + grains	5-10 gm	5-10 gm	Nil
28	Cockatoo (Umbrella)	seasonal fruits + milk + bread + sunflowers seed	100 gm + 50 gm	100 gm + 50 gm	Nil

29	Military Macaw	seasonal fruits + milk + bread + Mix seed Feed	100 gm + 50 gm + 50 gm	100 gm + 50 gm + 50 gm	Nil
30	Blue and Yellow Macaw	seasonal fruits + milk + bread + Mix seed Feed	100 gm + 50 gm + 50 gm	100 gm + 50 gm + 50 gm	Nil
31	Green winged Macaw	seasonal fruits + milk + bread + Mix seed Feed	100 gm + 50 gm + 50 gm	100 gm + 50 gm + 50 gm	Nil
32	Emu	poultry layer mash	600 gm	600 gm	Nil
33	Lorrikeet Rainbow	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
34	Lorrikeet Red	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
35	Parrakeet African Grey	seasonal fruits + milk + bread + sunflower seed	100 gm + 50 gm	100 gm + 50 gm	Nil
36	Pelican Rosey	Fish	1.5 kg	1.5 kg	Nil
37	Lady Amherst's Pheasant	grains + layer mash + milk + bread	25 gm +5gm + 25 gm	25 gm + 25gm + 25 gm	Nil
38	Silver Pheasant	grains + layer mash + milk + bread	25 gm +5gm + 25 gm	25 gm + 25gm + 25 gm	Nil
39	Conure	seasonal fruits + milk + bread	50 gm + 25 gm	50 gm + 25 gm	Nil
40	Golden Pheasant	grains + layer mash + milk + bread	25 gm +5gm + 25 gm	25 gm + 25gm + 25 gm	Nil
41	Ostrich	layermash+green fodder +lucern	2.0-2.5 kg	2.0 -2.5kg	Nil
42	Deer Hog	Green Grass + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
43	Deer Samber	Green Grass + Concentrate	10 Kg + 300 gm	10 Kg + 300 gm	Nil
44	Deer Spotted	Green Grass + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
45	Hynae	Beef	2.0 kg	2.0 kg	Monday
46	Hippopotamus	Green fodder+Concentrate + potato + banana	45kg+2.0kg+3.0 kg+2.0kg	45kg+2.0kg+3.0kg+2.0kg	Nil
47	Nilgai	Green Grass + Concentrate	8 Kg + 200 gm	8 Kg + 200 gm	Nil
48	Black Swan	Green leafy spinch+ grains+poulty feed+ small fish	400 gm	400 gm	Nil
49	Indian Grey Wolf	Beef	2.0 kg	2.0 kg	Monday

#### 14. Vaccination Schedule of animals

Sr. No.	Species	Disease vaccinated for	Name of the Vaccine and dosage / Quantity used	periodicity	Remarks
1	Tiger Leopard (felines)	Canine leptospira, Parvo, Para influenza,	Canigen-DHHPPi-Lepto 1 dose	Yearly	
		Rabies	Nobivac-R 1 dose	Yearly	
		Panleukopenia virus, Calci virus, Herpes virus, Rabies	Biofel-PCHR 1 dose	Yearly	
		Ferret distemper vaccine	Puravax Ferret Vaccine (Live canary pox vector) 1 dose	Yearly started from Sept-2023	
2	Bears (Sloth bear & Himalayan Black bear)	Canine leptospira, Parvo, Para influenza,	Canigen-DHHPPi-Lepto 1 dose	Yearly	
		Rabies	Nobivac-R 1 dose	Yearly	
3	Hyena, Jackle (Canine)	Canine leptospira, Parvo, Para influenza,	Canigen-DHHPPi-Lepto 1 dose	Yearly	
		Rabies	Nobivac-R 1 dose	Yearly	

#### 15. Deworming Schedule of animals

Sr. No.	Species	Drugs used	Months
1	Felines (Tiger, Leopard)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
2	Canines (Hyena, Jackal, Otter,)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
3	Omnivorous (Bears)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
4	Herbivorous (All Deers)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023

5	Hippopotamus,	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
6	Birds (All Parakeet,lorrikeet,water birds,Peafowl,Phesants, pelican, etc.)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
7	Reptiles (python)	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023
8	Monkey	Fenbandazole Albendazole Ivermectin	June-2023 September-2022 December-2023

### 16. Disinfection Schedule

Sr. No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1	Felines (tiger, Leopard)	Open moated with night shelter	Kohrsoline-Th / Chlorine dioxide	every fortnightly in night shelter
2	Canines (Hyena, Jackal, Otter,)	Open moated with night shelter	Kohrsoline-Th / Chlorine dioxide	every fortnightly in night shelter
3	Omnivorous (Bears)	Open moated with night shelter	Kohrsoline-Th / Chlorine dioxide	every fortnightly in night shelter
4	Herbivorous(All deers )	Open moated with night shelter	quick lime dust and sometime NaOH solution spray	one in three months or as an when needed
5	Hippopotamus,	Open moated with night shelter	Calcium Hypochloride powder	every 15-21 days
6	Birds (All Parakeet, lorikeet, water birds, Peafowl, Pheasants, pelican, etc.)	Cage type aviary	Kohrsoline-Th / Chlorine dioxide	every fortnightly
7	Reptiles (python)	Cage type	Kohrsoline-Th	every fortnightly
8	Monkey	Open moated with night shelter	Kohrsoline-Th / Chlorine dioxide	every fortnightly

We have started disinfecting the Vegetable and Non Vegetable food (chicken, beef, and fish) offered to All Zoo animals by washing with chlorine dioxide solution.



## **17. Health Check-up of Employees for Zoonotic disease.**

- Surat Municipal corporation give Facility of Medical treatment free of cost to the employees who met with accidents on duty.
- Group Personal Accidental Insurance coverage given to staff working with wild animals.
- Annual Medical Check-up of all the employees for T.B. and regular annual booster Rabies vaccination is carried out .

## **18. Development works carried out in the Zoo during the year**

- Visitors walkway and zoo roads repaired.
- Renovation of kitchen facilities
- Construction of Parking for Zoo vehicle.
- Construction of new main Entrance with cafeteria ,children play area and with other visitor amenities.
- Construction of new Wolf Cage.
- Expansion of night shelter and construction of baby nursery in Tiger , White tiger, Lion and quarantine cum breeding cage facilities for Smooth Coated Otter.
- Repair and maintenance of old cages.
- Construction of new boundary wall instead of old damage tilted boundary wall
- Redevelopment and beatification of Water bodies in the zoo undertaken by Zone department.

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

World Environment Day On 5th June Zoo celebrates World Environment Day by conducting various programs such as Tree plantation by visitors , School children and one of the well known organization and N.G.O. More than 250 trees were plant as a concept of Miyawaki forest . There was a small lecture on water conservation, environment, wildlife etc. for student, campaigns like anti-plastic drive. Every year 'Wild life week' is being celebrated at the Zoo from 2<sup>nd</sup> to 8<sup>th</sup> October. As a part of the Celebration, exhibition on wild life photograph , various educational materials and instruments used for treatment of wild animals and birds . With the collaboration of City's well-known collage Zoo conducted many activities like quiz competitions for School Children of different age. Volunteers of collage organized different games on wild life for the school student. To create awareness on wildlife, Zoo also conducting lecture on wild- life and wild- life conservation for School and college students. Zoo also conducting lecture for Collage Student on Role Of Zoo in conservation of Wild Life, All brief about Central Zoo Authority and all about health care management of zoo animals and birds. During Wild life week 7 days the students between 1st standard and 7th Standard are given free entry. Zoo is organizing several competitions and attractive prizes and certificates are given to the winners.

## **20. Important Events and happenings**

- World Environment day Tree plantation programme in Zoo Premises
- World Tiger day.
- Otters day
- Wildlife Week celebration during the 2nd October to 08th October.

## **21. Seasonal special arrangement for upkeep of animals**

- SUMMER MANAGEMENT usually the animals are under severe stress during summer. In order to improve the comfort level, heat relief measures were undertaken during last summer. • All deer enclosures were provided with new resting sheds. • Sprinkling/ flogger of water/cooler were arranged in enclosures housing tiger, leopard, Himalayan bear, ostrich & aviary section • Special dietary arrangements were made for primates, bears, and birds to keep them at ease. • Shade nets for cutting off sunlight are provided at aviaries, Ostrich and White tiger enclosures.
- WINTER MANAGEMENT During winter, electric heater has been installed in tiger, leopard, Hyena, Himalayan bear, electric lamps arrangement provided in each cages of the bird aviary for warmness during night chilling hour, wood fire in deer cages arrange.
- During monsoon, night shelter entry kept open throughout the day, so animal may go to the shaded area to protect himself from direct exposure from heavy rain.

## **22. Research Work carried out and publications:**

During this year with the collaboration of veer Narmad South Gujarat University, Surat Three students of M.Sc. , bio science Department have undertaken research work on subjects below,

1. DIVERSITY AND DYNAMICS ANALYSIS OF GUT MICROBIOTA OF SLOTH BEAR
2. DIVERSITY AND DYNAMICS ANALYSIS OF GUT MICROBIOTA OF LION AND LEOPARD
3. CAPTIVE BEHAVIOUR OF RHESUS MACAQUES
4. CAPTIVE BEHAVIOUR OF SPOOTED DEER

5. BEHAVIOUR STUDY OF INDIAN FIVE STRIPED PALM SQUIRREAL OF NATUREPARK

6. CAPTIVE BEHAVIOUR OF SMOOTH- COATED OTTER

7. CAPTIVE BEHAVIOUR OF SPOOTED DEER

8. CAPTIVE BEHAVIOUR OF BLACK- BUCK

9. One student of Hemchandracharya North Gujarat University working with WCB Research Foundation will carried out her research work on subject of GUT MICROBIOTA OF CAPTIVE AND WILD SLOTHBEARS.

### 23. Conservation Breeding programme of the Zoo

Zoo has achieve great success of captive breeding of Smooth - coated Otter, This year total 08 number of pups born at our Zoo which is highest Nos. of puppies bred in single year till date. Keeping in mind our field experience and behavioural study of species chance of severe infighting of animals with alpha male and alpha female or within two alpha female Within group on attaining puberty age. Surat Zoo has created off exhibit breeding / Quarantine enclosure facilities within zoo premises. where we have kept separate pair of otter in total six separate enclosure for breeding and as a result this year we will have good number of puppy from captive breeding of this species.

Zoo has also successfully breed Hog deer, Spotted Deer, Black buck, Rhesus Macaque, Painted stork, Night Heron, Alexandrine Parakeet, Marsh Crocodile in the captivity.

### 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
	1	Ghariyal Crocodile	2 : 2	Jaipur zoo	29/07/2023
	2	Indian Grey Wolf	1 : 1	Jaipur zoo	29/07/2023
	3	Sambar Deer	2 : 2	Rajkot Zoo	28/07/2023
B.	Animals going from the Zoo				
	H. No.	species	Number (M:F)	To which Zoo	Date of disposal from the Zoo
	1	Smooth Coated otter	1 : 1	Jaipur zoo	30/07/2023
	2	Marsh Crocodile	0:0:4	Rajkot Zoo	29/07/2023

**25. Rescue and Rehabilitation of wild animals carried out by the Zoo:**

Sr. 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	
	Species	Number (M:F:U)			Date and Place of rehabilitation in their habitat	Reasons for housing in the Zoo if not released in their habitat
1	Pulm Headed Parakeet	2 : 1 : 0	PAL, SURAT	14/10/2023	-	INJURED
2	Indian spot bill duck	0 : 0 : 2	SURAT	02/12/2023 10/12/2023	-	INJURED
3	Leopard Cub	0:1:0	NORTH DANG	18/10/2023	-	DIED
4	Leopard Cub	1:0:0	MANDVI SOUTH	04/12/2023	-	DIED
5	Bonnet Monkey	1:0:0	NATURE CLUB, SURAT	22/10/2023	-	INJURED
6	Bonnet Monkey	0:1:0	Rescued from ZOO PRIMISES	03/12/2023	-	INJURED

## 26. Annual Inventory of animals

### FORM-II [See rule 11 (1)]

#### PART - A Dr. Shyamaprasad Mukharjee Zoological Garden, Surat, Gujarat

#### Proforma for Annual Inventory Report Inventory Report for the Year : 2023-2024

#### Endangered Species\*

#### # - Modified Closing Balance

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>Aves</b>																						
1.	Peafowl (leucistic)	<i>Pavo cristatus</i>	2	6	0	8	0	0	0	0	0	0	0	0	0	1	2	0	1	4	0	5
2.	Indian Peafowl	<i>Pavo cristatus</i>	3	3	1	7	0	0	3	0	0	0	0	0	0	0	0	0	3	3	4	10
3.	Eurasian Spoonbill	<i>Platalea leucorodia</i>	1	1	3	5	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	4
<b>Total Aves</b>	<b>3</b>		<b>6</b>	<b>10</b>	<b>4</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>19</b>	
<b>Mammalia</b>																						
1.	Blackbuck	<i>Antilope cervicapra</i>	2	15	0	17	0	0	3	0	0	0	0	0	0	0	0	0	2	15	3	20
2.	# Blackbuck (leucistic/white)	<i>Antilope cervicapra</i>	1	0	2	3	0	2	0	0	0	0	0	0	0	1	0	1	2	1	4	
3.	# Hog deer	<i>Axis porcinus</i>	2	2	1	5	0	0	2	0	0	0	0	0	0	0	0	3	3	1	7	
4.	Indian Jackal	<i>Canis aureus indicus</i>	2	7	0	9	0	0	0	0	0	0	0	0	0	2	0	2	5	0	7	
5.	Indian Wolf	<i>Canis lupus pallipes</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	2	

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
6.	Smooth-coated Otter	<i>Lutrogale perspicillata</i>	10	6	3	19	1	1	6	0	0	0	1	1	0	0	0	0	10	6	9	25
7.	Rhesus Macaque	<i>Macaca mulatta</i>	6	7	4	17	0	0	1	0	0	0	0	0	0	1	0	0	5	7	5	17
8.	Bonnet Macaque	<i>Macaca radiata</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2
9.	Sloth Bear	<i>Melursus ursinus</i>	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
10.	Indian Chevrotain, Mouse Deer	<i>Moschiola indica</i>	1	3	1	5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	5
11.	# Asiatic Lion	<i>Panthera leo persica</i>	2	1	2	5	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	3
12.	Leopard	<i>Panthera pardus</i>	1	1	0	2	0	0	0	1	1	0	0	0	0	0	1	0	2	1	0	3
13.	Tiger (leucistic/White)	<i>Panthera tigris</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
14.	Bengal Tiger	<i>Panthera tigris tigris</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
15.	Asian Palm Civet	<i>Paradoxurus hermaphroditus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16.	Four-horned Antelope	<i>Tetracerus quadricornis</i>	2	4	0	6	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	4
17.	Himalayan Black Bear	<i>Ursus thibetanus laniger</i>	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
<b>Total Mammalia</b>	<b>17</b>		<b>36</b>	<b>50</b>	<b>13</b>	<b>99</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>39</b>	<b>51</b>	<b>20</b>	<b>110</b>
<b>Reptilia</b>																						
1.	Marsh Crocodile	<i>Crocodylus palustris</i>	0	1	19	20	0	0	0	0	0	0	0	0	4	0	0	0	0	1	15	16
2.	Gharial	<i>Gavialis gangeticus</i>	0	1	0	1	0	0	0	2	2	0	0	0	0	1	0	0	1	3	0	4

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
3.	Indian Rock Python	<i>Python molurus</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
<b>Total Reptilia</b>	<b>3</b>		<b>0</b>	<b>2</b>	<b>20</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>16</b>	<b>21</b>
<b>Total</b>			<b>42</b>	<b>62</b>	<b>37</b>	<b>141</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>1</b>	<b>45</b>	<b>63</b>	<b>42</b>	<b>150</b>

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

Curator (Animals)



Director

**PART - B**  
**Dr. Shyamaprasad Mukharjee Zoological Garden, Surat, Gujarat**  
**Proforma for Annual Inventory Report**  
**Inventory Report for the Year : 2023-2024**

**Other than Endangered Species\***

**# - Modified Closing Balance**

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>Aves</b>																						
1.	Indian Spot-billed Duck(ssp.haringtoni)	<i>Anas poecilorhyncha haringtoni</i>	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2
2.	Sarus Crane	<i>Antigone antigone</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3.	Blue-and-gold Macaw, Blue-and-yellow Macaw	<i>Ara ararauna</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4.	Green-winged Macaw, Red-and-green Macaw	<i>Ara chloropterus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
5.	Military Macaw	<i>Ara militaris</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
6.	Umbrella Cockatoo, White Cockatoo	<i>Cacatua alba</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7.	Lady Amherst's Pheasant	<i>Chrysolophus amherstiae</i>	1	2	0	3	0	0	1	0	0	0	0	0	0	1	0	0	0	2	1	3



S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
8.	Golden Pheasant	<i>Chrysolophus pictus</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
9.	Black Swan	<i>Cygnus atratus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
10.	Emu	<i>Dromaius novaehollandiae</i>	2	2	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6	10
11.	Moluccan Red Lory, Violet-necked Lory	<i>Eos squamata</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12.	Silver Pheasant	<i>Lophura nycthemera</i>	1	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	1	2	4
13.	Black Kite	<i>Milvus migrans</i>	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	3	
14.	# Painted Stork	<i>Mycteria leucocephala</i>	2	2	7	11	0	0	7	0	0	0	0	0	0	0	0	0	0	5	5	8	18
15.	# Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	2	2	8	12	0	0	18	0	0	0	0	0	0	0	0	0	0	10	10	10	30
16.	Cockatiel	<i>Nymphicus hollandicus</i>	0	0	128	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	128
17.	Great White Pelican	<i>Pelecanus onocrotalus</i>	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5
18.	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	2	1	0	3
19.	Alexandrine Parakeet	<i>Psittacula eupatria</i>	7	6	8	21	0	0	3	0	0	0	0	0	0	0	0	0	0	7	6	11	24
20.	Grey Parrot, Jacquot	<i>Psittacus erithacus</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
21.	Green-cheeked Conure, Green-cheeked Parakeet	<i>Pyrrhura molinae</i>	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
22.	Common ostrich, Ostrich	<i>Struthio camelus</i>	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
23.	# Black-headed Ibis	<i>Threskiornis melanocephalus</i>	1	2	7	10	0	0	12	0	0	0	0	0	0	0	0	0	7	7	8	22
24.	Rainbow Lorikeet	<i>Trichoglossus moluccanus</i>	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1
<b>Total Aves</b>	<b>24</b>		<b>32</b>	<b>29</b>	<b>171</b>	<b>232</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>48</b>	<b>46</b>	<b>181</b>	<b>275</b>
<b>Mammalia</b>																						
1.	Chital/ Spotted Deer	<i>Axis axis</i>	2	1	1	4	0	0	1	0	0	0	0	0	0	0	0	0	2	1	2	5
2.	Nilgai	<i>Boselaphus tragocamelus</i>	0	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	3
3.	Common hippopotamus, Hippopotamus, Large Hippo	<i>Hippopotamus amphibius</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
4.	Striped Hyena	<i>Hyaena hyaena</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
5.	Indian Crested Porcupine	<i>Hystrix indica</i>	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6.	Sambar Deer	<i>Rusa unicolor</i>	1	2	0	3	0	0	0	2	2	0	0	0	0	1	1	0	2	3	0	5
<b>Total Mammalia</b>	<b>6</b>		<b>7</b>	<b>9</b>	<b>2</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>22</b>
<b>Reptilia</b>																						
1.	Siamese Crocodile	<i>Crocodylus siamensis</i>	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
2.	Indian Star Tortoise	<i>Geochelone elegans</i>	11	16	2	29	0	0	0	0	0	2	0	0	0	0	0	0	11	16	4	31
<b>Total Reptilia</b>	<b>2</b>		<b>11</b>	<b>16</b>	<b>4</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>16</b>	<b>6</b>	<b>33</b>

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2023)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2024)			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>Total</b>			50	54	177	281	0	0	45	4	3	4	0	0	0	4	1	2	67	72	191	330
<b>Grand Total</b>			92	116	214	422	1	3	60	9	8	4	1	1	4	9	9	3	112	135	233	480

Curator (Animals)

  
Director

27. Mortality of animals

# DEATH

<b>FROM 1st APRIL--2023 TO 31th MARCH-2024</b>					
<b>Sr.No.</b>	<b>Animal Name</b>	<b>Scientific Name</b>	<b>Sex</b>	<b>Date</b>	<b>Cause of death as diagnosed through postmortem</b>
<b>Mammal</b>					
1	Antelope four horned	Tetracerus quadricornis	F	13-04-2023	SENILITY
2	Samber Deer	Rusa unicolor	F	05-05-2023	CHRONIC RESPIRATORY DISEASE
3	Indian jackal	Canis aureus indicus	F	22-05-2023	INFIGHTING
4	Antelope four horned	Tetracerus quadricornis	F	29/06/25023	CHOCKING
5	Samber Deer	Rusa unicolor	M	19-08-2023	CHRONIC RESPIRATORY DISEASE
6	Indian jackal	Canis aureus indicus	F	20-09-2023	STROCK
7	Asiatic Lion	Panthera leo persica	M	29-07-2023	ENCEPHALITIS
8	Asiatic Lion	Panthera leo persica	M	19-08-2023	ENCEPHALITIS
9	Rhesus Macaque	Macaca mulatta	M	24-12-2023	SENILITY
10	Black buck(leucistic/ white)	Antelop cervicapra	F	07-01-2024	TRAUMATIC SHOCK
11	Leopard	Panthera parduas	F	24-01-2024	BOLCKAGE OF URINARY PASSAGE
<b>Birds</b>					
1	Lady Amherst' Pheasant	Chrysolophus amherstiae	M	12-06-2023	SHOCK
2	Spoon Bill	Platalea leucordia	U	30-09-2023	SALINITY
3	Black kite	Milvus migrans	U	17-09-2023	OLD AGE
4	Green - Cheeked Conure	Pyrrhura moline	M	09-09-2023	INFIGTING INJURY
5	Black kite	Milvus migrans	U	25-10-2023	SENILITY
6	White peafowl	Pavo crestatus	F	12-11-2023	SENILITY
7	White peafowl	Pavo crestatus	M	18-12-2023	SENILITY
8	Rainbow Lorikeet	Trichoglossus moluccanus	M	29-12-2023	SENILITY
9	White peafowl	Pavo crestatus	F	12/01/2024	OLD AGE
<b>Reptile</b>					
1	Gharial	Gavialis gangaticus	M	12-03-2024	CHRONIC DEBILITATING DISEASE

**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)**

Letter No. (1) File No.7-10/2020-CZA(PART-I)/I/2447/2020, dt. 25.08.2020  
 (2) F. No. 19-117/93-CZA(70)(Vol.V)(PKR)/1856/2017 dt. 27.10.2017  
 (3) F. No. 19-117/93-CZA(70)(Vol.V)(M)/4619/ dt. 09.04.2014  
 (4)F. No. 19-117/93-CZA(70)(Vol.IV)(M)/ dt. 11.04.2011

Sr. No.	Norm No. under RZR 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regards to compliance of the conditions
<b>1.General requirements:</b>					
1	10.1(9)	The Zoo Operator has failed to remove the domestic ducks from display, in spite of repetitive reminders from the CZA. All such domestic ducks should be relocated outside the zoo premises.	With immediate effect	27/10/2017	Zoo is not keeping any number of domestic duck in open water body, Zoo official are in search of some agency, who can take them and keep them upkeep in their premises/farm/resort.
<b>2. Administrative and staffing pattern</b>					
2	10.2(1)	The Zoo has failed to post full time officer -in-charge at the zoo. The present Officer-in-charge for food and drug licence of Municipal Corporation of Surat. Full time Officer-in-charge should be appointed.	Three months.	27/10/2017	SMC has already advertised the post of Zoo Superintendent recently in year, 2020 and the matter is in process with the competent authority.
3	10.2(1)	It has been noticed during the evaluation that maintenance of animal enclosures and other infrastructures is not being done on regular basis. It is suggested that may have independent adequate power to take up emergency repair as and when required. The delay in dealing with such repair works was noticed during the evaluation.	with immediate effect	27/10/2018	All pending work of repair and refurbishing of animal enclosures have been completed by the executive Engineer. Some more repair and maintenance work is going on.
4	10.2(1)	The full time veterinary officer is officiating as a full time in charge of Zoo ,Zoo authority are requested to appoint full time officer in charge	Three months	23/12/2022	SMC has already advertised the post of Zoo Superintendent recently in year, 2020 and the matter is in process with the competent authority.
5	10.2(2)	Zoo authority is in process of revising the qualification requirement of the post of Zoo Superintendent cum curator and creation of education officer and biologist. it should be implemented immediately	immediately	23/12/2022	Already reported with Hon.Municipal Commissioner and matter pending with central establishment department.
<b>3.Development and planning :</b>					
6	3 (1&2)	The Zoo Operator has failed to submit the Master Plan for the long term development of the zoo to Central Zoo Authority for its approval. The CZA has already granted extension of 3 months times for submission of Master Plan. The same period has also been lapsed, the zoo failed to submit the master Plan. Should submit Master Plan to the CZA for approval.	With immediate effect.	27/10/2017	Master (Layout) Plan has already been submitted and approved by the CZA. Management Plan submitted on dated.01/03/2022 for CZA approval. there is some quarry and suggestion by expert committee will be complied whining short time.
7	10.3(5)	The ongoing works is expected to take around three months and accordingly the kiosk should be shifted outside of the Zoo premises.	Three months	23 / 12 / 2022	The works of new entrance is completed the tender procedure is under taken and after Model Code of Conduct of Loksabha election the procedure for awarding the license to run kiosk and food plaza outside the entry gate is

					completed and the kiosk will be shifted outside within one months time.
8	10.3(5)	A kiosk is being operated in unhygienic manner just after entry to the Zoo. The same should be relocated to an appropriate place and should be maintained hygienically and it should be ensured that no goods are sold in the plastic.	Three months	27/10/2018	The works of new entrance is completed the tender procedure is under taken and after Model Code of Conduct of Loksabha election the procedure for awarding the license to run kiosk and food plaza outside the entry gate is completed and the kiosk will be shifted outside within one months time.
<b>4. Animal housing , display of animals and animal enclosures :</b>					
9	10.4(10)	The directional signage's requires fresh up gradation to have a higher visibility and should be maintained regularly.	Within three months	23/12/2022	complied
10	10.4(10)	The educational aspect of signage's also require fresh upgradation.	Within three months	23/12/2022	Necessary office procedure undertaken will be complied within short time.
<b>6. Veterinary and infrastructure facilities:</b>					
11	10.6(3)	The Zoo authority should implement plan for Lab and Lab technician.	within One year	23/12/2022	As Surat city is well facilitated with ultra modern Nandini veterinary hospital and Navsari Veterinary College is very much nearby to Surat zoo, we are availing all these facilities from them under the guidance of subject matter specialist for accurate diagnosis and proper treatment. As lab technician post at Zoo is filled up although planning for lab establishment is under going.
<b>7. Post Mortem and disposal of carcasses of animals</b>					
12	10.7(1)	Zoo authority should provide for fully equipped post-mortem room	within One year	23/12/2022	for construction of fully equipped post mortem room procedure is undertaken.
<b>9.Acquisition and breeding of animals:</b>					
13	10.9(1)	The Zoo had been housing 105 nos. of healthy Rose ringed parakeet. the surplus population of Rose ringed parakeet should be released into the natural habitat after due screening of their health and it should be ensured that protocols laid by th CZA/IUCN in this regard are followed or the birds may be given to other recognized zoo with prior approval from CZA and CWLW of the State.	Should be comply	27/10/2017	These 105 nos. of healthy Rose ringed parakeet have been seized and rescued by the Forest Department and on request of them, these have been kept temporarily at the zoo (with the order of the court). If some zoo will submit a demand for them, we will spare them immediately with the permission of CZA and State Forest Department.
14	10.9(1)	The Zoo authority should explore for exchange of Tiger ,Asiatic Lion, Barking deer and Marsh Crocodiles	Within six months	23/12/2022	Eexchange of crocodile with Rajkot zoo is comleted with approved from CZA, for other animals exchange correspondence is going on with Zoo to pair single animals.
15	10.9(1)	Efforts are being make for maintaining appropriate sex ratio	Within six months	23/12/2022	Effort are under taken for Pairing of single animals in the zoo
16	10.9(2)	Zoo authority should try to ensured the scientific assessment of lineage and genetic relatedness to safeguard inbreeding as early as possible.	as early as possible	23/12/2022	for genetic analysis of the sample correspondence is done with GBRC Gandhinagar for sample testing.
10.Research activities					
17	10.10(1)	Zoo authority is suggested to ensure taking up the minimum two research program with the university.	23/12/2022	within one years	VNSGU has been contacted for taken up research program in the Zoo, and they have send PG student for research program. and work is going on.
11. Education and outreach activities					
18	10.11(1)	Education and research activities required up gradation	23/12/2022	within six month	As zoo is lacking education officer effort is undertaken to filled the post of education officer.
<b>12 Visitors facilities</b>					
19	10.12(1)	The battery operated vehicle requires up gradation with minimum fleet of 10 vehicle	23/12/2022	within six months	After nine attempt of online tender procedure by Zoo for running of Battery Operated vehicle SMC has depute agency for running battery operated vehicle in the premises of Zoo on PPP model .

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

### a. Mammals

No.	Name of the animal	Scientific Name
1.	Grey Mongoose	Herpestes edwardsii
2.	Small Indian Mongoose	Herpestes javanicus
3.	Ruddy Mongoose	Herpestes smithii
4.	Indian Civet	Viverricula indica
5.	Bats	Chiroptera
6.	Three Stripped Palm Squirrel	Funambulus palmarum
7.	Large Bandicoot Rat	Bandicota indica
8.	Hanuman Langur	Semnopithecus entellus
9.	Indian Hare	Lepus nigricollis

### b. Birds

No.	Order	Family	Common Name	Scientific Name
1	Galliformes	Phasianidae	Indian Peafowl	Pavocristatus
2	Columbiformes	Columbidae	Rock Pigeon	Columba livia
3			Spotted dove	Spilopeliachinensis
4			Yellow-footed Green-Pigeon	Treronphoenicoptera
5	Cuculiformes	Cuculidae	Greater coucal	Centropussinensis
6			Asian koel	Eudynamysscolopaceus
7	Apodiformes	Apodidae	Asian Palm Swift	Cypsiurusbalasiensis
8			Little Swift	Apus affinis
9	Gruiformes	Rallidae	White-breasted waterhen	Amauornisphoenicurus
10	Charadriiformes	Charadriidae	Red-wattled lapwing	Vanellusindicus
11		Scolopacidae	Green sandpiper	Tringaochropus
12	Ciconiiformes	Ciconiidae	Asian Openbill	Anastomusoscitans
13			Painted Stork	Mycteriaeucocephalia
14	Suliformes	Phalacrocoracidae	Little Cormorant	Microcarboniger
15	Pelecaniformes	Ardeidae	Black-crowned night heron	Nycticoraxnycticorax
16			Little egret	Egrettazarzetta
17			Indian pond heron	Ardeolagrayii
18			Great Egret	Ardea alba
19			Intermediate egret	Ardea intermedia
20			Cattle egret	Bubulcus ibis
21			Purple Heron	Ardeapurpurea
22			Threskionithidae	Black-headed ibis
23		Accipitriformes	Accipitridae	Shikra
24	Coraciiformes		Common Kingfisher	Alcedoatthis
25			White-throated kingfisher	Halcyon smyrnensis
26			Meropidae	Asian green bee-eater
27	Piciformes	Megalaimidae	Coppersmith Barbet	Psilopogonhaemacephalus
28	Psittaciformes	Psittaculidae	Rose-ringed parakeet	Psittaculakrameri
29			Alexandrine Parakeet	Psittaculaeupatria
30		Campephagidae	Small Minivet	Pericrocotuscinnamomeus

31	Passeriformes	Oriolidae	Indian Golden Oriole	Orioluskundoo
32			Black-hooded Oriole	Oriolusxanthornus
33		Aegithinidae	Common Iora	Aegithinatiphia
34		Rhipiduridae	Spot-breasted fantail	Rhipiduraaureola
35		Dicruridae	Black drongo	Dicrurusmacrocerus
36			Ashy Drongo	Dicrurusleucophaeus
37		Laniidae	Long-tailed Shrike	Laniusschach
38		Monarchidae	Indian Paradise-Flycatcher	Terpsiphonparadisi
39		Corvidae	House crow	Corvussplendens
40			Large-billed crow	Corvusmacrorhynchos
41		Stenostiridae	Gray-headed Canary-Flycatcher	Culicicapaceylonensis
42		Acrocephalidae	Booted Warbler	Idunacaligata
43		Cisticolidae	Common Tailorbird	Orthotomussutorius
44			Ashy Prinia	Priniasocialis
45		Pycnonotus	Red-whiskered bulbul	Pycnonotusjocosus
46			Red-vented bulbul	Pycnonotuscafer
47		Phylloscopidae	Hume's Warbler	Phylloscopushumei
48			Common Chiffchaff	Phylloscopuscollybita
49			Greenish Warbler	Phylloscopustrochiloides
50		Leiothrichidae	Jungle babbler	Turdoidesstriata
51			Oriental magpie-robin	Copsychussauralis
52		Sturnidae	Common myna	Acridotherestrictis
53		Muscicapidae	Indian Robin	Copsychusfulvicatus
54			Tickell's Blue Flycatcher	Cyornistickelliae
55			Taiga Flycatcher	Ficedulaalbicilla
56			Red-breasted Flycatcher	Ficedulaparva
57		Passeridae	House sparrow	Passer domesticus
58		Dicaeidae	Pale-billed flowerpecker	Dicaeumerythrorhynchos
59			Thick-billed Flowerpecker	Dicaeum agile
60		Nectariniidae	Purple-rumped Sunbird	Leptocomazeylonica
61			Purple Sunbird	Cinnyrisasiaticus
64			Scaly-breasted Munia	Lonchurapunctulata
62		Chloropseidae	Jerdon's Leafbird	Chloropsisjerdoni
63		Motacillidae	Gray wagtail	Motacillacinerea
65			White Wagtail	Motacilla alba
66		Fringillidae	Common Rosefinch	Carpodacuserythrinus

### c. Reptiles

No.	Name of the animal	Scientific Name	No.	Name of the animal	Scientific Name
1.	sand Boa	Eryx conicus	7.	Indian wolf snake	Lycodon aulicus
2.	Viper Saw Scaled	Echis carinata	8.	Bamboo pit viper	Tremeresus gramineus
3.	Snake Rat / Dhaman	Ptyas mucosus	9.	Checked Keelback	Xenochrophis piscator
4.	Cobra Indian	Naja nanja	10.	common Krait	Bungarus caeruleus
5.	Trinket snake	Coelognathus helena	11.	Turtle Fresh Water / Indian Soft Shelled	Presdypis entellus
6.	Green vine snake	Ahaetulla nasatu			