



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



# Annual Report for the Year 2022-23 CONTENTS

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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 19 species of mammals, 06 species of reptiles, 21 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 2022-23. 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 2022-2023. Many species of indigenous and exotic animals including Lion, Black buck, Rhesus Macaque, Smooth Coated Otter, Painted stork, Night Heron, Alexandrine Parakeet, Marsh Crocodile etc. have breed successfully in the Zoo during the year.

During the year 2022-23 main entry gate redevelopment work is undertaken, civil repair and maintenance work is undertaken in zoo.

During this financial year we have welcomed pair of Military macaw ( 1 Male : 1 Female), Green Winged Macaw ( 1 Male : 1 Female) , Rainbow Lorikeet ( 1 Male : 1 Female) as donation from Paradise aviaries and Blue And Yellow Macaw ( 1 Male : 1 Female) , Black Swan ( 1 Male : 1 Female) Lady Amherst's Pheasant ( 1 Male : 2 Female), Golden pheasant ( 1 Male : 1 Female) From Chamarajendra Zoological Garden, Mysore, in exchange of pair of Smooth Coated otter ( 0 Male : 1 Female) , Antelope Four Horned ( 2 Male : 2 Female) From Naya Raipur Jungle safari , Naya Raipur in exchange of pair of Smooth Coated otter ( 1 Male : 0 Female), Pair or smooth coated otter is spare for Greens zoological rescue and rehabilitation centre Jamnagar

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 2022-23 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. Shyamaprasad 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.



Zoo Superintendent  
Dr. Shyamaprasad 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 2022-23. 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
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>Owner / Operator of the Zoo</b>		
17.	Name of the Operator	Municipal Commissioner (Surat Municipal Corporation)
18.	Address of the Operator	Gordhandas Chokhawala Marg, Mugalisara,Surat-395003
19.	Contact details / Phone number of Operator	0261- 2422244 (D), 0261-2423750 to 2423756 & 0261-2422285 to 2422287
20.	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 31.03.2023	Mammals	22
	Birds	22
	Reptiles	05
	Total	49
No. of animal House	Nos. 390 (covered - 229, Open moated -161)	
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. to5.00 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.

### **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)**

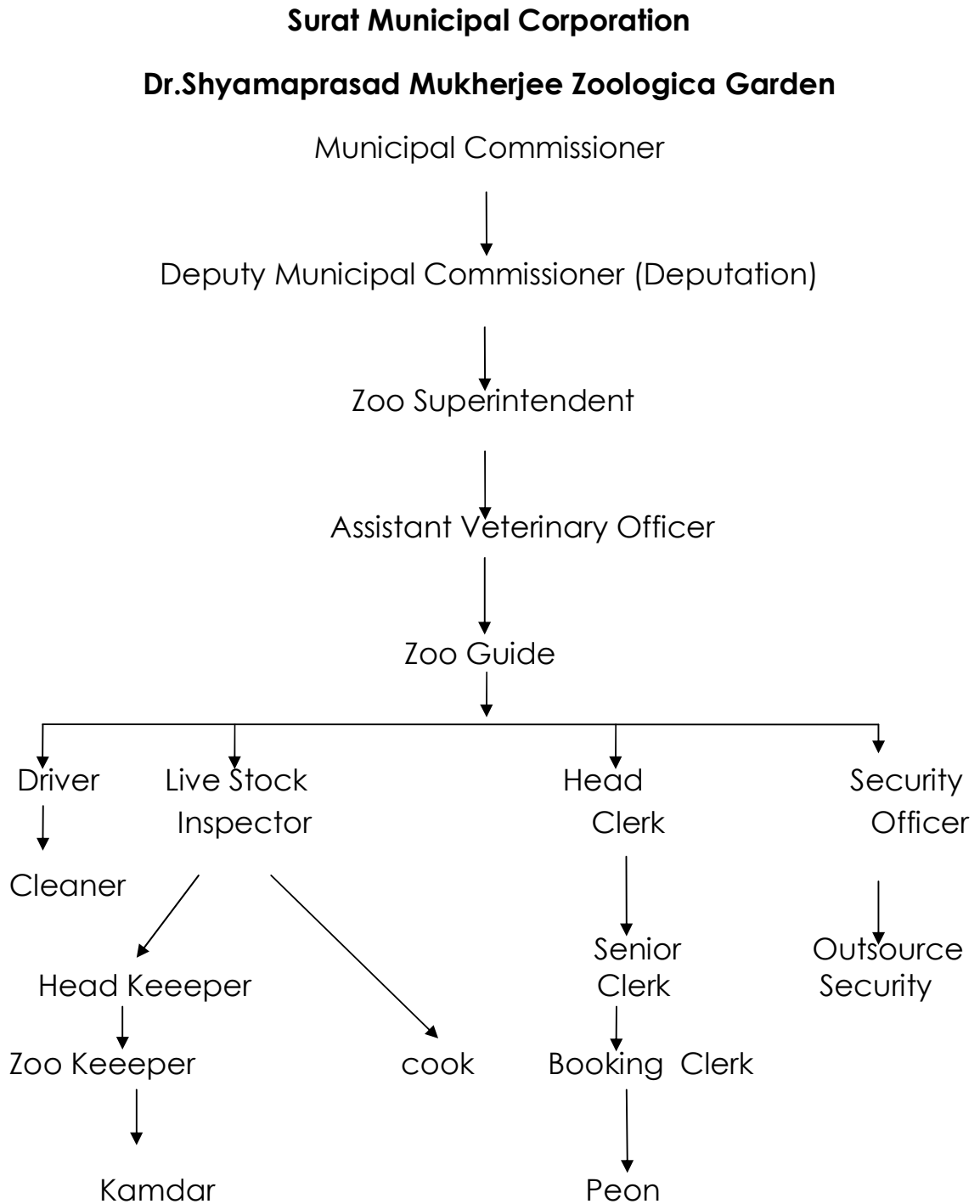
**Zoo remain closed on every Monday**

#### Entry Charges (Per Head)

#### Entry Fee

1.	An Individual above 12 years of age	₹ 30.00
2.	Children age 5 to 12 years and senior citizens age 65 years and above.	₹ 20.00
3.	Children below 5 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
<u>Photography charges :</u>		
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
<b>BUTTERFLY GARDEN, INSECT KINGDOM AND WILDLIFE INTERPRETATION CENTER</b>		
General Information : Visiting Hour's : 10.00 A.M to 5.00 P.M. Butterfly Garden remains closed on every Monday. <u>Entry Charges (per Head)</u>		
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



## 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 Subhash V. Chauhan Nikhil S.Patil
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	01	1.Rahul K Makwana 2. 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	Mrs. Hinaben C. Patel	Capacity enhancement Workshop for Education Officer	Dt.15/02/2023 to Dt.17/02/2023 3 Days	Veermata jijabai Bhosale Botanical udyan and Zoo Mumbai
2	Mrs. Hinaben C. Patel	Capacity enhancement Workshop for Zoo Biologist	Dt.21/03/2023 to Dt.23/02/2023 3 Days	Greens zoological rescue and rehabilitation centre Jamnagar
3	Mr. Manohar A. Desale	Capacity enhancement Workshop for Zoo Keepers of the western region	Dt.15/03/2023 to Dt.17/02/2023 3 Days	Nahargarh Biological park, Jaipur

## 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	25028220.00
2	Butterfly park entry fees	489620.00
3	Canteen / cafeteria rent	5439877.41
4	Mango tree auction income	279333.00
5	Income from parking contract	0.00
6	Tender fees / Other miscellanies income	1035478.00
7	Battery operated passenger vehicle income	0.00
<b>Total Income</b>		<b>32428598.41</b>

### Expenditure of Zoo during the 2022-2023

Sr. No.	Particulars	Amount
1	Zoo staff Salary	26880693.38
2	Feed cost of animals	8041464.00
3	Medicine cost	264553.00
4	Security	5154458.88
5	Electricity	2252352.00
6	Miscellaneous	594384.00
7	Garden and butterfly park maintenance	1226420.00
<b>Total Expenditure</b>		<b>44414325.26</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	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 + 5 gm + 25 gm	25 gm + 25 gm + 25 gm	Nil
38	Silver Pheasant	grains + layer mash + milk + bread	25 gm + 5 gm + 25 gm	25 gm + 25 gm + 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 + 5 gm + 25 gm	25 gm + 25 gm + 25 gm	Nil
41	Ostrich	layer mash + green fodder + lucern	2.0 - 2.5 kg	2.0 - 2.5 kg	Nil
42	Deer Hog	Green Grass + Concentrate	2.5 Kg + 100 gm	2.5 Kg + 100 gm	Nil
43	Deer Sambar	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	45 kg + 2.0 kg + 3.0 kg + 2.0 kg	45 kg + 2.0 kg + 3.0 kg + 2.0 kg	Nil
47	Nilgai	Green Grass + Concentrate	8 Kg + 200 gm	8 Kg + 200 gm	Nil
48	Black Swan	Green leafy spinach + grains + poultry feed + small fish	400 gm	400 gm	Nil

#### 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	
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)	Albendazole Ivermectin Fenbandazole	June-2022 September-2022 January-2023
2	Canines (Hyena, Jackal, Otter,)	Albendazole Ivermectin Fenbandazole	June-2022 September-2022 January-2023
3	Omnivorous (Bears)	Albendazole Ivermectin Fenbandazole	June-2022 September-2022 January-2023
4	Herbivorous (All Deers)	Albendazole Ivermectin Fenbandazole	June-2022 September-2022 January-2023
5	Hippopotamus,	Albendazole	June-2022



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

### 16. Disinfection Schedule

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

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Date of Health Check up</b>	<b>Finding of Health Check up</b>
1	Rajeshkumar A. Patel	I/C Zoo Superintendent & Assist.Vet.Officer	06/09/2022	Negative for T.B. vaccinated for Rabies
2	Hinaben Chirag Patel	Zoo Guide	06/09/2022	"
3	Priteshkumar Navinlal Patel	Livestock Inspector	06/09/2022	"
4	Ravindrasinh R. Darbar	Livestock Inspector	06/09/2022	"
5	Tejas s.Patel	Horticulture Assistant	06/09/2022	"
6	Mahendra Ratilal Valhe	Zoo Keeper	07/09/2022	"
7	Sureshbhai Sravanbhai Vasava	Zoo Keeper	06/09/2022	"
8	Sureshchandra Chhotulal Patel	Zoo Keeper	06/09/2022	"
9	Manohar K.Desale	Zoo Keeper	06/09/2022	"
10	Pavan R.Patil	Zoo Keeper	06/09/2022	"
11	Chetan S.Patil	Zoo Keeper	06/09/2022	"
12	Girish J.Chaudhary	Zoo Keeper	06/09/2022	"
13	Jayesh M.Mahajan,	Zoo Keeper	06/09/2022	"
14	Akash V.Parmar	Zoo Keeper	06/09/2022	"
15	Balvantbhai M. Parmar	Cook	07/09/2022	"
16	Somabhai M. Baraiya	Beldar	06/09/2022	"
17	Shankarbhai Chandulal Randeri	Beldar	06/09/2022	"
18	Kasubhai Maknabhai Damor	Beldar	06/09/2022	"
19	Vijya Kanji Jethva	Beldar	06/09/2022	"
20	Mohanbhai K Charaniya	Beldar	06/09/2022	"
21	Atulbhai Dineshbahi Gamit	Beldar	06/09/2022	"
22	Mayur Prakashbhai Patel	Beldar	06/09/2022	"
23	Rakeshbahi Hasmukhbhai Gamit	Beldar	06/09/2022	"
24	Ganeshbhai Dilipbhai Deshmukh	Beldar	06/09/2022	"
25	Mukeshbahi Naranbhai Parmar	Beldar	07/09/2022	"
26	SunilKumar Kashinathbahi Mali	Beldar	07/09/2022	"
27	Jitesh Lalji Parmar	Beldar	07/09/2022	"
28	Bhikhabhai Jerambhai Vaghela	Beldar	06/09/2022	"

<b>29</b>	Kanubahi N. Panada	Beldar	06/09/2022	"
<b>30</b>	Dilipkumar Kukabahi Damor	Beldar	07/09/2022	"
<b>31</b>	Rahul Makwana	Safai kamdar	06/09/2022	"
<b>32</b>	Shailesh M.Surti	Driver	06/09/2022	"
<b>33</b>	Sunil I. Solanki	Cleaner	07/09/2022	"
<b>34</b>	Vinodbhai R. Patel	Trainee Beldar	06/09/2022	"
<b>35</b>	Drinkal H. Patel	Trainee Beldar	07/09/2022	"
<b>36</b>	Gayatriben G. Rathod	Trainee Beldar	07/09/2022	"
<b>37</b>	Hiren M. Patel	Trainee Beldar	07/09/2022	"
<b>38</b>	Ajay R. Patel	Trainee Beldar	07/09/2022	"
<b>39</b>	Moh.Abrar S. Mansur	Trainee Beldar	07/09/2022	"

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

- Visitors walkway and zoo roads repaired.
- Refurbishing of public toilets.
- construction and repair of go down and store facilities.
- Construction of new main Entrance
- Construction of Off exhibit otter breeding cum Quarantine facilities.
- Repair of old water bird cage.
- Expansion of night shelter and construction of baby nursery in white tiger and Lion Cage.

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

It has been mentioned in report of the director.

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

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

### **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/ fogger 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 cutting off sunlight are provided at aviaries, Ostrich and White tiger enclosures.

- During winter, electric heater has been installed in tiger, leopard, Hyena, Himalayan bear and lamps are provided in each cages of the bird aviary.
- During monsoon, night shelter entry kept open throughout the day, so animal may go to the shaded area to protect itself from heavy rain.

**22. Research Work carried out and publications:** During this year Surat zoo has neither undertaken any research work nor any publications have been carried out.

**23. Conservation Breeding programme of the Zoo**

- Zoo has successfully breed Lion, Black buck, Rhesus Macaque, Smooth Coated Otter, 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	Green Winged Macaw	1 : 1	Donation from Paradise aviaries	24/06/2022
	2	Rainbow Lorikeet	1 : 1	Donation from Paradise aviaries	24/06/2022
	3	Military macaw	1 : 1	Donation from Paradise aviaries	08/07/2022
	4	Blue And Yellow Macaw	1 : 1	Chamarajendra Zoological Garden, Mysore	15/10/2022
	5	Black Swan	1 : 1	Chamarajendra Zoological Garden, Mysore	15/10/2022
	6	Lady Amherst's Pheasant	1 : 2	Chamarajendra Zoological Garden, Mysore	15/10/2022
	7	Golden phesant	1 : 1	Chamarajendra Zoological Garden, Mysore	15/10/2022
	8	Antelope Four Horned	2: 2	Naya Raipur Jungle safari , Naya Raipur	07/02/2023
B.	Animals going from the Zoo				
	H. No.	species	Number	To which Zoo	Date of

			(M:F)		disposal from the Zoo
	1	Smooth Coated otter	1 : 1	Greens zoological rescue and rehabilitation centre Jamnagar	05/07/2022
	2	Smooth Coated otter	0 : 1	Chamarajendra Zoological Garden, Mysore	11/10/2022
	3	Smooth Coated otter	1 : 0	Naya Raipur Jungle safari , Naya Raipur	09/02/2023

#### 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	
					Date and Place of rehabilitation in their habitat	Reasons for housing in the Zoo if not released in their habitat
1	Palm civet	1 : 0 : 0	Pal , Surat	12/05/2022	-	Injured
2	Black kite	0 : 0 : 1	Surat	15/05/2022	-	Injured

26. Annual Inventory of animals

Form-II  
[See Rule 11(1)]  
Part-A

Inventory Report for the Year:2022-2023

Endangered Species

SR. NO.	Animal Name	Scientific Name	Opening Stock				During the year												Closing Stock as on 31 - 03- 2023			
			as on 01-04-2022				Birth			Aquistion			Disposal			Death						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>AVES :-</b>																						
1	White peafowl	Pavo crestatus	2	6	0	8	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	8
2	Indian peafowl	Pavo crestatus	3	3	0	6	0	0	1	0	0	0	0	0	0	0	0	0	3	3	1	7
3	Spoon Bill	Platalea leucordia	1	1	3	5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5
<b>TOTAL AVES :---</b>			<b>6</b>	<b>10</b>	<b>3</b>	<b>19</b>	<b>0</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>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>10</b>	<b>4</b>	<b>20</b>

SR. NO.	Animal Name	Scientific Name	Opening Stock				During the year												Closing Stock			
			as on 01-04-2022				Birth			Aquistion			Disposal			Death			as on 31- 03- 23			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>MAMMALIA :-</b>																						
1	Black buck(leucistic/white)	Antelop cervicapra	1	1	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	3
2	Black buck	Antelop cervicapra	3	15	0	18	0	0	0	0	0	0	0	0	0	1	0	0	2	15	0	17
3	Hog Deer	Axis porcinus	2	2	1	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	5
4	Indian jackal	Canis aureus indicus	3	8	0	11	0	0	0	0	0	0	0	0	0	1	1	0	2	7	0	9
5	Smooth coated Otter	Lutrogale perspicillata	10	7	0	17	2	1	3	0	0	0	2	2	0	0	0	0	10	6	3	19
6	Rhesus Macaque	Macaca mulatta	6	7	3	16	0	0	1	0	0	0	0	0	0	0	0	0	6	7	4	17
7	Bear sloth	Melursus urisinus	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
8	Mouse deer	Moschiola indica	1	3	1	5	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	5
9	Asiatic Lion	Panthera leo persica	2	1	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	3	5
10	Leopard	Panthera pardus	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	2
11	White Tiger	Panthera tigris tigris	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
12	Bengal Tiger	Panthera tigris tigris	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
13	Asian Palm Civet	Paradoxurus hermaphroditus	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
14	Western Hanuman Langur	Semnopithecus achates	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
15	Antelop four horned	Tetracerus quadricornis	1	1	0	2	0	0	0	1	3	0	0	0	0	0	0	0	2	4	0	6
16	Himalayan Black Bear	Ursus thibetanus	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	2
	<b>Total Mammalia .....</b>		<b>37</b>	<b>51</b>	<b>5</b>	<b>93</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>35</b>	<b>50</b>	<b>14</b>	<b>99</b>
<b>REPTILIA :-</b>																						
1	Crocodile Marsh	Crocodylus palustris	1	1	14	16	0	0	5	0	0	0	0	0	0	1	0	0	0	1	19	20
2	Gharial	Gavialis gangeticus	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3	Indian rock python	Python molurus	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	<b>Total Reptila.....</b>		<b>1</b>	<b>2</b>	<b>15</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>20</b>	<b>22</b>
	<b>Total Animals.</b>		<b>44</b>	<b>63</b>	<b>23</b>	<b>130</b>	<b>2</b>	<b>1</b>	<b>15</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>41</b>	<b>62</b>	<b>38</b>	<b>141</b>

SR. NO.	Animal Name	Scientific Name	Opening Stock				During the year												Closing Stock				
			as on 01-04-2022				Birth			Aquistion			Disposal			Death			as on 31 - 03- 2023				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
<b>AVES:-</b>																							
1	Sarus Crane	Antigone antigone	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
2	Green-winged Macaw	Ara chloropterus	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2	
3	Military Macaw	Aramilitaris	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	2		
4	Umbrella Cockatoo	Cacatua alba	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
5	Sulphur Crested Cockatoo	Cacatua galrita	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
6	Golden phesant	Chrysolophus pictus	1	1	0	2	0	0	0	1	1	0	0	0	0	1	0	0	1	2	0	3	
7	Emu	Dromaius novaehalladae	2	2	6	10	0	0	0	0	0	0	0	0	0	0	0	2	2	6	10		
8	Moluccan Red Lory	Eos squamata	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
9	Silver phesant	Lophura nycthemera	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
10	Chattering Lory	Lorius garrulus	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
11	Black kite	Milvus migrans	0	0	4	4	0	0	0	0	0	1	0	0	0	0	0	0	0	5	5		
12	Painted stork	Mycteria leucocephala	2	2	6	10	0	0	1	0	0	0	0	0	0	0	0	2	2	7	11		
13	Black Crowned Night Heron	Nycticorax nycticorax	2	2	4	8	0	0	4	0	0	0	0	0	0	0	0	2	2	8	12		
14	Cockatiel	Nymphicus hollandicus	0	0	126	126	0	0	2	0	0	0	0	0	0	0	0	0	0	128	128		
15	Great White Pelican	Pelecanus oncorotalus	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5		
16	Alexandrine perakeet	psittacula eupatria	7	6	4	17	0	0	4	0	0	0	0	0	0	0	0	7	6	8	21		
17	Grey Parrot Jacquot	Pisttocus erithacas	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4		
18	Green - Cheeked Conure	Pyrrhura moline	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2		
19	Common Ostrich	Struthio camelus	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3		
20	Black Headed Ibis	Threskiornis melanocephalus	1	2	4	7	0	0	3	0	0	0	0	0	0	0	1	2	7	10			
21	Rainbow Lorikeet	Trichoglossus moluccanus	1	0	0	1	0	0	0	1	1	0	0	0	0	1	0	2	0	0	2		
22	Blue and Yellow macaw	Ara ararauna	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	1		
23	Black Swan	Cygnus atratus	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	2			
24	Lady Amherst' Pheasant	Chrysolophus amherstiae	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	2	0	3			
	<b>Total Aves.....</b>		<b>29</b>	<b>22</b>	<b>156</b>	<b>207</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>7</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>32</b>	<b>29</b>	<b>171</b>	<b>232</b>		



SR. NO.	Animal Name	Scientific Name	Opening Stock as on 01-04-2022				During the year												Closing Stock as on 31-03-2023			
							Birth			Aquisition			Disposal			Death						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>MAMMALS :-</b>																						
1	Spotted Deer	Axis axis	2	2	1	5	0	0	0	0	0	0	0	0	0	0	1	0	2	1	1	4
2	Nilgai	Boselaphus tragocamelus	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2
3	Hippopotamus	Hippopotamus amphibius	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
4	Striped Hynae	Hyaena hyaena	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
5	Indian crestd Porcupine	Hystrix indica	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
6	Indian Muntjac	Muntiacus muntjak	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7	Samber Deer	Rusa unicolor	1	4	0	5	1	0	0	0	0	0	0	0	0	1	2	0	1	2	0	3
<b>Total Mammals :-</b>			<b>8</b>	<b>13</b>	<b>2</b>	<b>23</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>2</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>9</b>	<b>2</b>	<b>18</b>

SR. NO.	Animal Name	Scientific Name	Opening Stock as on 01-04-2022				During the year												Closing Stock as on 31-03-2023			
							Birth			Aquisition			Disposal			Death						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>REPTILIA :-</b>																						
1	Spectacled Caiman	Caiman crocodilus	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2	Siamese Crocodile	Crocodylus siamensis	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
3	Indian StarTortoise	Geochelone elegans	11	16	0	27	0	0	0	0	0	2	0	0	0	0	0	0	11	16	2	29
<b>Total Reptilia :-</b>			<b>11</b>	<b>16</b>	<b>3</b>	<b>30</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>1</b>	<b>11</b>	<b>16</b>	<b>4</b>	<b>31</b>
<b>Total Animals :-</b>			<b>48</b>	<b>51</b>	<b>161</b>	<b>260</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>7</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>50</b>	<b>54</b>	<b>177</b>	<b>281</b>
<b>GRAND TOTAL</b>			<b>92</b>	<b>114</b>	<b>184</b>	<b>390</b>	<b>3</b>	<b>1</b>	<b>29</b>	<b>10</b>	<b>11</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>8</b>	<b>1</b>	<b>91</b>	<b>116</b>	<b>215</b>	<b>422</b>

## 27. Mortality of animals

<b>Mammal</b>					
1	Indian Muntjac	Muntiacus muntjak	F	01/05/2022	Haemorrhagic enteritis
2	Spotted Deer	Axis axis	F	10/07/2022	SHOCK
3	Samber Deer	Rusa unicolor	F	29/07/2022	SENILITY
4	Western Hanuman Langur	Semnopithecus achates	M	09/08/2022	SENILITY
5	Black buck(leucistic/ white)	Antelop cervicapra	F	09/08/2022	PRAGNANCY TOXAEMIA DEATH
6	Samber Deer	Rusa unicolor	M	11/08/2022	ENTRATIS
7	Nilgai	Boselaphus tragocamelus	M	13/08/2022	SENILITY
8	Indian jackal	Canis aureus indicus	M	02/12/2022	CHRONIC DISEASE
9	Asiatic Lion	Panthera leo persica	M	08/01/2023	CHOCKING OF TRECHIA WITH FEED
10	Samber Deer	Rusa unicolor	F	19/01/2023	SENILITY
11	Himalayan Black Bear	Ursus thibetanus	F	06/02/2023	SENILITY
12	Leopard	Panthera pardus	M	23/02/2023	SENILITY
13	Black buck	Antelop cervicapra	M	21/03/2023	INFIGHTING
14	Indian jackal	Canis aureus indicus	F	31/03/2023	INFIGHTING
<b>Birds</b>					
1	Sulphur Crested Cockatoo	Cacatua galrita	M	22/07/2022	TRAUMATIC SHOCK
2	Rainbow Lorikeet	Trichoglossus moluccanus	F	12/09/2022	SHOCK
3	Golden pheasant	Chrysolophus pictus	M	22/10/2022	SENILITY
4	Blue and Yellow macaw	Ara ararauna	M	22/10/2022	SENILITY
5	Chattering Lory	Lorius garrulus	M	17/02/2023	SENILITY
<b>Reptile</b>					
1	Crocodile Marsh	Crocodylus palustris	M	07/01/2023	INFIGHTING
2	Spectacled Caiman	Caiman crocodilus	U	17/01/2023	TRAUMETIC INJURIES

**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 ducks/geese in cages/captivity. 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 Engineer In-Charge and a certificate of completion has been issued by this office.
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 and pending with the concern authority.

<b>3.Development and planning :</b>					
<b>6</b>	<b>3 (1&amp;2)</b>	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.
<b>7</b>	<b>10.3(5)</b>	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 ongoing works is on final stage we are going to undertaken the tender procedure for awarding the license to run kiosk and food plaza outside the entry gate hopefully the kiosk will be shifted outside within next six months.
<b>8</b>	<b>10.3(5)</b>	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	SMC has already started renovation and development of entry gate in which provision had already made to shift existing kiosk/ cafeteria outside the zoo premises. This will automatically ban entry of plastic inside the zoo premises.
<b>4. Animal housing , display of animals and animal enclosures :</b>					
<b>9</b>	<b>10.4(10)</b>	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
<b>10</b>	<b>10.4(10)</b>	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>					
<b>11</b>	<b>10.6(3)</b>	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 is under going.
<b>7. Post Mortem and disposal of carcasses of animals</b>					
<b>12</b>	<b>10.7(1)</b>	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>					
<b>13</b>	<b>10.9(1)</b>	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.
<b>14</b>	<b>10.9(1)</b>	The Zoo authority should explore for exchange of Tiger ,Asiatic Lion, Barking deer and Marsh Crocodiles	Within six months	23/12/2022	correspondence with other zoo has been carried out and exchange of crocodile with Rajkot zoo is approved from CZA, for other animals exchange correspondence is going on
<b>15</b>	<b>10.9(1)</b>	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
<b>16</b>	<b>10.9(2)</b>	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.
<b>10.Research activities</b>					

<b>17</b>	<b>10.10(1)</b>	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.
<b>11. Education and outreach activities</b>					
<b>18</b>	<b>10.11(1)</b>	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>					
<b>19</b>	<b>10.12(1)</b>	The battery operated vehicle requires up gradation with minimum fleet of 10 vehicle	23/12/2022	within six months	Zoo has attempted five times online tender procedure to depute agency for running battery operated vehicle in the premises of Zoo on PPP model but till date no one is finalized due to some technical issue recently six <sup>th</sup> attempt is under taken.

## 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.	Name of the bird	Scientific Name
1.	Little Cormorant	Phalacrocorax niger
2.	Grey Heron	Ardea cinerea
3.	Cattle Egret	Bubalcus ibis
4.	Little Egret	Egretta garzetta
5.	Black Kite	Milvus migrans govinda
6.	Shikara	Accipiter trivirangatus
7.	Indian Peafowl	Pavo cristatus
8.	White Breasted Waterhen	Amaurornis phoenicurus
9.	Rock Pigeon	Columba livia
10.	Spotted Dove	Streptopelia chinensis
11.	Rose Ringed Parakeet	Psittacula krameri
12.	Plum Headed Parakeet	Psittaculcyano cephalo
13.	Asian Koel	Eudynamys scolopacea
14.	Spotted Owlet	Athene brama
15.	House Swift	Apus affinis
16.	Pied King Fisher	Ceryle rudis
17.	Green Bee Eater	Merops orientalis
18.	Indian Roller	Coracias benghalensis
19.	Black Rumped Wood Pecker	Dinopium benghelenses
20.	Small Skylark	Alauda gulgula
21.	Jungle Myna	Acridotheres fuscus
22.	House Crow	Corvus splendens
23.	Large Billed Crow	Corvus macrorhynchos
24.	Red Vented Bulbul	Pycnonotus cafer
25.	Asian Paradise Fly Catcher	Terpsiphone paradise
26.	Tailor Bird	Orthotomus sutorius
27.	Oriental Magpie Robin	Copsychus saularis
28.	White Wagtail	Motacilla alba
29.	House Sparrow	Passer domesticus
30.	Red Avadavat	Amandava amandava
31.	Black Headed Ibis	Threskiornis melanocephalus

### c. Reptiles

No.	Name of the animal	Scientific Name
1.	sand Boa	Eryx conicus
2.	Viper Saw Scaled	Echis carinata
3.	Snake Rat / Dhamaan	Ptyas mucosus

<b>4.</b>	Cobra Indian	Naja nanja
<b>5.</b>	Trinket snake	Coelognathus helena
<b>6.</b>	Green vine snake	Ahaetulla nasatu
<b>7.</b>	Indian wolf snake	Lycodon aulicus
<b>8.</b>	Bamboo pit viper	Tremeresus gramineus
<b>9.</b>	Checkered Keelback	Xenochrophis piscator
<b>10.</b>	common Krait	Bungarus caeruleus
<b>11.</b>	Turtle Fresh Water /Indian Soft Shelled	Presdypis entellus